

Contents.

- 12175
1. Provincial Economic Conference,
Delhi, 3rd to 6th April 1934.
Resolution and Appendices.
(Chairman: Sir George
Schuster). 1934. G4 pp. 1- 58
X9p2, N34
 2. Reports on the Working of the
Board of Indian Medicine,
United Provinces, 1930-33.
1935. LA-2527 G5 pp. 59- 83.
 3. Report: Government of India
Secretariat Committee, 1936.
(Chairman: H. Wheeler). 1937. G7 pp. 84-131.
V2, 8. N3t
 - 1797 4. Report: Motor Vehicles Insurance
Committee, 1936-37. (Chairman:
N.J. Roughton). 1937. G7 pp. 132-172.
X81 (D513) . 2. N3t
 5. Proceedings of the Twelfth
Conference of Registrars of
Co-operative Societies held
at New Delhi on Tuesday and
Wednesday, the 8th and 9th
December, 1936. (Chairman:
The Hon. Kunwar Sir Jagdish
Prasad). 1937. G7 pp. 173-215.
XMP2, N
 6. Report: Orissa Administration
Committee. (Chairman: J.A.
Hubback). 1933. G3 pp. 216-240.
V254, 8. N33t
 7. Report: Orissa Capital Site
Selection Committee, 1936.
(Chairman: F.T. Jones). 1936. G6 pp. 241-249.
V254: (737) . N36t
 8. Report: Four Selected Sites
for a New Capital for Orissa,
1937. (Chairman: J.R. Dain.)
1937. G7 pp. 250-279.
V254: (737) . N37t

Dhananjayrao Gadgil Library



GIPE-PUNE-012175

- 2 -

9. Report: Corruption Enquiry
Committee, Bihar, 30th
Nov. 1938. (Chairman: Syed
Abdul Aziz.) 1938. pp.280-326.
V253,8 : (Y.45).N3t G8
10. Report: Mechanical Industries
Committee, Bihar, 1939.
(Chairman: P.N.Mathur). 1939. pp.327-359.
X9(D6).253.N4t G9
11. Report: Chemical Industries
Committee, Bihar, 1939.
(Chairman: A.S.Khan.)
1939. pp.360-454.
X9(F).253.N4t H6

-----000-----

PROVINCIAL ECONOMIC CONFERENCE

APRIL 1934.

RESOLUTION AND APPENDICES.



ए. ए. ए. ए.
के. ए. ए. ए.

SIMLA
GOVERNMENT OF INDIA PRESS
1934

X 9b2, N34

G4

12175

LIST OF CONTENTS.

	PAGE
I. Government of India, Finance Department Resolution No. F. 16 (1)-F./34, dated the 5th May 1934	1—9
Appendices—	
A.—Informal Agenda	11—13
B.—Synopsis of points to be taken into consideration when discussing the Agenda	15—23
C.—Index Numbers of prices of certain staple Indian produce ..	24
D.—Memorandum on the history and present position of legislation to control money-lending in India	25—35
E.—Memorandum on marketing by the Imperial Council of Agricul- tural Research	36—40
F.—Rural education—Note by Sir George Anderson, Educational Commissioner	41—42
G.—Memorandum on wheat position by the Imperial Council of Agri- cultural Research	43—47
H.—Memorandum on Indian rice position by the Imperial Council of Agricultural Research	49—70
I.—Memorandum of the United Provinces Government	71—93
J.—Memorandum on Debt Legislation in the Central Provinces (pre- pared by the Government of the Central Provinces)	95—96
K.—Note for Board of Economic Enquiry (Government of Bengal) ..	97—106
L.—Memorandum on Road Development from loans and Resolution moved in the Legislature	107—111

No. F. 16 (1)-F./34.

GOVERNMENT OF INDIA.
FINANCE DEPARTMENT.

Simla, the 5th May 1934.

RESOLUTION.

SUBJECT.—*Provincial Economic Conference, 1934.*

During the past year the grave problems arising out of the depression in the prices of and demand for primary commodities and in particular the effect on the economic condition of the agricultural classes in India have been the subject of close and anxious consideration by the Government of India and provincial Governments. These problems relate not merely to the ability of the ryot to meet his dues to Government or to his landlord and his liabilities to his creditors while maintaining a tolerable standard of living, but involve wider issues covering the whole field of agricultural economic development.

2. The Government of India accordingly suggested to the provincial Governments that the best method of approaching the problems would be to convene a provincial economic conference which could cover, however generally at first, the whole field so as to ensure that the various aspects received adequate consideration. There have in the past been various committees of enquiry, conferences and discussions, but these, it was felt, had not met with full success because they had necessarily to deal with particular aspects of the question alone.

3. As the provincial Governments agreed as to the importance and urgency of joint discussion, a conference was held in Delhi from the 3rd to the 6th of April 1934. The following provincial representatives attended:—

Province.	Names.
1. Madras	1. The Hon'ble Sir Arohibald Campbell, K.C.L.E., C.S.I., C.B.E., I.C.S., Revenue Member. 2. The Hon'ble Mr. P. T. Rajan, Minister. 3. Mr. H. M. Hood, I.C.S., Financial Secretary.
2. Bombay	1. The Hon'ble Sir Ghulam Hussain Hidayatullah Kt., LL.B., J.P., Member. 2. The Hon'ble Mr. R. D. Ball, C.S.I., C.I.E., I.C.S., Member. 3. Mr. C. G. Freke, I.C.S., Financial Secretary. 4. Mr. J. A. Madan, I.C.S., Revenue Secretary.

- | | |
|---------------------------------|---|
| 3. Bengal | 1. The Hon'ble Nawab Kazi Golam Mohi-ud-di Faroqui, Khan Bahadur, Minister of Agriculture and Industries. |
| | 2. Mr. H. P. V. Townend, L.C.S., Rural Development Commissioner. |
| | 3. Khan Bahadur Maulvi Arshad Ali, Registrar, Co-operative Societies. |
| 4. United Provinces | 1. The Hon'ble Mr. E. A. H. Blunt, C.I.E., O.B.E. I.C.S., Finance Member. |
| | 2. Khan Bahadur Saiyid Abdul Hasan, LL.B Under Secretary, Revenue Department. |
| 5. Punjab | 1. The Hon'ble Sir Henry Craik, Bart, K.C.S.I I.C.S., Finance Member. |
| | 2. The Hon'ble Sir Jogendra Singh, Kt., Minister of Agriculture. |
| | 3. The Hon'ble Dr. Gokul Chand Narang, Minister Local Self-Government. |
| | 4. Mr. D. J. Boyd, C.I.E., O.B.E., I.C.S., Financial Commissioner. |
| | 5. Mr. F. B. Wace, L.C.S., Registrar, Co-operative Societies. |
| 6. Burma | 1. Mr. I. G. Lloyd, C.S.I., I.C.S., Financial Commissioner. |
| 7. Bihar and Orissa | 1. Mr. J. A. Hubback, C.S.I., I.C.S., Member, Board of Revenue. |
| 8. Central Provinces | 1. The Hon'ble Mr. E. Gordon, C.I.E., I.C.S., Finance Member. |
| | 2. Mr. C. D. Deshmukh, L.C.S., Financial Secretary. |
| 9. North-West Frontier Province | 1. Lieutenant-Colonel E. W. C. Noel, C.I.E., D.S.O., Director of Agriculture. |
| | 2. Mr. J. S. Thomson, L.C.S., Revenue Commissioner. |
| 10. Assam | 1. The Hon'ble Mr. A. J. Laine, C.I.E., I.C.S., Revenue Member. |

The Hon'ble Sir George Schuster, K.C.S.I., K.C.M.G., C.B.E., M.C., presided and the following members of the Central Government attended from time to time :—

- The Hon'ble Sir Fazl-i-Husain K.C.S.I., K.C.I.E., Kt.
- The Hon'ble Sir Joseph Bhore, K.C.S.I., K.C.I.E., C.B.E., I.C.S.
- The Hon'ble Sir Harry Haig, K.C.S.I., C.I.E., I.C.S.
- The Hon'ble Sir Frank Noyce, Kt., C.S.I., C.B.E., I.C.S.

4. The object of the Government of India in proposing the conference was not in any way to trench on the functions of local Governments in matters which under the existing constitution are under their control, but to see whether by mutual consultation any common plan of action could be arrived at, and whether the Central Government could assist either by providing a clearing house for information or arranging for separate discussions, or possibly by helping to finance activities which would lead to productive results.

5. The first subject which came before the conference was that of agricultural indebtedness. Even before the present economic depression the extent of agricultural indebtedness was recognised as one of the greatest problems with which India was confronted, and it has obviously acquired a new intensity and

significance as a result of the fall in prices. This has been recognised by all provincial Governments, and in several provinces legislation has been passed or is under consideration dealing with various aspects of the problem. The primary object of the conference in this matter was to provide an opportunity for an exchange of ideas between provinces and to obtain impressions in the light of the most recent information and experience both as to the prevailing conditions and as to the practical results of such measures as have been already adopted. These discussions proved to be of great value ; but it must be emphasised that they are to be regarded only as a preliminary review conducted for the purpose of elucidating lines for further enquiry and action.

The problem was considered in all its aspects, first, the problem of existing indebtedness and the possibility of scaling down debts, secondly, the problem of finance in connection with such schemes and thirdly, the problem of providing suitable credit machinery for the future and restricting usurious practices. In connection with the second and third problems consideration was given to the possibility of establishing land mortgage banks and to the functions of the agricultural credit department of the Reserve Bank. These matters are referred to in the succeeding paragraphs, but otherwise, in view of the nature of the discussions, no attempt is made in this resolution to formulate final or precise conclusions.

The general view of the conference was that the diversity of the conditions of the agricultural classes in India was so great, both in respect of land tenures and general economic status, that any legislative measures to afford relief must be primarily provincial ; but that at the same time it was highly desirable that the various local Governments should know what other local Governments were doing to meet the situation and that there should be a regular exchange of information on this matter. The Government of India are considering the procedure most likely to effect this purpose in an expeditious manner.

6. *Land Mortgage Banks.*—The conference examined the possibility of developing land mortgage banks in connection with the aspects of the problems noted above. The discussions made it clear that the essential problem in connection with such institutions in India lies in the realisation of their security—land. The restrictions on the transferability of land, or the rights over land, and the consequent expense, uncertainty and delay in obtaining and executing decrees, constitute real obstacles to the development of such banks. Conditions in this respect vary greatly from province to province, and the representatives of several provinces were quite definite in their opinion that the dangers of tampering with the land laws and increasing the facilities for the alienation of land were so great as to outweigh the advantages for improving the character of the security on which credit could be obtained. Whatever the possibilities of future development may be, it is clear that, in view of these opinions and the differences in conditions, the responsibility for policy as regards establishing land mortgage banks must rest with the provincial Governments. The Government of India will be very ready to assist by giving their technical advice in regard to provincial schemes or otherwise, and will see that the Reserve Bank is organised to do so in the future, but it is for the provincial Governments to face the fundamental issue, and to decide, if they desire to have such institu-

tion how far it is possible to provide them with a realisable security as a basis for their loans.

7. *Agricultural Credit Department of the Reserve Bank.*—In discussing the improvement of credit facilities for agricultural operations, the functions of the agricultural credit department of the Reserve Bank came before the conference. This department will of course be in contact with all agencies operating for agricultural credit—joint stock banks, indigenous bankers or money-lenders, and co-operative credit societies. The discussions at the conference concentrated attention on the last-mentioned agency. They disclosed the fact that in most provinces the co-operative movement was in difficulties and that in several cases the difficulties gave cause for anxiety. ^{Whatever} Whatever may be the reasons for this position, the practical fact which for the present purpose requires emphasis is that, if the agricultural credit department of the Reserve Bank is to function usefully in relation to agricultural requirements, it will have to avail itself to a considerable extent of the provincial co-operative movement. In order to put the board of the bank into a position to take early decisions for the inauguration of this department the Government of India have decided to appoint an expert officer on special duty to examine and report what would be the most suitable organisation, and in what manner it may most effectively work in with the co-operative banks and other agencies for advancing credit to the agriculturists and landowners. The Government of India have, for the special work, appointed Mr. M. L. Darling, I.C.S., an officer who has had prolonged practical experience of co-operative and agricultural credit in the Punjab, and who has also studied the co-operative movement in other countries. Mr. Darling will take up his duties early in June.

8. On the whole question of agricultural indebtedness the general conclusion of the conference was that while measures for dealing with debts, in the form of special legislation or otherwise varying with the needs and the conditions of each province might be necessary, such measures were essentially temporary expedients and palliatives, and that in the absence of changes either in the mental outlook of the agriculturist or in his economic opportunities, they were likely to result merely in fresh debts being incurred from the original creditors, so that the position would speedily revert to its original state. Such measures therefore, if they are to serve a really useful purpose, must be supplemented by constructive action of a more permanent character, embodying a policy of economic and social development. This obviously raised very wide issues. It was not possible within the time available fully to explore all these aspects of the question (especially such important points as the part that education and rural betterment schemes should play in modifying the economic outlook of the ryot) but the discussions served to clear the ground and indicate possible methods by which the various problems could be more fully examined. There was no formal agenda and provincial Governments were invited to bring forward for discussion any matter which they considered relevant and important. The following paragraphs deal with certain lines of action in the economic field on which definite conclusions were reached.

9. *Marketing.*—The discussion of this subject resulted in general agreement that of all the practicable measures for improving economic conditions, an

intensive programme to develop marketing facilities for agricultural products (both crops and animal products) offers the best immediate prospect of substantial results. The Government of India consider that the discussions at the conference have amply demonstrated the necessity for vigorous action, not merely with a view to promoting the production of particular commodities, but even more with a view to safeguarding India's future in the face of intensified outside competition which is being felt as a result of modern scientific and economic developments in other competing countries. The discussions centred on the following main problems :—

- (a) How can the demand, both internal and external, for each individual commodity, be promoted ?
- (b) How can the gap between the prices paid by the consumer and those received by the producer be reduced and the agriculturist's share of the final price increased ?
- (c) How can the agriculturist be protected from those seasonal slumps in the prices of commodities which are occasioned by the fact that whilst the consumption is spread more or less evenly over the year, the harvesting and marketing are concentrated in a relatively short period ?
- (d) How can the agriculturist be most cheaply and safely financed (i) for the production, and (ii) for the marketing of his produce ?

The action to be taken to deal with the above problems includes propaganda and the supply of information in external markets regarding Indian products ; the grading, sorting and bulking of the main staple products ; special market organisations for perishable commodities ; information to Indian producers of consumers' requirements both in India and abroad ; the planning of production on the basis of quality and demand ; the establishment and development of regulated markets ; the undertaking of market surveys for the purpose of developing a common plan throughout India ; the establishment of properly organised ' futures ' markets, commodity exchanges, and ware-houses.

As regards the organisations which should be set up to secure the objects noted above, the Government of India consider, in agreement with the general conclusions reached at the conference, that in regard to each individual commodity (or group of commodities) marketing will have to be studied from a number of aspects, and that, while Government assistance will be required for the initial steps, the ultimate objective to be aimed at will probably be to establish special " commodity committees " (on the lines of the Indian Central Cotton Committee) each charged with the improvement of the marketing of a particular commodity or group of related commodities.

The programme provisionally approved at the conference included the following initial steps :—

- (1) The appointment of a central marketing officer by the Government of India ;

- (2) The appointment of provincial marketing officers ;
- (3) The inauguration of provincial marketing surveys ;
- (4) The appointment of special committees for staple crops starting with oil-seeds and tobacco ;
- (5) Work on grade standards under the direction of the Imperial Council of Agricultural Research.

The Government of India have decided to proceed on these lines. The first step—the appointment of a central marketing officer—has already been taken. The officer selected has just arrived in India and the further steps noted above will be elaborated after discussion with him and in consultation with provincial Governments. The question of providing the necessary funds needs further discussion, but the Government of India are prepared to recognise that this programme is a matter of all-India importance and to provide the bulk of the expenditure from their own resources.

The steps outlined above have been stated with primary reference to the marketing of crops, but the marketing surveys will also include animal husbandry products. It is accordingly proposed that the central marketing officer should be assisted by a deputy and two assistants to deal with animal husbandry products.

Further, as regards dairy products in particular, in order to study the problems involved in their preparation for wider markets it is proposed to supplement the Imperial Institute of Animal Husbandry and Dairying at Bangalore by the addition of a Dairy Industry Institute which will include a laboratory for carrying out research on the physical and chemical properties of Indian milk and its reactions to the various forms of processing and transport under Indian conditions.

There was also general support at the conference for the establishment of provincial dairying committees to study and develop local marketing arrangements. The Government of India is addressing local Governments on this matter.

10. Crop Planning.—An essential complement to any programme for marketing is the regulation of production in adjustment to the demand. The discussions initiated by the Governments of Madras and the Punjab on rice and wheat disclosed the danger of serious relative over-production of these important crops having regard to the world position, and, as regards wheat, as the result of the rapid opening up of the areas irrigated by the Sukkur Barrage. On the other hand it is to be remembered that the demand for other crops, or for products of animal husbandry in substitution for crops, may be relatively more favourable, and in particular that the Ottawa preferences have created new opportunities for Indian produce in the British market (notably for linseed, barley, etc.) of which it is vitally important that India should take full advantage. The Government of India consider that it is a matter of most urgent importance that all possible steps should be taken to co-ordinate a plan of

agricultural production for India as a whole, and they have therefore decided, in agreement with the conclusions reached in these discussions, to propose to the provincial Governments that a conference shall be held at the earliest possible date of provincial Directors of Agriculture and land revenue officers to discuss what measures can be taken in this direction. It is important that such measures as are immediately possible should be taken before the sowing season for the next cold weather.

11. *Indian Trade Commissioners.*—Among plans for the development of markets for Indian products it should also be recorded that the Government of India have now decided actively to resume the programme for the appointment of Indian trade commissioners in foreign countries, which had been temporarily suspended as part of the economy campaign.

12. *Capital Programme.*—As a means of improving the economic equipment of the country, and incidentally of increasing purchasing power by distributing employment during this period of depression, the conference also considered the scope for central expenditure on public works of various kinds. The present occasion is particularly opportune for such a policy, in view of the fact that money can now be borrowed at unusually low rates and that land, labour and material, etc., are much cheaper than they were a few years ago. A general review was accordingly undertaken of the possibilities in this direction. The review covered a wide field: irrigation, both by canals and tube wells, the reclamation of water-logged areas, and the prospects of electric power schemes in various provinces were discussed and the results compared. Particular attention was directed to road development and the view was generally accepted that if, in the terms of the Road Resolution, which has now been sanctioned by the central Legislature, the grants to provinces from the Road Fund can be utilized for the service of loans raised for the construction of roads and for the maintenance of roads so constructed, this will be a great inducement for the provincial Governments to put forward comprehensive plans. It was recognised that the main initiative in the matter of capital expenditure must come from the provinces because most schemes will be in respect of provincial subjects, and provincial Governments have been asked to supply, as early as possible, forecasts of those schemes which they consider will be in a broad sense productive. The present juncture, when there are signs that the weakening processes of increasing economic depression have been checked, may provide an opportunity when a comparatively small stimulus in the form of capital expenditure by Government might, by increasing employment and consequently consumption, have far-reaching effects. On the other hand, hastily prepared schemes may lead to very considerable losses, the burden of which will have to be borne by the tax-payer of the future, so that the preparatory work must not be scamped. For this reason it is desirable that the preliminary forecasts should be prepared as soon as possible so that the range of possible expenditure may be determined without unduly delaying the necessary detailed preparation of each scheme.

13. *Industrial Research.*—As the attention of the conference was primarily concentrated on agricultural problems, the main lines of Government's policy for the encouragement of industry by means of protection and otherwise were

not fully discussed. The vital importance of this side of economic development was of course fully recognised both for its own sake and as a means of improving the home market for agricultural products.

At the same time the development of cottage industries as a supplement to agricultural operations was considered.

Special attention was given to industrial research and the question was discussed of establishing a central organisation for this purpose, on the line of the Imperial Council of Agricultural Research. The general feeling of the provincial representatives was that the most immediate need was for a central clearing house of industrial intelligence which could keep abreast of industrial developments, both in India and other countries, and be in a position to give information and advice to industrialists and persons seeking industrial openings. The functions of such an institution might be somewhat as follows :—

- (1) The collection and dissemination of industrial intelligence.
- (2) Collaboration with provincial Directors of Industries and industrialists in all matters relating to industrial research.
- (3) Publication at intervals of bulletins relating to industrial research and other matters connected with industrial development.
- (4) Assistance to industrialists in India by giving advice and making suggestions as to the directions in which research should be undertaken.
- (5) To collaborate with the various organisations of the central and local Governments with a view to ensuring that specifications prepared or issued by them provide as far as possible for industrial standardisation.
- (6) To assist in the organisation of industrial exhibitions in India.

The officer at the head of such an institution could also be charged with the duty of organising future industries conferences.

The Government of India have decided to establish a central bureau on the above lines, and in order to give it an essentially practical character, and to ensure that it shall keep in close contact with industrial markets and current business it is proposed that the bureau should be attached to the Indian Stores Department, the establishment of which has already had a very marked effect in promoting the development of Indian industries.

While a plan on these lines seems likely to meet the most immediate practical requirements, the Government of India do not fail to recognize that further public assistance for the promotion of industrial research may be necessary. Occasions may arise when *ad hoc* grants to scientific institutions of research on a special problem may be required, while in the case of one particular industry—the sugar industry—they have already acknowledged the need for the establishment, with Government support, of a central research institute. In this connection it may also be recorded that the Government of India have decided to give a grant for sericultural research, and another grant for the

encouragement of the handloom industry. The experience gained from the working of the Central Intelligence Bureau described above may indicate what are the needs for further steps in the way of industrial research.

14. *Economic Surveys and Statistics*.—In this connection the Government of India took advantage of the presence of the provincial representatives to discuss with them the report by Dr. Bowley and Mr. Robertson on a scheme for an economic census of India with special reference to a census of production and the reorganisation of statistics. As that report had only just been received and as the Government of India had consequently not had the opportunity to study it, no definite decisions were reached and the report will be dealt with separately. The general opinion was, however, recorded that an improvement of the organisation for the collection and distribution of economic information was urgently desirable and that for the formulation of an economic policy a reliable survey of existing conditions was necessary. It was noted in particular that the recent restoration of inland rail-borne statistics had been of the greatest possible value to provincial Governments in dealing with the problems connected with their crops and particularly to the Punjab in respect of wheat. In this connection the steps taken by various provincial Governments to set up advisory economic boards or boards of economic enquiry were discussed and the results compared.

15. *Conclusion*.—The steps covered by the decisions noted above are to be regarded as initiating a co-ordinated policy for economic improvement, while the conference itself has special significance as a recognition of the fact that for the proper development of such a policy close co-operation between the central and provincial Governments is necessary. The Government of India wish to put on record their conviction that the conference has served a very useful purpose in enabling them to consider the whole range of vitally important problems in the economic sphere, and to express their thanks to the provincial Governments for sending members of their Governments to represent them at such short notice.

ORDERED that the Resolution be published in the *Gazette of India*.

J. B. TAYLOR,

Add. Secretary to the Government of India.

No. F. 16 (1)-F./34.

Copy forwarded to all Provincial and Minor Local Governments; the High Commissioner for India; the several Departments of the Government of India [including the Financial Adviser (Military Finance) and the Imperial Council of Agricultural Research]; the Military and Private Secretaries to His Excellency the Viceroy; the Auditor-General; the Central Board of Revenue; and the Controller of the Currency.

J. B. TAYLOR,

Add. Secretary to the Government of India.

APPENDIX A.

Informal Agenda for the Provincial Economic Conference.

*First Day (Morning).**General discussion on the problem of Rural Indebtedness.*

1. Are any measures desirable for dealing with the problem of rural indebtedness? This may be considered under the following heads:—

- (i) Schemes for the reduction of debts (either capital or interest or both) for those who cannot meet their existing obligations given the present level of prices for agricultural produce.
- (ii) Schemes for the provision of better machinery of credit for those who have good security to offer or whose credit is reasonably good, but who are unable through the ordinary banks or otherwise to raise money on reasonable terms (e.g., Land Mortgage Banks which could make long term advances to landlords, etc.).

2. As a complement to action under 1 or independently of it, are any measures, desirable to restrain the cultivator from borrowing in such a way that he is likely to get into hopeless difficulties in the future?

*First Day (Afternoon).**Debt Relief Legislation.*

3. (i) Is legislation of an emergency or permanent character necessary to create statutory powers—

- (a) in the form of a Special Rural Insolvency Act,
- (b) to create powers for the enforcement of debt conciliation schemes, or
- (c) to create powers for the compulsory reduction of debts or interest, or
- (d) to create powers for the compulsory recording of debts or the licensing of moneylenders?

(ii) How far should such legislation be Central and how far Provincial? In particular, should the Central Usurious Loans Act, 1918, be amended?

*Second Day (Morning).**Transfer of Debts to Co-operative Societies, Land Mortgage Banks, or other Organisations.*

4. To what extent is it desirable or practical that debts should be taken over—

- (a) by co-operative credit societies,
- (b) by Land Mortgage Banks, and in that case should these be formed with direct Government support or through the co-operative organisations, or
- (c) by Government itself possibly working through village Panchayats?

5. If Land Mortgage Banks are to be set up, can their facilities for operation be increased by legislation simplifying the position as regards land tenure, transfer of land, and generally the enforcement of the mortgage security, and more generally is it desirable to increase the transferability of rights over land or to simplify the legal formalities for its transfer with a view to improving the credit of the agriculturist?

Second Day (Afternoon).

Other means of improving the credit of the agriculturist.

6. Are any measures possible or desirable for improving the financing of cultivation and the economic condition of the agriculturist generally by measures for improving marketing, stapling, co-ordinating crop production, warehousing, etc.?

Third Day (Morning).

Development Schemes and other Government Measures.

7. Are any Government schemes possible for the development of—

- (i) roads,
- (ii) irrigation including the sinking of wells,
- (iii) the reclamation of marshy or jungle covered areas,
- (iv) electric power schemes,
- (v) health and sanitation programmes,
- (vi) housing,
- (vii) other projects, and if so how should they be financed?

Are there any such schemes which at the low rates of interest at which Government can borrow at present and the low price of materials should prove directly or indirectly remunerative and should a special survey under these heads be carried out?

8. *Industrial Development.*—(1) Are any Government schemes (other than the accepted policy of discriminating protection) possible for the general industrial development of the country as a means, either

- (a) of improving the Indian market for agricultural produce, or
- (b) of affording alternative means of employment to the rural population either—
 - (i) as wage-earners,
 - (ii) as workers at village industries?

(2) Is the formation of a Central Industrial Research Committee desirable?

*Third Day (Afternoon).*9. *Other Government Measures.*

(1) Can Government improve the position by

(a) reducing any particular expenditure or imposing other forms of taxation so as to give further remissions of land revenue or water rates, or

(b) modifying land revenue or water rates so as to make them more responsive to fluctuations in agricultural prices ?

(2) *Tariffs.*—Are there any tariffs which operate unduly harshly on the agriculturist, or is the tariff policy of Government as a whole operating unduly in this direction ?

(3) *Education.*—Can rural education either for the small agriculturist or for the landlord class be directed on more realistic and practical lines ?

10. How far should any such measures be carried out by local Governments in isolation or how far will they require the assistance of the Central Government by all-India legislation or otherwise ?

11. *Economic Intelligence and Statistics.*

(1) Is it desirable that there should be a central economic intelligence organisation which should give information to Provincial Governments in matters affecting their policy, *e.g.*,—

(a) information as to the world position in regard to various export crops, the condition of the markets in other countries and the possibility of openings for increased exports from India ;

(b) similar information as to the Indian market for various classes of agricultural produce ;

(c) in connection with both (a) and (b) information as to the position as regards Indian production affording a comprehensive review of the position in India as a whole ?

(2) Would the Provincial Governments be willing to co-operate in developing intelligence and statistical departments so as to assist the Government of India in compiling full records ?

Fourth Day.

(i) Discussion of any special problems which the Provincial representatives may wish to have discussed.

(ii) General discussion of recommendations and conclusions.

APPENDIX B.

Synopsis of points to be taken into consideration when discussing the Agenda:

General.

Each item must be discussed in two aspects :

- (i) Can any action under this head be taken which would be effective for dealing with the immediate emergency?
- (ii) Is a change in the permanent policy necessary?

The Conference will presumably wish to concentrate primarily on aspect (i).

General.

1. *Rural indebtedness. Are any measures desirable for the reduction of rural indebtedness?*

This is main question for consideration. Other items primarily included so as to ensure that important related factors are not overlooked. Question dealt with by Royal Commission on Agriculture and Banking Enquiry Committee and importance increased by fall in commodity prices since these reports. Fall in certain more important items of agricultural produce set out in appendix C. Following important problems arise :

Is traditional Indian economic system in danger of collapse as result of strain put upon it by recent fall in prices and is there danger that present impossibility of even meeting interest charges on debts to money-lenders may lead to wholesale repudiation and setting up of non-payment complex which may spread to rents and Government taxes and dues? Also, may hopelessness of recovering interest charges result in money-lenders being either unable or unwilling to make further advances, even normal short-term seasonal advances, required to finance cultivation or is there danger of wholesale enforcement of debts against land and dis-possession of cultivators?

In considering this question it would be wise not to act on presumption that present level of prices is an abnormal temporary depression but that they may continue more or less at present level with perhaps some recovery in the case of specially depressed items.

Even if picture above is exaggerated, has India as result of advance in recent years outgrown traditional system, so that it must be replaced by something on more modern lines which can be linked with whole modern system of banking throughout India? This question must also be considered from point of view of new Reserve Bank which, if it is effectively to exercise functions of currency and credit control, ought to be able to get into gear with the whole of the indigenous banking and money-lending

system. In this connection have Provincial representatives any views as to most suitable organisation for agricultural credit department of Reserve Bank ?

1. (i) *If measures under 1 are desirable, should they be general ; that is to say, should they aim at the reduction of capital and interest on the basis of capacity to pay ?*

General preliminary indication of provincial views is that widespread measures if regarded as end in themselves may do more harm than good. If money-lender is wholly or partially paid off with public money he will re-lend it to cultivator. So Government money will be lost and in long run position of agriculturist will not be improved. Compulsory debt reduction or conciliation may lead to same result in end ? What is experience of provinces ? Royal Commission on Agriculture say that such legislation has generally proved a failure (paragraph 364, page 436), but that it has had some effect in Punjab in promoting rise of agriculturist money-lender. Mentality of borrower must be changed, and if it is changed, no reason to doubt that in time credit will be available through commercial banks at reasonable rates ? Indigenous banks are developing and owing to lower scale of wages and overhead charges can give cheap credit if security is acceptable. At present they are eager to develop this side of their business, and creation of Reserve Bank with co-ordination of scheduled banks should give further impulse in this direction. There is no lack of willingness, because business, if properly managed, should be lucrative, but they are deterred by two considerations :—

- (i) Reckless desire to borrow for economically unproductive purposes, such as marriage festivities, etc.
- (ii) Difficulty of ascertaining actual position of borrower and how far he is already committed elsewhere.

First requires change of mental attitude of borrower. So does second, but in regard to second possibility of Government action should be considered.

1. (ii) *Schemes for the provision of better machinery of credit for those who have good security to offer or whose credit is reasonably good, but who are unable through the ordinary banks or otherwise to raise money on reasonable terms (e.g., Land Mortgage Banks which could make long term advances to landlords, etc.).*

It would not be justifiable to refuse to do anything merely because wholesale assistance may be considered inadvisable. Indigenous money-lender may fill a useful role, but he is an obstacle to improvement. Would it be possible to provide relief in specially selected areas under supervision, e.g., of such institutions as Punjab Central Rural Community Board (paragraphs 425 *et seq.* Royal Commission on Agriculture) to ensure that relief led to more than temporary results and was not made occasion for fresh borrowing for unproductive purposes ?

There is alleged to be a class who, owing to inadequacy of credit system, have been forced to pay usurious rates to money-lenders, e.g., landholders who cannot pledge their land. Is it possible to take any special measures to help them without altering legal restrictions on transferability of land (*vide* 5 below) ?

2. *As a complement to action under 1 or independently of it, are any measures desirable to restrain the cultivator from borrowing in such a way that he is likely to get into hopeless difficulties in the future ?*

One of most difficult features of problem is attitude of many borrowers, who pledge any credit they have recklessly, and often for unproductive purposes. Too easy credit is a danger to such people rather than a help. Difficult to see what general measures of prevention are possible. One suggestion is that once special help has been given to a debtor, he should be left to full rigour of law if he again relapses into debt. Will this, given the prevailing mentality, operate as a deterrent ? Other suggestion that help should be restricted to supervised individuals or areas, but even there it will be very difficult. An opposite suggestion (Royal Commission on Labour, 1931) is that best protection is to reduce facilities for obtaining credit by such measures, *vide* separate memorandum on item 3 below, as—

- (i) exempting land, tools, wages, etc., up to certain limits from attachment or sale for debt [*vide* Section 60 (1) proviso (b) and Section 61 of the Civil Procedure Code] ;
- (ii) by reducing liability to imprisonment for debt ;
- (iii) by making insolvency easier.

This may possibly be sound as regards industrial labourers who borrow practically entirely for unproductive purposes, but how far would it be desirable for the agriculturist, who also has to borrow for productive purposes ? Will not money-lender charge still higher rates and rely on ordinary human instinct of honesty and dislike of being declared insolvent to cover his losses on balance ?

Debt Relief Legislation.

3. *Is legislation of an emergency or permanent character necessary—*

- (i) *to create statutory powers—*
 - (a) *in the form of a Special Rural Insolvency Act,*
 - (b) *for the enforcement of debt conciliation schemes, or*
 - (c) *to create powers for the compulsory reduction of debts or interest, or*
 - (d) *to create powers for the compulsory recording of debts or the licensing of money-lenders ?*
- (ii) *How far should such legislation be Central and how far Provincial ? In particular, should the Central Usurious Loans Act, 1918, be amended ?*

This item deals with the scaling down of debts as distinct from schemes for paying off the creditor, either in whole or in part, by funds advanced by or through some other organisation, which are discussed in the following item. Is such action desirable or practical either as a preliminary to other measures of rural development, or as an emergency measure, or should it be made a permanent part of the law of the land ? Such legislation, *e.g.*, Usurious Loans Act, 1918 and similar measures in other countries, generally not very effective owing to facilities of evasion

and difficulties of administration (reluctance of civil courts to assume wide discretionary powers necessarily vested in them if the legislation is to be effective). Question discussed at length by Royal Commission on Agriculture (Chapter XII). Also by Central Banking Enquiry Committee (in particular Chapter VII). Also references by Home Department to Local Governments regarding amendment of Usurious Loans Act, 1918, and has been subject of detailed provincial investigation and, in several cases, of legislation. Points at issue and history of discussions set out in separate Memorandum, Appendix D. Insolvency legislation for industrial workers separate problem dealt with by Labour Commission and under separate consideration by Government of India.

4. *Transfer of Debts to Co-operative Societies, Land Mortgage Banks, or other organisations.*

To what extent is it desirable or practicable that debts should be taken over—

- (a) *by co-operative credit societies,*
- (b) *by Land Mortgage Banks, and in that case should these be formed with direct Government support or through the co-operative organizations, or*
- (c) *by Government itself, possibly working through village panchayats.*

This contemplates buying out the creditor, in whole or part. General difficulties set out in 1 (i) *ante* of this type of scheme as compared with those which simply get creditor to reduce his claims.

(a) *Co-operative societies.*—This agency strongly favoured by Royal Commission on Agriculture (Chapter XIII) and Banking Enquiry Committee (Chapter IX) but co-operative movement generally in difficulty at present. Also objection in principle to making co-operative organisation channel through which too extensive credit is made available. Essence of co-operation is joint help, and if agriculturists merely combine to borrow money, their collective credit may be worse than their individual credit, owing to difficulty of selling up whole villages. Advances to co-operative organizations should therefore bear some relationship to the amount which they find themselves. How is this to be done? Do provinces think that co-operative movement is capable of fulfilling such functions on any large scale?

(b) *Land Mortgage Banks.*—Reserve Bank and Imperial Bank by statute cannot lend against immoveable property. Reason:—necessary for these important national institutions to keep their resources liquid. Other banks also very reluctant to do so, not only because of desire to keep their resources liquid but also because of difficulty of realising security owing to complexity of land laws and difficulty, expense and delay of obtaining decree and execution.

There thus seems to be lacuna in machinery for providing long-term credit, not only as emergency measure to reduce present burden of indebtedness but also as permanent feature of credit system of India.

Discussed by Royal Commission on Agriculture (paras. 381—384) and Banking Enquiry Committee (Chapter X). Essence of problem—are such banks practical proposition without free transferability of land in execution of foreclosure decrees—at least for them? Is such transferability desirable on broader considerations—risk of creating a landless proletariat or of replacing resident Zemindars? If they have to foreclose on large scale, to whom will they sell the land? Or will they manage it themselves? And if land was made freely transferable—in more highly developed areas—would there be any need for official or quasi-official mortgage banks at all? Could not private enterprise be trusted to fill the gap? Banking Enquiry Committee (para. 228) recommend free transferability of land from banking point of view, but point out other important considerations and Royal Commission on Agriculture (para. 384) emphasise need for caution “Demand for long-term money for productive purposes limited but for other purposes insatiable”.

Machinery—

Central or Provincial.—Banking Enquiry Committee (para. 229) not in favour of all-India Bank. Not only provincial subject but practicability of any such institutions obviously depends on land law—which varies from province to province and is provincial subject.

Co-operative.—Obviously cannot be combined with ordinary co-operative societies, who should deal primarily in short-term and keep their assets liquid as their deposits are generally short-term. But there are objections even to management by *ad hoc* and specialised exclusively co-operative organisations. They are operating on borrowed money (usual suggestion—capital to be found by Government guaranteed debentures—trustee securities) and, controlling authority will represent borrowers, not the lenders. Representation of debenture holders or share-holders on board?

(c) *Official agency.*—Difficulty of personnel. What are views of provinces as to working of—

(i) Land Improvement Loans Act (*vide* para. 359, Royal Commission on Agriculture).

(ii) Agriculturists Loans Act (para. 362).

Action must be provincial—a provincial subject.

5. *Transferability of Rights over Land.*

If land mortgage banks are to be set up, can their facilities for operation be increased by legislation simplifying the position as regards land tenure, transfer of land, and generally the enforcement of the mortgage security, and more generally is it desirable or practicable to increase the transferability of rights over land and to simplify the legal formalities for its transfer, with a view to improving the credit of the agriculturists?

1. Crux of agricultural credit problem is transferability of rights over land—this is essential factor which distinguishes agriculture in India from other forms of commercial enterprise. How far is change in present

policy in direction of increasing transferability desirable (in view of all considerations, not merely financial) either—

(a) generally, or

(b) in favour of certain organisations—co-operative societies, land mortgage banks, etc. ?

One view is that transferability should not be facilitated, and that if an exception is to be made it should, as suggested in (b), be limited to land mortgage banks and similar institutions and even so, should be limited in extent and subject to safeguards. Even so, how will these privileged organisations dispose of land which comes into their possession ? Will they be restricted as to its disposal, e.g., to agriculturists ?

2. Questions of tenure expressly excluded from terms of reference of Agricultural Commission (*vide* also paragraph 358 of their report).

3. Also involves problem of uneconomic fragmentation of holdings (Chapter V, Agricultural Commission Report).

Other means of improving the credit of the agriculturist.

6. *Are any measures possible or desirable for improving the financing of cultivation and the economic condition of the agriculturist generally by measures for improving marketing, stapling, co-ordination of crop production, warehousing, etc. ?*

Marketing discussed by Royal Commission on Agriculture and by banking experts attached to Banking Enquiry Committee. A separate memorandum has been prepared by the Imperial Council of Agricultural Research (Appendix E).

Development Schemes and other Government Measures.

7. *Are any Government schemes possible for the development of*

- (i) roads,
- (ii) irrigation, including the sinking of wells,
- (iii) the reclamation of marshy or jungle covered areas,
- (iv) electric power schemes,
- (v) health and sanitation programmes,
- (vi) housing,
- (vii) other projects, and if so how should they be financed ?

Are there any such schemes which at the low rates of interest at which Government can borrow at present and the low price of materials should prove directly or indirectly remunerative and should a special survey under these heads be carried out ?

Such schemes worth considering, particularly at present time, for loans can be floated at approximately 4 per cent. for long-term, and labour, material, etc., much cheaper than a few years ago. Signs that weakening processes of increasing economic depression have been checked, so comparatively small Government stimulus by increasing employment and consequently consumption might have far-reaching effects.

Initiative must come from provinces, for most schemes will be in respect of provincial subjects. Loans for such projects must therefore be secured on provincial revenues and care must consequently be taken first, that projects will directly or indirectly increase the economic strength of the country and, second, that borrowing must not be beyond what credit and resources of country will stand. Should such loans be strictly conditioned by prospect of direct return which will cover interest and amortization of principal over limited term of years? Or should indirect effects on revenue also be taken into consideration? This must be done with great caution because development of general revenues tends to similar development of general expenditure, so that earmarking of revenue for repayment of loans may prove onerous obligation.

Schemes.—In general those schemes are preferable which promote general utilities, e.g., roads, irrigation projects, electric power schemes rather than those which promote a particular industry or other activity; in former utility may be used by private enterprise in several ways, whereas latter must stand or fall largely by itself.

Roads afford special prospects, at least in comparatively undeveloped parts of India, and separate memorandum is being put before conference. This question was also discussed last year at the Road Conference.

8. *Industrial Development.*

(1) *Are any Government schemes, apart from the accepted policy of discriminating protection, possible for the general industrial development of the country as a means, either*

- (a) *of improving the Indian market for agricultural produce, or*
- (b) *of affording alternative means of employment to the rural population either*
 - (i) *as wage-earners,*
 - (ii) *as workers at village industries.*

(2) *Is the formation of a Central Industrial Research Committee desirable?*

General policy of Central Government at present is to foster industries by discriminating protection and such other methods as are open to them, while provincial Governments have pursued a policy of development which has included research in various directions. The question was discussed by Fifth Industrial Conference in 1933, and general conclusion of that Conference was that some central co-ordinating authority should be set up for collection and dissemination of industrial intelligence, co-ordination of research and organisation of industrial exhibitions, and that direct financial assistance to industries under present provincial State Aid to Industries Acts or other machinery could only be partially effective in the absence of such central agency, particularly in respect of methods not available to provincial Governments. Representatives of provinces might usefully discuss (a) in what matters research could be conducted or expanded by individual provinces so as to map out the ground most effectively, (b) in what directions co-ordination is required, and (c) what should be the constitution of co-ordinating authority.

9. Other Government Measures.

Relative Incidence of Land Revenue Taxation.

Excluded from terms of reference of Agricultural Commission. Discussed in Chapter IV, Indian Taxation Enquiry Committee Report. Two questions :

- (i) Is the country as a whole over-taxed ?
- (ii) If not, is the present burden of taxation unevenly distributed so as to press unduly hardly on the agriculturist ?

(i) Obviously general question but to be noted that if there is to be wide economic planning, taxation, initially at least, will probably have to be increased, though it is to be hoped that later on increased productivity will make burden easier to bear.

(ii) Question is provincial—if incidence is to be reduced it is for provinces to make up the gap. Government of India has assisted in devising co-ordinated schemes, e.g., Taxation Enquiry Committee and conference on tobacco excise, but actual taxation must be undertaken by provincial legislatures.

Possible alternative (or additional) taxes examined in great detail by Taxation Enquiry Committee, e.g., excises on tobacco, pan, etc., probate duties, etc.

9. (1) (a) *Reducing any particular expenditure or imposing other forms of taxation so as to give further remissions of land revenue or water rates.*

Complaints that remissions are not equal to fall in prices implicitly based on erroneous assumption that in normal times land is taxed to utmost capacity.

9. (1) (b) *Modifying land revenue or water rates so as to make them more responsive to fluctuations in agricultural prices.*

Question investigated by several Governments, e.g., United Provinces and provincial representatives might explain what position is in their provinces. One difficulty would seem to be that any such system would require normal pitch of assessment to be higher so as to distribute the incidence evenly between lean and prosperous years.

9. (2) *Tariffs.*

Question has been raised by several Governments that post-war policy of protection has operated injuriously on agricultural classes by increasing price of manufactured articles. This is open to argument because on other side agriculturist has benefited by improvement of local market for his produce. Doubtful whether question can profitably be discussed practically, because it is a matter for legislature, on which agriculturists are represented, to ventilate grievances and to take course which seems best in common interest.

9. (3) *Education (Education, Health and Lands).*

Importance of practical education emphasised by Agricultural Commission (Chapter XV). Doubtful how far question can be discussed without ranging too far afield. Included here to ensure that this important issue is not over-looked in general survey of position. Separate note is appended, prepared by Educational Commissioner. (Appendix F).

10. *General Administrative Aspect of Problem.*

If discussions are to lead to practical result, must be correlated with existing machinery of Government, both Central and Provincial. How is future policy to be made effective and co-ordinated as between provinces without encroaching on sphere reserved to provincial Governments under constitution? Is any new machinery desirable? Economic Councils? Or would existing departmental machinery be more effective and cheaper, if adequately staffed? This brings us to next item "Economic Intelligence and Statistics".

11. *Economic Intelligence and Statistics.*

All Commissions, etc., deplore inadequacy of Indian statistical material. How far do provinces actually feel lack of information in practice? Report of Dr. Bowley and Mr. Robertson will be put before Conference, but with proviso that Government of India have not had time to consider it.

APPENDIX C.

Index Numbers of Prices of certain staple Indian produce.

(Price in 1873 = 100.)

(Vide Item 1 Agenda.)

	Average of 10 years 1905-1914. (a)	Average of 10 years. 1920-1929. (a)	1931.	1932.	1933.	Month of February 1934.
Rice ..	225 (95)	315 (133)	188 (79.5)	142 (60)	124 (52.5)	*147 (62.2)
Jute Raw ..	297 (75)	444 (112.3)	182 (46)	180 (45.5)	160 (40.5)	164 (41.5)
Cotton Raw	107 (89)	167 (138.5)	70 (58)	73 (61)	81 (67)	81 (67)
Wheat ..	121 (110)	185 (169)	91 (83)	113 (103)	119 (109)	89 (81)
Oilseeds—						
Linseed ..	145 (114.5)	199 (157)	103 (81.5)	88 (70)	101 (80)	100 (79)
Rapeseed	120 (81)	199 (134)	118 (79.5)	111 (75)	104 (70)	99 (67)
Sesamum	143 (94)	218 (143)	119 (78)	124 (81.5)	107 (70)	84 (55)
Poppy ..	142 (83.5)	229 (134)	151 (88.5)	129 (76)	132 (77.5)	132 (77.5)
Gram ..	173 (102)	291 (171.5)	148 (87.5)	144 (85)	148 (87.5)	145 (85.5)
Sugar (Cane Jaggary).	113 (112)	285 (283)	193 (192)	161 (160)	152 (151)	135 (134)
Tea ..	62 (96)	105 (162)	61 (94)	45 (70)	55 (85)	106 (164)

(a) The figures in this column represent the arithmetic mean of the sum of the index figures for 10 years.

* Calculated proportionately on "Ballam" rice alone, as for the quality "Karee, uncleaned" no quotations are available since June 1933.

NOTE.—Figures in brackets represent index numbers reduced to a base 1913=100.

D. B. MEEK,—28-3-34.

APPENDIX D.

Memorandum on the History and present position of Legislation to control Money-lending in India.

(Vide Item 3, Agenda.)

1. *Early Usury Laws.*—The Government of India and Provincial Governments have in the past given much consideration to the question of usury. In the first half of the nineteenth century there were laws in force in India which made 12 per cent. the maximum legal rate of interest and the principle of *dam-dupat*, that is to say that interest should not be allowed to accumulate beyond a point at which it is equal to the original amount of the loan, a principle based on Hindu law, was also in force in certain parts of the country. Act XXVIII of 1855, which was based on the general principle of freedom of contract, repealed the laws fixing maximum legal rates of interest and also withdrew the application of the principle of *dam-dupat* from the mofussil of the Presidencies of Madras and Bengal, but left it in force in the Presidency towns of Madras and Bengal and in the whole of the Presidency of Bombay. There were also special Acts and Regulations of local application which recognised the principle of limiting the maximum rate of interest and also the total amount of interest payable. These acts and regulations applied generally to more backward tracts. The most important of these was the Deccan Agriculturists Relief Act, XVII of 1879.

2. *The Indian Contract Amendment Act, 1899.*—There was a feeling that Government had gone too far in the application of the principle of freedom of contract and after prolonged enquiry the Indian Contract Act was amended so as to give the courts power to refuse judgment for sums which they considered unconscionable or if they found that the contract had been induced by undue influence, an expression which applied to cases in which the parties were in so unequal a position that one could dominate the other and had actually used this position to obtain an unfair advantage.

3. *Usurious Loans Act, 1918.*—Thereafter, until 1914, there were no important developments though the matter was periodically under examination. In 1914, the Government of India in a reference to local Governments stated the main issues as these :—

- (1) Whether the courts were compelled to give effect to unconscionable contracts and to enforce the payment of inequitable and extortionate demands ?
- (2) If so, whether the abuse had reached such dimensions as to demand a remedy ?
- (3) What remedy could be devised that would not itself have damaging consequences ?

They then went on to enumerate some possible remedies :—

- (a) the fixing of a legal maximum rate of interest ;
- (b) the fixing of a legal maximum amount of interest ;
- (c) the grant of powers to courts to go behind the contract, reopen a transaction and reduce the rate of interest.

4. The result of the reference to the local Governments was that the Government of India decided not to proceed with remedies (a) and (b) at all and to concentrate on (c). The Usurious Loans Act, X of 1918, was accordingly passed in 1918. Its main provision was to empower a court, where it had reason to believe that the rate of interest was excessive and the transaction was substantially unfair, to reopen the transaction and relieve the debtor of excessive interest even in cases where there had been an agreement to close previous dealings and open a new account. The Act explained at some length the meaning to be applied to the word "excessive" and also the considerations that might make a transaction "substantially unfair".

5. *Usurious Loans Act (Amendment Act), 1926.*—With the inauguration of the new constitution numerous resolutions and private bills were introduced both in the central and provincial legislatures with a view to affording relief to debtors. They generally recommended the application of *dam-dupat*. After further consideration the decision was taken to make two important amendments in the Usurious Loans Act. These were :—

- (1) to extend the Act so that it should apply to suits by debtors and for the redemption of securities ; and
- (2) to increase the period of limitation in respect of any transaction to 12 years.

The Bill was passed without opposition in the autumn session of 1926.

6. *Royal Commission on Agriculture.*—The passing of this Amendment Act did not stop the flow of resolutions and private bills or the attention devoted to the subject and the question was considered by the Royal Commission on Agriculture which reported in 1928 (paragraphs 363 to 366 of their Report). As a result of their study of the legislation which had been passed with the object of remedying admitted evils the Commission were impressed with the extraordinary difficulty of attaining the objects in view by means of legislation and they came to the conclusion that a resolution of the problem of indebtedness was only to be found in the accumulated effect of the spread of literacy and in the co-operative movement. They were impressed by the Usurious Loans Act but considered (a possibly exaggerated view) that it was a dead letter and recommended that investigations be made as to the reasons for this. They also suggested legislation on the lines of the Punjab legislation which ultimately became law in the form of the Punjab Regulation of Accounts Act, 1930, and on the lines of the English Moneylenders Act, 1927. Put briefly, these provided for :—

- (1) the licensing of moneylenders ;
- (2) the restriction of interest to simple interest ;
- (3) the use of regular books of account by moneylenders ; and
- (4) the supply to borrowers of entries relating to their accounts.

7. *Banking Enquiry Committee.*—By the time the report of the Royal Commission on Agriculture came under consideration, proposals had been made for the whole question to be re-examined by the Banking Enquiry Committee. The Committee in paragraph 116 of their Report stated that, the reports of the provincial Committees showed that the Usurious Loans

Act was not a dead letter as stated by the Royal Commission on Agriculture, though most provincial Committees admitted that it had defects which ought to be removed. The Banking Enquiry Committee thought that the Act could be worked to the benefit of debtors and should be retained, though they were of opinion that a real and lasting solution of the problem of excessive interest was only to be found in the spread of education and the extension of co-operative banking, aided by the training of the borrower in the habits of thrift and saving. They declared themselves as opposed to the extension of the principle of *dam-dupat*, as against any system, either compulsory or voluntary, of registering or licensing moneylenders, as against any provision fixing maximum rates of interest and lastly as against any provision prohibiting compound interest. They suggested, however, that if some provision for limiting interest was considered necessary, it should take the negative form of stating rates which should not be regarded as excessive. In order to check the dishonest practices of moneylenders the Committee favoured legislation on the lines of the Punjab Regulation of Accounts Act with further provisions—

- (1) to prevent moneylenders from charging for expenses ;
- (2) to prevent the enhancement of interest as a penalty for default ; and
- (3) to render unwritten contracts for repayment unenforceable at law.

They suggested the application of these provisions only to moneylenders as defined in the Punjab Act.

8. *Royal Commission on Labour*.—The Royal Commission on Labour which reported in 1931 investigated the problem from the point of view of the industrial worker. There the case for Government intervention is possibly simpler than as regards agricultural credit because loans to the classes dealt with by the Labour Commission may be regarded as practically entirely unproductive while loans to the agricultural community obviously cover both productive and unproductive purposes. They made the following proposals for legislation :

- (1) That protection from attachment should be extended to wages and salaries up to Rs. 300 per month.
- (2) That arrest and imprisonment for debt should be abolished in the case of industrial workers in receipt of not more than Rs. 100 per month unless the debtor has been proved both able and unwilling to pay.
- (3) That provident funds maintained by private employers should be protected from attachment.
- (4) That a new law establishing a summary procedure for the liquidation of debts of low paid workers should be introduced.
- (5) That the period of limitation for debts and the period within which a decree may be kept alive should be re-examined.
- (6) That besetting an industrial establishment should be made a criminal offence.

Action on Labour Commission's proposals.

9. The position in respect of those proposals is as follows :—

(1) The Government of India have decided to introduce legislation which will *inter alia* protect from attachment all wages and salaries not exceeding Rs. 100 a month.

(2) The Government of India have consulted local Governments on the whole question of imprisonment for debt. The replies have been received and are now under examination.

(3) The Government of India came to the conclusion that this is not likely to have any appreciable effect on indebtedness and have left it over until an occasion arises for amending the Provident Funds Act.

(4) The Government of India have under examination an experimental Bill, which is roughly on the following lines :—

(a) The Bill to apply to such areas of Delhi Province and therein to such classes of persons as may be notified ;

(b) On application to a special Court and after summary inquiry a workman may have his debts scaled down to the amounts originally lent *plus* reasonable interest *minus* actual payments ;

(c) If the aggregate amount of the debtor's debts is less than a specified amount (fixed with reference to the workman's income and family as representing what he can reasonably pay in 2 years) no further action is taken in the special Court whose order is conclusive proof of the scaled-down sums (and no more) being due ;

(d) If the aggregate debts exceed the specified amount, the debts are further reduced to bring them to that amount, and orders to pay $1\frac{1}{24}$ of the amount in each of the next 24 months are distributed among the creditors ; these orders are enforceable in the ordinary way.

The Bill thus provides both for the scaling down of debts and, in cases where the debtor is heavily encumbered, for a modified form of insolvency proceedings.

(5) The Government of India have examined the question and have decided to make no change.

(6) This was referred to local Governments. It met with a large measure of support, but the local Governments were not united in favour of it. It was therefore suggested to the Government of Bengal (where opinion was unanimously in favour) that they should introduce a provincial measure for the purpose.

10. *Provincial Legislation.*—In addition to the Acts already in existence, the operation of which was limited to certain areas which are mentioned in paragraph 1 above, the following legislation has been passed in recent times in the provinces :—

(a) *The Punjab Regulation of Accounts Act, 1930.*—This Act prescribes the keeping of accounts by creditors and the supply of statements of these accounts every six months to individual debtors.

(b) *The Bengal Moneylenders' Act, 1933*.—This Act enables the debtor to obtain full particulars of his debt from his creditor, prohibits the recovery of compound interest if the contract provides for a rate of interest above 10 per cent. or for rests of less than six months, fixes the rates above which interest will be regarded as excessive and maintains the *dam-dupat* rule as applicable. The Act does not apply to Calcutta and originated as a private Bill.

(c) *The Central Provinces Debt Conciliation Act, 1933*.—This Act provides for the setting up of conciliation Boards to which debtors or creditors may apply for a settlement of debts. It was brought into force on the 1st of April 1933. Two conciliation boards were established in July 1933, a third has been established on the 15th of February 1934 and a fourth is shortly to be established. The Act has been extended to Berar and it is proposed to set up two boards in that division at an early date. Up to the end of February 1934 the two boards had received 3,170 applications involving claims of Rs. 41.06 lakhs. They succeeded in executing agreements in 668 cases for the payment of a reduced sum of 3.73 lakhs in satisfaction of original claims amounting to 6.42 lakhs. The reduction effected by mutual agreement in these cases thus works out at nearly 42 per cent. Applications were dismissed on account of the manifest undesirability of attempting to effect a settlement in 226 cases having claims of 4.27 lakhs while in 264 cases involving claims of 4.34 lakhs the parties failed to come to an amicable settlement and the cases were dismissed. The remaining 2,012 cases, making a total of 26.03 lakhs were pending on the 1st March 1934.

It is reported that the boards are making encouraging progress in the settlement of unsecured debts but are experiencing some difficulty in inducing secured creditors to compound their claims. The bulk of the tenancy land in the Central Provinces is non-transferable and the large portion of the tenants' debts is unsecured. The ultimate success of the measure, of course, must depend on the ability of the debtors to carry out their part of the agreements punctiliously, but to what extent the Act will be helpful in scaling down secured debts can only be known after the two boards proposed to be established in Berar have worked for some time. Here the land tenure is ryotwari and generally speaking, the land is freely alienable with the result that a large proportion of debts is secured.

Except for the chairman who is a Government officer from the provincial executive or judicial service, the boards consist of non-officials. The work on the boards imposed a heavy strain on the members and in order to ease the burden, the maximum permissible number of members has been raised from 5 to 9 so as to enable quorums being formed. No difficulty has so far been experienced in obtaining suitable non-officials for the boards.

(d) *The Usurious Loans (Central Provinces Amendment) Act, 1934*.—This has just been passed. Its object is to remove certain difficulties experienced in the working of the Usurious Loans Act, and in particular the difficulty of adjudging what rate of interest may be deemed to be excessive. This is put at 12 per cent. per annum in the case of secured loans and 18 in the case of unsecured loans, or where there is a stipulation for rests at intervals of less than six months. The rate for future loans has been put at 10 per cent.

11. *Legislation under consideration in the provinces.*—In addition legislation, the more important features of which are briefly summarised below, is under consideration in various provincial legislatures. The summary is based on the latest information available with the Government of India but may be in certain respects incomplete or out of date.

(a) *The United Provinces.*—The United Provinces Agriculturists' Relief Bill, 1934, has been passed by the Legislative Council but has not yet received the assent of His Excellency the Governor. Its main provisions are—

- (i) To empower courts when passing decrees against agriculturists to fix instalments payable on fixed dates which may extend over a period of four years in the case of small agriculturists and over twenty years in other cases.
- (ii) To limit the rate of interest admissible after a decree has been passed to 2 per cent. in certain cases and 3 per cent. in other cases.
- (iii) To empower courts to fix instalments even in cases in which decrees have been passed before the passage of the Bill.
- (iv) To restrict mortgages with possession made after the passage of the Bill to mortgages which give possession with the right to all the profits of the land for a fixed period not exceeding twenty years on the condition that that period of possession will satisfy the debt.
- (v) To facilitate the redemption of mortgages.
- (vi) To limit the rates of interest on loans taken after the passage of the Bill to rates notified by the local Government as the prevailing rates. The rates to be so notified will be based on, though they will exceed, the rate at which the local Government can borrow from the Government of India.
- (vii) To limit the rates of interest recoverable on loans taken since January 1, 1917.
- (viii) To prescribe rates of interest recoverable on loans after a sum equal to 100 per cent. of the principal in the case of secured loans and 150 per cent. in the case of unsecured loans has been realised or has accrued as interest.
- (ix) To empower courts to reopen decrees passed on loans incurred since January 1, 1917, and to pass amended decrees for the amount payable if the interest were limited as in (vii) above.
- (x) To require creditors to maintain a correct account for each agriculturist debtor for each loan separately and to supply the debtor annually with a statement of such account.

The United Provinces Government have also under consideration a Non-Agriculturists' Relief Bill and a Usurious Loans (Amendment) Bill.

(b) *Madras*.—The Madras Legislative Council have at present under consideration the following two private Bills introduced by non-officials :—

- (1) The Madras Money-lenders Bill re-named by the Select Committee as the Madras Debtors Protection Bill, and
- (2) The Madras Debt Conciliation Bill.

The Madras Money-lenders Bill, now called the Madras Debtors Protection Bill, is intended to remedy some of the evils associated with certain classes of money-lending and especially with loans advanced by professional money-lenders on the security of jewels and other articles to small borrowers who are generally drawn from the middle and working classes. The provisions in this Bill are directed against loans or advances of less than Rs. 500 at any time in any one transaction. The Bill follows generally the Punjab Regulation of Accounts Act of 1930 with, in addition, a limitation of interest to 18 per cent. simple in the case of secured loans and 24 per cent. simple in the case of unsecured loans. It has been examined by a select committee and is likely to be considered at the next session of the Legislative Council.

The Madras Debt Conciliation Bill is intended to apply to agriculturists whose debts exceeds Rs. 150 and is to be restricted in the first instance to debtors whose debts aggregate to Rs. 25,000 and below. Leave to introduce this Bill was granted by the Legislative Council on the 18th March 1934. It follows generally the lines of the Central Provinces Debt Conciliation Act.

(c) *The Central Provinces Money-lenders Bill*.—This is a Bill on the lines of the Punjab Regulation of Accounts Act, 1930, but embodies in addition the principle of *dam-dupat*. It also gives the courts extended powers to fix instalments for execution of decrees. The Bill is in the select committee stage.

There are also two non-official Bills which were introduced in the Legislative Council in January 1934 and are now under circulation. They are—

- (i) The Central Provinces Agriculturists Relief Bill, and
- (ii) The Central Provinces Reduction of Interest Bill,

both following closely the corresponding United Provinces Bills.

(d) *Bombay*.—A private Bill has been introduced on the lines of the Punjab Regulation of Accounts Act. It is not a special measure for the protection of agricultural debtors.

(e) *Assam*.—An Assam Money-lenders Bill has now reached the Select Committee stage. It provides for the registration of money-lenders, the non-recognition of debts unless acknowledged in writing by the debtor, prohibition of charges for expenses of loan, presumption that certain rates of interest are excessive (12½ per cent. for secured loans and 18½ for unsecured) *dam-dupat*, prohibition of advertising or canvassing.

12. *Reference by the Government of India to local Governments on general question*.—On November, 1931, a reference was made by the Government of India in the Home Department to Provincial Govern-

ments regarding the operation of the Usurious Loans Act. The following were the points of reference :—

- (1) The working of the Usurious Loans Act.
 - (2) The reasons for its lack of use, if it had not been used to the extent intended.
 - (3) Whether the Act could be usefully amended.
 - (4) Whether any other remedies could be followed.
 - (5) Whether reports on the working of the Act should be included in the annual Civil Justice administration reports.
 - (6) Whether the Punjab Regulation of Accounts Act should be extended to other provinces.
 - (7) Whether certain provisions of the English Moneylenders Act should be applied to India.
13. The opinions of the local Government on these various matters may be briefly summarised as follows :—

- (1) There is a very general consensus of opinion that the Usurious Loans Act has not been used to the extent hoped for. The Punjab and Burma indeed consider it to be practically a dead letter. Bihar and Orissa, on the other hand, definitely say that it is not, though they admit that it is not sufficiently well-known and has not been fully used. Madras have no reason to believe that it is ignored, and the United Provinces say that it has been a failure, though subordinate courts in the provinces consider that the Act has worked to the benefit of the debtor. Bombay admit its lack of use but attribute that partly to the existence of the Deccan Agriculturists Relief Act. It is clear that the Usurious Loans Act has not been used to the extent hoped for.
- (2) The reasons given for the failure of the Act to achieve its purpose are various. The principal are—
 - (a) The Act is still said not to be well-known.
 - (b) In a large number of cases the debtor does not consider it worth while or cannot afford to go to court and in consequences the cases are decided *ex parte* and the Act does not afford any protection.
 - (c) In many cases the debtors' pleaders do not attempt to make use of the Act and prefer to rely on a line of defence other than that supplied by the Act.
 - (d) Judges are mostly overworked and therefore unwilling on their own initiative to raise issues which will require careful and perhaps complicated investigation.
 - (e) The Act makes it necessary to prove not that the rate of interest is excessive or that the transaction is unfair, but both, and in many cases the Judge will be prepared to find the interest excessive though not prepared to hold the transaction unfair.

- (f) It is difficult to decide what is an excessive rate of interest with regard both to the needs of the debtor and to the nature of his security and the lack of any indication of the interpretation which should be placed on the term "excessive and substantially unfair" has detracted from the usefulness of the Act.
- (3) The more important suggestions for the amendment of the Act are these :—
- (i) that the word " or " should be substituted for the word " and " in section 3 (1) (a), thus making either an excessive rate of interest or the unfairness of the transaction a reason for reopening it ;
 - (ii) that instead of leaving it to the discretion of the court, it should be made incumbent on the court to examine whether the transaction was unfair or usurious in certain cases, for example when the rate of interest exceeds a fixed percentage for secured and unsecured loans respectively or when the interest paid already exceeds the capital ;
 - (iii) that rates which should be regarded as excessive or in the alternative rates which should be regarded as not excessive should be stated in the Act ;
 - (iv) that the rule of *dam-dupat* or some other system of fixing the maximum amount of interest recoverable should be made of universal application ;
 - (v) that as recommended by the Central Banking Enquiry Committee, the creditor should be prohibited from charging for expenses, the enhancement of interest for default and the contracts or documents which are not written and signed by the debtor should not be enforceable at law ;
- (4) no local Government has made any proposals for non-legislative remedies except those dealt with immediately below ;
- (5) the United Provinces, the Punjab, Bihar and Orissa and Assam Governments think it worth while including a special report on the working of the Usurious Loans Act in the annual report on the administration of Civil Justice. Bihar and Orissa have already issued orders to effect this. Madras, Bombay and the Central Provinces make no mention of this proposal. Bengal doubt whether it would be useful and Burma oppose it ;
- (6) most local Governments would prefer to await some evidence of the usefulness of the Punjab Regulation of Accounts Act before introducing similar legislation. It may, however, be noted that the Central Provinces has since passed an Act on these lines and that there are bills before the Madras, Bombay and Assam Councils of the same tenor ;

(7) this point has already been dealt with in 3 (v). Madras Bengal, the United Provinces, the Punjab, the Central Provinces and Assam are in favour of applying these provisions of the English Moneylenders Act to India.

Summary of Points for consideration.

1. Is any action advisable or practicable? Both Royal Commission on Agriculture and Central Banking Enquiry Committee say only real solution accumulated effect of spread of literacy and co-operative movement. Usurious Loans Act generally admitted to be well conceived measure which has nevertheless largely failed. Some reasons indicated in Memorandum. Poorer debtor largely in hands of money-lender and unwilling or unable to ask for protection which law affords. He knows he may have to borrow in future.

2. Various suggestions :

(i) to state actual rate as guidance to courts above which burden of proof is to be on creditor to show that it is not excessive, and to require courts to reopen such cases *vide* Bengal, C. P. and U. P. legislation.

(ii) *Dam-dupat*.—Government of India described it in 1914 as “rough and ready remedy, perhaps more suited to the simpler times in which it originated.”

Advantages	Simplicity.
	Automatic action.
	Consonance with Indian sentiment.
Objections	Forces creditors to sue for their money earlier than they otherwise might.
	All payments would be credited to interest.
	Evasion by entering fictitious sums in original bonds or nominal readjustments or including price of fictitious sales of goods. Could also be evaded by fictitious novation.

(iii) Substituting “or” for “and” in Usurious Loans Act, section 3 (1) (a).

(iv) Banking Enquiry Committee suggestions :

(i) to prevent money-lender charging for expenses ;

(ii) to prohibit enhancement in rate of interest as penalty for default ;

(iii) to make unwritten contracts unenforceable at law.

(v) Other suggestions (not approved by Banking Enquiry Committee) :

(i) that money-lenders should be licensed ;

(ii) that compound interest should be forbidden.

Is (i) practicable? Will it cover disguised money-lending, *e.g.*, by sales of goods (often fictitious) on credit?

Is (ii) not likely to force frequent and unnecessary renewals of loans, and also more frequent recourse to courts?

(vi) Suggestions which would restrict credit of certain classes of borrowers (*vide* Royal Commission on Labour):

- (i) Simplification of insolvency procedure;
- (ii) Protection from attachment of land, moveable property, etc., up to certain limits.
- (iii) Arrest and imprisonment for debt to be abolished for certain classes unless proved able but unwilling to pay.

Regarding (i), however simple procedure is made, is it likely to be largely resorted to by poorer debtors?

Regarding (ii) land already protected in many parts of India. Result—higher rates of interest charged. Does practical experience show that this restricts borrowing?

Regarding (iii), is arrest and imprisonment resorted to for purely debt considerations (as distinct from animosity due to quarrels about land, family feuds, etc.,) to make this by itself a real remedy?

3. How far should legislation be central or provincial? Advantage of provincial legislation—more adapted to local conditions, which vary widely over India, particularly as regards extent to which debts can be secured on land. Also experiments if localised can be conducted more boldly.

APPENDIX E.

Marketing.

Memorandum by Imperial Council of Agricultural Research.

Vide Item 6, Agenda.

The marketing of agricultural produce, in its broadest sense, includes all the stages and operations involved in its transfer from the producer (the cultivator) to the consumer including packing, handling and transport and, in some instances, such preparatory processes as cotton-ginning, the shelling of groundnuts and the retting of fibres. It is generally recognised that inefficiency in any of these operations results in a reduction in the share of the ultimate price which reaches the agriculturist and that, when competition is keen, the cumulative effect of quite small differences in the cost of these operations may result in the entire loss of a market.

It is characteristic of Indian agriculture that staple commodities are produced by numerous small growers and that, in consequence, adequate organisations for the sorting, bulking and grading of produce are even more necessary than in the countries where the same staples are produced on larger holdings.

2. Among the problems which appear to require examination are the following :—

- A. How can the demand, both internal and external, for India's principal agricultural commodities be promoted ?
- B. How can the "spread" between the prices paid by the consumer and those received by the producer be reduced and the agriculturist's share of the final price increased ?
- C. How can the agriculturist be protected from those seasonal slumps in the prices of commodities which are occasioned by the fact that whilst consumption is spread more or less evenly over the year, harvesting and primary marketing are concentrated in a relatively short period ?
- D. How can the agriculturist be most cheaply and safely financed—
 - (i) for the production, and
 - (ii) for the marketing of agricultural commodities ?

3. The first question raises the following issues, apart from questions of tariffs and trade agreements which do not come within the scope of this item of the agenda :—

- (1) *Propaganda and the supply of information—technical and general—regarding Indian raw materials and foodstuffs.*—This function is largely performed by whole-sale merchants and exporters supplemented by Government action through the medium of Indian Trade Commissioners for foreign markets. Special organisations also exist for some commodities, as for example, cotton, lac and tea. It is a matter for consideration whether special organisations are required for other commodities.
- (2) *Grading, sorting and bulking of produce.*—Here the object is to provide those even-running lots, and the general standard of uniformity, required by modern industries. The primary object of grade standards is to secure the confidence of the

consumer, and of buyers at all stages in process of marketing, and to bring to the producer, and all intermediaries, a knowledge of the types which the consumer requires. The existence of widely-accepted standards is also an essential to orderly trading in future contracts since contracts for future deliveries would otherwise be of a highly speculative character. Other countries have found the establishment of national standards for important commodities, whether for export or internal use, a great aid to trade, and countries which have no such standards are liable to be handicapped. In India, cotton is the only commodity for which a complete range of modern grade standards exists. These standards are maintained by a trade association enjoying statutory recognition. The establishment of Indian national standards for other commodities is one of the important items in the programme proposed for the Expert Adviser in Marketing whom the Imperial Council of Agricultural Research has recently appointed. It is for consideration which agricultural commodities first require attention. Tentatively, it has been suggested that rice, wheat, groundnuts, linseed and barley require study with the object of establishing grade standards suitable both for internal trade and export.

- (3) *Special Market Organisation for perishable commodities.*—A closely connected question is that of market organisation for perishable commodities such as fruit, dairy produce, eggs and poultry. Here the organisation of producers and better marketing is an essential condition to progress in branches of agriculture which are almost invariably associated with more intensive farming.
- (4) *Information of consumers' requirements.*—The collection of information regarding consumer's requirements and the passing on of such information to producers, as well as to merchants and middlemen, is an important factor. The establishment of grade standards in itself may effect a good deal in this direction especially when graded produce is bought and sold in markets to which cultivators have access. It is for consideration whether there is not scope for more direct effort in this direction. Some work in this direction is already being carried out in the case of cotton by the Indian Central Cotton Committee.
- (5) *The planning of production on the basis of quality.*—Apart from all questions of adjusting the volume of production to probable world demand, a possible line of progress is the planning of production to ensure a properly balanced supply of different qualities of a particular commodity. A notable instance again is to be found in the case of cotton ; this question has recently been taken up by the Indian Central Cotton Committee. It is for consideration whether similar action is possible in regard to some other commodities, e.g., wheat, rice, barley where different markets favour different types. Conversely, there are several commodities (for example groundnuts, castor-seed, gram,

millet) where the concentration of production on a limited number of good breeds and types would permit of more highly organised marketing.

B.—The reduction of the spread between consumers' and producers' prices.

This appears to be largely a matter of eliminating waste including both the actual physical waste due to bad handling and financial waste arising from the performance of unnecessary services due to bad organisation. Given the establishment of proper grade standards, the two most urgent steps would appear to be :—

- (1) The establishment and development of regulated open markets for the reception of producers' goods during the marketing season ; and the establishment, or improvement as the case may be, of terminal markets for the principal staple commodities.
- (2) *Regulated markets.*—The importance of regulated markets open to agriculturists, and the need for special provincial legislation sanctioning their establishment, was emphasised both by the Royal Commission on Agriculture and by the Central Banking Enquiry Committee. Recently progress has been made in the Central Provinces and Berar by an improvement of the rules governing the conditions of grading in such markets ; in Bombay by an increase in the number of regulated cotton markets and in Madras by the passing of the Madras Commercial Crops Market Act which will apply, in the first instance, to cotton, groundnuts and tobacco whilst in the United Provinces a special fruit marketing board has recently been established. The Bengal Jute Enquiry Committee has recently advised the establishment of regulated markets at least on an experimental scale for jute. Doubts have been expressed as to whether the regulated ' Berar ' open market system is applicable to zemindari provinces where vested rights in private markets are important. The solution may well lie in regulating the conditions of trading in such markets without interfering with the ownership of the market yards.
- (3) *Provincial Marketing Officers.*—The Royal Commission on Agriculture recommended the establishment in each province of a marketing branch of the Department of Agriculture and several Local Governments have intimated their intention of appointing provincial agricultural marketing officers who will collaborate with the Marketing Adviser attached to the Research Council. It is clear that commodity marketing surveys, though they might with advantage proceed on a common plan, must largely be carried out provincially. It is hoped to arrange for a discussion of the procedure to be followed shortly after the arrival of the Marketing Adviser.
- (4) ' Terminal ' markets can more conveniently be discussed in the next section.

C.—The protection of the producer from seasonal slumps in prices.

The best protection against seasonal slumps is an organisation which will permit of the rapid off-take of the cultivators produce by commercial agency. Storage by the cultivator himself is usually inefficient even from the physical standpoint, and he is usually less able to finance such storage than commercial firms.

Terminal markets.—As the consumption of most staple commodities is spread fairly evenly over the year consumers, or the merchants supplying them, must arrange their supplies ahead. Properly organised 'futures' markets permit of this operation being carried out at the minimum cost.

Hedge Contracts.—The modern system of hedge contracts permits manufacturers or other consumers to buy their requirements for forward delivery with a considerable degree of certainty and enables them to ensure against the risk of wide price fluctuations. Similarly, merchants who purchase from primary producers can sell stocks for future delivery and can simply ensure against wide fluctuations in price. Stocks of graded produce when properly 'hedged' in an organised futures market offer security on which banks are usually willing to advance money on favourable terms so that a good futures market does much to reduce seasonal depressions in prices. Unregulated futures markets however may be harmful and the dangers of uncontrolled speculation are too well known to require emphasis. The technical market operator is an essential ingredient of a futures market but speculative transactions need to be kept under control. There are futures markets in India for cotton, jute, oil-seeds, wheat and several other commodities but of these cotton is the only commodity the futures market for which is regulated by an association which has statutory recognition. It is a matter for consideration whether steps should be taken to develop futures markets for commodities other than cotton or to regulate and improve existing markets which at present have no statutory recognition.

Commodity exchanges.—The provision of 'hedge' contracts is only one function of a modern terminal market. Another most important function is the provision of an arbitration system and the performance of the general functions of a commodity exchange. For cotton these functions are performed by the East India Cotton Association; for other commodities facilities exist only to a limited extent.

Warehousing.—Given the existence of organised markets and of a system of grading, it seems probable that further progress could be made by the adoption of another recommendation of the Central Banking Enquiry Committee, *viz.*, the provision of public or licensed warehouses. Even when highly organised futures markets exist, there are times when prices are depressed and such 'slumps' react severely on the price paid to the agriculturist. These depressions are frequently due to the volume of "arrivals" being in excess of the average or of expectation, leading to a number of 'weak sellers'. If upcountry merchants, and agriculturists could deposit goods in a public or licensed warehouse and obtain reasonable credit, which would doubtless be forthcoming from banks, the selling pressure at the height of the season would probably be reduced. Since banks and other financing agencies are naturally more willing to finance stocks over which they can exercise effective control, there is much to be said for the view that the existence of public warehouses would improve credit facilities at times of selling pressure.

D. The finance of the agriculturist for production does not differ in principle from the finance of any other producing concern. To a great extent he must provide his own capital for his permanent equipment—mainly cattle and implements—although Government gives loans under well-known conditions for the replacement of cattle after a famine or similar disaster and loans for the purchase of improved equipment. Working capital for the expenses of sowing, weeding, harvesting, etc., is usually borrowed either from co-operative societies or from the village money-lender. This is dealt with under another item of the agenda and is only mentioned here because cultivators whose credit is low are frequently not free to dispose of their produce to the best advantage but are bound to sell it to or through the money-lender as a condition of loans for crop production.

Once a crop is harvested, the farmer the world over requires money with as little delay as possible both to liquidate his seasonal borrowings and to pay rent, revenue and other periodical charges. It would clearly be disastrous to attempt to supply agriculturists with cheap credit to enable them to undertake a general speculative holding up of their produce in the hope of a rise in prices. Attempts of this nature generally intensify the difficulties arising from periods of low prices. On the other hand, if the cultivator cannot obtain even temporary accommodation, he may have to sell his produce at sacrificial prices. Organised markets and proper grading should substantially improve the credit of the agriculturist especially if supplemented by a warehousing system. Soundly organised co-operative sale societies would provide a further step in the right direction.

E. There remains the question of the organisation, or organisations, which should be set up to secure those improvements in marketing, the importance of which has been indicated above. The foreign experts to the Central Banking Enquiry Committee recommended the establishment of a central marketing board—with a full time chairman and sub-committees representing various interests. The Committee itself recommended the establishment of provincial marketing boards for the promotion of better marketing in each province and proposed that the co-ordination of their activities should be left to the Imperial Council of Agricultural Research which would have a separate marketing section. The facts presented in this note seem to indicate that in regard to each individual commodity (or group of commodities) marketing will have to be studied from a number of aspects and that there is much to be said for the establishment of special 'commodity committees' each charged with the improvement of marketing of a particular commodity or group of related commodities. As a beginning, some organisation possibly an all-India organisation might be set up to settle the general ground work and arrange for the creation of such committees. It may well be found convenient for the precise organisation to be decided on after the arrival of the expert adviser in marketing and when he has made himself familiar with the main outlines of the problem but it would be an advantage if he could start work with some indication of the forms of organisation likely to be acceptable.

B. C. BURT.

APPENDIX F.

Rural Education.

Note by Sir George Anderson, Educational Commissioner.

Vide Item 9 (3) of the Agenda.

The reply to the main question is that in those provinces where the Matriculation examination dominates all school education, even at the primary stage, there is little scope in the direction suggested. In such cases school education is based almost entirely on urban requirements ; in consequence, the system tends to impoverish village life by sucking into the towns boys of initiative and capacity. Unfortunately, such is the deadening life of the village that boys who have once left the village in order to receive education in town schools and colleges rarely, if ever, return to the village. It is therefore essential, in the interests of rural development, to build up a suitable system of rural education.

2. In those provinces, however, notably the Punjab, Bombay, Central Provinces, North-West Frontier Province and the United Provinces, where the vernacular system has been encouraged and developed, much is possible along these lines ; indeed, much has been done already.

3. In these latter provinces, there was originally a wide cleavage of opinion in matters of policy regarding the teaching of agriculture :—

- (a) The policy in Bombay was originally to institute separate agricultural schools ;
- (b) The policy in the Punjab has all along been rather to enrich the ordinary curriculum in rural schools with a view to teaching the village child through the medium of what is familiar to him in village life. With this object in view, farms and garden plots have been instituted in many vernacular middle schools.

The Linlithgow Commission summed up decisively in favour of the Punjab system with the result that Bombay, United Provinces, North-West Frontier Province and (to some extent) the Central Provinces have all tried to develop vernacular middle schools so that they shall have a practical bias and be in harmony with village requirements.

4. The Punjab has recently developed the system further and has included in the curriculum a number of subjects relating to the general uplift of village conditions. The central subject in the vernacular middle course is now a composite subject entitled rural science, which comprises training in subjects such as practical and theoretical agriculture, village crafts, co-operation, village hygiene, and sanitation, village games, and so forth. The hope is that the spirit of this subject will permeate all teaching. For example, the teaching of arithmetic is centred very largely round farm accounts and so forth.

The United Provinces has also gone in the same direction and has instituted similar subjects.

5. The Punjab has been reluctant prematurely to introduce new syllabuses and text-books before teachers have been trained to understand the spirit of the new learning. It is necessary therefore to begin with the teacher and to end with the text-book.

The pioneer and most striking example of successful training of village teachers is the American Presbyterian Mission, which has for some time maintained most successfully a vernacular middle school, to which a teachers' training class is attached, at Moga in the Ferozepore District. All other vernacular training classes in the Punjab are now conducted with a similar objective.

The United Provinces have also been reconstructing their system of training for vernacular teachers along similar lines.

All these valuable efforts, even in provinces where conditions are not altogether unfavourable, are frustrated very largely by the magnetic influence of Matriculation, which more and more entices large numbers of village boys into its net ; hence the evergrowing volume of middle class unemployment in the towns. It is unfortunate that, for many years, the dice have been loaded in favour of Matriculation and against vernacular education. A movement, which was initiated by the recent Punjab University Enquiry Committee and is steadily gaining ground, has for its object the release of school education from the domination of Matriculation. At present, in most provinces, there are no clearly defined stages of education each with a definite objective ; all so called stages, to a greater or lesser extent, are but rungs in the ladder leading to Matriculation. The recent Universities' Conference passed unanimously a resolution recommending the institution of definite and separate stages of education, each with a clearly defined objective. If and when this policy is carried out, it will then be easier to develop a system of secondary vernacular and rural education, suited to the requirements of the countryside and conducted on more realistic and practical lines.

G. ANDERSON.

The 21st March 1934.

APPENDIX G.

Memorandum on the Wheat Position.

(Prepared by the Imperial Council of Agricultural Research.)

The International Institute of Agriculture has made a special statistical study of the world wheat position which it stated to be as follows at the end of December 1933 :—

World wheat production omitting Russia (U. S. S. B.), China, Persia and Turkey.

(Millions of bushels.)

	Total.	Europe.	North America.	South America.	Asia.	Africa.	Australia etc., (Oceania).
Average 1923-27	3,381	1,243	1,210	275	402	180	143
1928	3,938	1,409	1,504	399	342	116	168
1929	3,453	1,449	1,129	221	384	136	134
1930	3,715	1,360	1,290	273	456	115	221
1931	3,672	1,435	1,238	264	407	131	197
1932	3,729	1,490	1,209	277	393	140	220
1933	3,500	1,693	811	300	415	118	165
1933 (Revised February.)	3,525	1,707	809	309	415	120	165

The Institute has also made a study of the exportable surpluses of the exporting countries and the requirements of importing countries and arrived at the following conclusions :—

(Millions of bushels.)

	Forecast of world exportable surpluses.	World requirements.	End of season exportable stocks August 31st.
1926-27	1,076	827	249
1927-28	1,128	809	319
1928-29	1,435	923	512
1929-30	1,180	628	502
1930-31	1,388	824	564
1931-32	1,387	709	588
1932-33	1,321	629	692
1933-34	1,105	525*	580

From these figures the following broad conclusions may be drawn :—

- (1) There has been a steady increase in wheat production in the world since 1927 but no corresponding increase in consumption.
- (2) This increase has been mainly in Europe and largely in the wheat-importing countries so that there has been a serious contraction in Europe's purchases since 1926-27.
- (3) End of season stocks have risen steadily except in 1933-34 and are now about equal to a year's consumption.

NOTE.—Russia is not included in these statistics. This fact increases the potential world surplus as Russia has been an important exporter in some recent years.

(* The International Wheat Conference adopted a figure of 560 million bushels.)

2. At the International Wheat Conference of 1933 it was recognised that the world cannot at present absorb the same volume of exports from the large exporting countries as hitherto and an agreement was reached of which the main items may be summarised as follows :—

- (1) The four big exporting countries—America, Canada, Australia and Argentine, agreed to reduce their exports by 15 per cent. and to work to a ' world requirements ' figure of 560 million bushels. These countries have subsequently taken steps to regulate their production accordingly.
- (2) The wheat exporting countries of Eastern Europe (Danubian) undertook to limit their exports to 50 million bushels.
- (3) The sixteen principal wheat importing countries have agreed not to encourage any further increase in their internal wheat production—thus guarding against a further contraction in the market for the exporting countries' surpluses.
- (4) India being for the moment neither an importing nor an exporting country is not a party to this agreement but her principal customer, the United Kingdom, has signed the agreement as have her principal competitors. India has reserved freedom of action but in any measures which she may take to re-establish her position as a wheat exporter, she would naturally give due weight to the fact that 22 wheat producing countries have undertaken to make a temporary sacrifice in the general interest in an attempt to restore world wheat prices to a normal level.

3. *Indian statistics.*—The following table gives the area under wheat in India for 1922-23 to 1933-34, the estimates of production and the *nett* exports (or imports) of the succeeding fiscal year :—

Year.	Area (Thousands of acres).	Estimated pro- duction. (Thou- sands of tons).	Nett export or import in <i>succeed- ing</i> year (includ- ing flour calculat- ed as wheat). (Thousands of tons.)
1922-23	30,852	9,974	711
1923-24	31,181	9,660	1,224
1924-25	31,778	8,866	277
1925-26	30,471	8,696	224
1926-27	31,303	8,973	321 (Import)
1927-28	32,193	7,791	—366 (Import)
1928-29	31,973	8,591	—266
1929-30	31,347	10,353	+ 35(a) (Import)
1930-31	32,189	9,305	—27
1931-32	33,803	9,024	(Import) nominal
1932-33	32,992	9,452	(10 months)—1
1933-34	34,503	(Not issued).	..
	2nd forecast.		

(a) Exports 268.

Imports 233.

In 1930 it was estimated, on admittedly imperfect data, that the internal consumption of wheat in India was 8,800,000 tons per annum. If the estimates of production in subsequent years are correct and if consumption remained at that level, there would now be an accumulated stock of nearly 3 million tons. There is no evidence that such a large stock is held but

the stocks are probably substantial and about as large as can be conveniently managed. Since April 1931, India has been effectively isolated from the world wheat market by a heavy import duty as the following table of Lyallpur and London prices shows :—

		Price of Indian Wheat Lyallpur Rs. per maund. f. o. r.			Price of Australian wheat in London. Shillings per quarter.
		Rs.	A.	P.	
April 1930	.. ..	3	6	0	40/7
July 1930	.. ..	2	12	6	36/5
October 1930	.. ..	2	1	9	29/2
January 1931	.. ..	2	7	6	22/11
April 1931	.. ..	1	14	0	21/10
Import duty imposed.					
July 1931	.. ..	1	9	0	21/5
October 1931	.. ..	1	10	6	25/8
(Rupee went off gold).					
January 1932	.. ..	2	9	0	27/3
April 1932	.. ..	2	1	0	27/2
July 1932	.. ..	2	8	0	24/5
October 1932	.. ..	3	1	0	26/11
January 1933	.. ..	3	1	6	24/7
April 1933	.. ..	3	6	6	23/5
July (6th) 1933	.. ..	2	13	6	28/0
August 1933	.. ..	2	11	0	26/4
September 1933	.. ..	2	7	0	24/8
October 1933	.. ..	2	3	0	22/1
November 1933	.. ..	2	6	0	23/4
December 1933	.. ..	2	5	0	22/6
January 1934	.. ..	2	1	0	21/6
February 1934	.. ..	2	3	0	21/6
March 1934	.. ..	2	0	9	21/0

NOTE.—Rs. 1-12-0 in the market Punjab canal colonies (Toba Tek Singh) correspond to about 26s. 8d. per quarter in London with a reduced railway freight of 0-6-4 as in 1930. The reduced freight from Lyallpur was approximately 0-7-0 per maund and Lyallpur f. o. r. rates are about 0-2-0 per maund above market rates, so that 1-13-4 at Lyallpur is equivalent to about 26s. 8d. per quarter in London.

Indian wheat prices at present are far above export parity.

4. *Increases in the area under wheat.*—The total area under wheat in the world (excluding China and Turkey) during recent years has been as follows :—

		(Area in millions of acres.)							
		1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.
Total world	.. ..	311.0	310.4	312.0	331.2	333.0	331.5	318.1	..
Total British Empire	.. ..	70.2	73.9	74.4	77.8	76.6	80.2	77.6	..
Canada	.. ..	22.5	24.1	25.2	24.9	26.2	27.2	26.0	..
Australia	.. ..	12.3	14.8	15.0	18.2	14.5	15.6	14.5	..
India	.. ..	32.2	32.0	31.3	31.6	32.2	33.7	33.0	34.5

(Table prepared by Empire Marketing Board, 1933 supplemented but not revised.)

(b) Revised.

Following a sudden increase of about 7 per cent. in 1929 the area has been practically steady with the prospects of a somewhat smaller area in 1934. Taken province by province, the changes in the principal wheat growing tracts in India have been as follows :—

Area under wheat in India.

Province.	(In '000 acres.)										1932-33 (Final forecast).	1933-34 (Second forecast).
	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.		
Punjab (including States)	10,899	11,013	10,924	10,683	10,626	10,304	11,299	11,321	10,641	10,392	9,927 Previous year 2nd forecast	10,769 9,477
United Provinces (including States).	7,085	7,283	7,472	6,991	6,831	7,588	7,218	7,298	7,731	7,864	7,789 Previous year 2nd forecast	8,040 7,941
Central Provinces and Berar	3,008	3,277	3,307	3,524	3,734	3,664	3,184	2,983	3,098	3,513	3,451 Previous year 2nd forecast	3,449 3,470
Central India States	1,739	1,970	1,921	1,852	1,942	2,006	1,861	1,805	1,944	2,189	2,068 Previous year 2nd forecast	2,131 2,141
Sind	Not available for Sind separately.			367	470	396	409	677	594	469	873 Previous year 2nd forecast	998 661
Bombay (excluding Sind)	2,028	1,563	1,958	1,134	1,332	1,479	1,649	1,373	1,691	1,845	1,654 Previous year 2nd forecast	1,800 1,646
Others	6,093	6,075	6,197	5,920	6,368	6,756	6,353	6,197	6,490	7,531	7,230 Previous year 2nd forecast	7,316 7,050
GRAND TOTAL	30,852	31,181	31,779	30,471	31,303	32,193	31,973	31,654	32,189	33,803	32,992	34,503
											Previous year 2nd forecast	32,386

Save for the increase in Sind due to the coming into operation of the Lloyd Barrage canals, there are no important increases, the areas being those normally associated with a favourable sowing season.

5. *Present prospects.*—The wheat agreement 1933 might have been expected to lead to a recovery in prices since the estimated carry over in August 1934 though large, is less unwieldy than that of 1933. World wheat prices, however, have steadily sagged since July 1933. Recently the U. S. S. R. has resumed the publication of its crop estimates and wheat production for 1933 was estimated at 1,019 million bushels compared to 744 million in 1932 and 989 million in 1930 when Russia exported 113 million bushels. This estimate has not affected the market as Russia only asked the Wheat Conference for an export quota of 70—80 million bushels and the provisional allotment under the agreement would appear to be 44 million for U. S. S. R. and exporters other than the big four and the Danubian countries. Sowings for the 1934 crop are still in progress. The winter wheat area in America is 4 per cent. (1.7 million acres) below 1933 and the International Institute estimates a reduction of 2 million acres in Europe ; these reductions are counterbalanced by similar increases in Russia (1.7) and India (2.2). The winter has been unfavourable and it is estimated that in Europe and North America 7-8 million acres of wheat have been lost. The shortage may largely be made up by larger spring sowings. The current Australian crop is considerably smaller than in any year since 1930. The current Argentine crop is likely to turn out 19 million bushels above the earlier estimate. There are therefore no indications of a rise in price or increased demand from Europe in the near future though conditions are slowly improving. The present quotation for freight on wheat Karachi to London is 21 shillings per ton but even taking the low figure of 15 shillings adopted in the Dale Green Fatehuddin report, 21 shillings per quarter the present price of wheat in London means only Re. 1-4-0 per maund at Karachi railway station. This means that even with reduced freights, the nearest Punjab stations could not expect Re. 1 per maund of wheat for export—a price far below the lowest figures of 1931. New wheat is now being quoted at Re. 1-12-0 in Amritsar and Re. 1-14-0 at Hapur. The current Karachi quotation is Rs. 19-12-0 per candy (Rs. 2-7-6 per maund) spot, Rs. 18-13-0 (Rs. 2-5-8 per maund) May delivery and Rs. 18-9-9 (Rs. 2-5-3 per maund) July delivery. The new crop* promises to be a large one and may again reach 10½ million tons but it seems unlikely that prices will fall to export parity.

*The first quantitative estimate by the Director-General of Commercial Intelligence and Statistics is not due until April 20th.

APPENDIX H.

Memorandum on Indian Rice Position.

(Prepared by Imperial Council of Agricultural Research.)

The principal characteristic of the world rice situation is that most importing countries in the far East—(Malaya, Ceylon and the Dutch East Indies, as well as Japan) are aiming at becoming less dependent on foreign sources of supply. This is inevitable—apart from any spirit of economic nationalism, the inadequate demand for and the forced restriction in production of, such plantation products as rubber, tea, sugar, coconuts and the heavy fall in prices has compelled such countries to grow more foodstuffs and this tendency will probably grow for some years to come. The result is that the three great rice-exporting countries—Burma, Indo-China and Siam—find it more difficult to sell their surplus. Japan is already practically self-supporting in regard to rice—except in abnormal years. The production of the three principal exporting countries for the last five years is shown in the following table:—

Production of rough rice in tons 000 (metric) International Institute of Agriculture.

—	Average 1923-24 to 1927-28 inclusive.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34 Provi- sional.
Burma ..	7,503	7,658	7,802	8,047	8,544	7,657	8,125
Indo-China ..	5,830	5,748	5,938	5,980	5,613	5,977	..
Siam	4,702	3,913	3,906	4,865	4,101	4,429	4,800

There is no indication of any abnormal increase in production by our competitors.

2. The situation has been made slightly worse by the increasing competition with Spain and Italy in the European market but the following table of Indian (including Burma) exports for the last five years and the International Institute figures for nett imports of rice for the principal importing countries shown below, clearly prove that it is the Eastern market which is of greatest importance—

TABLE II.

Exports of rice not in the husk (tons 000) from India including Burma (approximate).

To	1932-33.	1931-32.	1930-31.	1929-30.	April to January 1933— 10 months.
United Kingdom	(a) 194	51	58	40	(a) 153
Continent of Europe (prin- cipal countries).	285	572	389	499	205

(a) Subject to correction for consignments shipped 'to order'.

Exports of rice not in the husk (tons 000) from India including Burma (approximate)—*contd.*

To	1932-33.	1931-32.	1930-31.	1929-30.	April to January 1933— 10 months.
Aden, Arabia, etc. ..	70	67	80	89	55
Egypt	53	86	22	45	24
Ceylon	394	410	444	426	341
Strait Settlements and Hong Kong.	165	233	265	262	184
Malaya	48	63	72	69	34
Sumatra	62	96	129	134	60
Java	18	63	51	155	4
China	262	417	467	226	161
Japan and Korea ..	74	..	1	58	..
Total East ..	1,146	1,435	1,531	1,464	863
Africa	53	57	161	63	45
Mauritius	52	51	50	62	42
Cuba	39	70	92	88	41
West Indies	17	21	16	28	16
Others	42	44	83	154	22
Total ..	1,828	2,301	2,254	2,296	1,267
Paddy total ..	59	70	25	28	7
Total rice and paddy ..	1,887	2,371	2,279	2,326	1,274

TABLE III.

Nett imports of rice of principal importing countries.

(Metric tons '000).

	1928.	1929.	1930.	1931.	1932.	1933.
Europe including United Kingdom.	820	722	617	1,026	1,033	1,274
Russia	56	46	57	48	} Not yet received.	
North and Central America.	188	149	189	189		
South America ..	170	169	130	52		
Africa	225	210	240	253		
Australia	58	61	58	52		
<i>Asiatic importing countries.</i>						
Borneo and Sarawak..	46	41	41	33	..	..
Ceylon	509	512	489	461	452	463
China	763	652	1,201	647	1,204	1,260
Dutch East Indies (including Java).	560	725	622	594	105	184
Japan	225	179	123	(-64)	131	150
British Malaya ..	536	561	601	524	(Return not received.)	
Total nett imports of principal Asiatic importing countries.	2,639	2,670	3,077	2,195		

3. The European market is of considerable importance however and here the position is that Italy is becoming steadily more important as an exporter of rice. During the 10 months ending October 1933, Italy's nett exports of rice amounted to 3.2 million centals (say 142,000 tons) as compared to 2½ million centals in each of the corresponding periods of 1932 and 1931. But as the nett imports of European importing countries for the same period were approximately 22½ million centals in 1933 as compared to 18 million centals in 1932 and 23 million centals in 1931, the increase in Italian exports is of only moderate importance. A point which is receiving careful attention (by Commerce Department and by the Indian Trade Commissioner, Hamburg) is the effect of the German maize monopoly, and the connected control operations, on German imports from India and the possibility that Italy has been specially favoured by round-about-methods. In the United Kingdom, the position is satisfactory. The Ottawa preference has

led to increased takings of both Burma and Bengal rices. Both the Burma and Bengal Departments of Agriculture are alive to the need for developing types better suited to the English and Continental markets and considerable technical progress has already been made.

4. The present position was summarised in February by the International Institute of Agriculture as follows :—

The exportable surplus from the 1933-34 Burma crop was estimated at 7,168 million lbs. compared to 7,728 million lbs. last year but this is raised to 8,500 million lbs. by the estimated carry over. The Indo-China exportable surplus allowing for carry over is not at 2,760 million lbs. as compared to 2,464 million lbs. last year, the carry over being 70 million lbs. The Siam exportable surplus including carry over is put at 3,864 million lbs. as compared to 3,942 million lbs. last year. Making allowance for carry over, the combined exportable surplus of the three large exporting countries is roundly 15,000 million lbs. compared to roundly 14,500 in 1932-33, an increase of 500 million lbs. or say 223,000 tons.

5. One important customer, Japan, with the help of her dependencies, has become practically self-supporting in rice and indeed has a surplus at present. In Japan rice, supplies are completely controlled and under the new Rice Control Law of 1933, imports into Japan proper from Korea and Formosa have also been brought under control, whilst owing to the large accumulated surplus in Japan (which on 1st September was 789 millions lbs. larger than last year) a ten per cent. reduction in the rice area in Japan-Formosa and Korea is proposed for 1934-35. Special efforts are also being made to encourage other crops in Korea. Not only has Japan ceased to take any important quantities of rice from India, except in years of crop failure, but her purchases from Siam—a country which has hitherto enjoyed a treaty preference—are also being heavily reduced thus increasing the competition with Burma rice in other markets.

Indian rice statistics.—The position may be summarised as follows :—

Total production of rice in India and Burma has fallen off since 1931-32 but both the area and estimated productive are distinctly above the average for the 5 years ending 1927-28. It is not improbable that the estimates of yield are below the truth because of the spread of higher yielding types. India proper produces less rice than she consumes and imports on an average nearly a million tons per annum from Burma which is partly offset by exports of ' quality ' rices mainly from Bengal and Madras to the extent of about 200,000 tons per annum. Imports of rice into India, at least until very recently, have been nominal but since October have shown a tendency to increase and from January 1st to March 15th 46,656 tons of rice from Siam and Indo-China, mostly broken white rice, has been imported at Madras ports. At the instance of the Government of India, His Majesty's Government have made diplomatic representations suggesting that such exports to India should cease or at least be limited to normal quantities. Generally speaking, the fall in rice prices has been rather slower than that of some other food grains and took place later in some provinces than in others. There is however great difficulty in getting representative and comparable figures for the prices realised by cultivators for their paddy.

As regards the export duty, it will be observed that the other two large exporting countries, Siam and Indo-China, have export duties of comparable magnitude though differently assessed, the rates on whiterice in December 1933 being :—

						Per maund.	
						As.	pies.
India	..	..	..	..	..	2	2
Siam	..	..	..	..	..	2	2
Indo-China white Cargo rice 0-1-10 to 0-2-2	..	..	..	..	..	1	7

The development of a large export trade within the Empire, including Ceylon and Malaya is receiving the attention of the Government of India. Indian rice already enjoys a valuable and effective tariff preference of 1*d.* per lb. in the United Kingdom.

Indian Rice Statistics.

Statement I attached shows the area and production of rice in India for each of the years 1928-29 to 1932-33 and the average for the preceding quinquennium. Table (a) gives the area and table (b) the estimated production calculated as cleaned rice.

Statement II gives the exports of rice to countries overseas, from each maritime province. The province from which rice is exported is not necessarily the province of production. Statement II (a) gives the approximate net exports of rice from the principal exporting countries.

Statement III (a) shows the details of coastal movements of rice by sea so far as available. Unfortunately the returns for provinces other than Burma have been discontinued since 1930-31. The Burma statistics show the quantities of rice despatched to each maritime province in India. Statement III (b) gives figures of rice imported into India from foreign countries.

Statement IV shows the prices of rice in India per Imperial Maund at a number of centres over a period of years. The harvest time prices are taken from provincial season and crop reports ; but as these are available for most provinces only up to 1931-32, November prices for 1932 and 1933 have been added from the provincial gazettes. The prices have been given for certain commercial types, *viz.*, Rangoon Big Mills Specials and Bengal Ballam. No corresponding commercial price for Madras rice is obtainable but Bangalors wholesale quotations have been added for the last three years. For convenience of comparison all prices have also been stated as a percentage of the 1928-29 price. It will be noticed that the fall in the price of all food grains is of a similar character but that the prices of rice in Madras have fallen latest of all. Punjab wheat, for example, had reached 40 per cent. of the 1928-29 price by the harvest time of 1930-31. Bombay millet reached a similar level in the following year. Burma harvest time paddy prices had reached 40 per cent. of the 1928-29 price by 1930-31 since when there has been an improvement. The price of Midnapore rice reached 44 per cent. in 1931-32.

Consumption in each province and exportable surplus.—Unfortunately it is quite impossible to calculate these figures. No consumption statistics

are maintained in India so that the consumption of rice in a province can only be estimated by deducting ascertained exports from established production *plus* ascertained imports. Since the rail-borne trade returns were suspended in 1920-21, it has been impossible to calculate the internal supply position. The returns have been restored this year but it will not be until 12 months from now that complete figures will be available and it will then be some time before they will be of much use for comparative purposes.

Inter-provincial trade.—For the same reason the inter-provincial movements of rice cannot be presented. A special enquiry has been made from the Hyderabad State asking if figures are available for the imports of rice into the Nizam's Dominions during the last five years.

Freight.—Statement V gives information about freight on rice (*a*) from Rangoon to Madras and Calicut and (*b*) from rice-producing districts in the Godaviri and Kistna delta and from Tanjore and Coimbatore to the same ports. Enquiries made from the B. N. Railway and M. S. & M. Railway, show that since the beginning of 1933 reductions in railway freight have been made and have had the effect of stimulating internal rice traffic from the producing areas both in Orissa and Madras.

Statement VI gives the rates of export duty on rice in India, Siam and Indo-China.

Statement VII which is taken from the 1931 census report gives, for each province, figures of agricultural labourers including their working dependants. For ready comparison, corresponding figures of cultivating owners and tenant cultivators are shown alongside.

STATEMENT I(a)
Area and Yield of Rice.

(Taken from 'Estimates of Area and Yield of Principal Crops in India.')

Area (in thousand acres).

Provinces and States.	Average for five years ending 1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34 (forecast).
Assam	4,434	4,963	4,230	4,652	4,587	4,548	4,340
Bengal	20,175	21,403	20,225	20,582	22,128	21,771	21,667
Bihar and Orissa	14,069	14,952	14,229	13,927	14,092	13,073	13,223
Bombay (including Sind)	3,079	3,192	3,171	3,261	3,159	3,271	3,217
						(including Indian States).	
Burma	12,208	12,709	12,861	13,022	12,517	12,683	12,851
Central Provinces and Berar	5,246	5,445	5,480	5,541	5,527	5,545	5,636
Coorg	83	83	83	82	83	84	84
Madras	10,896	11,019	11,262	11,678	11,538	11,582	11,576
United Provinces	7,234	7,024	6,814	6,722	6,555	6,165	5,951
Total British Provinces ..	77,424	80,130	78,355	79,467	80,186	78,722	..
Baroda	201	201	192	212	232	226	225
Bombay States	401	419	414	435	464	..	..
Central Provinces States	735	754	374	1,251	1,491	1,460	1,250
Hyderabad	701	992	507	685	1,100	865	1,110
Mysore	693	707	721	743	730	753	763
United Provinces State (Rampur)	63	72	59	53	57	47	52
Total Indian States ..	2,794	3,145	2,267	3,379	4,074	3,351	..
GRAND TOTAL ..	80,218	83,275	80,622	82,846	84,260	*82,073	81,977

* Revised 82,661.

STATEMENT I (b).
Area and Yield of Rice.

(Taken from 'Estimates of Area and Yield of Principal Crops in India.')

Yield (in thousand tons).

Provinces and States.	Average for five years ending 1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34 (forecast).
Assam	1,487	1,677	1,346	1,366	1,585	1,623	1,294
Bengal	7,457	9,684	8,202	9,208	9,492	9,322	8,646
Bihar and Orissa	4,995	5,588	6,011	5,615	5,739	4,201	4,292
Bombay (including Sind)	1,322	1,459	1,283	1,410	1,427	1,557	1,475
Burma	4,795	4,854	4,983	5,143	4,184	4,908	5,185
Central Provinces and Berar	1,478	1,466	1,787	1,404	1,772	1,625	1,653
Coorg	40	40	53	53	54	55	54
Madras	4,917	5,197	5,255	5,376	5,385	5,237	5,090
United Provinces	2,183	1,104	1,523	1,704	1,989	1,323	1,728
Total British Provinces	28,674	31,109	30,446	31,277	31,627	..	..
Baroda	39	60	33	46	62	63	65
Bombay States	176	182	175	187	233	..	..
Central Provinces States	226	181	122	278	453	349	331
Hyderabad	276	403	151	173	389	252	299
Mysore	177	204	210	227	218	236	225
United Provinces States (Rampur)	11	6	5	5	6	4	9
GRAND TOTAL	99,579	1,036	636	921	..	..	..
GRAND TOTAL	29,579	32,145	31,132	32,198	32,988	*30,655	30,353

* Revised 31,080.

62

STATEMENT II (a).

Exports of Rice (not in the husk) to Foreign Countries by Maritime Provinces and total (in tons).

Share of	Average for five years ending 1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average (1928-29 to 1932-33).
Bengal	162,000	106,897	120,040	118,886	123,185	122,956 (*includes rice in husk also).	118,000
Bihar and Orissa	91	163	92	259	50	..	111
Bombay	19,000	16,875	16,393	13,897	13,342	11,833	14,000
Sind	42,000	50,345	42,862	43,638	37,848	28,429	40,000
Madras	81,000	98,974	93,852	101,711	61,176	66,922	85,000
Burma	1,936,000	1,492,098	2,024,990	1,975,393	2,065,815	1,657,002	1,843,000
Total	2,240,091	1,765,352	2,298,229	2,253,784	2,301,415	1,887,142	2,100,000 (to nearest thousands).

STATEMENT II (b).

Exports of Indian Rice (not in the husk) showing Foreign Countries.

(In tons.)

To	Average of 5 years ending 1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	Average of 5 years ending 1932-33.
United Kingdom	73,151	35,537	57,876	57,876	50,825	*193,594	79,142
Germany	361,545	207,870	270,321	162,238	261,906	152,802	211,127
Netherlands	88,598	75,634	124,989	100,364	157,775	53,766	102,504
Ceylon	416,867	417,149	426,345	444,237	409,869	394,314	418,383
Straits Settlements	205,809	175,857	229,057	265,335	232,786	165,303	213,668
Sumatra	65,661	112,080	134,291	129,307	95,843	62,491	106,802
China	125,893	61,723	280,049	467,246	416,829	261,670	293,503
Japan	181,692	7,594	3,709	958	405	74,061	17,365
Cuba	104,116	78,466	88,371	91,892	70,173	39,043	73,589
Other countries	593,463	593,352	702,721	534,331	605,004	431,162	573,314

* Includes some shipments to order.

STATEMENT II (c).

Exports of Indian " Rice " (not in the husk).

STATEMENT
Exports of Indian
(Monthly figures for

Months.	United Kingdom.		Germany.		Netherlands.		Ceylon.		Straits Settlements.	
	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.
April . . .	7,541	34,785	32,752	31,149	10,900	3,224	28,427	23,689	9,589	14,351
May . . .	5,454	54,855	38,651	23,095	12,988	5,844	25,959	22,975	9,028	11,302
June . . .	5,279	23,002	16,770	16,113	920	6,235	41,793	43,743	15,339	17,369
July . . .	5,563	12,899	11,733	4,020	3,965	665	35,666	31,430	12,616	19,000
Aug. . . .	4,404	7,341	9,686	23,585	5,365	550	36,682	39,159	10,409	17,298
Sept. . . .	4,333	8,438	15,343	1,401	5,035	2,375	34,171	28,489	15,384	15,713
Oct. . . .	6,340	6,071	1,239	6,865	160	330	30,064	23,380	9,016	12,397
Nov. . . .	4,242	2,979	7,884	1,749	3,415	275	23,752	33,148	16,564	17,384
Total . . .	44,656	151,238	134,067	112,977	43,636	13,368	247,117	230,873	93,443	125,813
Dec. . . .	2,095	..	7,964	..	495	..	37,364	..	15,980	..
Jan. . . .	3,594	..	2,170	..	200	..	31,635	..	11,434	..
Feb. . . .	43,409	..	4,185	..	5,250	..	28,025	..	16,981	..
Mar. . . .	76,472	..	22,539	..	3,505	..	39,823	..	16,683	..

II (c).

"Rice" (not in the husk).

1932-33 and 1933-34).

Quantity in "Tons".

Samatra.		China.		Japan.		Cuba.		Other countries.		Total.	
1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.
3,399	5,939	85,480	34,196	100	1	3,350	5,030	49,549	52,938	231,437	205,297
4,879	4,489	48,791	42,928	37,300	..	7,039	4,600	47,944	48,852	239,028	229,750
4,839	6,260	18,542	57,121	83,360	100	120	5,000	45,135	45,271	162,106	220,768
5,410	7,938	13,992	7,119	3,200	1	1,640	6,755	25,454	41,405	119,241	131,197
5,452	7,105	2,543	8,220	..	..	6,837	5,602	31,872	45,144	113,250	158,604
5,948	8,954	7,074	3,239	..	..	5,740	4,955	46,688	34,174	148,616	93,731
6,058	5,703	1,517	4,154	..	1	3,880	1,520	23,443	24,839	72,302	90,710
7,294	8,117	2,415	1,246	..	101	547	5,942	28,760	26,801	99,894	102,762
43,273	49,500	180,354	159,233	73,960	204	29,153	39,434	301,245	319,469	1,200,924	1,238,114
6,734	..	10,122	..	..	..	4,748	..	23,200	..	109,222	..
895	..	2,431	..	..	..	25	..	15,295	..	67,739	..
4,739	..	15,473	..	100	..	785	..	44,738	..	173,605	..
6,800	..	33,377	..	1	..	4,332	..	72,807	..	275,730	..

STATEMENT III (d).

Approximate net exports of rice from the principal Exporting Countries.

[In thousands of Metric Tons (Calendar years).]

	Average. 1923—27.	1928.	1929.	1930.	1931.	1932.
Spain	56	59	39	57	38	40
Italy	171	186	170	208	149	152
U. S. A. (excluding ex- ports to Hawai and Porto Rico).	46	120	130	85	82	109
India	2,274	1,616	2,006	2,615	2,114	2,151
Indo-China ..	1,269	1,632	1,330	1,025	893	1,226
Siam	1,207	1,320	1,013	936	1,211	1,550

NOTE (1).—These figures are taken from the International Agricultural Statistics issued by the International Institute of Agriculture, Rome, and are not directly comparable with the Indian export statistics though comparable *inter se*.

NOTE (2)—Net imports of rice into China are	1,062	763	653	1,201	647	(not known).
--	-------	-----	-----	-------	-----	-----------------

Madras

The annual sea-borne trade returns of maritime provinces have been discontinued since 1930-31 except in case of Burma.

STATEMENT III. (a).
Coastwise Trade Returns by Maritime provinces in India.
(Rice not in husk.)

(Quantities in thousands of tons.)

Exported from	Madras (all ports).					Bengal (all ports).					Bombay (all ports).				
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Madras	34	(Not known)	..	..	..	..	..	..	..	..	..	..	..	..	..
Burma	278	346	260	434	410	537	226	146	309	131	209	280	250	300	313
Bombay .. ..	..	..	..	..	..	..	..	..	..	..	45 (Rathia-war.)	49	61	(Not known).	..
Bengal	0.7	1.1	1.1	(Not known).	..	..	..	..	..	..	6.6	5.3	5.8	(Not known)	..
Sind	0.3	1.0	10.6	(Not known).	..	..	..	..	..	..	3.8 (Goa.)	6.0	21.8	(Not known)	..
	Sind (all ports).					Total (including others).									
	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.
Madras .. ..	..	..	..	..	..	..	..	40	..	..	..	..	..	..	..
Burma .. ..	..	..	..	..	..	..	..	1066	915	814	..	..	108	940	..
Bombay .. ..	..	..	..	..	..	..	..	86	68	87	..	..	(Not known.)	..	..
Bengal	0.3	0.2	0.3	(Not known)	..	..	..	10.7	9.8	10	..	..	(Not known.)	..	..
Sind	1.5	0.9	0.9	(Not known)	..	..	..	14.4	20.8	43	..	..	(Not known.)	..	..

STATEMENT III. (b).

Imports by Sea of rice not in the husk into India from Foreign Countries.

	Tons.	
Average of 5 years ending 1927-28		16,299
1928-29		125,426
1929-30		5,635
1930-31		7,445
1931-32		17,931
1932-33		35,510
		<hr/>
Average of 5 years ending 1932-33		16,389
	1932-33	1933-34
	Tons.	Tons.
April	505	10
May	8,780	890
June	4,340	1,030
July	1,243	1,354
August	1,192	308
September	1,320	4,119
October	1,252	6,513
November	3,612	4,858
	<hr/>	<hr/>
Total	22,244	19,082
	<hr/>	<hr/>
December	4,395	5,904
January	4,572	19,628
February	3,491	
March	808	

Imports of rice from Foreign Countries into Madras ports.

1st January 1934 to March 15, 1934.

	Tons.
From Siam	30,907
Indo-China	15,492
Japan	250
Others	7
	<hr/>
	46,656
	<hr/>

STATEMENT IV.

Prices of rice in India (per Imperial maund) and prices of 'millet' in Madras, Bombay and Wheat in the Punjab.

Particulars	Pre-war price.	Average for 5 years ending 1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Remarks (Sources).	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
RICE.										
(1) Burma—										
(a) Rangoon Big Mills Special—										
For May	3 9 6.	4 15 3	4, 2 0.	4, 2 0	4 4 8	1, 11 3	2 11 0	1 12 0	Indian Trade Journal.	
Per cent. of 1928-29 price .. .. .	..	..	100.	100.	104	41	65	41	
For November	3 5 6	4 12 3.	4, 9 6.	4, 2 3	2 9 6	2 4 0.	1 15 0	2 0 0.		..
Per cent. of 1928-29 price .. .. .	..	..	100	90	56	49	42	44	
(b) Pegu harvest time price (for paddy).	(not available.)		2 15 0.	2 9 0.	1 3 0	1 14 0.	1 14 0	1 12 0.	Burma Season and Report. Crop	
Per cent. of 1928-29 price	(" ")		100	87	40	64.	64.	59		
(2) Bengal—										
(a) Bengal Ballam No. 1—										
For April	5 7 0.	7 12 0.	7 9 0.	6 6 0.	6 1 0.	4 6 0.	3 5 0.	4 3 0.	Indian Trade Journal.	
Per cent. of 1928-29 price .. .. .	..	..	100	84	80	58	44	55	
For November	5 14 0.	7 9 0.	6 14 0.	7 4 0.	6 2 0.	4 0 0.	3 5 0.	3 8 0.		
Per cent. of 1928-29 price .. .. .	..	..	100	106	89	59	49	51	
(b) Midnapur Harvest time price (winter rice).	3 13 0.	5 7 3	6 2 0.	5 0 0.	3 8 0.	2 12 0.	2 12 0.	2 18 0.	Bengal Season and report. crop	
Per cent. of 1928-29 price .. .. .	..	..	100	82	57	44	44	45	

Particulars.	Pre-war price.	Average for 5 years ending 1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	Remarks. (Sources.)
	Rs. A P	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Rice—contd.									
(3) Madras—									
(a) Bangalore market price (Delta imported).		(not available).				5 9 6	5 6 0	4 5 10	
Per cent. of 1931 price ..		(.. ..)			100	(Nov. 1931.)	(Nov. 1932.)	(Sep. 1933.)	
(b) Tanjore harvest time price ..	5 1 0	7 13 0	7 11 0	6 13 0	5 14 0	4 5 0	3 13 0	3 2 0	Madras season and crops report.
Per cent. of 1928-29 price ..	..	..	100	89	76	68	50	41	
(c) West Godavari harvest time price	5 5 0	7 8 0	6 4 0	5 14 0	3 11 0	3 14 0	3 6 0	2 10 0	
Per cent. of 1928-29 price ..	..	..	100	94	59	62	54	42	Ditto.
(4) Bombay—									
(a) Konkan harvest time price ..	..	..	6 8 9	6 9 0	5 2 0	4 1 0	3 8 0	3 4 0	Bombay season and crops report.
Per cent. of 1928-29 price ..	..	..	100	100	78	61	53	49	
(5) Bihar and Orissa—									
(a) Patna harvest time price (winter price).	..	5 15 0	6 14 0	5 14 0	3 15 0	3 15 0	3 6 0	2 15 0	Bihar and Orissa season and crop report.
Per cent. of 1928-29 price ..	..	..	100	85	57	57	49	43	
(b) Cuttack harvest time price (winter price).	..	5 0 0	4 7 0	3 6 0	2 6 0	1 15 0	2 9 0	2 9 0	
Per cent. of 1928-29 price ..	..	..	100	79	53	44	57	57	

MILLET.									
(1) Madras—									
Coinbatore harvest time price (Cholam).	3 6 0	5 15 0	5 2 0	5 4 0	3 14 0	2 8 0	2 10 0	2 5 0	Madras season and crop report.
Per cent. of 1928-29 price ..	..	..	100	102	75	49	51	45	
(2) Bombay—									
Deccan harvest time price (Jowari)	3 8 0	4 10 0	3 15 0	3 15 6	2 2 6	1 12 0	2 15 5 (Sholapur)	2 13 9 (Sholapur)	Bombay season and crop report.
Per cent. of 1928-29 price ..	..	..	100	100	54	44	75	73	
WHEAT.									
Punjab—									
Lyallpur f. o. r.—									
For May .. ..	..	..	..	4 8 0	3 5 6	1 11 0	1 15 6	2 14 0	Indian Trade Journal.
Per cent. of 1929-30 price ..	..	..	..	100	74	37	43	63	
For November .. ..	..	..	..	4 7 6	2 0 0	2 3 0	3 0 6	2 5 6	
Per cent. of 1929-30 price ..	..	..	..	100	45	49	67	52	Ditto.
Lyallpur harvest time price ..	3 18 0	5 5 0	4 0 0	3 0 0	1 10 0	1 14 0	2 0 0	1 9 0	Punjab season and crop report.
Per cent. of 1928-29 price ..	..	..	100	75	41	47	50	39	

Harvest time prices are taken from the provincial season and crop reports and November 1932 and 1933 prices from provincial gazettes.

SIAM.

Rates of export duty on rice in Siam have remained unchanged for some years past. Calculated at the current rates of exchange the approximate equivalents in Indian currency and weight in 1931 and at the beginning of December last were as follows :—

	Per standard picul.	Per maund.	
		1931.	1933.
		As. p.	As. p.
1. Paddy	12.9	1 6	1 7
2. Cargo rice	18.4	2 2	2 3
3. Cargo broken rice	9.4	1 2	1 2
4. Cargo meal	9.4	1 2	1 2
5. White rice	17.4	2 1	2 2
6. White broken rice	17.4	2 1	2 2
7. White meal	17.4	2 1	2 2

INDO-CHINA.

	1931.		1933. *	
	Per 100 Kg.	Per maund.	Ad valorem.	Per Maund.
	\$	As. p.	Per cent.	As. p.
Paddy and rice cargo containing more than 33 per cent. paddy.	0.70	4 5	8	1 8 to 2 4
Rice cargo containing less than 33 per cent. of paddy.	0.60	3 9	6.4	1 10 to 2 2
White rice	0.55	3 6	4.5	1 7
Broken rice	0.28	1 9	3.75	0 2
Rice flour	0.12	0 9	3.2	0 3

* The value being determined on the average rice prices in Saigon marked during the previous three months.

STATEMENT VII, which is taken from the 1931 census report, gives, for each province, figures of agricultural labourers including their working dependants. For ready comparison, corresponding figures of cultivating owners and tenant cultivators are shown along side.

	Agricultural labourers.		Cultivating owners.		Tenant cultivators.	
	Males.	Females.	Males.	Females.	Males.	Females.
1. Bengal	2,415,472	252,871	4,866,924	216,830	782,180	33,474
2. Bihar and Orissa	1,853,807	1,407,174	295,226	41,678	6,194,906	1,872,940
3. Bombay	1,740,042	1,236,767	779,275	93,676	1,045,153	115,279
4. Burma	1,007,363	480,967	926,910	320,926	577,548	172,168
5. Central Provinces	1,452,130	2,003,495	1,877,770	841,321	93,668	27,705
6. Punjab	539,018	58,944	1,811,594	100,549	1,580,282	546,910
7. United Provinces	1,854,296	1,524,278	1,130,151	458,246	8,752,585	3,018,170
Total	10,862,128	6,964,496	11,687,850	2,078,926	19,026,322	5,786,646
	17,826,624		13,766,776		24,812,968	

APPENDIX I

Memorandum of the United Provinces Government for the Provincial Economic Conference, 1934.

RURAL INDEBTEDNESS.

A. General Situation.

The following is a brief account of the existing credit agencies in their relation to landlords and tenants. These agencies are :—

- (1) Indigenous moneylenders,
- (2) Banks,
- (3) Co-operative credit societies,
- (4) Government.

2. *Indigenous*.*—The indigenous moneylenders have been broadly subdivided by the United Provinces Banking Enquiry Committee into the following classes :—

- (a) “ The *village bania* is always a petty tradesman with a small capital who sells goods on credit and lends money in small sums. He operates in a restricted area, rarely larger than two or three villages ”.
- (b) “ The *village mahajan's* transactions are always loans in the correct sense of the word and not credit sales. He deals in money and rarely in any kind but grain. He possesses a much larger capital than the *village bania* and operates in a definite but much larger area varying from a group of villages to a group of districts ”.
- (c) “ The *sahukar* as compared with the *village mahajan* is something of a magnate. He is essentially a city businessman operating in rural and urban areas alike. His dealings are confined mostly to land mortgages and to the financing of *village mahajans* ”.
- (d) “ The peripatetic moneylender wanders over the country seeking custom, and will deal with anybody, whether he knows him or not. Of these the most important is the *qistwala* who operates all over the province. He works on a system of equated instalments, usually known as *qist* ; a *qist* is a loan of Rs. 8 or Rs. 10 repayable in ten or twelve monthly instalments of one rupee each.” Even after allowing for expenses, principally of collection, and bad-debts, the profits of the system are large ; but it has countervailing advantages, for the debtor can obtain as much money as he wants and repay in small instalments which cause him no trouble ; whilst the loan is made to him, and the instalments collected from him, at his own door.

*Paragraph 202, United Provinces Banking Enquiry Committee Report, page 106.
M46FinD

(e) *Agriculturist moneylenders* may be landlords or well-to-do tenants. The methods of these amateur moneylenders do not differ materially from those of professional moneylenders.

3. *Banks*.—There are certain banks which have advanced large loans on the security of landed property—such as the Allahabad Bank ; Ajodhya Bank, Fyzabad ; Oudh Commercial Bank, Fyzabad ; and the Meerut Bank. The Allahabad Bank has practically a monopoly of large loans to the Court of Wards, and has lent no less than 18 lakhs between 1927 and 1930 in this way, at 6½ per cent. compound interest with half-yearly rests.

4. *Co-operative Credit Societies*.—This movement has yet reached only a fringe of the rural population. There are 5,700 credit societies in the whole province with a working capital of 1.32 crores of rupees. They usually advance loans at 15 per cent. The number of societies has been stationary for the last three or four years. It has been amply demonstrated that co-operation has not been successful in solving the problem of rural indebtedness in these provinces.

5. *Government*.—As a credit agency Government operates in a limited field by the grant of *taqavi* under the Agriculturists' Loans Act and the Land Improvement Loans Act. In normal years the budget provision for such loans averages 12½ lakhs, but in times of distress the provision is of course much larger ; for instance, in the two years 1928-29 and 1929-30 the total amount of *taqavi* distributed, almost entirely under the Agriculturists' Loans Act, amounted to 190 lakhs.*

6. *Classification of debts according to creditors*.—Agriculturist debtors may be divided into two classes according to the extent of their resources—

- (1) tenants and peasant proprietors,
- (2) big landlords.

The tenants and peasant proprietors borrow money mainly from village *banias*, peripatetic moneylenders, village *mahajans*, and amateur moneylenders ; while big landlords deal with big creditors, professional and amateur, and with banks.

According to the figures collected by the United Provinces Banking Enquiry Committee the proportion of advances made by moneylending landlords and tenants amounts respectively to 40 and 14 per cent. of the total debt of tenants and peasant proprietors.†

7. *Nature of indebtedness*.—The economic situation of the cultivator makes indebtedness inevitable. In no country in the world can agriculture entirely dispense with credit or entirely avoid debt. Agriculture is an industry and like any other industrialist, the farmer must borrow the capital he requires. Again, he must also borrow to meet his current requirements : indeed his need is greater than that of most industrialists, since he must spend money for months on end before he receives any return. But the need for borrowing is one thing, a chronic state of indebtedness

*Paragraph 143, United Provinces Banking Enquiry Committee Report, page 70.

†*Ibid* paragraph 112, page 55 and paragraph 115, page 56.

is another. It is not the borrowing of money that brings economic misery in its train, but failure to repay the money borrowed. To the cultivator repayment of debt is peculiarly difficult; and it is peculiarly difficult because so much of it is unproductive.* The most common objects of borrowing may be arranged as follows :—

- (i) *Productive, i.e.*, borrowings for the purchase of seed, manure, plough cattle and milch cattle, the payment of labourers' wages, and the building or repair of wells.
- (ii) *Unavoidable, i.e.*, (a) borrowings for the purchase of food, cloth and other domestic necessities; and (b) the payment of land revenue or rent.
- (iii) *Unproductive, i.e.*, borrowings on account of social or religious functions, litigation, or the repayment of ancestral debt.

Of the total debt of tenants and peasant proprietors as estimated by the United Provinces Banking Enquiry Committee 30 per cent. is "productive", 34 per cent. "unavoidable" and as much as 36 per cent. or more than a third is "unproductive".†

The expenditure on marriages and social or religious functions and repayment of ancestral debt, though unproductive and uneconomic, is nevertheless inevitable to a certain extent. A peasant is bound by custom—social, religious, and legal. Marriage is a religious duty which the Hindu owes not only to himself but his ancestors and descendants.‡ Large dowries or bride prices have to be paid, as under the Hindu law a daughter is not generally entitled to inheritance. Apart from marriage the occasions of borrowing are innumerable: for instance, the birth of the first child—especially if it is a son—pregnancy ceremonies, the thread ceremony, the betrothal ceremony, ornaments for the wife, periodical gifts to relatives, funeral ceremonies, and the *shradh* ceremony. As for ancestral debt, the liability of one person to debts contracted by his ancestor depends ultimately on the principle, constantly recurring in Hindu law, that legal rights are taken subject to the discharge of moral obligations. In the words of the Royal Commission on Agriculture "the people are so accustomed to be in debt, to take it over from their fathers, and to pass it on to their sons, that they accept indebtedness . . . as a natural state of life." It is a sentiment which it is difficult to condemn, and which, whether deserving of condemnation or not, yet in the circumstances of Hindu family life will pass away neither easily nor quickly. §

The causes of indebtedness amongst Muslims are different. His standard of living is infinitely more expensive than that of the Hindu, and always up to, if not beyond, his means. || He is ready to pay the most usurious rates of interest, and rapidly falls into debt from which he finds it almost impossible to extricate himself.

* *The Caste System of Northern India* by Blunt, page 256.

† United Provinces Banking Enquiry Committee Report, page 84.

‡ *The Caste System of Northern India* by Blunt, page 257.

§ *Ibid* page 262.

|| *Ibid* page 266.

8. *Rates of interest.*—An enquiry made in January 1932 in district Sitapur regarding the rates of interest charged from tenants, in respect of loans which would be mostly unsecured, are as follows :—

- (i) 12 per cent. per annum in 11 per cent. of debts.
- (ii) 18 per cent. per annum in 7 per cent. of debts.
- (iii) 24 per cent. per annum in 70 per cent. of debts.
- (iv) 37½ per cent. per annum in 11 per cent. of debts.
- (v) Over 37½ per cent. per annum in 1 per cent. of debts.

In a number of cases, which have been collected mostly from court records, the rates of interest, generally compound with six-monthly rests, are as follows :—

- (1) In 23 cases, 5 to 8½ per cent.
- (2) In 14 cases, 9 to 11 per cent.
- (3) In 26 cases, 12 per cent.
- (4) In 14 cases, 13½ to 18 per cent.
- (5) In 23 cases, 24 per cent.
- (6) In 2 cases, 37½ per cent.

102

It is not known which of the loans concerned were secured, and which unsecured, though *prima facie* the lower rates relate to secured loans. The usual rate of interest charged by two mufassil banks on unsecured loans of large amounts is 11 to 12 per cent. and on secured loans 7 to 11 per cent., in both cases compound with half-yearly rests.

The most common rate of interest on small unsecured loans taken by tenants is 24 per cent. and in some cases it goes up to 37½ per cent. and even more. The United Provinces Banking Enquiry Committee in paragraph 432 of its report says that the ordinary rate varies from 7½ to 12 per cent. on pronotes, and on mortgages of landed and house property, but is most commonly 9 per cent. Even if the interest is simple, a loan doubles itself at 37½ per cent. in just under three years and at 24 per cent. in just over four years. Compound interest at 9 per cent. with yearly rests, becomes equal to the principal in under nine years, and if the rests are half-yearly, as they usually are, in a year less. It is manifest that the usual rates are usurious.

9. *Extent of indebtedness.*—The total amount of debts estimated by the United Provinces Banking Enquiry Committee in 1930 comes to 124 crores, of which 11 crores* was in grain and 113 crores in cash :—

		Crores.
		Rs.
(i) Tenants and peasant proprietors	.. ..	34
(ii) Landlords—		
(a) Mortgage debts	.. ..	70
(b) Other debts	.. ..	20
Total		124‡

*United Provinces Banking Enquiry Committee Report, page 123.

‡*Ibid* page 149.

The total debt is financed by active capital of 64 crores, to which must be added permanently invested capital of 70 crores. Of the total debt, 35 per cent. was classed as short term and 65 per cent. as intermediate and long term*. According to the figures collected by the Committee—

- (a) Forty-six per cent. of the tenants and peasant proprietors are debt-free, while 32 per cent. are heavily indebted (*i.e.*, to the extent of over two years' rent)†.
- (b) Fifty-five per cent. of all classes of landlords are indebted.‡

10. The figures quoted show that even in good times, the burden of debt has always weighed heavily on the agriculturist. And it has been only enhanced by the rigidity of the judicial system. The judiciary is not, and never has been, conscious of the needs and condition of the cultivator, as is shown (*e.g.*), by the general reluctance to allow instalments for repayment (though this is allowable under the Code of Civil Procedure), or to apply the Usurious Loans Act, even when the rate is 37½ per cent. It is freely alleged that a civil court always supports the creditor; one well known judge described the small cause court as merely a debt collecting agency. It is not the law that is unduly severe, but the administration of it.

B. Present Situation.

11. Since January 1930, the economic situation has become worse as a result of the slump in prices. The principal points in it can be summarized thus :

- (1) There has been a catastrophic fall in the prices of agricultural produce.
- (2) The fall in wages, price of cattle, and non-agricultural products is less than that in the price of food-grains.
- (3) For the past four years the cultivator has suffered a series of other agricultural calamities. There has not been a single crop out of the last ten in which it has not been necessary to give remissions on account of crop damage, and on at least five occasions the damage has been considerable.
- (4) The old hoards of silver are beginning to be depleted.
- (5) Credit has become tighter.
- (6) The load of debt has increased, both as the result of fresh borrowings to meet current requirements, and of reduced repayments of previous borrowings.

On the other hand :

- (1) There has been no decrease in the cultivated area.
- (2) The distress is not yet so acute as to lead to large alienations of ornaments at *any price*.
- (3) The cultivator has improved the quality and therefore the value of his crop by using improved seeds, especially in respect of

*United Provinces Banking Enquiry Committee Report, page 86.

†*Ibid* page 101.

‡*Ibid* page 102.

wheat and sugarcane. The area of sugarcane, the most lucrative crop grown in these provinces, has also greatly increased.

- (4) There has been a decline in the number of suits for arrears of rent, and a marked fall in the number of relinquishments in 1931-32, as compared with the previous year.
- (5) The arrears of rent and canal dues have been collected with greater facility in 1932-33 than in 1931-32 : and in 1931-32 than in 1930-31.

In short, the cultivator, though hard hit, has stood up to his difficulties and done his best to meet them.

12. The extent of the damage done by the slump in prices can be gauged from the following figures. In connexion with Government's scheme for adjusting remission of rent and revenue to fluctuations in prices, the province has been divided into zones according to the relative importance of the crops grown in each zone. The price indices in various years for a few zones of the province are given below :

Zone.		1901—05.	1929-30.	1931-32.	1932-33.
(1) Cane and rice important	..	100	199	121	120
(2) Neither cane, rice, nor cotton important	-- --	100	181	106	120
(3) Rice important	.. ..	109	190	114	119

After allowing for the greater fall in the price of the goods which the agriculturist sells than in the price of the goods which he buys, there is no material exaggeration in the statement, so often made, that the purchasing power of the agriculturist has decreased by 50 per cent.

13. The landlord has also special difficulties of his own. His revenue, no doubt, has been reduced below the level of 1901 by remission, whereas his rents, though reduced, are still above that level. But he has been unable to collect the whole of the reduced rents, *e.g.*, in Court of Wards estates, which serve as a good index of the state of affairs in the province generally, collections were only 90 per cent. of the reduced demand. Meantime, he has to maintain a higher standard of living than the ordinary tenant and cannot suddenly readjust it ; and having land to offer as security, is tempted to borrow money beyond his means.

14. The burden of debt on landlords and tenants has now become well nigh intolerable. The loans borrowed prior to 1930 have become onerous owing to the slump in prices. The income of both has decreased considerably owing to circumstances over which they have no control, and it is impossible for them to meet all their obligations in full. Taken as a class, the agriculturist is on the verge of bankruptcy. If the present situation continues, the inevitable result will be the transfer of large areas of land at low prices from the agriculturist to the moneylender : and it is impossible for Government to watch such an event with indifference, since it would lead to a social revolution disturbing to the whole countryside.

Remedial Measures.

15. The United Provinces Government has worked out a scheme of remedial measures in the shape of a series of Bills designed to deal with agricultural debt. Before describing these, however, some brief comments are offered on certain types of remedy which for various reasons the United Provinces Government has not adopted.

16. *Debt conciliation schemes.*—The central feature of a conciliation scheme is the composition of debt by mutual compromise. If no compromise can be arranged, then the whole proceeding comes to an end. It is unlikely that of all possible disputes, more than two-fifths can be settled by compromise, and the remaining three-fifths will have to go without relief. In present circumstances no conciliation scheme can be effective by itself.

17. *Should reduced debts be taken over by co-operative credit societies, or by land mortgage banks, or by Government.*—As has already been stated, the number of co-operative societies is small, and has only touched a fringe of the rural population. The principal reason for the failure of co-operation in the United Provinces, whether it be directed to improving credit facilities or means of production and living, is the impossibility of inducing persons with widely divergent interests, or possessing widely divergent social status, to combine in one society. The growth of co-operative mentality has been very slow. Apart from this general difficulty, however, an important obstacle to the development of co-operation at the present time is the lack of suitable staff, which must needs be trained before it can render effective assistance. The crisis is imminent, and there is no time to waste in preliminaries of this kind.

For a similar reason the establishment of land mortgage banks is out of the question at the present moment. Such banks do not exist, and it would take time to establish them. Here again, prompt action is necessary, and there is no time to waste in the establishment of such banks. Further, their utility would be limited to those who have land to mortgage, and whose liabilities are not already excessive, but in existing circumstances this is actually the class which needs relief least. They could do little to help in clearing debt *at existing rates*, for it constitutes too heavy a burden *at present prices*. In any case, they would be useless in the case of tenants since their rights are non-transferable.

It follows, therefore, that Government and Government only, can render effective assistance to debtors.

18. *Rural Insolvency Act.*—Agricultural debtors are unable to avail themselves of the complex machinery of the present insolvency law, which is primarily designed for mercantile cases. The Royal Commission on Agriculture therefore recommended (at page 441 of the Report) that the case for a simple Insolvency Act should be considered in every province. In their own words "the main objects of such a measure would be to relieve the debtor of what he cannot pay, whilst insisting on his paying the utmost he can within a reasonable time. When a man's debts are such that the usufruct, for fifteen years, of the land not absolutely essential for maintenance is insufficient to meet them, the balance is obviously irrecoverable and he is, therefore, a fit subject for insolvency law". The Indian Central Banking Enquiry Committee in paragraph 93 of its report

agrees with these recommendations and says that "there should be a general provision in the Rural Insolvency Act for enforcing a scheme of composition before an order of adjudication is made". It is obvious that the Rural Insolvency Act is required for those who are heavily indebted, i.e., those whose debts are more than fifteen times the net profits; and that it implies extensive sales of land. But apart from the general consideration that the Government of an agricultural province, such as the United Provinces, could not watch without concern large transfers of land from agriculturists to non-agriculturists, and the consequent relegation of many persons in the higher ranks of the rural hierarchy to its lower ranks—landlords to tenants, tenants to labourers—there remains the practical difficulty that at the present moment land values have fallen so greatly that sales of land, even on the most restricted scale, could only be carried out at a serious loss to the debtors concerned, if they could be carried out at all. It is to be remembered that both the Royal Commission on Agriculture, and the Banking Enquiry Committee were writing at a time before the present slump in prices and land values began, and that though their conclusions are doubtless sound generally, they are not suitable to present circumstances.

19. *Should remedies be general or restricted.*—The only effective method of relieving the existing burden of debt is to scale it down. This can only be carried out by legislation, and involves a compulsory breaking of existing contracts. It is obvious that a process of this kind cannot be generally applied, but must be restricted within the narrowest possible limits.

Further, if Government is to compel the breaking of contracts by legislation, it must also, in common fairness to the creditor, insist on the immediate repayment of the reduced debt. This also means that the application of this remedy must be restricted, for no Government could possibly undertake to finance the repayment of all debt whatsoever.

There is, moreover, no need why Government should undertake a wholesale scaling down of debts. The United Provinces Banking Enquiry Committee, writing before the slump, estimated that 46 per cent. of tenants were free from debt, and 12 per cent. who owed not more than a sum equivalent to one year's rent were not seriously encumbered. They put the percentage of debt-free landlords at 45. The situation has grown worse since the beginning of 1930, and the number of agriculturists who are free from debt, or solvent, must now be considerably smaller than it used to be; but even yet there are undoubtedly many who need no relief of any kind.

Again, there are many whose debts are so heavy that no reasonable amount of scaling down would suffice to save them. In such cases it is useless for Government to interfere.

It is unnecessary to consider short-term debt at all, i.e., debt of the type which is raised at seed-time, and repaid from the ensuing harvest. It is, of course, true that the cultivator has been unable to repay debt of this kind as fully and as regularly as of old, and that a considerable amount of debt, originally short-term, has by failure to repay now become merged in long-term debt. Generally speaking, however, all that is necessary in respect of this debt is to give the tenant by law rather

more grace than he is usually given, or indeed requires. In fact, the scaling down of debt is necessary only in respect of—

- (a) intermediate or long-term debt ;
- (b) those agriculturists who, though at present heavily encumbered, can be restored to solvency after their debts are reduced.

20. *Nature and duration of remedial measures.*—It is necessary to devise remedial measures to deal with—

- (1) *The pressure of existing debt.*—This belongs to the past and the remedy can only be applied once.
- (2) *The additional pressure caused by the slump in prices.*—This is a temporary phase and the remedy should be temporary. The slump, no doubt may continue for a considerable time ; but if relief can be given now, sufficient to tide over its immediate effects, the relations between creditor and debtor should readjust themselves.
- (3) *The usurious practices and the unsatisfactory condition of agricultural borrowing.*—This is a permanent disease requiring permanent cure, and the remedy can only be applied for the future.

As regards (1) the only possible method of relieving the burden is to scale down debt and to see that it is repaid. This is covered by—

- (1) the Encumbered Estates Bill

and

- (2) the Temporary Regulation of Execution Bill.

The Encumbered Estates Bill applies only to big landlords ; while the Temporary Regulation of Execution Bill is intended for small landlords and for all tenants, providing for a scaling down of debt according to a simple procedure.

The permanent measures for the prevention of usury and the regulation of the practices of money-lenders are contained in the Agriculturists' Relief Bill.

The temporary remedies which are required for the slump period can be linked with those devised for the past and the future. Suitable relief by fixing special rates of interest for the slump period will be provided by the Encumbered Estates Bill on the one hand in respect of debts covered by it, and by the Agriculturists' Relief Bill on the other in respect of other debts. The Regulation of Sales Bill provides for the apportionment, between creditor and debtor, of the loss caused by the fall in land values, in cases in which agricultural land is to be sold during the slump period in execution of civil court decrees passed in respect of a loan taken before the passing of the Act.

21. *Encumbered Estates Bill.*—The principal features of the Encumbered Estates Bill are these :

- (1) A debtor must apply within a specified time for protection under the Bill. He must be a landlord who pays more than Rs. 300 land revenue and whose total debts exceed three times the annual net profits.

- (2) When the debtor does apply, all his debts, decreed or un-decreed, are examined by a special judge. The amount of interest is calculated—
- (a) according to the contractual rate ;
 - (b) according to the rates scheduled in the Bill.

There are two sets of scheduled rates : one is applied in calculation to so much of the loan transaction as falls in the pre-slump period, and the other to so much of it as falls in the slump period (i.e., after January 1, 1930). These rates are such as are regarded as fair or reasonable for the two periods respectively.

- (3) The results of these calculations are then compared. If on January 1, 1930 the sum due in the contractual account is less than the sum due in the scheduled account, the special judge takes the former figure and calculates interest for the slump period at the rates prescribed therefor. Where the sum in the scheduled account is less than that in the contractual account, two-fifths of the difference between the two sums is added to the scheduled total and the resultant figure is awarded as the amount due. The effect of this scheme of calculation is to relieve the debtor of three-fifths of the amount by which the interest due at the contract rate exceeds the interest at the scheduled (or fair) rate.
- (4) If the assets are equal to or exceed the liabilities, the special judge asks the debtor whether he is prepared to accept such of the remedies as may be selected by him (the judge), and gives him an opportunity of paying off the reduced debts. If he fails or only partially succeeds in doing so, he has to accept one or more of the following remedies, provided that thereby it is possible to liquidate in full the total amount of the award made by the special judge :—
- (i) Sale by public auction of part of the landlord's proprietary rights in land ;
 - (ii) Sale by public auction of the whole or part of the landlord's property other than the proprietary rights in land ;
 - (iii) A loan from the public treasury repayable with interest at the rate fixed for *taqavi* in equated instalments, within a term not exceeding 20 years ;
 - (iv) A mortgage to one of the creditors of three-fourths of the property for a period not exceeding 20 years ;
 - (v) Management by the Collector, provided that the land revenue of the estate is not less than Rs. 5,000 ;
 - (vi) Grant of instalments with future simple interest at a rate not exceeding 6 per cent. payable over a term not exceeding 20 years : provided that any instalment not paid at due date will be recoverable as an arrear of land revenue.
- (5) If the liabilities exceed the assets and no arrangement is possible to balance the account, or if the landlord is un-

willing to accept such of the above remedies as may be selected by the special judge, the proceedings will be quashed and the creditors will have the same rights in respect of their debts as if no action had been taken under the Bill.

The object of these provisions of the Bill is to ensure as far as possible that a debtor will not apply for relief unless he really needs it. Both the nature of the procedure itself and some of the remedies are sufficiently unpleasant to act as a deterrent except in cases of need. The procedure ensures that a debtor must state his debts in full and meet all his debtors face to face and at one time—a process which all debtors dislike. The remedies include not only the sale of some of his land but also the sale of his town-house, cars, horses, elephants, furniture, guns, and jewelry—, of everything that landlords regard as specially redounding to their *izzat*. Another remedy involves management by government for a number of years and a consequent loss of independence.

22. Temporary Regulation of Execution Bill.—The Bill is meant for landlords who pay a land revenue of Rs. 300 or less and for all tenants, and applies only to decreed debts. Being applicable to small men, it provides for a simple procedure, namely, a lump deduction of 30 per cent. from the decreed debt without any enquiry into the past history of the claim. An application for relief under the Bill must be made within a specified time, and a sum equivalent to 20 per cent. of the amount due on the date of payment under the decree must be paid within a period not exceeding 30 days. The remaining part of the reduced debt must be paid within a year. If the debtor fails to pay up the reduced amount, the decree-holder is entitled to proceed with the execution of the decree as if the provisions of the Bill had not been applied. The debtor can take *taqavi* for the repayment of debt, and will in this way be assisted by Government.

23. The Agriculturists' Relief Bill.—The Bill aims at the prevention of usury and prescribes maximum rates of interest: one set for the slump period and the other for the future. It lays down that no loan taken by an agriculturist will bear interest at a rate higher than the maximum rates. The Bill also provides for the regulation of such habits of money-lenders as are injurious to the debtor by the following methods, namely—

- (1) the fixation of easy instalments payable within a specified period ;
- (2) the right to be sued only in the district of his residence ;
- (3) the discharge of usufructuary mortgages after a specified period ;
- (4) a simplified procedure for redemption, and ejection of mortgagees ;
- (5) the regular maintenance by the creditor of correct accounts ; and
- (6) a right to sue for accounts.

Some provisions of the Bill, *viz.* nos. (2), (3) and (4) are meant only for small agriculturists, while the others are open to all landlords and tenants without limit of revenue or rent. Grain loans repayable with interest

at 25 per cent. and small *ugahi* loans not exceeding Rs. 20 (*i.e.*, loans repayable in equated monthly instalments) are exempt from the operation of the Bill. The Agriculturists' Relief Bill, as passed by the Legislative Council, took the direction of scaling down all debts without securing to the creditor, at the same time, any guarantee of repayment; and accordingly certain of its sections will have to be modified, being replaced by the more discriminating measures of the Encumbered Estates Bill and the Temporary Regulation of Execution Bill.

24. *The Usurious Loans Amendment Bill.*—The Agriculturists' Relief Bill, as it stands, regulates the practice of money-lenders out of court. The Usurious Loans Amendment Bill deals with debts in court. But there is no intrinsic difference between these two kinds of debt.

As a matter of convenience therefore the Agriculturists' Relief Bill is being altered so as to include both. And the amendment of the Usurious Loans Act, which applies to all debtors alike, will be confined to certain minor changes.

25. *The Regulation of Sales Bill.*—The Bill applies to all proprietors and underproprietors whose land is sought to be sold in execution of civil court decrees in respect of a loan taken before the passing of the Act, and who are not eligible for, or will not take, advantage of the Encumbered Estates Bill. The Collector calculates the value of the land as it stood prior to the slump in 1929, and determines an area according to that valuation which is sufficient to meet the decretal amount. The decree-holder is given the option of—

- (1) taking the land; or
- (2) postponing the sale—in which case he forfeits future interest;
- or
- (3) having the land sold and accepting in full satisfaction whatever amount may be obtained at the auction sale.

The effect of the last option will be to divide the loss resulting from immediate sale of the land between the creditor and debtor. The Bill ceases to have effect on January 1, 1936 unless the period is extended by the Local Government.

26. *Other legislative measures.*—These measures consist of:—

- (1) The Assistance of Tenants Act, 1932,
- (2) The Agriculturists' Loans Amendment Bill,
- (3) The Land Alienation Bill.

The Assistance of Tenants Act, 1932.—This Act provided for the assistance of tenants and *thekadars* in the United Provinces in respect of arrears of rent for the years 1337-F. (1929-30) and 1338-F. (1930-31), (a) by the grant of partial remission and (b) by the provision for payment in instalments. The scope of the Act was limited to the arrears of these two years and its effectiveness must by now be well-nigh exhausted.

The Agriculturists' Loans Amendment Bill.—The Bill enables Government to advance loans:—

- (a) for repayment of existing debt; and
- (b) for the purchase of rights in agricultural land.

The object of the Bill is to provide assistance from the State necessary at the present time for the relief of indebtedness ; to increase tenants' credit by the purchase of heritable but non-transferable rights in land ; and to enable landlords to secure additional assets from the proceeds of the sale of those rights.

The Land Alienation Bill.—The Bill is not a measure of relief against the existing burden of debt but is intended to serve much the same purpose as a Settled Estates Act. It will protect half of the ancestral property. A landlord is free to dispose of the other half in any manner he likes, but cannot transfer the protected area without the Collector's sanction. The Bill will have the effect of (a) saving a part of a landlord's estate, and (b) restricting his credit without altogether destroying it. The main object of the Land Alienation Act in force in other parts of the country is to restrict the transfer of agricultural land from the agricultural to the non-agricultural classes. The restrictions imposed under the Bill will be general in respect of the protected area, and will not operate to the prejudice of any particular caste or class.

Financing of Cultivation.

27. There is no great or urgent need for improving ordinary credit facilities for financing cultivation, because the cultivator can generally get, even to-day, the small sums of money that he requires for this purpose. It is his credit in respect of loans for unproductive purposes that has become restricted by present circumstances. The improvement of marketing, stapling and warehousing is certainly desirable. The cultivator is put at present to a number of unnecessary charges when he takes his produce to market, and these can be eliminated or reduced in regulated markets. Such matters will be taken up after the marketing expert has been appointed by the Imperial Council of Agricultural Research. He will study the various problems and will guide the province as to what measures should be adopted. As regards warehouses, the initial expense of starting them is high and the provincial Government is not at present in a position to find money for this object. It is suggested that the Government of India might assist by establishing warehouses as an experimental measure at certain selected railway centres.

Financing of Permanent Improvements.

28. Permanent improvements in land can be effected—

- (1) by tenants, or
- (2) by landlords, or
- (3) by the State.

Wherever possible, loans are granted under the Land Improvement Loans Act, 1883, for the construction of improvements, which consist mainly of masonry wells. Certain landlords have invested money in sinking tubewells, but others either have no inclination for such an enterprise or cannot afford to bear the expense. Tenants' resources are limited, but these who are well-off are sometimes willing to construct wells if they possess security of tenure. Land Mortgage Banks do

not exist in these provinces. The State has itself undertaken the sinking of tubewells in the hydro-electric area in the west of the Province.

Land Revenue and Agricultural Legislation.

29. *Further remissions of land revenue.*—The question for consideration is whether the Government of India or the Local Government can improve the position by reducing expenditure or imposing other forms of taxation, so as to make it possible to give further remissions of land revenue. Between March 31, 1930 and March 31, 1934, revenue has fallen by rather over 1½ crores, inspite of certain changes in the excise system which have materially raised the revenue and by a temporary raising of stamp duties. In the same period, charges against revenue have fallen by 96 lakhs. This Government have explored all possible avenues of retrenchment or economy. The limit has been almost reached, save in so far as certain retrenchments, notably the reduction in scales of pay, have not yet had time to produce their full effect, and any fresh scheme of reduction would involve radical changes in the system of administration. The income from land revenue, as shown in the budget estimates of 1934-35, is 5.85 crores out of a total income of 11.50 crores from all sources. The remission granted for the slump in prices is 1.13 crores or 16 per cent. of the total land revenue demand of 7.10 crores. Sources of fresh taxation, such as can be tapped by a Local Government, are limited and inelastic. Moreover, the calculations made in 1928 show that about four-fifths of the provincial income is derived from rural areas. And any further remission of land revenue could only be compensated by other forms of rural taxation.

30. *Fluctuation of rent and revenue in response to major fluctuations in prices.*—In these provinces, under the existing system of land revenue, though the State intervenes to secure stability of tenure for the tenant, hitherto the fixation of rent has been left to settlement between landlord and tenant, with the result that in large areas the rents represent the result of competitive bargaining. They rose by about 50 per cent. between 1900 and 1928, largely in consequence of the increase in prices. Government has now framed a scheme for the adjustment of rent and revenue to major fluctuations in prices. It consists of the following parts :—

- (i) the calculation of price-indices ;
- (ii) the determination of basic rates of rent for each class of soil ;
- (iii) the valuation of each holding at rates corresponding to each price-level ;
- (iv) the calculation of remission in rent at each price-level ;
- (v) the determination of the assets of a mahal and the calculation of remission in revenue at each price-level.

As explained in paragraph 12 the province has been divided into a number of zones, in each of which the conditions of cropping, output, and price are more or less homogeneous. The index number is a weighted index number which takes into account the value of the crop, its

yield and the area in which it is grown. Seven price-levels have been selected as follows :—

Price-level.	Price-indices included in the price-level.
100	93½ to 106½
112½	106½ to 118½
125	118½ to 131½
137½	131½ to 143½
150	143½ to 162½
175	162½ to 187½
200	Over 187½.

The price-index 100 corresponds to the prices which ruled in 1901—05. Basic rates have been worked out for each class of soil in each assessment circle, so as to represent the rent-rates prevailing during this period. The holdings were then valued at these rates.

The process of calculation can be best understood by an example. The recorded rent of a holding in 1929-30 is Rs. 18. The valuation at the basic rates at price-index 100 is Rs. 10. The excess at the price-levels 125 and 150 is as follows :—

	Rs.	Rs.	Rs.
(1) Price-index	100	125	150
(2) Recorded rent	18	18	18
(3) Valuation at different price-indices.	10	12½	15
(4) Excess	8	5½	3

The remission of rent, which is on a sliding scale, will then be as follows :—

At price-index 100 ; 11/16 of Rs. 8 = Rs. 5½

Ditto 125 ; 10/16 of Rs. 5½ = Rs. 3½

Ditto 150 ; 7/16 of Rs. 3 = Re. 1½

To calculate the remission in revenue, it is necessary to calculate the assets of the mahal at each price-index. Suppose that the assets of a mahal at price-index 200 amount to Rs. 1,800. The recorded revenue is Rs. 600. The assets at price-index 100 amount to Rs. 1,250. To ascertain the remission in revenue at price-index 100 :—

(1) The revenue is first calculated at 35 per cent. of the reduced assets, i.e., $\frac{35 \times 1,250}{100} = \text{Rs. } 440$ (round).

(2) The revenue is next reduced in the same proportion as the assets. This will be Rs. 420.

The mean of (1) and (2) is then taken, i.e., $\frac{440 + 420}{2} = \text{Rs. } 430$.

The remission in revenue = recorded revenue, i.e., Rs. 600 minus Rs. 430 = Rs. 170.

The scheme has been examined by the Rent and Revenue Committee appointed by Government. The remissions in rent have been worked out for each holding and in revenue for each mahal. Government's present intention is to introduce the scheme from the beginning of July next.

31. *Supersession of middlemen and conferment of transferable rights on tenants.*—The question is whether the Government of India or Local Government can improve the position by—

- (i) superseding those who in certain areas may be considered to be unnecessary middlemen, e.g., by the substitution of *ryotwari* for *malguzari* tenures, or
- (ii) improving the credit of agriculturists, by increasing the transferability of rights over land, or improving the legal formalities for its transfer.

These two questions are interconnected and can be considered together.

Any change which aims at the elimination of the landlord will be highly revolutionary. A vast majority of proprietors are merely peasant proprietors. The number of those who pay a land revenue of Rs. 1,000 and over is only 7,500. The elimination of landlords, even if it were possible under the present circumstances, would mean either transfer of proprietary rights to tenants by confiscation, or their purchase by the tenants. Four points must be considered in this connexion :

- (1) An average tenant does not *want* to become a proprietor. He knows that he is better off as he is than he would be if he owned his holding. All that he wants is security of tenure *at a reasonable rent*. Some tenants of high caste might like to have transferable rights, but merely because it would increase their social prestige.
- (2) The power of transfer will increase the temptation of uneducated tenants to incur debt. "This assertion" says the United Provinces Banking Enquiry Committee in paragraph 333 of its report, page 213, "is proved past all doubt by our statistics of debt in the eastern districts, where amongst tenants and peasant proprietors the incidence of debt per debtor is no less than Rs. 330, as against a provincial average incidence of Rs. 172 ; and the only cause that can be assigned for the difference is the fact that certain classes of tenants in those districts do possess transferable rights". In the eastern districts also, the percentage of unproductive debt is much higher than the provincial average.
- (3) The net income which a tenant derives from the actual cultivation of his holding is far larger than any difference between the rates of interest on secured and unsecured debt that may be fixed by legislation.
- (4) The average holding over the province as a whole per cultivator is almost exactly 5½ acres.* A little over half the cultivators

* Paragraph 56, United Provinces Banking Enquiry Committee Reports, page 22.

(56 per cent.) possess holdings either at or below the minimum economic area*. It is undesirable that a tenant should be allowed to reduce the size of his already small holding by transferring a portion of it as security for his debt.

The substitution of *ryotwari* for *malguzari* tenure or any measure which confers upon a tenant the power to sell or mortgage his right is not desirable. But his credit might be to some extent improved by improving the security of his tenure. The law permits him to purchase occupancy rights in his holding, but he does not possess, as a rule, the money required for such a purchase. Government hope to help him to secure it by an amendment of the Agriculturists' Loans Act, 1884, which will make it possible to advance loans for this purpose.

Development Schemes.

32. *Roads*.—There are numerous projects for the metalling of roads. The difficulty in the development of roads is that they will require not only an initial outlay, but also recurring charges for maintenance, which will fall on the provincial revenues. And until the present deficit is wiped out, there is small chance of undertaking this additional burden unless it becomes possible to use the Road development fund for the purpose, or additional resources can be found.

33. *Irrigation projects*.—Expansion of irrigation can be effected by—

- (1) the extension of gravity canals ;
- (2) the use by pumping of low surface water ; and
- (3) the use by pumping of subsoil water.

Gravity canals.—So far as gravity irrigation is concerned, we are nearing the end of our available supplies. It may still be possible to use the Rapti and the upper reaches of the Gandak in this way to benefit the eastern tracts of the province, but no further extensions on a large scale are now possible in the north-western and central tracts.

Low surface water.—The low surface water of the Ramganga and the Kali Nadi is already being pumped into canals that are at a higher level by electricity. The available discharge of the Ramganga canal will be sufficient ultimately to irrigate 45,000 acres. Water is pumped from the Kali Nadi in the Aligarh district to supplement the supply of the Upper Ganges Canal, and has brought 10,000 additional acres under irrigation. A second pumping station which is being installed on the Kali Nadi in the Etah district is nearing completion, and will augment the supply of the Lower Ganges Canal.

The success of these two schemes has led to the conception of other similar projects. One of these is to pump water by electricity from the Gangan, and distribute it by canals 75 miles long in the Moradabad district and the Rampur State. It is estimated to cost 7.5 lakhs and to irrigate 25,000 acres annually. The work will be taken in hand early in 1934-35, and will be financed partly by this Government and partly by the Rampur Darbar.

*Paragraph 192, United Provinces Banking Enquiry Committee Report, page 99.

A second project is to pump water by electricity from the Jumna into a new canal, 25 miles long, which will irrigate tahsil Bah in the Agra district, where the depth of the spring-level is anywhere between 50 and 70 feet and cultivation is extremely precarious. There are two other pumping projects in contemplation, from the Ghagra and the Gumti, which would benefit the eastern districts. The necessary surveys for these two projects, as well as for the two gravity canals mentioned above, will be undertaken when funds are available.

Subsoil water.—In the west of the province, any further expansion of irrigation depends upon using subsoil water. The Irrigation Department has made experiments with electrically driven tubewells during the last two years with satisfactory results. A five-year plan has now been prepared for the extension of such irrigation in those parts of the western districts which are not commanded by river-fed canals, but are situated within the hydro-electric grid area. The scheme involves the construction of 150 electrically driven tubewells per year. It will be remunerative and will ultimately command a quarter of a million additional acres at commercial rates. The total cost, estimated in the neighbourhood of 40 lakhs, will be spread over a period of five years and will be financed out of loans. A sum of four lakhs has been provided to start with in the budget of 1934-35.

Potentialities of eastern districts.—These tubewell schemes are at present concentrated in the west, which can be supplied with hydro-electric power. The Irrigation Department has investigated the possibility of (1) using the Sarda canal to provide electric power, (2) of extending the western hydro-electric system into the central and north-eastern districts of the province. In the absence of suitable falls, and for other reasons, the use of the Sarda canal seems impossible. Nor are other falls available on other rivers. It may be possible to evolve a scheme in which steam would be used instead of water to generate electricity; and such a scheme might ultimately prove remunerative, though the initial cost would be greater than that of the western hydro-electric system. Such schemes, however, cannot be undertaken at present; they will be considered after five years, when conditions on the Sarda canal are stabilized and agricultural industries are developed.

34. *Reclamation of marshy or jungle covered areas.*—Little or nothing can be done in this way. The available waste land is scattered in small areas over the province, whilst our forests are more profitable as they are, than if they were destroyed to extend cultivation.

Industrial Development.

35. The Industries Reorganization Committee which was appointed by Government to suggest constructive proposals for the reorganization of the Industries Department says that "there should be a definite programme of work for say a period of five years which aims at systematic co-relation of the various branches of the work in order to achieve certain definite objects. We recommend that the general policy and lines of work of the department should be revised and that it should for the present concentrate the greater part of its activities on three items, *viz.*"—

"(1) the all round development of the sugar, oil and glass industries";

- (2) " the marketing of the products of selected minor and cottage industries " ;
- (3) " helping educated young men of the middle classes to set up in industry or business, or failing that to find employment therein " .

The Committee has further suggested that—

- (1) Government should examine the possibility of aiding industries by financial help, *e.g.*, grants, loans and subscribing to the share capital of industrial concerns.
- (2) Government should help in the marketing of industrial products either by purchasing them itself or by advertisements, propaganda, cataloguing, or by assisting a joint-stock corporation which will arrange for the sale of the products of cottage and other industries.

The Committee is of opinion that small loans not exceeding Rs. 10,000 advanced by Government have been reasonably successful, but larger ones, except perhaps in the case of the glass industry, have failed to assist the industry concerned to any material extent. No definite schemes have been put forward for giving financial assistance but the Committee " have made various tentative proposals which may be examined by a suitable Committee of commercial and banking experts in order to draw up detailed schemes. We consider that loans are needed both by big and small industries. For the latter we suggest that Government may continue to advance loans of Rs. 10,000 or less on the recommendation of the Board of Industries We further recommend that Government should not themselves advance larger loans, but should help in the establishment of a financing corporation or an industrial branch of a commercial bank for dealing with such loans The advice of the Committee of experts should be obtained as regards other forms of financial aid such as a guarantee given by Government to a bank of loans given by the latter ; and the purchase of shares by Government in industrial concerns."

The Committee has made definite proposals for the marketing of the products of selected minor and cottage industries. It has recommended the development of the Emporium for Arts and Crafts by setting up branches and increasing foreign trade ; the establishment of a commercial museum of non-artware products of cottage industries, of a sole buying agency for handloom textiles, and finally of the United Provinces marketing association and its agencies. The Committee is of opinion " that a lakh or two spent on marketing will help the development of industries to a far greater extent than the expenditure of a corresponding amount on industrial and technical education." The report of the Committee has been recently published and has not yet been examined by Government.

36. *Research*.—Industrial research should be carried out in the provinces but in order to prevent overlapping and duplication of labour a central agency should be established later to guide and co-ordinate their activities.

Other Government Measures.

37. *Tariffs*.—The articles which are generally consumed by agriculturists apart from those which they themselves produce, are cloth, a few ornaments, utensils, salt and kerosine oil. There are no tariffs which operate unduly harshly on agriculturists. They have benefited from the import duty on wheat and sugar, which should continue.

38. *Education*.—A cultivator must plough his own field, must sow and irrigate it, and must finally harvest the crops at appropriate times in spite of the inclemencies of weather. He cannot afford to diminish his man-power which is essential for success in his own occupation, and is therefore averse to keeping his sons at school once they are old enough to work in the fields or grazing-grounds. On the other hand, a boy who has been to school acquires a distaste for manual labour and the physical discomforts attached to agriculture. He becomes ambitious to receive higher education, to secure a Government post or to enter a learned profession. He is lost to agriculture, *because* he has been educated on lines that are unconnected with agriculture. There can be no doubt that rural education either for small agriculturists or for landlords should be made realistic,—*i.e.*, should be "ruralized". The Royal Commission on Agriculture in commenting on the subject of education in rural areas in paragraph 436 of the Report, page 513, has expressed the following opinion :—

"The idea that education in rural areas should bear a close relationship to the daily lives of the people is but the recognition of the truth that the environment in which rural workers live is different from that of the towns. It is essential to the happiness and efficiency of children in the villages that their upbringing should be in harmony with their environment, and to this end it is most desirable that every element in the education they receive in their village schools should draw strength and inspiration from the life of the country side."

The Auxiliary Committee on the Growth of Education (Hartog Committee) appointed by the Indian Statutory Commission, in paragraph 52, page 63 has remarked that "a curriculum unrelated to the conditions of village life results in a divorce between the interests of the school and the interests of the home and in the stiffening of the belief among the rural population that little benefit is to be obtained from the sacrifice involved in sending their children to school. Modifications in the curriculum are doubtless required so that the pupils shall read about things which are familiar to them and shall calculate the value of those articles which are in common use in the life of the village."

These are authoritative pronouncements which have been made during the last five years and still hold good. It will take time before the principles underlying them are put into practice. A beginning has been made in these provinces. During 1929-30 Government decided that an endeavour should be made to adapt teaching in the vernacular middle schools more closely to the lives of the students reading in them. For this purpose Mr. Wall, I.E.S., was placed on special duty to draw up a course of "Rural Knowledge" and to write suitable text books. The subject which includes agriculture, everyday science and local studies

was introduced in 1930-31 in those vernacular schools in which arrangements could be made for the training of teachers. The number of such schools rose to 119 in 1932-33. The subject is said to have had "a marked effect in lending interest to the middle school curriculum and is a definite attempt at making the instruction in these schools more practical and less literary. As Government bears the whole of the cost of its introduction, there is little reluctance on the part of the boards to introduce it. The main difficulty is in acquiring the one-acre plots required for practical work".* If possible arrangements should be made for extending this course to the other vernacular secondary schools in the province.

Assistance by the Government of India.

39. The circumstances of the different provinces vary. The legislative and other measures for the relief of indebtedness or for the development of irrigation will have to be undertaken provincially to suit local needs. The assistance of the Government of India will be valuable in the following directions :—

- (1) In advancing long-term loans at a low rate of interest, or providing facilities to a provincial Government for raising loans that may be required for financing landlords and tenants to redeem their debts.
- (2) In providing warehouses as an experimental measure at certain selected railway centres, as suggested in paragraph 27.
- (3) In adjusting railway freights to suit the special interests of agriculturists, to which a reference has been made in paragraph 41.
- (4) In making a study of the conditions of the world market, and supplying information to Provincial Governments as explained in the succeeding paragraph.

Economic Intelligence and Statistics.

40. *World market.*—At present our policy of agricultural improvement is haphazard, being partly directed to improvement of crops to satisfy an internal demand, and partly to increasing the supplies of such articles as find exterior markets. A study of world conditions is needed to show more clearly where markets are likely to lie in future, and the extent to which Indian conditions can meet their demand. Our main exports are (1) oil-seeds, (2) wheat, (3) cotton, (4) tea, and (5) hides and skins. We do not export sugar at present. India is a large exporter of such articles as tea and jute, but has to face intense competition with other countries in respect of staples like wheat.

41. *Wheat.*—The principle facts which regulate the export trade of wheat are these :—

- (1) India, in the general wheat position of the world, is infinitely more important as a consumer than as an exporter. The

*General Report on Public Instruction in United Provinces for 1932-33, pages 21 and 22.

average annual consumption of wheat is 8½ million tons, while the largest net export in any one of the 10 years 1921—30 has been ¾ million tons.

- (2) The volume of exports is limited positively by the requirements of her own consumption ; comparatively by the price levels both in India and abroad. The local consumption is affected by the size of the crop itself and by the Indian price level. If the price rises above a certain figure, consumption decreases ; if it falls below a certain figure, then consumption increases.

The volume of export from two competing countries such as Australia and India to London will depend (1) upon internal prices of wheat in those countries, and (2) upon freight. Including other charges, the freight from Lyallpur to London is 20 annas per maund, while that from Australia to London is 12 annas per maund. Even if the price of wheat in the two exporting countries were the same, it would be impossible for India to export owing to the higher freight. Similarly, the freight from Australia to Calcutta is 8.3 annas, while the railway freight from Hapur to Calcutta is 12 annas, and from Lyallpur to Calcutta 19.4 annas. If Hapur is to compete on equal terms with Australian wheat in Calcutta, the price of Hapur wheat f. o. r. Hapur must be 3.7 annas lower than the Australian wheat f. o. b. Fremantle. Though the situation has been saved for the present by the protective duty, the difference in freight is sufficient to explain the great handicap from which the agricultural produce of this country suffers in competition with that of other countries. Unless some cheaper method of transport is devised or railway freights are adjusted for the special benefit of agriculture, the cultivator will have no chance of exporting his wheat.

42. *Sugar*.—The progress made with the cultivation of cane and the production of sugar in India has been very rapid in recent years since the imposition of protective duties. As compared with 1923-24, the area under cane has expanded by 10 per cent. and the production of cane, as a result of the adoption of improved varieties of seed, has increased by 25 per cent. The manufacture of *gur* still takes by far the largest part of the cane crop, representing in 1932-33 over 11 times the cane used in modern factories. The Indian population consumes about 3 million tons of *gur* and 1 million tons of factory sugar. The imposition of protective duties in 1932-33 has kept out foreign competitors, and has given an impetus to the manufacture of sugar in the country. It is estimated that in 1933-34 the production of sugar will be 896 thousand tons—factory 586 and *khandsari* 300 thousand tons—and that it will soon begin to be in excess of local consumption. When the limit is reached, the position will become serious unless we can find some other use for the surplus sugar produced in our factories, or some arrangement is made to induce people to consume rough sugar in place of *gur*. Export of sugar to distant markets—apart from high freight charges—is impracticable owing to the high cost of production and the low extraction as compared with Java or Cuba.

Another matter also requires consideration. At present sugarcane cannot easily be brought from outlying tracts to factories because of long

distances and the absence of communications ; and cultivators have to content themselves with making *gur* only. The difficulty can be partly met by installing small factories in the interior for the purpose of producing rough sugar for local consumption in place of *gur*. Though the extraction of such factories will be low, yet it may be possible for these small factories to compete *in the interior of a district* with large factories. A large landlord in a western district, with the advice and assistance of the Irrigation Department, has started such a factory (vacuum pan) on his estate as an experimental measure. Again, the cost of transport at present forms a large portion of the price of the cane. It may be possible to reduce these costs by constructing tramways to bring cane to large factories from villages situated at a distance. The Irrigation Department has under contemplation a project for laying out two lines of tramways in the west of the province, where they can be worked by electricity. The transport charges of cane by tramways should be less than those of carrying the same load by bullock-carts.

APPENDIX J.

Memorandum on Debt Legislation in the Central Provinces.

(Prepared by the Government of the Central Provinces.)

The official legislative measures passed or under consideration in the Central Provinces for the purpose of relieving rural indebtedness comprise :-

- (i) the Central Provinces Debt Conciliation Act, 1932 ;
- (ii) the Usurious Loans (Central Provinces Amendment) Act, 1934 ;
and
- (iii) the Central Provinces Moneylenders Bill, 1934.

2. *The Debt Conciliation Act.*—The Central Provinces Debt Conciliation Act was brought into force on the 1st April 1933. Two debt conciliation boards were established in July 1933, one for the Khurai tahsil of the Saugor district and the other for the Seoni and Lakhnadon tahsils of the Chhindwara district, each consisting of an official Chairman and four non-official members. A third board, for the Balaghat district, was established on the 15th February 1934, and a fourth for the Narsinghpur division, is shortly to be established. The Act has been extended to Berar, and it is proposed to set up two Boards in that division at an early date.

3. Upto the end of February 1934 the Khurai and Seoni boards received 3,170 applications, involving claims of Rs. 41.06 lakhs. They succeeded in executing agreements in 668 cases for the payment of a reduced sum of Rs. 3.73 lakhs in satisfaction of original claims amounting to Rs. 6.42 lakhs. The reduction effected by mutual agreement in these cases thus works out at nearly 42 per cent. Applications were dismissed under section 7 of the Act, *i.e.*, on account of the manifest undesirability of attempting to effect a settlement, in 226 cases, involving claims of Rs. 4.27 lakhs, while 264 cases involving claims of Rs. 4.34 lakhs ended in dismissal under section 14, on the failure of the parties to come to an amicable settlement. The remaining 2,012 cases, making up a total claim of Rs. 26.03 lakhs, were pending on the 1st March 1934.

4. The boards are making encouraging progress in the settlement of unsecured debts, but are experiencing some difficulty in inducing secured creditors to compound their claims. The bulk of the tenancy land in the Central Provinces is non-transferable and a large portion of the tenants' debts is unsecured. The machinery for composing debts by voluntary agreement set up by the Act may therefore be expected to work with fair success in the Central Provinces, although the ultimate success of the measure must depend on the ability of the debtors to carry out their part of the agreements punctiliously.

5. To what extent the Act is helpful in scaling down secured debts will be known after the two boards proposed to be established in Berar have worked for some time. Here the land tenure is ryotwari and, generally speaking, land is freely alienable, with the result that a large proportion of debts is secured.

6. Except for the Chairman, who is a Government officer from the provincial executive or judicial service, the boards consist of non-officials. Work on the board imposes a heavy strain on a member's time and energy, and in order to ease the burden the maximum permissible number of

members has been raised from 5 to 9 so as to enable quorums being formed. No difficulty has so far been experienced in obtaining suitable non-officials for the boards.

7. *The Usurious Loans Amendment Act.*—This measure has just been passed by the Legislative Council. Its object is to remove certain difficulties experienced in working the Usurious Loans Act, the difficulty in particular, of adjudging when a rate of interest may be deemed to be excessive.

8. *The Moneylenders Bill.*—This Bill is generally on the lines of the Punjab Regulation of Accounts Act, 1930, but embodies, in addition, the principle of *dam-dupat*. It also gives the courts extended power to fix instalments for execution of decrees. The Bill is in the select committee stage.

9. A rough draft of a Rural Insolvency Bill is also ready, but it has been decided to postpone further consideration until it is possible to see exactly what the debt conciliation boards have been able to achieve.

10. There are also two non-official Bills on the subject introduced in the Legislative Council last January and under circulation. They are (i) the Central Provinces Agriculturists' Relief Bill and (ii) the Central Provinces Reduction of Interest Bill, both being modelled closely on the corresponding United Provinces Bill.

APPENDIX K.

GOVERNMENT OF BENGAL.

NOTE FOR BOARD OF ECONOMIC ENQUIRY.

1. *Introduction.*—A most disquieting feature of the economic situation is the burden of debt which overshadows the lives of such a large section of the agricultural population of the province. This question of agricultural indebtedness is one of the most pressing and, at the same time, one of the most complex problems with which the province is faced. It is also one of the oldest problems which had troubled administrators in India and for generations it has received the anxious consideration of the Central and Provincial Governments. In the early nineties of the last century the success of the small village banks in Germany attracted the attention of those anxiously looking for a solution of rural indebtedness and, in the early years of the present century, largely as a result of the exhaustive report prepared by Sir Frederick Nicholson, administrators in India turned to co-operation as the most hopeful method of dealing with the problem of rural indebtedness. During more recent years the problem has again been prominently before Government and the public. The Royal Commission on Agriculture, the Central Banking Enquiry Committee and the Provincial Banking Enquiry Committee all subject it to careful examination and the Royal Commission on Agriculture issued a note of warning when they said: "It must be clearly recognised that the worst policy towards debt is to ignore it and do nothing." The position has deteriorated since these bodies reported. The catastrophic fall in the prices of agricultural produce, which has characterised the present world-wide depression in trade, has made the burden of agricultural debt still more crushing and, calculated in terms of service and produce, the burden of a debt contracted before 1929 has increased in Bengal by at least two-fold. In spite of legislation and executive measures taken in the past, the position to-day in regard to the burden of debt is more acute than it has been for several generations and calls more urgently than ever for a radical remedy if such can be found. Again, the development of a non-payment complex attributable in part to the burden of agricultural debt is a danger which it would be foolish to ignore. It is, therefore, a matter of great importance from the point of view of the well-being of the province that a serious effort should be made to find a remedy for the chronic indebtedness of the agriculturist and to devise a properly organised system for the supply and *control* of agricultural credit.

2. *Bengal Moneylenders' Act.*—The Bengal Moneylenders' Bill, introduced as a private Members Bill, was passed into law during the last session of the Legislative Council. It is hoped that this Act will give relief to the debtor with regard to interest at excessive rates, will afford protection to the ignorant borrower against the grossest evils of compound interest and will enable the debtor to obtain from his creditor full particulars of his debts. The Act should assist in relieving the province of some of the worst evils of uncontrolled usury, but, in itself, cannot afford a complete solution of

the problem of rural indebtedness. The question of further remedial measures has been under examination for some time past and it is with these further measures that this note attempts to deal.

3. *The sanctity of debt.*—Reference has been made to the danger of the development of a non-payment complex and it is suggested that it is important that any remedial measures which may commend themselves should not encourage the belief in the mind of the debtor that, having borrowed when times were good, he can now turn round and demand that he be relieved of the whole or a portion of the original *principal* of his debt. The Bengal Provincial Banking Enquiry Committee, in paragraph 34 at page 32 of their report, referred to the very strong feeling of the sanctity of debt among all castes, creeds and classes and described the prevalence of this sentiment as an important factor in the banking system of the country. They also expressed the view that the rapid and unimpeded growth of co-operative societies among such an illiterate population is undoubtedly due to the prevalence of this sentiment. It would obviously be unwise to adopt any measure which would tend to destroy this feeling of the sanctity of debt.

4. *Prevention of extravagance in new borrowing.*—Apart from long-term loans, all investigators into the question of rural indebtedness have assumed that the average agriculturist, of necessity, requires short and intermediate term loans. It has been accepted as axiomatic that, because in agriculture the producer must wait for a period before he can expect the turn-over on his outlay, it is necessary for the Bengal agriculturist to live on a system of credit to meet the expenses of cultivation and maintenance of his family until he can market his produce; and the Bengal Provincial Banking Enquiry Committee estimated the provincial requirements for short and intermediate term loans at Rs. 96 crores. Experience gained during the present period of severe economic depression points however to the conclusion that these views may require modification and revision. It is generally agreed that, owing to the extremely low prices prevailing for agricultural produce during the last three years, the moneylender has realised from his agricultural debtor very little on account of interest and practically nothing towards the repayment of principal, and that, partly owing to the shrinkage of the agriculturists' credit and partly owing to the freezing of the moneylenders' working capital, very few new loans are being contracted. The present position is that the agriculturist is unable to borrow. The figures for registered documents support this conclusion. Appendix gives the total number and aggregate value (for agriculturists and non-agriculturists) of mortgages and obligations for the payment of money registered during the years 1917 to 1932, and an examination of those figures shows that the number and aggregate value of documents registered during the years 1931 and 1932 of each of these two classes decreased by about 50 per cent. as compared with the corresponding figures for the years immediately preceding 1929. But—and this is a fact of great importance—although the agriculturist perforce cannot borrow, enquiries establish that no land has gone out of cultivation and, what perhaps is equally significant (*vide* the figures in Appendix) the number of registered sales and exchanges decreased from 5,63,000 in 1929 to 2,42,000 in 1932. Whatever may be the reasons for the indebtedness of

the agricultural population, the experience of the last three years appears to point to the conclusion that a large part of the agriculturists' borrowing is avoidable. Anomalous as it may seem, agricultural indebtedness increases with prosperity and all authorities who have dealt with the problem have drawn attention to the dangers of uncontrolled cheap and abundant credit to the agriculturist. Easy credit to those unaccustomed to its proper use—the average Bengal agriculturist falls in this category—must involve the borrowers ultimately in certain financial destruction. The problem, therefore, with which the province is faced is not only the relief of the agriculturist from the crushing burden of his existing debt, but also the prevention of extravagance in new borrowing. Little will be accomplished if the measures taken are limited to the relief of the existing burden, for the average agriculturist will find it difficult to resist the temptation to utilise the consequent improvement in his economic position for the purpose of further borrowing for unproductive purposes. Measures designed to grant relief from the existing burden should be accompanied by measures restricting the incurring of new debt; and, if the teaching of the last three years has been correctly interpreted, it would appear that future borrowing could be considerably restricted without causing any serious hardship to the agriculturist. This limitation is important if we want to save him from heavy and indiscriminate borrowing which will inevitably lead him to financial destruction. A possible method of accomplishing this limitation would be by legislation, prohibiting recovery of any charges in regard to new debts by the legal process of the sale of the land and crops belonging to the debtor. A prohibition of this kind would restrict considerably the extent of his borrowing but would at the same time leave him free to raise comparatively small loans on his personal credit or by the pledge of ornaments. Small loans may be necessary for legitimate purposes such as the cost of cultivation, the maintenance of his family till the next crop is harvested, and the cost of medical treatment. It would, however, be necessary to exempt from the provisions of any such restriction new loans granted by co-operative credit societies, land mortgage banks, and other approved credit organisations. In the past, the view generally held has been that this limitation on extravagant borrowing must be sought in general education and the teaching of the advantages of thrift. But the spread of education and the inculcation of thrift must necessarily be slow and it may be desirable that, in the meantime, steps should be taken to protect the cultivator against the curse of easy borrowing by legislative enactment directed to limiting his credit with the moneylender.

5. *The liquidation of existing debt.*—The liquidation of the standing indebtedness of the agriculturist presents a different problem from that of arresting the future growth of unproductive indebtedness, but, before passing on to this subject, there is one point with which it is necessary to deal. All measures for easing the burden of old debts, which do not involve insolvency or repudiation in whole or in part, will fail if the debtor has not an amount of surplus income (after paying cultivating expenses and meeting the cost of maintaining himself and his family) adequate to meet not only the interest charges at reasonable rates on his adjusted old debt,

but to liquidate this adjusted debt within a definite period of years. What proportion of the agricultural debtors is in possession of this adequate surplus with prices at their present low level? It is difficult on the material available to give a definite answer to this question and it is probable that it will be impossible to do so without careful enquiries in typical areas. The difficulty of answering this question does not however detract from its importance. It would be useless evolving a scheme designed to give relief to the large majority of agricultural debtors from the crushing weight of existing debt, if only a small minority is in possession of the margin wherewith to meet the interest and repayment charges on the adjusted debt. Although it is difficult to give a definite answer to the above question, there are indications that a considerable proportion of the cultivators will not possess this margin until prices improve or the agriculturist has had a longer time to adjust himself to a lower standard of living. The collection of rent in Government and private estates is poor and yet the average rent payable by a family is not large; the Provincial Banking Enquiry Committee placed it at Rs. 25 a year. The arrears of interest and principal due to co-operative credit societies are alarmingly large and great difficulties are being experienced in realising even the interest; the realisations on account of principal are still worse. Moneylenders are realising very little on account of interest and practically nothing on account of principal. The fall in the money value of the main crops has been enormous. *Vide* the following figures:—

Value of the crop at harvest prices.

				Rice.	Jute.
				Rs.	Rs.
				(In crores.)	(In crores.)
1928-29	..	..	..	179½	39
1931-32	..	..	..	85½	10·81
1932-33				(Not available but less than 1931-32).	

These are pointers indicating that, in present conditions, the proportion of cultivators in possession of the requisite margin may be small. On the other hand, several competent observers are of opinion that the proportion in possession of the requisite margin is larger than the above factors would appear to indicate. The subject is one in regard to which more information is certainly required and intensive enquiries in selected villages would provide material of the greatest value in relation to the problem of the liquidation of the cultivators' standing debt. Government have already taken steps to make enquiries in this matter.

6. *Debt conciliation on a voluntary basis.*—The Central Banking Enquiry Committee expressed the view that the most effective remedy for the evil of the standing debt would be found in a vigorous policy of debt conciliation on a voluntary basis. It is reported that many *mahajans*, whether their debts are secured or unsecured, would readily forego a considerable portion

of their dues if they were assured of repayment, particularly in cash. One of the suggestions which has been examined is whether it would be suitable to take action on the lines of the Central Provinces Debt Conciliation Act passed into law in March 1932. According to the information received from the Government of the Central Provinces, two Boards have been established under the Act in two heavily indebted tracts as an experimental measure. The Boards have, however, only been working for about three months and it is, therefore, still too early to say how far they will be successful, but the results are said to be promising in regard to unsecured debts and less favourable in the case of secured debts. Local officers, Commissioners (and through them Collectors) and certain selected District Judges were consulted whether legislation on the lines of the Central Provinces Act would be suitable for Bengal. Generally speaking, judicial opinion was unfavourable to legislation on those lines and executive opinion was divided. The Commissioners' Conference held in October last, however, favoured legislation of this character and recommended that, if such an Act were passed, it should be tried in the first instance as an experimental measure in selected areas. The Central Provinces Act provides for Debt Conciliation Boards consisting of not less than three and not more than five members. It has been suggested that it would be advantageous to replace the Board by officers whose duty it would be to endeavour to effect a settlement between the creditor and his debtor. Another suggestion is that the Boards should be retained, but that the Chairman should ordinarily be an official. The Central Provinces Act applies to all debtors whose debts do not exceed Rs. 25,000. The adoption of a very much lower limit appears to be eminently desirable; a limit of Rs. 1,000 or such larger amount as may be prescribed might be suitable. The procedure prescribed by the Central Provinces Act is somewhat elaborate and complicated. Conditions in Bengal differ from those in the Central Provinces. For instance, Bengalis permanently settled whereas the Central Provinces are temporarily settled; as a consequence, the general level of rents in Bengal is lower and, the land being on the whole highly productive, there should be a greater margin for the liquidation of debts. It is for consideration, therefore, whether some procedure more summary and expeditious than that prescribed by the Central Provinces Act could suitably be adopted in Bengal. If a measure of this kind were decided upon as desirable, it would probably be advisable, as suggested at the Commissioners' Conference, to introduce it in the first instance as an experimental measure in selected areas.

7. *Compulsory adjustment of accumulated interest.*—A considerable proportion of the existing debt is represented by accumulations of interest. It is the practice of the moneylender to add the unpaid interest—and the moneylender is more often than not only too willing to let the interest remain unpaid—to the principal every year or so and at that time to take a fresh bond for the increased amount. Again, during the last two or three years very little interest has been paid by the agricultural debtor and the accumulated interest has increased greatly during these years. Considerable relief could be given to the agricultural debtor if it were possible to evolve a scheme, which, without doing injustice to the creditor, would enable some compulsory adjustment of this accumulated interest to be made. A

scheme on the following lines is put forward for consideration. The four essential features of the scheme are—

- (a) The existence of an approved credit organisation—co-operative society, land mortgage bank, or other approved organisation—to which the adjusted debt due by the debtor can be transferred.
- (b) The possession by the debtor of a surplus income (after paying cultivating expenses and meeting the cost of maintaining himself and his family) sufficient to meet the interest charges due to the credit organisation and to pay off the debt by instalments spread over a reasonable period of years.
- (c) A procedure, judicial in character, by which the amount of the adjusted debt will be determined.
- (d) A legal provision empowering the credit organisation to take over the adjusted debt from the creditor.

It is contemplated that a debtor whose adjusted debt a credit organisation is prepared to take over would be given the right to apply for a declaration of the amount of debt due by him to his creditor. The officer hearing the application would be required to open the account between the parties from the commencement of the transaction and to declare the amount still payable by the debtor. In determining the amount payable by the debtor, interest (simple not compound) would be calculated on the original principal, not at the rate stipulated in the contract between the creditor and debtor, but at a lower rate equivalent to that charged by the credit organisation on money lent to individual agricultural borrowers.

Applications for the adjustment of debts would be dealt with, not by the ordinary Civil Courts, but in the villages themselves by peripatetic courts, acting under a procedure more summary than that applicable to the ordinary Civil Courts. The peripatetic courts might be revenue officers or munsifs.

The adjusted debt would be transferred to the credit organisation and it would then be treated as an advance made by that organisation to the original debtor. The terms of the advance would be the payment of interest at the usual rate charged by the organisation for money advanced, and the repayment of the debt by instalments over a fixed number of years. So far as the original creditor is concerned, he would be treated as having deposited with the credit organisation to which the debt has been transferred (or with the credit organisation to which this credit organisation is affiliated and through which it is financed) an amount equal to the adjusted debt. The terms of this deposit would be—

- (a) the payment of interest at the rate usually paid by the credit organisation on deposits, and
- (b) the repayment of the principal, either by instalments corresponding to those fixed for repayment of the adjusted debt by the original debtor, or in full at an earlier date at the option of the credit organisation.

A reduction of the interest in this way is considered justified because of the gain accruing to the original creditor by the substitution for a debt uncertain of realization of a debt, in regard to which he is assured, not only the regular payment of interest, but also the repayment of the capital.

If a measure of this nature were finally adopted, it would certainly be advisable to introduce it in the first instance as an experimental measure in selected areas. It possesses novel features and its working would have to be very carefully supervised. It would be essential that the scheme in its operation should be limited strictly to those debtors, whose capacity to meet the interest charges on the adjusted debt and repay that debt within a limited number of years, was beyond doubt. Failure to observe this limitation would ultimately bring disaster. The credit organisation would require careful supervision; it would not be just to the original creditor to compel him to accept a smaller amount than was due under the terms of the contract between him and his original debtor, unless it were possible to give him the assurance that his new debtor (the credit organisation) would not default.

8. *Rural Insolvency Act*.—Conciliation and compulsory adjustment on the lines indicated in the two preceding paragraphs will be of no avail to those who have not an adequate surplus income. Perhaps the only way by which relief can be given to this class is through an insolvency procedure. It is generally agreed that the provisions of the present Insolvency Act are of little benefit to agriculturists. The Royal Commission on Agriculture dealt at some length with this problem of rural insolvency. They recorded that, while no one desires to see wholesale resort to insolvency by rural debtors, it cannot be denied that there are a large number of hopelessly insolvent debtors in rural areas and that it cannot be regarded as making for health in the body politic that they should be allowed to remain without hope and without help. They accordingly recommended that the whole case for a simple insolvency law should be considered, the main object of which would be to relieve the debtor of what he cannot pay, while insisting on his paying the utmost he can within a reasonable time. The Provincial Banking Enquiry Committee did not favour a rural insolvency Act, but the Central Banking Enquiry Committee agreed with the views of the Royal Commission on Agriculture and the Civil Justice Committee, and suggested, *inter alia*, that the rural insolvency law should contain a provision for the exemption from sale of properties indispensably necessary for the maintenance of the family of the insolvent, as provided in section 60 of the Civil Procedure Code. It is of interest to note that the Royal Commission on Labour contemplated in regard to the indebtedness of the working classes a simple and summary procedure for the liquidation of unsecured debts with the object of relieving the debtor while insisting on his paying the utmost he can within a reasonable time.

9. *Co-operative societies*.—The authorities which have investigated the problem of rural indebtedness are agreed that co-operation is the most hopeful method of dealing with the problem of rural indebtedness. The Royal Commission on Agriculture, which reported in 1928, had no

hesitation in recording their belief that the greatest hope for the salvation of the rural masses from their crushing burden of debt rests in the growth and spread of a healthy and well organised cooperative movement based upon the careful education and systematic training of the villagers themselves and that, apart from debt, co-operative credit provides the only satisfactory means of financing agriculture on a sound basis. The Central Banking Enquiry Committee expressed themselves as follows (page 61, paragraph 86): "The strengthening and expanding of the cooperative credit organisations and controlling usury in the manner we have indicated in later chapters, are, in our opinion, the most potent remedies for arresting the future growth of unproductive debt." They also contemplated that co-operative credit societies should be the organisation utilised for financing settlements made in pursuance of a policy of voluntary debt conciliation.

The co-operative movement, although it has made great strides, has, however, only touched the fringe of the problem; the Central Banking Enquiry Committee gave the percentage of the population benefited by the movement in Bengal at 4.4 per cent. But this is not all. The fall in the price level of agricultural commodities—and in this respect Bengal has probably been harder hit than the other provinces—has subjected the societies to a severe strain and has revealed defects in the existing system and the past working of the movement. The low prices for agricultural produce have seriously reduced the capacity to pay of the primary borrower. This has been reflected in a general weakening of the financial condition of the societies and, early last year, Government felt constrained, in view of the strain to which the movement was being subjected, to decide that expansion must be subordinated to the great need for consolidation.

The defects in the past working of the movement have been stressed by the Royal Commission on Agriculture and the Banking Enquiry Committees—Central and Provincial—and have been only too clearly disclosed by the serious strain to which the movement has been subjected during the last two or three years by the serious fall in the prices of agricultural products. One defect, to which pointed attention has been drawn, is the danger arising from a system under which long term credit is supplied by the existing primary societies. Opinion has now crystalised round the idea that these two varieties of credit cannot be supplied by the same type of co-operative organisation, and that two different types are essential. The generally accepted view is that long term credit can be provided with any degree of safety and success only by land mortgage banks. This is a matter which the local Government have had under examination for some time and they have recently decided to create, as an experimental measure, five land mortgage banks.

The Royal Commission on Agriculture were of the opinion that one of the main causes of the weaknesses which had developed in the movement was the lack of the requisite education in the principles and meaning of co-operation of the members of primary societies and of adequate supervision and guidance by official agency. They fully recognised that the aim of co-operation is self-help and that, whenever co-operators are in a position to supply, from within their own ranks, the necessary leadership and technical

knowledge, redundant external control should be removed, but, in spite of these considerations, they took the view that, at the present stage, official guidance and control are essential to the healthy growth of the movement. In Bengal the movement has suffered from inadequate control and guidance, but there is little chance of this defect being removed if the cost of providing an adequate staff is to be a burden on the provincial budget. If, therefore, this defect is to be removed in Bengal—and it should be removed if the movement is to expand—the cost of the controlling and supervising staff must be met from within the movement itself. If the movement is sound, this should, it is suggested, present no difficulty. The profits of the moneylenders have been great and, if the supply of credit to the rural population has brought such a handsome return to the private individual, it should be possible for the co-operative movement to find funds for the controlling and supervising staff out of the margin between the rate at which money is borrowed and that at which it is lent.

If the salvation of the rural masses is to be found in a well organised co-operative movement and if that salvation is not to be postponed to the distant future, it is necessary that the movement must again expand and that the expansion must be more rapid than it has been in the past. The present time is opportune for voluntary debt conciliation, but here again success will be greater if an adequate organisation for carrying out debt clearance can be built up. Unless the co-operative societies, land mortgage banks, or other approved credit organisations are able to take over the compounded debts or make cash advances to the debtors in order to enable them to pay, at least in part, the compounded debt, the success attending schemes of voluntary debt conciliation is not likely to be so great as otherwise would be the case. Again, the adoption of any scheme on the lines outlined in paragraph 7 will not be possible in the absence of approved credit organisations to which the adjusted debts can be transferred. On the other hand, it would be folly to disregard the dangers and risks attending a rapid advance; dangers and risks which have been stressed by all who have investigated and advised on the co-operative movement. The problem is, can expansion be undertaken at the present time on lines designed to avoid the defects which are evident in the existing movement. It may be that the best course will be to experiment in selected areas, the object being to bring within the scope of the movement in those areas all cultivators who have the necessary margin to meet interest and repayment charges on their debts. These areas might well coincide with those areas in which schemes of voluntary or compulsory debt conciliation were under trial.

10. *Conclusion.*—This note does not represent the final views of Government and Government are not in any way committed to the views expressed herein. The note does not seek to formulate a cut and dried scheme but has been prepared with the object of putting forward proposals which the enquiries so far made indicate as affording possible lines of advance in an attack on the problem of rural indebtedness.

APPENDIX

Number and aggregate value of certain documents registered in Bengal.

Year. 1	Mortgages.		Sales or Exchanges of Rs. 100 and upwards.		Sales or Exchanges of value less than Rs. 100.		Obligations for payment of money.	
	Number. 2	Value. 3	Number. 4	Value. 5	Number. 6	Value. 7	Number. 8	Value. 9
1917	566,528	Rs. 9,71,96,805	231,108	Rs. 10,34,70,547	213,079	Rs. 1,07,59,824	108,347	Rs. 1,12,00,071
1918	471,253	8,29,04,882	205,040	12,50,70,719	200,742	1,01,30,956	72,257	77,86,343
1919	669,706	11,76,53,130	282,045	18,09,26,263	263,966	1,32,62,757	89,309	1,00,40,822
1920	784,681	14,99,42,104	321,361	20,44,75,602	266,626	1,34,41,254	99,691	1,15,22,181
1921	676,663	19,10,82,437	294,618	15,40,97,341	242,837	1,23,85,178	85,048	96,76,353
1922	616,984	18,27,31,014	292,951	14,72,91,881	233,220	1,17,52,190	76,728	95,57,996
1923	585,838	14,83,91,044	282,440	12,77,67,165	213,901	1,07,33,961	73,809	88,84,371
1924	634,750	14,77,51,694	303,305	13,47,42,155	225,850	1,13,08,562	71,467	90,08,934
1925	732,534	17,19,05,258	341,668	14,34,91,612	232,872	1,17,61,447	76,741	94,14,102
1926	707,659	14,90,20,380	319,081	14,00,78,759	207,725	1,07,23,878	78,918	1,01,42,229
1927	712,042	15,42,81,493	340,876	14,70,78,301	218,100	1,11,75,227	79,998	1,00,73,246
1928	722,411	16,40,68,901	351,524	15,48,82,522	211,422	1,07,74,969	73,240	99,22,902
1929	588,550	13,57,35,980	288,055	13,31,65,465	161,179	83,13,650	65,866	92,75,908
1930	510,974	11,05,83,035	152,890	9,10,55,803	101,494	51,53,688	64,133	82,99,931
1931	376,422	7,56,91,200	116,737	6,63,70,009	105,171	51,11,074	45,329	58,46,119
1932	338,945	7,09,30,861	117,793	6,21,02,915	123,773	58,58,630	36,025	54,62,052

APPENDIX L.

Memorandum on Road Development from loans.

The subject falls under three main heads :—

1. Provision of bridges.
2. Provision of new improved roads.
3. Reconstruction.

1. *Bridges.*—Modern bridges could safely be built on a 50 year loan, as they are permanent structures and maintenance charges are relatively low. Where large permanent bridges replace ferries, a toll could be continued. In the United States of America in 1927 private toll bridges paid 14 per cent. on the investment and publicly-owned 8 per cent. In India tolls would not usually be leviable on a scale sufficient to carry the whole charge on the loans but might considerably reduce the burden. Bridges will not only be of great general benefit but will also in many cases open direct and regular access to markets and reduce the cost of marketing. With interest at 4 per cent., 50 year equated payments would be 4.655 per cent. Adding one per cent., for maintenance, the total recurring cost would be 5.655 per cent. With tolls on the larger bridges the net recurring cost might be reduced to, say, 3½ per cent.

2. *New Improved Roads.*—There is a very large mileage of earth roads or tracks to be improved. Such improvement of roads will only to a limited extent tend to bring new land under cultivation, but the possibility exists. A greater possibility is the growing of more valuable crops if access to markets is easier. But the chief value of improved roads lies in providing regular and easy access to markets and facilities for travel, for *kachha* roads may isolate a village from its markets for considerable periods. Further, though agricultural transport may not often involve cash outlay, nevertheless bad roads do cause economic loss. More can be carried at each trip over good roads and with less wear and tear of cart and cattle. Conditions vary and the extra cost of transport arising from bad roads, though real, cannot readily be calculated, but possibly the cost over reasonably good roads is 25 per cent. less than over bad.

Costly improvements are not possible in view of the mileages involved, but the re-modelling of earth roads to a maintainable standard, the provision of bridges and culverts, and some extension of hard surfaced roads where soil or traffic require this, are possible. Earth road improvement is a doubtful object for capital expenditure unless maintenance is certain, but such improvement is a very great need and is at present not feasible out of revenue.

3. *Village Roads.*—The foregoing refers to roads and tracks vested in public authorities, but the connecting of villages with the public road system is also of great importance, because the load which can be carried on a cart and indeed the ability of wheeled transport to move at all, depends upon the worst section of the route. Some improvement of village roads should be an essential part of any scheme of rural reconstruction. These roads are not, however, in charge of public authorities but may be the common

property of the village, or merely rights of way. Speaking generally, no authority except possibly the village *panchayat*, where this exists, is responsible for the maintenance of these roads, and their improvement and maintenance cannot be placed upon any authority such as a District Board. Improvement must depend largely upon co-operation in the village and would consist of realignment, demarcation, grading and drainage. This would probably involve mutation proceedings and possibly legislation for the preservation of minimum widths. At present there does not seem to be any appropriate use for loan funds on such roads, but so long as the village is separated from the public road by even half a mile of the worst type of track, the full benefit of an improved public road system will not be felt. Where Co-operative Societies are consolidating holdings, village roads can be straightened and widened with no great expense. It is in this direction that improvements may be looked for.

4. *Reconstruction.*—In certain cases reconstruction of metalled roads in more durable material will show a saving even during the payment of 20-year equated payments. In others there will be eventual saving after repayment of the loan. Where the saving to be expected from reconstruction seems doubtful, the probable increase of traffic and future rise in prices should be remembered. Reconstruction of bad roads will result in a saving in the cost of agricultural marketing and of operating motor transport. Where the main roads of a province are provincial and the local bodies' links and feeders therefrom to towns and the railway are in a bad state of repair, reconstruction of the latter may not only be a local benefit but may save maintenance on the former by allowing traffic to get to the railway which at present if forced to use the provincial roads for greater distances.

5. In general, money, labour and materials are cheap at present, and development and improvements are possible at extremely low cost. The resulting increase in the maintenance bill cannot be ignored but, here expedient the road development account could be applied to this object and to loan charges. Taking a reasonable view of the future, it would probably be economical at the present juncture to pursue a far more extensive programme of low cost improvements and of the strengthening and reconstruction of existing metalled roads than calculations based merely on present traffic and prices could justify. That good roads will promote the material, social and political progress of the rural population is beyond question. Ultimately this progress will be reflected in public revenues.

(Sd.) K. G. MITCHELL.

Resolution moved in the Council of State and in the Legislative Assembly in the winter session of 1933-34.

In supersession of the resolution adopted by this Assembly on the 4th February, 1930, as supplemented by the resolution adopted by this Assembly on the 3rd October, 1931, this Assembly recommends to the Governor General in Council that :

1. There shall continue to be levied on motor spirit an extra duty of customs and of excise of not less than 2 annas per gallon, and the proceeds thereof shall be applied for the purposes of road development.

2. (1) From the proceeds of such extra duty in any financial year there shall be deducted a sum equivalent to the share in such proceeds arising from motor spirit used for purposes of civil aviation during the calendar year ending in the financial year concerned, and such sum shall be at the disposal of the Governor General in Council for allotment as grants-in-aid of civil aviation.

(2) The balance of the proceeds shall be credited as a block grant to a separate Road Account.

3. (1) The annual block grant shall be allotted as follows :

(a) a portion equal to fifteen per cent. shall be retained by the Governor General in Council as a Central reserve ;

b) out of the remainder there shall be allotted—

(i) a portion to each Governor's Province for expenditure in the province ;

(ii) a portion to the Governor General in Council for expenditure elsewhere in British India ;

(iii) a portion to the Governor General in Council for expenditure in Indian States and administered areas ;

in the ratio which the consumption of motor spirit to each area to which an allotment is to be made bears to the total consumption in India during the calendar year ending during the financial year concerned ;

Provided that for the purposes of these allotments the consumption of motor spirit in Jammu and Kashmir shall be disregarded.

(2) The portion allotted to a Governor's Province shall be placed at the disposal of that province in one or more instalments, as soon as the distribution can conveniently be made.

4. The balance to the credit of the Road Account or of any allotment thereof shall not lapse at the end of the financial year.

5. No expenditure shall be incurred from any portion of the Road Account save as hereinafter provided.

6. The Central reserve with the Governor General in Council shall be applied firstly to defraying the cost of administering the Road Development Account, and thereafter upon such schemes for research and intelligence and upon such special grants-in-aid as the Governor General in Council may approve.

7. (1) All allotments for expenditure in British India may, subject to the previous approval of the Governor General in Council to each proposal made, be expended upon any of the following objects, namely :

(i) on the construction of new roads and bridges of any sort ;

(ii) on the reconstruction or substantial improvement of existing roads and bridges ;

on the interest and amortization of loans taken after the date of this Resolution and spent on the construction, reconstruction or substantial improvement of roads and bridges ;

- (iv) in special cases, on the maintenance of roads and bridges, constructed, reconstructed or substantially improved from the Road Account since 1930 ;
- (v) in special cases, on the maintenance of roads or bridges constructed, reconstructed or substantially improved from loan funds after the date of this Resolution.

(2) Where any part of a provincial allotment of the Road Account is to be applied for the payment of interest and amortization of loans under clause (iii) above, such payment shall be a first charge on all allotments to that province.

8. In considering proposals for the construction, reconstruction or improvements of roads and bridges from the Road Account, the Governor General in Council shall bear in mind the present urgent need for improving the efficiency and reducing the cost of transport by road of agricultural produce to markets and railways.

9. The following special rules shall apply to Burma, namely :

- (a) The portion of the Road Account allotted to Burma shall be further apportioned between the Shan States and the rest of Burma in the manner indicated in paragraph 3.
- (b) Instead of the approval of the Governor General in Council to any proposal under paragraph 7, the approval of the Governor after consultation with the Federal Council, shall be required for schemes in the Shan States, and the approval of the local Government, with the concurrence of the local legislature, shall be required for schemes in the rest of Burma.

10. (1) A Standing Committee for Roads shall be constituted each financial year consisting of—

- (a) the Member of the Governor General's Executive Council in charge of the department dealing with roads,
- (b) two nominated official members, of whom one shall be a member of the Legislative Assembly,
- (c) three members elected by the members of the Council of State from amongst themselves, and
- (d) six members elected by the members of the Legislative Assembly from amongst themselves.

(2) No approval to any proposal for expenditure from the Road Account shall be given by the Committee unless it is supported by—

- (i) a majority of the members present and voting who are members of the Legislative Assembly and
- (ii) a majority of the members of the whole Committee present and voting.

(3) All proposals for expenditure from the Central reserve and all other proposals for expenditure from the Road Account to be made in British India (excluding Burma) shall be referred by the Governor General in Council to the Standing Committee before he approves of them.

11. The functions of the Standing Committee shall be—

- (a) To consider the annual budget and accounts of the Road Account.
- (b) To advise upon all proposals for expenditure from the Central reserve.
- (c) To advise upon the desirability of all other proposals involving expenditure from the Road Account in British India (excluding Burma).
- (d) To advise the Governor General in Council generally on all questions relating to roads and road traffic which the Governor General in Council may refer to them.

REPORTS

ON THE WORKING OF THE

Board of Indian Medicine

UNITED PROVINCES

For the years 1930-31, 1931-32, and 1932-33

PUBLISHED BY AUTHORITY



ALLAHABAD:

SUPERINTENDENT, PRINTING AND STATIONERY, UNITED PROVINCES

1935

LA.252Y

G5

REPORT

FOR THE YEAR 1930-31

Annual Report on the working of the Board of Indian Medicine, United Provinces, for the year 1930-31

1. With the close of the year 1930-31, the Board of Indian Medicine, United Provinces, has completed the first five years of its existence, although it was recognized as a Government Institution with effect from April 1, 1930, only.

2. The constitution of the Board during the year under review has been as follows :

Chairman :

- (1) The Hon'ble Saiyid Wazir Hasan, Chief Judge of Oudh.

Members :

- (2) Rai Bahadur Pandit Kanhaiya Lal, retired Judge, High Court, Allahabad.
- (3) Hakim Muhammad Qasim *alias* Sahib Alam of the Maadanul-advia Nakhas Road, Lucknow.
- (4) Khan Bahadur Maulvi Fasih-ud-din, M.L.C., Budaun.
- (5) Pandit Brijnandan Prasad Mirsa, M.L.C., Pilibhit, from September 10, 1929 to April 25, 1930. } Elected by the Legisla-
Rai Bahadur Lala Jagdish Prasad, } tive Council, United
M.L.C., Muzaffarnagar, from July 11, } Provinces.
1930.
- (6) Dr. M. S. Varma, M.B., B.S., Benares Elected by the Benares Hindu University.
- (7) Dr. A. Butt, M.D., M.B., B.S., Aligarh Elected by the Muslim University, Aligarh.
- (8) Dr. N. R. Dhar, D.Sc., Allahabad Elected by the Allahabad University.
- (9) The Hon'ble Raja Nawab Ali Khan of Akbarpur, District Sitapur .. Elected by the Lucknow University.
- (10) Kaviraj Jnanendra Nath Sen, B.A., Principal, Rishikul Ayurvedic College, Hardwar.
- (11) Dr. A. C. Gupta, M.B., B.S., Principal, Raja Lalita Prasad Ayurvedic Pathshala, Pilibhit.

(12) Shifa-ul-Mulk Hakim Abdul Hamid of Takmil-ut-Tib College, Lucknow.

(13) Hakim Saiyid Wahiduddin Ahmad Jafri, Allahabad.

(14) Hakim Khwaja, Kamaluddin, Lucknow Elected by the Anjuman Tibbia, Lucknow.

(15) Vaid Raj Kanhaiya Lal Jain, Cawnpore Elected by the United Provinces Vaid Sammelan, Cawnpore.

(16) Kaviraj Pratap Sinha, Superintendent, Ayurvedic Pharmacy, Benares Hindu University, Benares.

(17) Pandit Shyam Lal Vaid, Lucknow.

(18) Hakim Abdul Haseeb, Lucknow.

(19) Hakim Khwaja Shamsuddin Ahmad, Lucknow.

Secretary

(20) Sheikh Muhammad Hasan, from April 1 to 30, 1931.
Mr. S. Phillips, Lucknow, from May 1, 1931.

3. The Board of Indian Medicine was established to deal with the following matters :

(1) To advice Government in all matters connected with the organization and development of the Ayurvedic and Unani systems.

(2) To prescribe courses of study for examinations.

(3) To appoint examiners and conduct all examinations under the Indian systems of medicine.

(4) To confer certificates, diplomas, and degrees.

(5) To register medical practitioners.

(6) To distribute grants placed by Government at the disposal of the Board.

(7) To appoint sub-committees to advise the Board on technical questions.

4. During the year the members of the Board met on two occasions and the following sub-committees, consisting of selected members of the Board, which had been appointed to advise the Board on technical and other matters, met from time to time.

(1) the Grants-in-aid Committee,

(2) the Board of Examiners,

(3) the Registration Committee,

- (4) the Recognition Committee,
 (5) the Courses Committee, and
 (6) the Accounts Committee.

Distribution of grants

5. Grants ranging between Rs.75 and Rs.3,000 were distributed in the year under review on the recommendation of a sub-committee called the Grants-in-aid Committee consisting of the Chairman of the Board and six members, out of the allotment of Rs.50,000 placed by Government at the disposal of the Board, to 283 dispensaries as against 258 in 1929-30. The details are given below :

Ayurvedic

	Rs.
91 private dispensaries in rural areas	9,925
53 private dispensaries in urban areas	10,275
14 district boards in the province	3,025
3 dispensaries maintained by educational institutions which are in receipt of aid from Government direct	3,000
5 dispensaries maintained by educational institutions which do not receive any aid from Government direct	2,000
166	28,225
Total	28,225

Unani

	Rs.
47 private dispensaries in rural areas	4,650
48 private dispensaries in urban areas	5,750
14 District Boards in the province	2,975
3 dispensaries maintained by educational institutions which are in receipt of aid from Government direct	2,700
5 dispensaries maintained by educational institutions which do not receive any aid from Government direct	5,700
117	21,775
283 dispensaries	50,000
GRAND TOTAL	50,000

Out of 258 dispensaries which were allotted grants in 1929-30, 226 received grants again in 1930-31. The number of new applications for grants received in the year under report was 244 of which only 57 were given grants. None of the municipalities in the province could be given any grant this year owing to the inadequacy of funds at the disposal of the Board.

Examinations

6. The Board conducted examinations for the first time in April and May, 1930. The examinations were held at Aligarh, Allahabad, and Hardwar. Seventeen candidates passed the third year examination of the Tibbia College, Aligarh, 11 candidates passed the second year examination of the Unani Medical School, Allahabad, and 10

candidates passed the second year examination of the Rishikul Ayurvedic College, Hardwar. The results were published in Part IV of the *United Provinces Government Gazette*, dated August 9, 1930, at page 1045.

The Board of Examiners consisting of several members of the Board of Indian Medicine were present at the various centres at the time of the examinations. A sum of Rs.252-8 was realized from candidates who appeared at the examinations on account of admission fee.

Registration of Vaidas and Hakims

7. One of the matters which engaged the attention of the Board during the year was the question of registration of vaidas and hakims in the province on payment of fees. Apart from bestowing upon the vaidas and hakims a distinct status the registration is calculated to grant certain privileges to them, such as the issue of certificates of leave, illness, and age to employees of District and Municipal Boards, permission to stock indigenous poisonous drugs, and eligibility for being a voter to elect one or more registered vaidas and hakims to represent the remaining registered vaidas and hakims on the Board. Government have recently approved the rules framed by the Board governing the registration of vaidas and hakims. Steps are now being taken to have them published in the *United Provinces Gazette*. Publicity is also being given to them through the medium of English and Vernacular newspapers in the province.

Recognition of Ayurvedic and Unani Schools and Colleges

8. The Board has appointed a sub-committee called the Recognition Committee consisting of some members of the Board to visit the schools and colleges which are desirous of being recognized by the Board. In the year under review the Recognition Committee visited the Nath Chandravat Ayurvedic Vidyalaya at Jagdishpur, district Gorakhpur, and the Ayurvedic Vidyalaya at Cawnpore. The duties of the Recognition Committee are to inspect the schools and colleges which apply for recognition with a view to ascertain whether the institution is situated in a suitable locality with sufficient room for its future expansion, whether it possesses chemical, physical, or biological laboratories, whether the staff employed by it is competent, whether there is sufficient accommodation for the classes taught in the institution, whether a hostel is attached to the institution, whether there is a hospital maintained by the institution, whether the financial position of the institution is sound and whether the standard of teaching imparted in the institution justifies the recognition of the institution.

Courses Committee

9. The Board does not consider the courses prescribed for the Ayurvedic and Unani schools and colleges quite suitable. Accordingly a Courses Committee has been appointed by the Board, which is at present engaged in revising the courses as some of the books are too difficult whilst others are too easy.

Accounts, forms, stationery, furniture, and movable property

10. The accounts of the Board are kept strictly in accordance with the rules. All the registers required for purposes of the accounts are maintained. A Finance Committee consisting of the Chairman of the Board and two members has been appointed to advise the Board on all questions relating to finance, including the preparation of the annual budget.

Stock-books of forms, stationery, furniture, and movable property are also kept.

Clerks and Peons

11. Two clerks, one of whom is a stenographer and the other a typist, are attached to the office of the Board at present. The work of the Board has gained considerable volume lately. The number of letters received in the office in the year under review, excluding monthly and annual returns and inspection notes, was 1,446 and the number despatched was 2,673. As the work very often becomes unmanageable, the clerks are required to attend office on holidays and outside office hours on working days. The Board submitted a proposal to Government for the increase of their pay, but although Government took a sympathetic view of their case and called for proposition statements, which were submitted to Government with the Board's letter no. 58/VI—2, dated May 23, 1930, nothing could be done for them. The Board considers that either they should be paid for the work done by them during their spare time or a third clerk should be appointed to assist them in disposing of the increasing volume of vernacular and other work.

One of the two peons attached to the office of the Board is a permanent hand and the appointment of the other, who had been engaged by the Board temporarily, has been approved by Government with effect from April 1, 1931.

One temporary clerk was engaged for Dr. A. Butt, M.D., M.B., B.S., Principal of the Tibbia College, Aligarh, and the convener of certain committees appointed by the Board, for three and a half months in the year under review at Rs.30 per mensem. Arrangements are being made for placing the services of a part-time clerk at the disposal of Dr. Butt, at a remuneration of Rs.15 per mensem with effect from April 1, 1931.

The working of the dispensaries

12. As stated in paragraph 5 of this report 283 dispensaries were allotted grants-in-aid for the year 1930-31. The dispensaries in the rural areas afforded medical relief free of charge to 1,470,055 patients as against 1,236,336 patients in the previous year. The dispensaries in the urban areas treated 1,389,596 patients free of cost as against 1,559,202 patients in the previous year. The total number of patients treated free of cost by the State-aided Ayurvedic and Unani dispensaries in the United Provinces thus comes to 2,859,651

in the year under review at a cost of Rs.50,000 sanctioned by Government under head "Development of indigenous systems of medicine in the United Provinces" as against 5,975,238 patients who were treated by the civil hospitals and allopathic dispensaries in the province in the year 1929 at a cost of Rs.31,03,046 (*vide* pages 1 and 3 of the annual report of the Inspector General of Civil Hospitals, United Provinces, for 1929). A statement (no. I) showing the number of patients treated by the Ayurvedic and Unani dispensaries is attached to this report.

Having regard to the fact that a large proportion of the population of these provinces has recourse to treatment afforded by the indigenous systems of medicine and, when in need of medical relief, seeks the help of practitioners professing these systems, the sum of Rs.50,000 placed at the disposal of the Board so far has proved wholly inadequate to meet the needs of the dispensaries which require assistance for the furtherance of their work. This amount is too small to be of any use to the Board for the development and expansion of the work which it is required to perform. The Board approached Government in January, 1931, with a view to the allotment being raised from Rs.50,000 to Rs.1,00,000. Government have promised to include an additional sum of Rs.25,000 in the budget for 1931-32 for the development of the indigenous systems if funds are available. The Ayurvedic and Unani dispensaries play a very important part in the life of the people of these provinces and when the number of patients whom they give free medical relief is nearly half of the number of patients treated by the civil hospitals and allopathic dispensaries in the province, they certainly deserve encouragement at the hands of Government, and sufficient provision should be made for them.

It is possible that the figures of attendance supplied by *vaid*s and *hakims* to this Board are sometimes exaggerated, but as matters stand at present, it is impossible to collect the figures in any other way. The Board has not under its control a suitable inspecting agency which could check each item of the various registers maintained by *vaid*s and *hakims*. Government, no doubt, have entrusted the officers of the Revenue Department and of the District and Municipal Boards with the duty of inspecting these dispensaries whilst touring in their districts, but although these officers were supplied by this Board with a list of dispensaries which were in receipt of Government aid, together with the points on which inspection should have proceeded, the inspections made by them were very disappointing.

The Revenue authorities were requested to inspect 235 dispensaries but they inspected only 89 dispensaries: the remaining 146 dispensaries were not inspected at all. The District Boards were requested to inspect 112 dispensaries in the rural areas but they inspected only 15 dispensaries and did not inspect 97 dispensaries. The Municipal Boards were requested to inspect 100 dispensaries in the urban areas but they inspected only 51 dispensaries and did not inspect 49 dispensaries.

It will thus be seen that only one-third of the dispensaries which these officers were asked to inspect were visited by them. This is not surprising as these officers have a good deal of work with which they are more directly concerned and it is, therefore, only natural that some of them should have regarded the inspection work as of no importance whatsoever. There have been cases in which the Revenue authorities summoned the proprietors of the dispensaries to their courts instead of visiting the dispensaries themselves and inspecting them, and when the proprietors did not attend their courts they were not recommended for a further grant from the Board. There have been other cases in which the Collectors and District Boards have simply forwarded to this Board the account written by the proprietors themselves about their dispensaries. Further, most of the reports which have been received are sketchy and superficial to a degree and a perusal of them would lead to the conclusion that the inspections were made perfunctorily and in an off-hand manner, but it is too much to expect these officers, who have multifarious duties to perform, to go through the voluminous registers maintained by the dispensaries and see whether the entries contained therein are accurate and whether the daily, monthly, quarterly, and yearly totals are correct. Nor is it possible for them to inspect the dispensaries regularly and systematically and the very purpose for which they have been appointed is thus defeated. In these circumstances it is somewhat difficult for this Board to gauge the popularity or otherwise of the dispensaries which are in receipt of grants from it and consequently the Board is not in a position to report with certainty whether any progress has been made by them or whether the grant allotted to them has been utilized for the purpose for which it has been given. The Board, however, has no reason to suppose that the grants given to the dispensaries are misapplied : it has had no complaint regarding misapplication of funds by the dispensaries brought to its notice. But the only information regarding the work of these dispensaries with which this Board has to remain contented is contained in the statements prepared and submitted by the v aids and hakims themselves. The Board had intended to entrust the duty of inspecting the dispensaries to two whole-time inspectors who could be relied upon to carry out the wishes of the Board in the matter, but Government having asked the Revenue authorities and the District and Municipal Boards to inspect the dispensaries in question, naturally wish to see first how far these agencies would be in a position to help this Board. It is clear from the foregoing statement of facts that, so far as inspections of dispensaries are concerned, the Revenue authorities and the District and Municipal Boards cannot be of any assistance to this Board. In the opinion of the Board the only solution of the difficulty is to appoint two whole-time inspectors who could inspect the dispensaries thoroughly, examine the registers maintained by them carefully, submit correct information and accurate figures to this Board, and report on the merits of each dispensary for a further grant. The Board will then have an effective control over the dispensaries and will be in a position to know exactly how these dispensaries work.

Ayurvedic and Unani Schools and Colleges

13. There are five Ayurvedic and five Unani schools in the province which are in receipt of grants from this Board. These schools do not receive any aid from Government direct. Six schools and colleges receive aid from this Board as well as from Government direct. Detailed particulars as to the working of these schools and colleges are contained in Statement no. II attached to this report.

Conclusion

14. I am thankful to the members of the Board and the members of the various sub-committees for the very valuable assistance which I received from them during the year. The two clerks, B. Babu Lal and B. Gopal Krishna Gupta, worked with unusual zeal and have given me more than satisfaction.

I cannot close this report without recording my complete appreciation of the work done by Mr. S. Phillips, Secretary of the Board. I realize that without him it would have been impossible for me to carry on the work.

WAZIR HASAN,

Chairman, Board of Indian Medicine,

United Provinces.

LUCKNOW :

April 30, 1931.

STATEMENT No. I

Statement showing the number of patients treated by Ayurvedic and Unani dispensaries in the province which receive aid from the Board of Indian Medicine (1930-31)

Serial no.	Name of the district	Patients treated		Serial no.	Name of the district	Patients treated	
		Rural	Urban			Rural	Urban
1	Agra ..	15,236	14,146	26	Sultanpur ..	12,254	5,536
2	Muttra ..	9,868	..	27	Partabgarh ..	1,376	1,375
3	Etah ..	14,072	..	28	Bara Banki ..	106,624	1,375
4	Aligarh ..	7,935	4,268	29	Naini Tal ..	11,312	4,157
5	Mainpuri ..	43,756	24,115	30	Almora ..	..	12,591
6	Allahabad ..	13,158	154,271	31	Bareilly ..	5,570	13,761
7	Etawah ..	2,252	3,028	32	Pilibhit ..	1,821	65,140
8	Farrukhabad ..	173,098	36,104	33	Shahjahanpur ..	..	22,809
9	Fatehpur ..	29,622	10,251	34	Moradabad ..	40,878	22,535
10	Cawnpore ..	57,508	253,229	35	Budaun ..	6,621	20,991
11	Jhansi ..	98,619	5,245	36	Bijnor ..	60,264	..
12	Jalaun ..	9,000	..	37	Lucknow ..	62,991	399,997
13	Hamirpur ..	72,513	..	38	Unao ..	50,605	8,000
14	Banda ..	21,572	..	39	Rae Bareli ..	12,000	5,180
15	Benares ..	49,804	6,216	40	Sitapur ..	28,251	20,472
16	Mirzapur ..	1,339	10,879	41	Hardoi ..	46,640	10,308
17	Ballia ..	59,926	9,118	42	Kheri ..	30,000	..
18	Ghazipur ..	2,712	15,668	43	Meerut ..	48,856	70,775
19	Jaunpur ..	17,096	50,567	44	Bulandshahr ..	31,136	11,618
20	Gorakhpur ..	25,110	7,800	45	Dehra Dun ..	53,280	..
21	Basti ..	6,392	..	46	Saharanpur ..	9,704	8,139
22	Azamgarh ..	3,853	29,215	47	Muzaffarnagar	13,800	8,400
23	Fyzabad ..	..	4,193		Total ..	1,470,055	1,389,596
24	Gonda ..	26,298	7,810		GRAND TOTAL	2,859,651	
25	Bahraich ..	75,333	30,314				

Lucknow :
April 30, 1931.

WAZIR HASAN,
Chairman, Board of Indian Medicine,
United Provinces.

STATEMENT No. II

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1930-31)

Serial number	Name of institution	Grant allotted	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is a hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
<i>Ayurvedic schools which are in receipt of grants from the Board of Indian Medicine, but do not receive any grant from Government direct</i>										
1	Ayurvedic Vidyalaya, Naughara, Cawnpore.	Rs. 500	39	1. Municipal Board Grant, Rs.20 per mensem. 2. Subscriptions. 3. Donations	Utilized the income towards the expenses of school and dispensary.	Yes	Yes	..	Recognition Committee of the Board of Indian Medicine.	A registered managing committee of 21 members.
2	Nath Chandravat Koah Trust Ayurvedic Pathshala, Jagdishpur, district Gorakhpur.	500	17	N. C. K. Trust contribution.	Ditto ..	Yes	Yes	..	Ditto ..	Board of trustees of six members.
3	Ayurved-Vidya Parbodhni Pathshala, Sidheshwari, Benares.	100	34	1. Income from immovable property of Rs.300 a year. 2. Interest on fixed deposit of Rs.19,300. 3. Subscription and sale of medicines.	Ditto ..	Yes	No	..	..	Managing committee of 11 members.

4	Empress Sanskrit Pathahala, Bahraich.	300	12	1. District Board grant, Rs.100 per mensem. 2. Contribution from the Kapurthala Estate, Rs.10 per mensem. 3. Sale of medicines, Rs.25 per mensem.	Ditto ..	Yes	Yes	..	Deputy Commissioner, Bahraich.	Managing committee.
5	Lalit Hari Ayurvedic College (School), Pilibhit.	600	37	Contribution from the estate of Raja Radha Raman of Pilibhit.	Utilized the income towards the expenses of college and dispensary.	Yes	Yes	..	1. The late Chairman, Board of Indian Medicine. 2. Collector, Pilibhit.	Ditto,
<i>Unant schools which are in receipt of grants from the Board of Indian Medicine but do not receive any grant from Government direct</i>										
1	Mumba-ul-Tib College (School), Lucknow.	800	52	1. Donations .. 2. Boarding fees.	Utilized the income towards the expenses of college and dispensary.	Yes	Yes	..	1. Deputy Commissioner, Lucknow. 2. Tahsildar, Lucknow.	A registered managing committee of 13 members.
2	Tibbiya Wahajia College (School), Lucknow.	500	64	1. Fees .. 2. Donations.	Ditto ..	Yes	No	..	1. The late Chairman, Board of Indian Medicine. 2. Tahsildar, Lucknow.	A registered managing committee of 12 members.
3	Takmil-ul-Tib College (School), Lucknow.	3,000	82	1. Donations .. 2. Sale of medicines.	Ditto ..	Yes	Yes	Science laboratory.	Ditto ..	Ditto.

STATEMENT No. II—(concluded)

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1930-31)—(concluded)

Serial number	Name of institution	Grant allotted	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
<p><i>Unani schools which are in receipt of grants from the Board of Indian Medicine but do not receive any grant from Government direct</i></p>										
4	Zanana Tibbiya School, Allahabad.	Rs. 100	10	Subscriptions	Utilized the income towards the expenses of the school.	Yes	..	..	..	..
5	Unani Medical School, Allahabad.	1,500	30	1. Founder's contributions. 2. Donations. 3. Subscriptions.	Utilized the income towards the expenses of the school and dispensary.	Yes	..	Chemical ..	1. The late Chairman, Board of Indian Medicine. 2. Collector, Allahabad.	A registered executive body of seven members.
<p><i>Ayurvedic and Unani schools and Colleges which are in receipt of grants both from the Board of Indian Medicine as well as from Government direct</i></p>										
1	Ayurvedic College, Benares Hindu University, Benares.	Rs. 50,000 (Government grant). Rs. 2,500 (Board of Indian Medicine grant).	58	1. Government grant 2. Board of Indian Medicine grant. 3. Tuition fees. 4. Sale of medicines, etc.	Utilized the income towards the expenses of college and dispensary.	Yes	Yes	Chemical, Physical and Bacteriological.	..	Controlled by the Benares Hindu University.

2	Rishikul Ayurvedic College (School), Haridwar.	Rs. 10,000 (Government grant). Rs. 200 (Board of Indian Medicine grant).	61	1. Government grant. 2. Board of Indian Medicine grant. 3. Tuition fees. 4. Sale of medicines. 5. Donations.	Ditto ..	Yes	Yes	Science laboratory.	Collector, Saharanpur.	A managing committee of 11 members.
3	Tibbiya College, Muslim University, Aligarh.	Rs. 50,000 (Government grant). Rs. 2,000 (Board of Indian Medicine grant).	49	1. Government grant. 2. Board of Indian Medicine grant. 3. University contribution.	Ditto ..	Yes	Yes	Physiological and Pathological.	Collector, Aligarh.	Controlled by the Muslim University, Aligarh.
4	State-aided Unani School, Lucknow.	Rs. 10,000 (Government grant). Rs. 200 (Board of Indian Medicine grant).	40	1. Government grant. 2. Board of Indian Medicine grant.	Utilized the income towards the expenses of school and dispensary.	Yes	No	Science laboratory.	Tahsildar, Lucknow.	A managing committee of 11 members.
5	Misbahul-Uloom, Allahabad.	Rs. 4,500 (Government grant). Rs. 500 (Board of Indian Medicine grant).	32	..	..	Yes	Yes	..	..	A managing committee.
6	Sanskrit Ayurvedic Pathshala, Auraiya, District Etawah.	Rs. 98 per mensem (Government grant). Rs. 300 (Board of Indian Medicine grant).	133	1. Government grant. 2. Board of Indian Medicine grant. 3. District Board grant, Rs. 90 per mensem. 4. Municipal Board grant, Rs. 25 per mensem. 5. Subscriptions, Rs. 185 per mensem.	Utilized the income towards the expenses of school.	Yes	Yes	..	Tahsildar, Etawah.	A registered managing committee of 21 members.

LUCKNOW :

April 30, 1931.

WAZIR HASAN,
Chairman, Board of Indian Medicine,
United Provinces.

No. 3771C/V—163

FROM

J. M. CLAY, Esq., C.I.E., O.B.E., I.C.S., M.L.C.,
SECRETARY TO GOVERNMENT,
MEDICAL DEPARTMENT,
UNITED PROVINCES,

To

THE CHAIRMAN,
BOARD OF INDIAN MEDICINE,
UNITED PROVINCES.

Dated Naini Tal, June 11, 1931.

SIR,

WITH reference to your letter no. 43/III—1, dated May 12, 1931, I am directed to acknowledge receipt of the annual report on the working of the Board of Indian Medicine, United Provinces, during the year 1930-31, and to say that the Governor, acting with his Ministers, observes with approval the useful work which is being done by the Board and regrets that financial considerations have again made it impossible to increase the grants made to the Board for distribution among Ayurvedic and Unani institutions.

2. In your report you have pointed out that the results of the Government circular letter no. 1133/IB—241-1930, dated July 24, 1930, instructing tahsildars and naib-tahsildars to inspect the Ayurvedic and Unani institutions when they can spare time for this purpose, have not been found so far to have been very effective and have advocated the appointment of two whole-time inspectors. The Government regret that, in the present financial condition of the province, it is not possible to provide money for the appointment of these inspectors and trust that the Board will make the best use they can of the inspections undertaken by revenue officials and members of district and municipal boards. The most valuable thing which a non-technical inspector of these institutions can ascertain is the reputation which the institutions have in the neighbourhood amongst the people who are expected to patronize them. This is a matter which can be easily ascertained and requires no technical knowledge whatever. Until, therefore, the Government can find money to appoint whole-time inspectors, the Board, it may be suggested, may be guided to a large extent in apportioning their grants by the reputation which the various vaidas, hakims and aushadhalayas possess in their neighbourhood.

3. Government will also consider the question of issuing further instructions to revenue officials pointing out that the most important thing for them to ascertain is the actual reputation of each institution amongst the people who patronize or ought to patronize it.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) AIN-UD-DIN,

For Secretary.

REPORT
FOR THE YEAR 1931-32

Annual report on the working of the Board of Indian Medicine, United Provinces, for the year 1931-32

1. THE constitution of the Board of Indian Medicine, United Provinces, during the year under review was as follows :

Chairman :

- (1) The Hon'ble Sir Saiyid Wazir Hasan, K.T., Chief Judge of Oudh.

Members :

(2) Rai Bahadur Pandit Kanhaiya Lal, retired Judge, High Court, Allahabad.

(3) Hakim Mohammad Qasim *alias* Sahib Alam of the Maadan-ul-Advia, Nakhas Road, Lucknow.

(4) Khan Bahadur Maulvi Fasihuddin, M.L.C., Budaun.

(5) Rai Bahadur Lala Jagdish Prasad, M.L.C., Muzaffarnagar, from July 11, 1930 to March 29, 1931..

Chaudhary Mohammad Ali, M.L.C., Taluqdar, Amirpur, District Bara Banki, from March 30, 1931.

Elected by the Legislative Council, United Provinces.

(6) Dr. M. S. Varma, M.B., B.S., Benares

Elected by the Benares Hindu University.

(7) Dr. A. Butt, M.D., M.B., B.S., Aligarh

Elected by the Muslim University, Aligarh.

(8) Dr. N. R. Dhar, D.Sc., Allahabad ..

Elected by the Allahabad University.

(9) The Hon'ble Raja Nawab Ali Khan of Akbarpur, district Sitapur.

Elected by the Lucknow University.

(10) Kaviraj Jnanendra Nath Sen, B.A., Principal, Rishikul Ayurvedic College, Hardwar.

(11) Dr. A. C. Gupta, M.B., B.S., Principal, Raja Lakta Prasad Ayurvedic Pathshala, Pilibhit.

(12) Shifa-ul-Mulk Hakim Abdul Hamid of Takmil-ut-Tib College, Lucknow.

(13) Hakim Saiyid Wahiduddin Ahmad Jafri, Allahabad.

Members—(concl'd.)

- (14) Hakim Khwaja Kamaluddin, Lucknow. Elected by the Anjuman Tibbia, Lucknow.
- (15) Vaidraj Kanhaiya Lal Jain, Cawnpore. Elected by the United Provinces Vaid Sammelan, Cawnpore.
- (16) Kaviraj Pratap Sinha, Superintendent, Ayurvedic Pharmacy, Benares Hindu University, Benares.
- (17) Pandit Shyam Lal Vaid, Lucknow.
- (18) Hakim Abdul Haseeb, Lucknow.
- (19) Hakim Khwaja Shams-ud-din Ahmad, Lucknow.

Secretary

- (20) Mr. S. Phillips, Lucknow.

Meetings of the Board and Sub-committees

2. Although it was necessary to hold two general meetings and seven sub-committee meetings during the year, the Board as a measure of economy held only one general meeting and four meetings of the sub-committees which met in Lucknow for two consecutive days followed by the general meeting on the third. The sub-committees in question which met on February 19 and 20, 1932, were—

- (1) The Board of Examiners.
- (2) The Courses Committee.
- (3) The Recognition Committee.
- (4) The Grants-in-aid Committee.

The Board of Examiners

3. The Board conducted examinations during the year under report in March, April and June, 1931, at Aligarh, Allahabad, Hardwar and Lucknow. Seven candidates passed the third year examination of the Tibbia College, Aligarh, 7 candidates passed the second year examination of the Unani Medical School, Allahabad, 14 candidates passed the second year examination of the Rishikul Ayurvedic College, Hardwar, and 19 candidates passed the second year examination of the State-aided Unani School, Lucknow. The results were published in Part IV of the *United Provinces Government Gazette*, dated August 1, 1931, October 31, 1931, and March 19, 1932, at pages 1039, 1131 and 57 respectively. One or more members of the Board of Examiners were present at each centre at the time of the examination. The Board conducted the examination of the State-aided Unani School, Lucknow, for the first time this year. A sum of Rs.302-8 was realized from candidates who appeared at the examinations of the Board on account of admission fee.

Courses Committee

4. The Board considered the Courses Committee's report dealing with the revised courses for Ayurvedic and Unani schools and colleges and ordered for the publication of the Ayurvedic course. The opinion of certain eminent hakims is being obtained at present on the suitability or otherwise of the Unani Course as revised by the Committee.

Recognition Committee

5. During the year 1931-32 the Recognition Committee considered the question of affiliation of the Nath Chandravat Trust Ayurvedic School at Jagdishpur, district Gorakhpur, to the Board. As a result of the Committee's recommendation the Board allowed temporary affiliation of the school for one year with effect from July 1, 1932. The Board further considered the proposal of the Dayanand Ayurvedic College, Lahore, and the Banwari Lal Ayurvedic Pathshala, Delhi, for recognition of their degrees and diplomas for the district and municipal boards service in the United Provinces, and decided that the recognition in question could not be accorded.

Distribution of grants

6. Grants ranging between Rs.75 and Rs.2,700 were distributed in the year under review out of the allotment of Rs.45,000 to 295 dispensaries (including four dispensaries which received Rs.25 each) as against an allotment of Rs.50,000 to 283 dispensaries in 1930-31. The details are given below :

Ayurvedic

	Rs.
93 private dispensaries in rural areas	9,122
52 private dispensaries in urban areas	9,027
15 District Boards in the province	2,493
4 Municipal Boards in the province	360
3 dispensaries maintained by educational institutions which are in receipt of aid from Government direct	2,700
5 dispensaries maintained by educational institutions which do not receive any aid from Government direct	1,877
172	25,579
Total	25,579

Unani

49 private dispensaries in rural areas	4,107
46 private dispensaries in urban areas	4,651
15 District Boards in the province	2,493
4 Municipal Boards in the province	360
3 dispensaries maintained by educational institutions which are in receipt of aid from Government direct	2,500
6 dispensaries maintained by educational institutions which do not receive any aid from Government direct	5,310
123	19,421
Total	19,421
295 dispensaries	45,000
Grand Total	45,000

Out of 283 dispensaries which were allotted grants in 1930-31 246 received grants again in 1931-32. The grants of the remaining 37 dispensaries were discontinued as most of them did not submit monthly returns to the Board. The number of new applications for aid received in the year under report was 233 (192 Ayurvedic and 41 Unani) of which only 39 (25 Ayurvedic and 14 Unani) were given grants. Four municipalities, viz. Orai, Saharanpur, Bareilly and Agra and the District Boards of Lucknow, Rae Bareli, Hardoi, Fyzabad, Bahraich, Ballia, Jhansi, Rath, Hamirpur, Fatehpur, Farrukhabad, Etah, Bareilly, Moradabad and Pilibhit, 15 in number, were also given grants in 1931-32.

Accounts, forms, stationery, furniture and movable property

7. The Board's accounts are kept strictly in accordance with the rules framed by Government and instructions issued by the Accountant General, United Provinces, from time to time. All the registers required for purposes of the accounts are maintained. The Finance Committee consisting of the Chairman of the Board and two members is consulted on all questions relating to finance including the preparation of the annual budget of the Board.

Stock books of forms, stationery, furniture and movable property are also kept.

Office establishment

8. The office establishment of the Board consists of one part-time Secretary and two clerks. The work in the office has increased considerably and the need for the strengthening of the staff cannot be too strongly emphasized. The number of letters received in the office during the year under review was 1,596 and the number of letters dispatched was 2,189. In addition to these 2,567 monthly returns, 138 annual returns, 273 inspection notes and 323 reports were received last year which had to be checked carefully before they could be embodied in a consolidated statement prepared districtwise for the use of the Grants Committee. The office had also to check and report on a large number of applications received from vaidas and hakims for inclusion of their names in the Register of Medical Practitioners maintained by the Board. As stated in the Board's annual report submitted to Government last year the work in the office is too much for the small staff which has been placed at the disposal of the Board.

Two peons are attached to the office of the Board.

One part-time clerk was also engaged at Aligarh at an allowance of Rs.15 per mensem for six months to assist Dr. A. Butt, M.D., M.B., B.S., Principal of the Tibbia College, Muslim University, and the convener of certain committees appointed by the Board.

The working of the dispensaries

9. As will appear from paragraph 6 of this report 295 dispensaries were allotted grants-in-aid for the year 1931-32. The dispensaries

in the rural areas afforded medical relief free of charge to 1,876,201 patients as against 1,470,055 in the previous year. The dispensaries in the urban areas treated 1,939,864 patients free of charge as against 1,389,596 patients in the previous year. The total number of patients treated free of cost by the State-aided Ayurvedic and Unani dispensaries in the United Provinces comes to 3,816,065 in the year under review at a cost of Rs.45,000 sanctioned by Government under head "Development of indigenous systems of medicine in the United Provinces."

The usual grant of Rs.50,000 placed at the disposal of the Board under head "Development of indigenous systems of medicine in the United Provinces" was reduced by Government in the year under report to Rs.45,000. The Board has distributed the reduced amount as best it could among some of the dispensaries and institutions which required assistance for the furtherance of their work. The Board had approached Government in January, 1931, with a view to the allotment being raised from Rs.50,000 to Rs.1,00,000. Government promised to include an additional sum of Rs.25,000 in the budget for 1931-32 for the development of the indigenous systems, but, so far from there being any increase in the grant, the Board's usual grant of Rs.50,000 itself was cut down to Rs.45,000 in that year. Since then the Board has received intimation from Government that a further reduction of Rs.10,000 has been made by Government for the year 1932-33. This means that the grant under this head will now be only Rs.35,000 for the current year. The Board will distribute this amount in due course but the amount is so insignificant that it is hardly possible for the Board to meet the needs of the dispensaries and institutions which require assistance from it. The Board has already informed Government on more than one occasion of the inadequacy of the funds at its disposal for the development of the indigenous systems of medicine in the province and has now to submit that considering the value of the work which these dispensaries and institutions are doing they deserve a more generous and sympathetic consideration at the hands of the Government.

Inspection of dispensaries

10. Inspections made by the Revenue authorities and the District and Municipal Boards of the Ayurvedic and Unani dispensaries in the province during 1931-32 were again unsatisfactory. The Revenue authorities were requested to inspect 269 dispensaries in urban and rural areas, but they inspected only 178. The remaining 91 dispensaries were not inspected at all. The District Boards were requested to inspect 153 dispensaries in the rural areas out of the 269 dispensaries which the Revenue authorities were asked to inspect but they inspected only 38 and did not inspect 115 dispensaries. The Municipal Boards were requested to inspect 116 dispensaries in the urban areas out of the 269 dispensaries which the Revenue authorities were asked to inspect, but they inspected only 57 and did not inspect 59 dispensaries.

Again, the Revenue authorities were requested to furnish reports regarding 233 new dispensaries in urban and rural areas which had applied for grants during the year under review but they submitted reports about 210 dispensaries only. The remaining 23 dispensaries were not reported on at all. The District Boards were requested to furnish reports regarding 167 dispensaries in the rural areas out of the 233 dispensaries about which the Revenue authorities were asked to report but they submitted reports about 84 dispensaries and did not send any report about the remaining 83 dispensaries. The Municipal Boards were requested to furnish reports regarding 66 dispensaries in the urban areas out of the 233 dispensaries about which the Revenue authorities were asked to report but they submitted reports about 29 dispensaries and did not send any report about 37 dispensaries.

Ayurvedic and Unani schools and colleges

11. There are five Ayurvedic and seven Unani schools in the province which are in receipt of grants from this Board. They do not receive any aid from Government direct. In addition to these there are five Ayurvedic and Unani schools and colleges which receive aid from Government direct. They also receive aid from this Board for the expenses of the dispensaries maintained by them for the benefit of the public. The usual grants of almost all the five institutions which receive aid from Government direct have been curtailed by Government to a very large extent. The activities of these institutions which had begun to make satisfactory progress and were capable of even larger developments are being crippled for want of funds.

Registration of vaidas and hakims

12. The rules framed by the Board and sanctioned by Government for the registration of vaidas and hakims in the United Provinces have not enlisted as much support from the public as was expected. Considering the distinct status which registration was calculated to bestow upon vaidas and hakims in bringing them near to the level of allopathic medical practitioners, they should have enrolled themselves in large numbers, but up to March 31, 1932, only 24 persons were enrolled, although about 100 applications were pending the decision of a sub-committee appointed by the Board on the question of recognition, for purposes of registration, of the schools which awarded diplomas to the persons who filed those applications. In view of the great agitation which is being carried on in and outside the province against these rules at present, and also the representations made by certain public bodies from time to time urging enhancement of the privileges bestowed upon vaidas and hakims in conformity with those of the allopathic medical practitioners, the Board has asked the sub-committee to reconsider the rules in the light of those representations. The present small number of registered vaidas and hakims on the roll has put some difficulty in the way of the election of two registered

vaids and two registered hakims who were to represent the registered persons in the new constitutions of the Board commencing from September, 1932. The Board considering their insignificant number is of opinion that, though under the rules they are entitled to elect their own representatives, the power of election should not be delegated to them till a sufficient number of registered practitioners of the indigenous systems of medicine is on the roll, and that the appointment of members who would represent them on the Board should continue to be made by Government as heretofore after they have been nominated by the Chairman of the Board.

The fee for registration realized from the 24 vaids and hakims who have been enrolled amounts to Rs.230. A sum of Rs.57-2 was also realized by the Superintendent, Government Printing and Stationery, United Provinces, Allahabad, up to March 31, 1932, from the sale of 457 copies of the registration rules at 2 annas per copy.

Conclusion

13. I have again been ably assisted by the members of the Board and the members of the various sub-committees during the year in question. Mr. S. Phillips has worked as Secretary of the Board during the year under report as in the preceding year. His work has been praiseworthy and what is more he is thoroughly reliable. The work of the two clerks, B. Babu Lal and B. Gopal Krishna Gupta, who are attached to the office of the Board, was more than satisfactory.

WAZIR HASAN, K.T.,

*Chairman, Board of Indian Medicine,
United Provinces.*

LUCKNOW :

June 13, 1932.

STATEMENT No. I

Statement showing the number of patients treated by Ayurvedic and Unani dispensaries in the province which receive aid from the Board of Indian Medicine (1931-32)

Serial no.	Name of the district	Patients treated		Serial no.	Name of the district	Patients treated	
		Rural	Urban			Rural	Urban
1	Lucknow ..	53,724	501,105	26	Almora ..	..	3,703
2	Unao ..	53,169	18,472	27	Garhwal ..	..	..
3	Hardoi ..	49,468	10,994	28	Allahabad ..	30,303	208,400
4	Sitapur ..	37,035	22,199	29	Etawah ..	2,025	12,758
5	Rae Bareli ..	24,650	3,216	30	Fatehpur ..	178,340	12,744
6	Kheri ..	20,109	..	31	Farrukhabad ..	214,585	52,728
7	Fyzabad ..	8,106	10,000	32	Cawnpore ..	9,600	355,800
8	Sultanpur ..	22,535	5,094	33	Meerut ..	77,847	102,352
9	Gonda ..	17,082	3,765	34	Saharanpur ..	9,600	20,368
10	Bahraich ..	34,420	12,355	35	Muzaffarnagar	12,400	6,666
11	Bara Banki ..	137,018	..	36	Dehra Dun ..	233,457	..
12	Partabgarh ..	2,556	1,376	37	Bulandshahr ..	37,280	10,356
13	Gorakhpur ..	47,395	2,928	38	Agra ..	21,246	80,704
14	Basti ..	10,524	..	39	Muttra ..	23,160	11,749
15	Azamgarh ..	9,954	29,108	40	Mainpuri ..	51,668	6,600
16	Benares ..	5,942	60,349	41	Etah ..	81,632	5,530
17	Ghazipur ..	4,051	19,334	42	Aligarh ..	12,316	60,020
18	Mirzapur ..	..	13,459	43	Bareilly ..	4,728	59,412
19	Bellia ..	60,411	9,597	44	Shahjahanpur	8,400	61,079
20	Jaunpur ..	19,000	23,447	45	Budsun ..	9,368	14,728
21	Jhansi ..	14,597	21,277	46	Pilibhit ..	15,184	43,966
22	Jalsum ..	7,000	36,611	47	Moradabad ..	68,012	5,517
23	Hamirpur ..	67,437	..	48	Bijnor ..	43,873	..
24	Banda ..	12,325	..		Total ..	1,876,201	1,939,864
25	Naini Tal ..	12,669	..		Grand Total ..	3,816,065	

WAZIR HASAN, ET.,

Chairman, Board of Indian Medicine,

United Provinces.

LUCKNOW :
June 13, 1932.

STATEMENT No. II

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1931—32)

Serial number	Name of the institution	Grant allotted by Government	Grant allotted by Board	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is a hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
		Rs.	Rs.								
1	Ayurvedic College, Benares Hindu University, Benares.	45,000	2,250	214	1. Government and Board of Indian Medicine grants. 2. Tuition fees. 3. Rent. 4. Interest. 5. Sale of medicines.	Utilized the income towards the expenses of College and Dispensary.	Yes	Yes	Chemical, Physical, Surgical and Gynaecological.	..	Controlled by the Benares Hindu University.
2	Rishikul Ayurvedic College (School), Hardwar.	9,000	180	69	1. Government and Board of Indian Medicine grants. 2. Tuition fees. 3. Interest on deposits. 4. Donations 5. Sale of medicines.	Ditto	Yes	Yes	Science and Surgical laboratories.	..	A managing committee of 11 members.
3	Tibbiya College, Muslim University, Aligarh.	45,000	1,800	46	1. Government and Board of Indian Medicine grants. 2. University contributions. 3. Rent, etc. 4. Sale of medicines.	Ditto	Yes	Yes	Physiological, Pathological, Surgical, X-rays and Electro-medical.	..	Controlled by the Muslim University, Aligarh.

STATEMENT No. II—(continued)

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1931-32)—(continued)

Serial number	Name of the institution	Grant allotted by Government	Grant allotted by Board	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is a hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
		Rs.	Rs.								
4	State-aided Unani School, Lucknow.	9,000	450	48	1. Government and Board of Indian Medicine grants. 2. Tuition fees.	Utilized the income towards the expenses of School and Dispensary.	Yes	Yes	Science laboratory.	Deputy Commissioner, Lucknow.	A managing committee of 11 members.
5	Ayurvedic Sanskrit Pathshala, Auraiya, district Etawah.	98 per mensem	270	134	1. Government and Board of Indian Medicine grants. 2. District Board Rs.90 per mensem. 3. Municipal Board Rs.25 per mensem. 4. Subscriptions.	Ditto ..	Yes	Yes	..	..	A managing committee.
6	Misbahul-Uloom, Allahabad.	..	250	39	1. Board of Indian Medicine grant. 2. Municipal Board grants.	Ditto ..	Yes	Yes	..	..	Ditto.
7	Ayurvedic Vidyalaya, Naughara, Cawnpore.	..	450	38	1. Board of Indian Medicine grant. 2. Municipal Board grant Rs.65 per mensem for medicines.	Ditto ..	Yes	Yes	..	Deputy Collector, Cawnpore.	A managing committee of 21 members.

8	Nath Chandrevat Kosh Trust Pathshala, Jagdishpur, district Gorakhpur.	617	14	<p>3. Municipal Board grant Rs.20 per mensem.</p> <p>4. Subscription and donations.</p> <p>1. Board of Indian Medicine grant.</p> <p>2. N. C. K. Trust contribution.</p>	Ditto	..	Yes	Yes	..	(1) Recognition Committee of the Board of Indian Medicine. (2) Collector, Gorakhpur.	Board of Trustees.
9	Lalit Hari Ayurvedic College (School), Pilibhit.	450	42	<p>1. Board of Indian Medicine grant.</p> <p>2. Contribution from the Estate of Raja Radha Raman, Pilibhit.</p>	Utilized the income towards the expenses of College and Dispensary.	..	Yes	Yes	..	..	Ditto.
10	Empress Sanskrit Pathshala, Bahraich.	270	13	<p>1. Board of Indian Medicine grant.</p> <p>2. District Board grant Rs.100 per mensem.</p> <p>3. Contribution from the Kapurthala Estate Rs.10 per mensem.</p> <p>4. Sale of medicines.</p>	Utilized the income towards the expenses of School and Dispensary.	..	Yes	Yes	..	Tahsildar, Bahraich.	A managing committee of 15 members.
11	Ayurvedic Vidya Parbodhni Pathshala, Sidheshwari, Benares.	90	26	<p>1. Board of Indian Medicine grant.</p> <p>2. Interest on deposit</p> <p>3. Rent.</p> <p>4. Subscriptions and sale of medicines.</p>	Ditto	..	Yes	No	..	..	A managing committee of 11 members.
12	Takmil-ut-Tib College (School), Lucknow.	2,700	99	<p>1. Board of Indian Medicine grant.</p> <p>2. Donations.</p> <p>3. Sale of medicines.</p>	Utilized the income towards the expenses of College and Dispensary.	..	Yes	Yes	Science laboratory.	Deputy Commissioner, Lucknow.	A managing committee of 12 members.
13	Unani Medical School, Allahabad.	1,800	29	<p>1. Board of Indian Medicine grant.</p> <p>2. Founder's contribution.</p> <p>3. Donations, etc.</p>	Utilized the income towards the expenses of School and Dispensary.	..	Yes	Yes	Ditto	(1) Collector, Alahabad. (2) Medical Officer of Health, Allahabad.	Board of Trustees.

STATEMENT No. II—(concluded)

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1931-32)—(concluded)

Serial number	Name of the institution	by Grant allotted Government	by Grant allotted Board	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is a hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
14	Mumba-ul-Tib College (School), Lucknow.	..	Rs. 300	50	1. Board of Indian Medicine grant. 2. Tuition fees, 3. Donations.	Utilized the income towards the expenses of College and Dispensary.	Yes	Yes	..	Deputy Commissioner, Lucknow.	A managing committee.
15	Tibbiya Wahajia College (School), Lucknow.	..	300	72	1. Board of Indian Medicine grant. 2. Donations.	Ditto ..	Yes	Yes	..	Ditto ..	Ditto.
16	Zanana Tibbia School, Allahabad.	..	90	14	1. Board of Indian Medicine grant. 2. Donations and subscriptions.	Utilized the income towards the expenses of school and dispensary.	Yes	..	..	(1) Collector, Allahabad. (2) Medical Officer of Health, Allahabad.	Ditto.
17	Tibbiya School, Saharanpur.	..	90	7	1. Board of Indian Medicine grant. 2. Founder's contribution.	Ditto ..	..	..	..	Collector, Saharanpur.	Ditto.

LUCKNOW :
June 13, 1932.

WAZIR HASAN, KT.,
Chairman, Board of Indian Medicine,
United Provinces.

No. 1080-II/V—42

FROM

KHAN BAHADUR SAIYID AIN-UD-DIN SAHEB, B.A.,
UNDER SECRETARY TO GOVERNMENT,
MEDICAL DEPARTMENT,
UNITED PROVINCES,

TO

THE CHAIRMAN,
BOARD OF INDIAN MEDICINE,
UNITED PROVINCES.

Dated Allahabad, October 4, 1932.

SIR,

I AM directed to acknowledge receipt of the annual report on the working of the Board of Indian Medicine, United Provinces, for the year 1931-32, submitted with your letter no. 177-III—1, dated June 18, 1932, and to say that the Governor, acting with his Ministers, desires to commend the Board for the conscientious way in which it has endeavoured to see that the funds placed at its disposal by Government are equitably distributed to, and properly applied by, deserving institutions and to control and promote the educational and professional progress of indigenous medicine. The Government much regret that they have been compelled by financial exigencies to curtail instead of increasing these funds.

2. I am to add that the Governor, acting with his Ministers, also notes with satisfaction the marked improvement in inspections of dispensaries and private institutions by members of district revenue staffs and is again addressing Commissioners of Divisions with a view to obtaining more assistance in this direction from the members of district and municipal boards.

3. The Government have further accepted the Board's proposal that in view of the present small number of registered vaidas and hakims the four representatives of these practitioners on the Board should once more be nominated, but they have at the same time decided that the election provided for under the constitution of the Board cannot be further postponed after the term now commencing, whatever the numbers on the register, though they hope that by the end of this term these numbers will have substantially increased. A communique is under issue to make this clear alike to those who have already registered and to the other members of the profession.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) AIN-UD-DIN,

Under Secretary.

REPORT
FOR THE YEAR 1932-33

Annual report on the working of the Board of Indian Medicine, United Provinces, for the year 1932-33

1. The constitution of the Board of Indian Medicine, United Provinces, during the year 1932-33, was as follows :

Chairman :

(1) The Hon'ble Sir Saiyid Wazir Hasan, K.T., Chief Judge of Oudh.

Members :

(2) Rai Bahadur Pandit Kanhaiya Lal, retired Judge, High Court, Allahabad.

(3) Hakim Mohammad Qasim *alias* Sahib Alam of the Maadan-ul-Advia, Nakhas Road, Lucknow.

(4) Khan Bahadur Maulvi Fasihuddin, M.L.C., Budaun, from October 23, 1929 to November 7, 1932.

Pandit Shri Sadayatan Pande, M.L.C., of Ahroura, Mirzapur, from November 8, 1932.

(5) Chaudhary Mohammad Ali, M.L.C., Taluqdar, Amirpur, district Bara Banki.

(6) Dr. M. S. Varma, M.B., B.S., Benares

(7) Dr. A. Butt, M.D., M.B., B.S., Aligarh

(8) Dr. N. R. Dhar, D.Sc., Allahabad, from September 10, 1929, to September 9, 1932.

Dr. J. H. Mitter, M.Sc., Ph.D., from September 10, 1932.

(9) The Hon'ble Raja Nawab Ali Khan of Akbarpur, district Sitapur, from February 8, 1930 to February 7, 1933.

The Hon'ble Rai Bahadur Lala Mathura Prasad Mehrotra, B.A., of Biswan, district Sitapur, from February, 8, 1933.

Elected by the Legislative Council, United Provinces.

Elected by the Benares Hindu University, Benares.

Elected by the Muslim University, Aligarh.

Elected by the Allahabad University.

Elected by the Lucknow University, Lucknow.

(10) Kaviraj Jnanendra Nath Sen, B.A.,
Principal, Rishikul Ayurvedic College,
Hardwar.

(11) Dr. A. C. Gupta, M.B., B.S., Prin-
cipal, Raja Lalta Prasad Ayurvedic Path-
shala, Pilibhit.

} Representing Ayurvedic
teaching.

(12) Shifa-ul-Mulk Hakim Abdul Hamid
of Takmil-ut-Tib College, Lucknow.

(13) Hakim Syed Wahiduddin Ahmad
Jafri, Allahabad, from September 10, 1929
to September 9, 1932.

} Representing Unani
teaching.

Hakim Ahmad Usmani, Principal, Unani
Medical School, Allahabad, from September
10, 1932.

(14) Hakim Khwaja Kamaluddin, Luck-
now, from September 10, 1929 to September
9, 1932.

} Elected by the Anju-
man Tibbia, Lucknow.

Hakim Abdul Moid, Lucknow, from
September 10, 1932.

(15) Vaid Raj Kanhaiya Lal Jain, Cawn-
pore, from January 18, 1930 to January 17,
1933.

} Elected by the United
Provinces Vaid Sam-
melan, Cawnpore.

Pandit Jagan Nath Prasad Shukla,
Vaid, Allahabad, from January 18, 1933.

(16) Kaviraj Pratap Sinha, Superinten-
dent, Ayurvedic Pharmacy, Benares Hindu
University, Benares.

} Representing the regis-
tered Vaid.

(17) Pandit Shyam Lal Vaid, Lucknow

(18) Hakim Abdul Haseeb, Lucknow ..

(19) Hakim Khwaja Shamsuddin
Ahmad, Lucknow, from September 10, 1929
to September 9, 1932.

} Representing the regis-
tered Hakims.

Hakim Maulvi Zaheer Alam, Allahabad,
from September 10, 1932.

Secretary :

(20) Mr. S. Phillips, Lucknow.

Meetings of the Board and Sub-Committees

2. A great deal of work in connexion with the registration of v aids and hakims, affiliation of institutions, examinations and revision of courses had to be done by the Board in the year under review, but it was unable to meet more than once owing to insufficient funds at its disposal. The result was that the Board experienced considerable difficulty in getting through all this work and the public was

greatly inconvenienced by reason of the fact that the Board could not have more than one sitting in the year as a large number of their applications, references and inquiries remained undisposed of for about a year awaiting the decision of the Board. The following sub-committees also met in Lucknow for three consecutive days, i.e., on February 1, 2 and 3 followed by the general meeting, referred to above, on February 4, 1933 :—

- (1) Board of Examiners.
- (2) Courses Committee.
- (3) Recognition Committee.
- (4) Grants-in-aid Committee.
- (5) Registration Committee.
- (6) Finance Committee.

Board of Examiners

3. The Board conducted examinations during the year under report in March, April and June, 1932, at Lucknow, Aligarh, Allahabad and Hardwar. The Final Class examinations of the Ayurvedic and Unani schools and colleges were held for the first time during the year. Fourteen candidates appeared at the fifth year (Final) Unani examination from the Tibbiya College, Aligarh. All of them were successful. Nine candidates appeared at the third year Unani examination from that college and all of them were successful. Eleven candidates appeared at the fourth year (Final) Unani examination from the Unani Medical School, Allahabad. All of them were successful. Nine candidates appeared at the second year Unani examination from that school and all of them were successful. Nine candidates appeared at the fourth year (Final) Ayurvedic examination from the Rishikul Ayurvedic College (School) Hardwar, and all of them passed. Seven candidates out of eight passed the second year Ayurvedic examination from that school. In addition to these one out of four students of the Nath Chandravat Trust Ayurvedic School, Gorakhpur, who were permitted by the Board to appear from the Rishikul Ayurvedic College (School), Hardwar, passed the second year Ayurvedic examination. All the 16 candidates who appeared at the second year Unani examination from the State-aided Unani School, Lucknow, were successful. The results were published in Part IV of the *United Provinces Government Gazette*, dated July 23, 1932, at pages 780 and 781 as also in Part IV of that *Gazette*, dated October 22, 1932, at page 875. One or more members of the Board of Examiners were present at each centre at the time that the examinations were held. A sum of Rs.552-8 was realized from candidates who appeared at the examinations of the Board on account of admission fee.

Government had issued instructions to district and municipal boards and notified area committees in the province to employ the successful candidates of State-aided Ayurvedic and Unani schools and colleges in their service.

In view of the representations made by the various State-aided and affiliated institutions and of the fact that the students in these institutions are taught on modern lines, the Board after considering the matter in all its aspects substituted the certificate of "L. A. M." (Licentiate in Ayurvedic Medicine) for "Ayurved Visharad" to be given to vaidas who pass out of Ayurvedic schools, and the certificate of "L. U. M." (Licentiate in Unani Medicine) for "Tabib-i-Alim" to be given to hakims who pass out of Unani schools of medicine. The Board also substituted the diploma "L. A. M. S." (Licentiate in Ayurvedic Medicine and Surgery) for "Ayurved Acharya" to be awarded to vaidas who pass out of Ayurvedic colleges and the diploma of "L. U. M. S." (Licentiate in Unani Medicine and Surgery) for "Hakim-i-Fazil" to be awarded to hakims who pass out of Unani colleges.

The Board has also decided that in future a convocation of the Ayurvedic and Unani institutions controlled by it should be held in Lucknow in continuation of one of the general meetings of the Board and that certificates and medals should be awarded to the successful candidates at that convocation. The Chairman and some members of the Board have voluntarily agreed to pay for three gold and six silver medals to be awarded to these candidates at that convocation.

Courses Committee

4. In pursuance of the Board's decision, the revised Ayurvedic course for Ayurvedic schools was printed in the year under review. The revised course for Unani schools is under consideration at present.

Arrangements are being made for bringing out additional textbooks on modern lines for the use of schools and colleges under the control of the Board.

Recognition Committee

5. During the year under review the Board considered the report of the Recognition Committee dealing with the question of affiliation of those institutions which had applied for recognition as also the application of Nath Chandravat Trust Ayurvedic School at Gorakhpur applying for permanent recognition after the expiry of the temporary recognition which had been accorded to it. As a result of the committee's recommendation the Board appointed a select committee of three members for the purpose of visiting the institutions in question and authorized the Chairman to pass necessary orders on the report of the committee made after its visits to the institutions.

Distribution of grants

6. Grants ranging between Rs.60 and Rs.2,700 were distributed in the year under review out of the allotment of Rs.35,000 to 262 dispensaries as against an allotment of Rs.45,000 to 295 dispensaries in 1931-32. The details are given below :

Ayurvedic

	Rs.
90 private dispensaries in rural areas	7,003
46 private dispensaries in urban areas	7,035
11 District Boards in the province	1,505
4 Municipal Boards in the province	300
3 dispensaries maintained by educational institutions which are in receipt of aid from Government direct	2,420
4 dispensaries maintained by educational institutions which do not receive any aid from Government direct	1,787
<hr/> 158	<hr/>
Total ..	20,050

Unani

	Rs.
42 private dispensaries in rural areas	2,980
41 private dispensaries in urban areas	3,145
11 District Boards in the province	1,405
4 Municipal Boards in the province	300
2 dispensaries maintained by educational institutions which are in receipt of aid from Government direct	1,900
4 dispensaries maintained by educational institutions which do not receive any aid from Government direct	5,220
<hr/> 104	<hr/>
Total ..	14,950
<hr/> 262 dispensaries	<hr/>
GRAND TOTAL ..	35,000

Out of 295 dispensaries which were allotted grants in 1931-32, 257 received grants again in 1932-33. The grants of the remaining 38 dispensaries were discontinued as most of them did not carry out the instructions of the Board conveyed to them from time to time in the matter of regular submission of monthly and annual returns to the Board. The number of new applications was 174 (131 Ayurvedic and 43 Unani) of which only seven (six Ayurvedic and one Unani) were given grants. Four municipalities, viz., Orai, Saharanpur, Agra and Bareilly and the District Boards of Lucknow, Hardoi, Rae Bareli, Bahraich, Ballia, Jhansi, Hamirpur, Fatehpur Farrukhabad, Etah and Pilibhit, 11 in number, were also given grants in 1932-33. The grants of three district boards, viz., Fyzabad, Moradabad and Bareilly and of the Notified Area Committee at Rath were discontinued as they did not submit the necessary returns as well as their applications for renewal of grants.

Registration Committee

7. The Board considered the report of the Registration Committee appointed to reconsider the registration rules in the light of the representations made by various public bodies urging enhancement of privileges bestowed upon registered vaidas and hakims and approved of the recommendations of the committee in regard to certain changes to be made in the rules. The proposal of the Board for the amendment of these rules is already before Government. The Board also recognized 18 educational institutions under rule 3,

Schedule I of the Registration Rules, for purposes of registration. Further, the Board appointed two sub-committees for the purpose of considering the applications received from vaidas and hakims applying for registration. The sub-committees after scrutinizing the applications recommended 103 vaidas and 16 hakims for registration during the year. Thirty-one cases were rejected as they were not up to the requisite standard. Since the introduction of the Registration Rules in 1931, only 118 vaidas and 25 hakims have had their names entered in the register maintained by the Board. If the rules are amended as proposed by this Board, there is every likelihood of this number increasing considerably in the near future.

The rules for the election of vaidas and hakims who are to represent the registered vaidas and hakims and the teaching institutions on this Board are under consideration at present.

The fee for registration realized from 119 vaidas and hakims who were enrolled during the year amounts to Rs.880.

A sum of Rs.36-8 was also realized by the Superintendent, Government Printing and Stationery, United Provinces, Allahabad, during the year from the sale of 292 copies of the Registration Rules, at two annas per copy.

Accounts, forms, stationery, furniture and movable property

8. The Board's accounts are kept strictly in accordance with the rules and instructions issued by the Accountant General, United Provinces, from time to time. All the registers required for purposes of the accounts are maintained and they are audited annually by the Examiner, Local Fund Accounts, United Provinces. The Finance Committee consisting of the Chairman of the Board and two members is consulted on all questions relating to finance, including the preparation of the annual budget of the Board.

Stock-books of forms, stationery, furniture and movable property are also kept.

Office establishment

9. Owing to the expansion of the Board's activities in various directions the work in the office has increased considerably, so much so that the small staff (one part-time Secretary and two clerks) placed at the disposal of the Board finds it very difficult to cope with it.

The number of letters received in the office during the year under review was 2,429 and the number of letters despatched was 2,895. In addition 2,940 monthly returns, 245 annual returns, 428 inspection notes and 283 reports were received which had to be checked carefully before they could be embodied in a consolidated statement prepared districtwise for the use of the Grants-in-aid Committee.

In view of the voluminous work which the office has to do the Board has passed a resolution to the effect that Government should be approached to appoint a third clerk on Rs.24—2—40 in the office of the Board and that the posts of the clerks should either be made pensionable or a special provident fund should be constituted for them.

Two peons are attached to the office of the Board.

One part-time clerk was also engaged at Aligarh on an allowance of Rs.15 per mensem for six months, with effect from April 1, 1932, to assist Dr. A. Butt, M.D., M.B., B.S., Principal of the Tibbiya College, Muslim University, and the convener of certain committees appointed by the Board.

The working of the dispensaries

10. As stated in paragraph 6 of this report 262 Ayurvedic and Unani dispensaries in the province were allotted grants-in-aid for the year 1932-33. The dispensaries in the rural areas afforded medical relief free of charge to 1,901,753 patients as against 1,876,201 in the previous year. The dispensaries in the urban areas treated 1,708,560 patients free of charge as against 1,939,864 patients in the previous year. The total number of patients treated free of charge by the Ayurvedic and Unani dispensaries which received aid from this Board thus comes to 3,610,313 in the year under review at a cost of Rs.35,000 sanctioned by Government under head "Development of indigenous systems of medicine in the United Provinces," *vide* statement no. I attached to this report.

Previously, the Government used to place a sum of Rs.50,000 at the disposal of the Board under the above head for distribution among Ayurvedic and Unani dispensaries of the province. This amount was reduced to Rs.45,000 in 1931-32 and Rs.35,000 in 1932-33. The Board has distributed Rs.35,000 sanctioned for 1932-33 among the dispensaries and institutions which required assistance. As a result of this gradual reduction in the amount of grant the Board has had to cut down the grant of many dispensaries. The usual grant of Rs.50,000 was itself insufficient and the continual reduction has made the position still worse.

Ayurvedic and Unani schools and colleges

11. There are five Ayurvedic and four Unani schools in the province at Etawah, Gorakhpur, Pilibhit, Cawnpore, Bahrich, Allahabad and Lucknow which are in receipt of grants from this Board. These schools, except the Ayurvedic school at Etawah, do not receive any aid from Government. In addition to these there are two Ayurvedic and Unani schools at Hardwar and Lucknow and two Ayurvedic and Unani colleges at Benares and Aligarh which receive aid from Government direct. All these four institutions receive aid from this Board for the expenses of the dispensaries maintained by them for the benefit of the public. Owing to the inadequate grant given to the educational institutions by this Board their activities do not find a free scope.

Detailed particulars as to the working of these schools and colleges are contained in statement no. II attached to this report.

Inspection of dispensaries

12. The Revenue authorities were requested to inspect 271 dispensaries in urban and rural areas. They inspected 259 and did not inspect 12 dispensaries. The district boards were requested to inspect 144 dispensaries in the rural areas out of the 271 dispensarie

which the Revenue authorities were asked to inspect; but they inspected only 71 dispensaries. The remaining 73 dispensaries were not inspected at all. The municipal boards were requested to inspect 114 dispensaries in the urban areas out of the 271 dispensaries which the Revenue authorities were asked to inspect, but they inspected only 98 and did not inspect 16 dispensaries.

Again, the Revenue authorities were requested to furnish reports regarding 174 new dispensaries in urban and rural areas which had applied for grants during the year under review. They submitted reports about 170 dispensaries. The remaining four dispensaries were not reported on. The district boards were requested to furnish reports regarding 122 dispensaries in the rural areas out of the 174 dispensaries about which the Revenue authorities were asked to report, but they submitted reports about 82 dispensaries and did not send any report about the remaining 40 dispensaries. The municipal boards were asked to furnish reports regarding 52 dispensaries in the urban areas out of the 174 dispensaries about which the Revenue authorities were asked to report, but they submitted reports about 31 dispensaries and did not send any report about 21 dispensaries. It will thus be seen that while the Revenue authorities have made some improvement in the matter of submission of inspection reports, inspections made by the district and municipal boards are still unsatisfactory

Conclusion

13. The members of the Board and the various sub-committees rendered valuable assistance during the year in question.

In concluding my reports of the previous two years I made the following observations with regard to the work of Mr. S. Phillips, Secretary of the Board :

“ I cannot close this report without recording my complete appreciation of the work done by Mr. S. Phillips, Secretary of the Board. I realize that without him it would have been impossible for me to carry on the work.” (1930-31 report.)

“ Mr. S. Phillips has worked as Secretary of the Board during the year under report as in the preceding year. His work has been praiseworthy and what is more he is thoroughly reliable.” (1931-32 report).

I repeat these observations this year and would like to add that Mr. Phillips has earned my greater appreciation during the course of the year under review. The two clerks, B. Babu Lal and B. Gopal Krishna Gupta, have done very good work. The staff worked conscientiously and cheerfully, in spite of the enormous increase in work.

WAZIR HASAN, KT.,

*Chairman, Board of Indian Medicine,
United Provinces.*

LUCKNOW :

August 15, 1933.

STATEMENT No. I

Statement showing the number of patients treated by Ayurvedic and Unani dispensaries in the province which receive aid from the Board of Indian Medicine (1932-33)

Serial number	Name of the district	Patients treated		Serial number	Name of the district	Patients treated	
		Rural	Urban			Rural	Urban
1	Lucknow	138,438	536,928	26	Almora	..	4,290
2	Unao ..	54,925	6,038	27	Garhwal ..	..	4,290
3	Hardoi ..	24,697	7,824	28	Allahabad ..	13,290	171,650
4	Sitapur ..	39,647	26,757	29	Etawah ..	..	14,426
5	Rae Bareli ..	19,181	3,900	30	Fatehpur ..	59,581	8,824
6	Kheri ..	15,054	..	31	Cawnpore ..	10,997	317,114
7	Fyzabad ..	8,696	..	32	Farrukhabad ..	176,757	63,561
8	Sultanpur ..	24,493	5,332	33	Meerut ..	59,196	94,305
9	Gonda ..	17,250	4,486	34	Muzaffarnagar	11,278	6,887
10	Bahraich ..	50,236	14,571	35	Saharanpur ..	7,524	52,083
11	Partabgarh ..	2,765	..	36	Bulandshahr ..	35,533	..
12	Bara Banki ..	145,535	..	37	Dehra Dun ..	49,883	..
13	Gorakhpur ..	31,978	..	38	Agra ..	31,753	30,840
14	Basti ..	..	3,986	39	Muttra ..	17,557	11,801
15	Azamgarh ..	11,725	30,541	40	Aligarh ..	14,455	47,458
16	Benares ..	115,317	11,937	41	Mainpuri ..	263,365	7,320
17	Ghazipur ..	3,176	15,875	42	Etah ..	25,068	3,174
18	Mirzapur ..	..	15,329	43	Bareilly ..	4,367	30,716
19	Ballia ..	69,656	10,803	44	Pilibhit ..	14,764	62,077
20	Jaunpur ..	11,036	15,869	45	Shahjahanpur	16,442	35,412
21	Jhansi ..	108,240	3,536	46	Moradabad ..	20,203	6,728
22	Jalaun ..	6,076	8,966	47	Budaun ..	14,983	12,928
23	Hamirpur ..	69,647	..	48	Bijnor ..	56,554	..
24	Banda ..	18,473	..		Total ..	1,901,753	1,708,560
25	Naini Tal ..	11,962	..		GRAND TOTAL	3,610,313	

WAZIR HASAN, KT.,

Chairman, Board of Indian Medicine,

United Provinces.

LUCENOW :

August 15, 1933.

STATEMENT No. II

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1932-33)

Serial number	Name of institution	Grant allotted by Government	Grant allotted by the Board	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is a hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
		Rs.	Rs.								
1	Ayurvedic College, Benares Hindu University, Benares.	45,000	2,000	218	1. Government and Board of Indian Medicine grants. 2. Tuition fees. 3. Rent. 4. Interest. 5. Sale of medicines.	Utilized the income towards the expenses of college and dispensary.	Yes	Yes	Chemical, physical, surgical and gynaecological.	..	Controlled by the Benares Hindu University.
2	Rishikul Ayurvedic College (School), Hardwar.	9,000	180	47	1. Government and Board of Indian Medicine grants. 2. Donations. 3. Tuition and dissection fees, etc. 4. Interest on deposits. 5. Sale of medicines.	Ditto ..	Yes	Yes	Science and surgical laboratories.	..	A managing committee of 11 members.
3	Tibbiya College, Muslim University, Aligarh.	45,000	1,600	43	1. Government and Board of Indian Medicine grants. 2. University contribution. 3. Rent, etc. 4. Sale of medicines.	Ditto ..	Yes	Yes	Physiological, pathological, surgical, X-Rays and electro-medical.		Controlled by the Muslim University, Aligarh.

4	State-aided Unani Medical School, Lucknow.	9,000	300	50	1. Government and Board of Indian Medicine grants. 2. Tuition fees, etc. 3. Rent. 4. Interest.	Utilized the income towards the expenses of school and dispensary.	Yes	Yes	Science and surgical laboratories.	..	A managing committee of 11 members.
5	Sanskrit Ayurvedic Pathshala, Auraiya, district Etawah.	1,344	270	149	1. Government and Board of Indian Medicine grants. 2. District Board grant Rs.45 per mensem. 3. Notified Area grant, Rs.200 a year. 4. Subscriptions. 5. Sale of medicines.	Utilized the income towards the expenses of pathshala.	Yes	Yes	..	Tahsildar, Auraiya.	A managing committee of 21 members.
6	Nath Chandravat Kosh Trust Ayurvedic Pathshala, Gorakhpur.	..	617	16	1. Board of Indian Medicine grant. 2. N. C. K. Trust contribution.	Utilized the income towards the expenses of pathshala and dispensary.	Yes	Yes	..	Recognition Committee of the Board of Indian Medicine.	Board of Trustees.
7	Lalit Hari Ayurvedic College (School), Pilibhit.	..	450	53	1. Board of Indian Medicine grant. 2. Contribution from the estate of Raja Radha Raman, Pilibhit.	Utilized the income towards the expenses of college and dispensary.	Yes	Yes	Chemical and physical.	Ditto ..	Ditto.
8	Ayurvedic Vidyalaya, Cawnpore.	..	450	40	1. Board of Indian Medicine grant. 2. Subscriptions. 3. Municipal Board grant, Rs.78-8 per mensem.	Utilized the income towards the expenses of school and dispensary.	Yes	Yes	..	(1) Chairman, Municipal Board, Cawnpore. (2) Tahsildar, Cawnpore.	A managing committee of 21 members.

STATEMENT No. II—(concluded)

Detailed particulars of Ayurvedic and Unani institutions in the United Provinces which receive aid from Government either direct or through the Board of Indian Medicine (1932-33)—(concluded)

Serial number	Name of institution	Grant allotted by Government	Grant allotted by the Board	Number of students	Source of income	Expenditure	Whether there is sufficient accommodation in the building	Whether there is a hostel attached to the institution	Laboratories attached to the institution	Authority which inspected the institution	Whether there is any committee which manages the institution
		Rs.	Rs.				Yes	Yes			
9	Empress Sanskrit Pathahala, Bahraich.	..	270	14	1. Board of Indian Medicine grant. 2. District Board grant, Rs.100 per mensem. 3. Contribution from the Kapurthala Estate, Rs.10 per mensem. 4. Sale of medicines	Utilized the income towards the expenses of pathahala and dispensary.	Yes	Yes	..	(1) Chairman, Board of Indian Medicine. (2) Tahsildar, Bahraich.	A managing committee of 15 members.
10	Unani Medical School, Allahabad.	..	1,800	36	1. Board of Indian Medicine grant. 2. Founder's contribution. 3. Donations, etc.	Utilized the income towards the expenses of school and dispensary.	Yes	Yes	Chemical, physical and surgical.	(1) Vaid Raj-Kanhaiya Lal Jain, Member, Board of Indian Medicine, (2) Medical Officer of Health, Allahabad.	Board of Trustees.

11	Takmil-ut-Tib College (School), Lucknow.	..	2,700	121	1. Board of Indian Medicine grant. 2. Founder's contribu- tion. 3. Donations, etc. 4. Sale of medicines.	Utilized the in- come towards the expenses of college and dis- pensary.	Yes	Yes	Ditto ..	(1) Recognition Committee of the Board of Indian Medicine, (2) Deputy Commis- sioner, Luck- now.	A managing committee of 12 members.
12	Tibbiya Wahajia College (School), Lucknow.	..	360	75	1. Board of Indian Medicine grant. 2. Donations, etc. 3. Founder's contribu- tion.	Ditto ..	Yes	Yes	..	Deputy Com- missioner, Lucknow.	A managing committee.
13	Mamba-ul-Tib College (School), Lucknow.	..	360	45	1. Board of Indian Medicine grant. 2. Donations, etc. 3. Sale of medicines.	Ditto ..	Yes	Yes	..	(1) Recognition Committee of the Board of Indian Medicine, (2) Deputy Commission- er, Lucknow.	A managing committee of 14 members.

LUCKNOW :

August 15, 1933.

WAZIR HASAN, Kt.,

Chairman, Board of Indian Medicine,

United Provinces.

No. 2079/V—26

FROM

P. MASON, Esq., I.C.S., M.L.C.,

SECRETARY TO GOVERNMENT.

MEDICAL DEPARTMENT, UNITED PROVINCES,

To

THE CHAIRMAN,

BOARD OF INDIAN MEDICINE,

UNITED PROVINCES.

Dated Allahabad, September 14, 1933.

SIR,

I AM directed to acknowledge receipt of the annual report on the working of the Board of Indian Medicine, United Provinces, for the year 1932-33, submitted with your letter no. 345/III—1, dated August 18, 1933, and to say that the Governor, acting with his Ministers, desires once more to commend the Board for the conscientious way in which it has endeavoured to see that the funds placed at its disposal by Government are equitably distributed to, and properly applied by, deserving institutions, and to control and promote the educational and professional progress of indigenous medicine. The Government must regret that they are not yet in a position to restore the cuts which they were recently compelled by financial stringency to make in their grants-in-aid.

2. The Government are also gratified to observe that members of the profession are at least beginning to avail themselves of the registration rules, and that the Board is paying due attention to its important function of seeing that only those practitioners with adequate qualifications are enrolled. There should now be no difficulty about allowing these practitioners to elect their own representatives to the Board when the term of those at present holding office expires. They also note with satisfaction the generosity of yourself and certain other members of the Board in providing three gold and six silver medals to encourage emulation among the medical students, the very marked improvement in inspections of dispensaries by officers of district revenue staff and members of the district and municipal boards, particularly by the former, and the continued excellent work of the Board's Secretary, Mr. S. Phillips.

I have the honour to be,

SIR,

Your most obedient servant,

(Sd.) P. MASON,

Secretary.

REPORT

OF THE

GOVERNMENT OF INDIA SECRETARIAT COMMITTEE



GOVT. OF INDIA.

PUBLICATIONS

SALE AGENTS:

J.M. JAIN & BROS.

MORIGATE DELHI

CONNAUGHT PLACE NEW DELHI.

Phone No. 5064

PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI.
PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, NEW DELHI.
1937.

C.774

List of Agents in India from whom Government of India Publications are available.

(a) PROVINCIAL GOVERNMENT BOOK DEPOTS.

- MADRAS** :—Superintendent, Government Press, Mount Road, Madras.
- BOMBAY** :—Superintendent, Government Printing and Stationery, Queen's Road, Bombay.
- SIND** :—Manager, Sind Government Book Depot and Record Office, Karachi (Sadar).
- UNITED PROVINCES** :—Superintendent, Printing and Stationery, U. P., Allahabad
- PUNJAB** :—Superintendent, Government Printing, Punjab, Lahore
- CENTRAL PROVINCES** :—Superintendent, Government Printing, Central Provinces, Nagpur.
- ASSAM** :—Superintendent, Assam Secretariat Press, Shillong.
- BIHAR** :—Superintendent, Government Printing, P. O. Gulzarbagh, Patna.
- NORTH-WEST FRONTIER PROVINCE** :—Manager, Government Printing and Stationery, Peshawar.
- ORISSA** :—Press Officer, Secretariat, Cuttack.

(b) PRIVATE BOOK-SELLERS.

- | | |
|---|--|
| <p>Advani Brothers, P. O. Box 100, Cawnpore.</p> <p>Aero Stores, Karachi.*</p> <p>Banbhaya & Co., Ltd., Station Road, Ajmer.</p> <p>Bengal Flying Club, Dum Dum Cantt.*</p> <p>Bhatia Book Depot, Saddar Bazar, Ranikhet.</p> <p>Bhawnani & Sons, New Delhi.</p> <p>Book Company, Calcutta.</p> <p>Booklover's Resort, Talkad, Trivandrum, South India.</p> <p>Burma Book Club, Ltd., Rangoon.</p> <p>Butterworth & Co. (India), Ltd., Calcutta.</p> <p>Careers, Mohini Road, Lahore.</p> <p>Chatterjee & Co., 3, Bacharam Chatterjee Lane, Calcutta.</p> <p>Chukervetty, Chatterjee & Co., Ltd., 13, College Square, Calcutta.</p> <p>City Book Club 98, Phayre Street, Rangoon.</p> <p>Das Gupta & Co., 54/8, College Street, Calcutta.</p> <p>Delhi and U. P. Flying Club, Ltd., Delhi.*</p> <p>English Book Depot, Ferozepore.</p> <p>English Book Depot, Taj Road, Agra.</p> <p>English Bookstall, Karachi.</p> <p>English Book Store, Abbottabad, N. W. F. P.</p> <p>Faiz Chand Marwah, Peshawar Cantt.</p> <p>Fono Book Agency, Simla.</p> <p>Gantama Brothers & Co., Ltd., Weston Road, Cawnpore.</p> <p>Elginbothams, Madras.</p> <p>Hindu Library, 137-F, Balaram De Street, Calcutta.</p> <p>Hyderabad Book Depot, Chaderghat, Hyderabad (Deccan).</p> <p>Imperial Book Depot and Press, near Jama Masjid (Machhlwala), Delhi.</p> <p>Indian Army Book Depot, Daryabagh, Agra.</p> <p>Indian Army Book Depot, Daryaganj, Delhi.</p> <p>Indian Book Shop, Benares City.</p> <p>Indian School Supply Depot, Central Avenue, South, P. O. Dharamtala, Calcutta.</p> <p>Insurance Publicity Co., Ltd., Lahore.</p> <p>International Book Service, Poona & Jaques & Co., Kemptee Road, Nagpur, Messrs. Neston, Jaina & Bros., Mcri Gate, Delhi, and Connaught Place, New Delhi, Messrs. J. M.</p> <p>Kamala Book Depot, 15, College Square, Calcutta.</p> <p>Karnataka Publishing House, Bangalore City.</p> <p>Keale & Co., Karachi.</p> <p>Keshav Book Stall, Khudibazar, Belgam.</p> <p>Kitabistan, 17-A, City Road, Allahabad.</p> <p>Krishnaswami & Co., Teppakulam P. O., Trichinopoly Fort, Messrs. S.</p> <p>Lahiri & Co., Calcutta, Messrs. S. K.</p> <p>Local Self-Govt. Institute, Bombay.</p> <p>London Book Co. (India), Arbab Road, Peshawar, Muzra, Newdera, Rawalpindi.</p> | <p>London Book House, 17, Rajpur Road, Dehra Dun.</p> <p>Malhotra & Co., Post Box No. 94, Lacer, Messrs. U. P.</p> <p>Malik & Sons, Sialkot City.</p> <p>Mathur, B. S. Bookseller, Civil Lines, Jodhpur.</p> <p>Minerva Book Shop, Anarkali Street, Lahore.</p> <p>Modern Book Depot, Bazar Road, Sialkot Cantt.</p> <p>Modern Book Depot, Napier Road, Jullundur Cantt.</p> <p>Mohanlal Dossabhai Shah, Rajkot.</p> <p>Nandkishore & Bros., Chowk, Benares City.</p> <p>New Book Co., "Kitab Mahal," 192, Heraby Road, Bombay.</p> <p>Newman & Co., Ltd., Calcutta, Messrs. W.</p> <p>Oxford Book and Stationery Company, Delhi, Lahore, Simla, Meerut and Calcutta.</p> <p>Parikh & Co., Baroda, Messrs. B.</p> <p>Pioneer Book Supply Co., 20, Shib Narayan Das Lane, Calcutta and 219, Cloth Market, Delhi.</p> <p>Popular Book Depot, Grant Road, Bombay.</p> <p>Punjab Religious Book Society, Lahore.</p> <p>Raghunath Prasad & Sons, Patna City.</p> <p>Rama Krishna & Sons, Booksellers, Anarkali, Lahore.</p> <p>Ram Krishna Bros., Opposite Bishrambag, Poona City.</p> <p>Ram Narain Lal, Katra, Allahabad.</p> <p>Ramesh Book Depot and Stationery Mart, Kashmir Gate, Delhi.</p> <p>Ray & Sons, 43, K. & L. Edwardes Road, Rawalpindi, Muzra and Peshawar, Messrs. J.</p> <p>Roy Chowdhury & Co., 72, Harrison Road, Calcutta, Messrs. N. M.</p> <p>Saraswati Book Depot, 25, Lady Hardings Road, New Delhi.</p> <p>Sarcar & Sons, 15, College Square, Calcutta, Messrs. M. O.</p> <p>Sarkar & Co., Ltd., 18, Shama Charas De Street, and 6, Hastings Street, Calcutta, Messrs. F. O.</p> <p>Sharda Mandir, Ltd., Nal Sarak, Delhi.</p> <p>Standard Bookstall, Karachi.</p> <p>Standard Bookstall, Quetta.</p> <p>Standard Book Depot, Lahore, Dalhousie and Delhi.</p> <p>Standard Law Book Society, 69, Harrison Road, Calcutta.</p> <p>Tara & Sons, Rasmak (India), Messrs. B. S.</p> <p>Taraporewala Sons & Co., Bombay, Messrs. D. B.</p> <p>Thacker & Co., Ltd., Bombay.</p> <p>Thacker, Spink & Co., Ltd., Calcutta and Simla.</p> <p>Tripathi & Co., Booksellers, Princes Street, Kalthedevi Road, Bombay, Messrs. N. M.</p> <p>University Book Agency, Kacheri Road, Lahore.</p> <p>Upper India Publishing House, Ltd., Literature Palace, Ammuddania Park, Lucknow.</p> <p>Varadachary & Co., Madras, Messrs. P.</p> <p>Venkatasubba, A., Law Bookseller, Vezera.</p> <p>Wheeler & Co., Allahabad, Calcutta and Bombay, Messrs. A. H.</p> <p>Young Man & Co. (Regd.), Egerton Road, Delhi.</p> |
|---|--|

* Agent for publications of Avistika only.

V2, 8. N3C
G

(i)

TABLE OF CONTENTS.

	Page.
Chapter I.—Introductory.	
Terms of reference to the Committee	1
Procedure of the Committee and general observations	1
Volume of work in the Government of India	2
Proceedings of the Central Legislature	5
Character of work in the Government of India	5
Reactions of Provincial Autonomy on the work of the Government of India	5
Chapter II.—Recruitment to the Government of India.	
System of recruitment to the Government of India	7
Special factors affecting recruitment in recent years	9
Previous discussions regarding recruitment	10
Vital importance of bringing the Indian Civil Service up to strength	11
Complaints of provinces	11
Theory of the tenure system	12
Practical working of the tenure system in the Imperial Secretariat	14
Recommendations and conclusions regarding—	
(a) the system of recruitment	16
(b) the state of the Indian Civil Service cadre	17
(c) the recruitment for the Foreign and Political Department	18
(d) the tenure system in general	18
(e) the special cases of the Foreign and Political, Legislative and Legislative Assembly Departments	19
(f) the tenure system as applicable to Under and Deputy Secretaries in other Departments	19
(g) the tenure system as applicable to Joint Secretaries and Secretaries	22
(h) Probation, leave, deputation, etc.	22
(i) Confidential reports	23
(j) Systematisation of recruitment	23
Chapter III.—Organisation of the Secretariat.	
Business of Departments	24
Organisation of Departments—	
Joint Secretaries	25
Deputy Secretaries	25
Under Secretaries	26
Assistant Secretaries	26
Registrars	27
The Ministerial Service	28
Chapter IV.—Secretariat Procedure.	
Secretariat procedure	30
Office supervision	30
Training of subordinates	32
Chapter V.—Conclusion	33

	Page.
ADDENDA.	
ADDENDUM A.— Note by Sir C. P. Ramaswami Aiyar and Sir James Rae	35
ADDENDUM B.— Note by Sir Henry Wheeler	40
ADDENDUM C.— Note by Sir James Rae with reference to paragraph 23 of the Report	46

APPENDICES.		Page.
APPENDIX	I.—Summary of main recommendations	48
APPENDIX	II.—Statement showing the Attached Offices of the Government of India created since 1919	50
APPENDIX	III.—Effect of the introduction of Provincial Autonomy on the work of the Government of India	51
APPENDIX	IV.—Statement showing the posts under the Government of India ordinarily held by members of the Indian Civil Service	61
APPENDIX	V.—Statement showing the number of officers of the Indian Civil Service who retired on proportionate pension since the inception of the scheme up to 30th September 1935.	66
APPENDIX	VI.—Statement showing the recruitment to the Indian Civil Service since 1914	67
APPENDIX	VII.—Statement showing the actual as compared with the theoretical distribution of the Indian Civil Service cadre	69
APPENDIX	VIII.—Details of the tenures in force in Provincial Secretariats and the extent to which they are actually observed	70
APPENDIX	IX.—Statement showing— (a) the rates of pay of Secretaries in different Provinces (b) the highest paid posts in different Provinces outside the Secretariat	72
APPENDIX	X.—Number of Secretaries and Joint Secretaries in departments of the Government of India	74
APPENDIX	XI.—Method of appointment of Assistant Secretaries in Provinces and the working of the system	75
APPENDIX	XII.—Constitution and system of recruitment of the Ministerial Service of the Government of India Secretariat	76
APPENDIX	XIII.—Rates of pay admissible to the ministerial staff in the Government of India Secretariat and Provincial Secretariats	78
APPENDIX	XIV.—The more important recommendations of the Llewellyn Smith Committee regarding Secretariat procedure, indicating the action taken thereon and certain further suggestions.	80

FROM

THE CHAIRMAN AND MEMBERS OF THE
GOVERNMENT OF INDIA SECRETARIAT
COMMITTEE,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
HOME DEPARTMENT.

Dated New Delhi, the 10th March, 1936.

SIR,

In accordance with the Home Department Resolution No. F.-154-35, dated the 3rd October 1935, we have the honour, on completion of our enquiries, to submit our Report upon the different points referred to us.

CHAPTER I.—INTRODUCTORY.

2. *Terms of reference.*—The terms of the reference to our Committee were as follows:—

(1) to examine—

- (a) the system under which officers are at present obtained for the superior posts (Secretary, Joint, Deputy and Under Secretaries) in the Government of India Secretariat.
- (b) the method of office procedure, and
- (c) so far as may be necessary in connection with (a) and (b) above, the organisation of the clerical staff; and

(2) to recommend such changes as are required to secure the more efficient and expeditious despatch of public business, particularly under the constitution which will be established under the new Government of India Act.

A somewhat similar enquiry in 1919, presided over by Sir H. Llewellyn Smith, preceded the enactment of the Government of India Act of 1919, and speaking generally may be said to have covered, in the light of the circumstances of that day, the ground indicated in points (1) (b) (c) and (2) above, but with the matters raised in point (1) (a) our predecessors were not asked to deal, presumably because the problems connected with them were not at that time acute, a fact which is not without significance. For the reasons, however, indicated later in Chapter II, it seems to us that it is this question of the recruitment of officers to the Central Secretariat which presents the most serious difficulties, and we have accordingly devoted our attention primarily to its consideration.

3. *Procedure of the Committee and general observations.*—We assembled at Bombay on the 10th November 1935, and made our headquarters at New Delhi. We have, however, paid visits to Bombay, Allahabad, Patna.

Calcutta, Madras and Lahore, and examined in consultation with the Heads and Members of the respective local Governments and their Secretariats both those questions arising out of our enquiry in which the provinces are directly concerned and details of procedure in the provinces which, although not specifically our affair, might possibly throw some light on the work of the Government of India. Representatives of Assam and the Central Provinces Governments were good enough to meet us at Calcutta and Delhi respectively. We have not thought it necessary to trouble the Government of the North-West Frontier Province, while in view of its impending separation we have regarded Burma as outside the scope of our enquiry.

At headquarters we have had the benefit of personal discussion with the Members of the Central Government together with its Secretaries and some of its Joint Secretaries, Deputy and Assistant Secretaries. We have also met the Heads of certain Attached Offices (e.g., the Central Board of Revenue and the Public Service Commission), the Auditor-General and representatives of certain Service Associations (e.g., Indian Civil Service, Audit and Accounts, and Customs). In all we have, as a Committee, had conversation with some 110 individuals. We have further personally visited some departments of the Secretariat.

As did our predecessors, we have conducted our proceedings on the informal basis of personal discussion, although various valuable written memoranda have been supplied to us and much information given in writing in answer to our requisitions.

As also did our predecessors, we have been afforded everywhere and from all ranks the most willing and ready assistance which we wish most gratefully to acknowledge.

Lastly, and again equally with our predecessors, we trust that none of our remarks will be taken to imply a failure to recognise the high standard of work attained by the many able officers of the Secretariat.

4. Having regard to the extent to which the scope of our enquiries overlaps that of the Llewellyn Smith Committee, we have thought it useful in some ways to take up our review at the point at which it was then left. The picture drawn by our predecessors in para. 6 of their report of the conditions in which work in the Secretariat of the Government of India is carried on is broadly true of the present day, and we do not attempt once more to draw it. The difficulties of geography, climate and race remain, and are likely to remain, unchanged, entailing similar consequences in respect of the procedure and methods followed, but in certain directions there have been most noticeable developments, and these it is desirable to emphasise at the outset.

5. *Volume of work in the Government of India.*—In a country of the size and diversity of India, the work of the Central Government, whether under the existing system, Provincial Autonomy or Federation, must always remain onerous and complex. It was noted by the Secretariat Committee of 1919 (para. 53) that to the extent of about nine-tenths of their work, the Government of India were engaged in dealing with cases coming to them from outside, and to the extent of rather more than a half with work coming up from the provinces. The subsequent relaxations of financial and administrative control as between the Central and provinces, following on the Act of 1919, must have greatly reduced the number of provincial references, and while the cases coming before the

Central Government are still mainly initiated outside it, and in their practical bearing touch many aspects of provincial life, they tend more and more to be concerned with Departments and subjects under the direct administration of the Government of India. However, even allowing for a diminution in the direction indicated, work has increased remarkably since 1919. The political changes of 1919 inevitably resulted in a quickening of activity in such matters as Agriculture and Research: Labour legislation, the affairs of Indians overseas, and the enquiries of the League of Nations and the International Labour Organisation have become prominent; revisions of tariffs in pursuance of the policy of discriminating protection to industries, intervention in specific industries (*e.g.*, tea, lac, rubber and coffee) and the development of commercial intelligence have received increasing attention: new subjects have come to the front in connection with publicity, broadcasting, civil aviation, the Indian Stores Department and the Public Service Commission, while internal politics have added materially to the labours of the Home Department. The administration of income-tax and the control of the major ports have also been centralised. The discussion of political reforms, following on the Simon Commission and culminating in the Government of India Act of 1935, has affected every Department, while the elaboration of administrative changes consequent on that Act and the future contingency of Federation have produced and will continue to produce, innumerable problems.

In fact nothing could illustrate this point more strikingly than the enumeration (*vide* Appendix II) of the different Attached Offices which have come into being since 1919 in order either to cope with entirely new developments or to enable increasing attention to be given to older subjects which have assumed increasing importance. It will be seen that they total no fewer than nine.

The reactions of these developments are obvious, and the facts are strikingly borne out by a comparison of the superior secretariat staff of the Government of India in 1900, 1919 and at the present time, which shows the following results:—

Year.	Departments.	Number of					
		(b) Members.	Secretaries and Additional Secretaries.	Joint Secretaries.	Deputy Secretaries.	Under Secretaries.	Assistant Secretaries.
1900	7	6	7	1	9	9	12
1919 (a)	9	7	11	..	9	8	12
1935	9	7	0 (c) (d)	7(d)	12 (d)	7 (d)	15 (c) (d)

(a) Paragraph 69 of the Report of the Llewellyn Smith Committee.

(b) The Foreign and Political Department is in the direct charge of H. E. the Viceroy; the Departments of Education, Health and Lands and the Imperial Council of Agricultural Research are in charge of the same Member.

(c) The Reforms Office which is on a temporary basis is not included; neither are the Secretary and Assistant Secretary to the Legislative Assembly Department which is on a special footing.

(d) The Railway Department, the Imperial Council of Agricultural Research, the Central Board of Revenue, and the Military Finance Department, are not included. In these four Departments, there are at present 4, 4, 13, 6 and 7 officers with the status of Secretary, Joint, Deputy, Under and Assistant Secretary respectively.

One post of Secretary, 5 posts of Joint Secretary, 3 posts of Deputy Secretary, 2 posts of Under Secretary and 1 post of Assistant Secretary are at present temporary.

Taking the statement of what may be called the departments proper the noticeable points are the additions to the number of Joint, Deputy and Assistant Secretaries and the decrease in the number of Under Secretaries. If what may be regarded (without offence) as the secondary departments are included, the figures are even more striking. It is true that various posts are temporary, but unless created specifically for a particular job (*e.g.*, the Reforms Office) temporary appointments have a tendency to crystallise into permanencies.

Under Federation there is little or no hope of a reduction in the demand for officers. There will almost certainly be more Ministers than the existing Members (*vide* section 9 of the Act of 1935), and although there may be adjustments between Secretaries and Joint Secretaries, the net result will probably be some increase in staff. Again new offices will come into being *e.g.*, those of Counsellors, Financial Adviser, the Federal Railway Authority, the Federal Court and the Governor-General's Secretariat, all requiring staffs of their own.

While too such temporary offices as Reforms have been excluded, it is to be remembered that temporary requirements of one kind and another frequently recur.

Equally noticeable are the figures for the permanent clerical cadres of the Secretariat and Attached Offices.

Secretariat.

	*1919.	1935.	Percentage increase.
Superintendents	48	56	16.66
Assistants	211	292	38.39
Clerks	321	297†	49.53
Stenographers	36	183 (b) } 61	

Attached offices.

	1919.	1935.	Percentage increase.
Superintendents	10	42	320
Assistants	71 + 215* } (c) } 324	212	
Clerks	38	313† } 172 (b) } 697	115.10
Stenographers	7	50	

* Paragraph 50 of the report of the Llewellyn Smith Committee.

† 2nd Division Clerks.

(b) 3rd Division Clerks.

(c) This represents the staff of assistants and clerks in the office of the Director-General, Posts and Telegraphs. Figures showing their numbers separately are not available.

In other words, the total clerical establishment in the Secretariat has increased from 616 to 889 or by 44·32 per cent. and in the Attached Offices from 341 to 789 or by 131·38 per cent. since 1919.

6. *The proceedings of the Central Legislature.*—The extent to which the proceedings of the Council of State and Legislative Assembly now loom in the life of the Government of India is well known. The resulting preoccupation of the time of the Secretariat is manifest, and we were informed that while these bodies are in session the disposal of current business is seriously retarded.

With the introduction of Provincial Autonomy there should follow an appreciable reduction of business under the head of resolutions and questions dealing with matters of provincial concern, and a much needed relief to the Secretariat will thereby be afforded. On the other hand, in the enlarged legislative bodies which will come into being with Federation, business will presumably tend to be prolonged, and even while Secretaries, and Joint Secretaries will acquire greater freedom when they cease to be members, they will, on occasion, have to be in constant attendance. Again, under the new conditions their services may be requisitioned to a greater extent than now in connection with publicity. Immediately, however, the pressure of Council work should lessen.

7. *Character of work in the Government of India.*—But apart from the actual volume of work, there has been a significant alteration in its general character. Prior to 1921 the Government of India, working through the Provincial Governments, supervised and directed the whole field of administration. It prescribed the main outlines of policy and scrutinised its application, subject, of course, to the directions of the Secretary of State. The Reforms of 1919 inaugurated a definite provincial responsibility in certain extensive fields.—The important subjects of Education, Medical Administration, Public Health, Local self-government, Roads and Buildings, Agriculture, Civil Veterinary Department, Co-operative Societies, Industries, Excise, Registration and Religious and Charitable Endowments* were transferred to the control of Ministers. Even in the Reserved Departments, following on considerable financial and administrative delegations, the tendency has been for the Government of India to intervene more rarely. The division of responsibility thus became vertical rather than horizontal, and while, as already noticed, the functions of the Government of India vitally affect the interests of the provinces, they are more particularly their own concern. Relations with the provinces are coming to be concentrated more and more in the spheres of law and order, labour and finance except in so far as the endeavour is made to co-ordinate provincial activities in matters of all-India interest though of individual provincial responsibility. The need for such co-ordination has already been felt. A Central Advisory Board of Education and a Bureau of Industrial Intelligence and Research have recently been established, and Co-operative and Industries Conferences have been revived. It is to be noted that under Provincial Autonomy the need of such co-ordination is likely to be more marked, and we were informed that proposals for the creation of Advisory Boards for Public Health and Co-operation would shortly be considered.

8. *Reactions of Provincial Autonomy on the work of the Government of India.*—The all important change to be brought about in the near

* In two provinces Forests also.

future by the Act of 1935 is the introduction of Provincial Autonomy in place of the dyarchical system of the Act of 1919, and we have, therefore, examined in some detail the reactions of this innovation on the work of the Central Government.

At first sight it would appear that the advent of Provincial Autonomy must mean a substantial curtailment of the work now devolving upon the Government of India, and it was with some initial surprise that we heard the unanimous testimony of the Secretaries to that Government that they did not anticipate any such degree of relief. We accordingly went through with these officers each item in the present distribution* of business, and were forced eventually to the conclusion, unexpected as that might be, that in general their surmise was likely to be accurate. The work of the Defence, Foreign and Political, Railway and Ecclesiastical Departments is obviously not affected by the inauguration of Provincial Autonomy, except that in the Political Department it will be increased now that all States are in direct relation with the Government of India (the intervention in some instances of a local Government having been eliminated) and difficult and possibly protracted negotiations in connection with Federation are to be anticipated. In connection with these Departments, therefore, we do not propose to enter into further detail, but in Appendix III we have enumerated† in respect of each Department (other than Home) the subjects which will obviously not be touched by Provincial Autonomy, and as regards the rest have added explanations‡ of our view that even in their case the same result is in the main probable. The position in the Home Department is described in a short note§ leading to the same conclusion. If this anticipation is correct, it follows that no great measure of relief to the Government of India is to be expected on this account.

* Rules of Business No. 1.

† Part A.

‡ Part B.

§ Part C.

CHAPTER II.—RECRUITMENT TO THE GOVERNMENT OF INDIA.

9. *The system of recruitment to the Government of India.*—In order to find officers for the discharge of these duties, the Government of India have to supplement the personnel of the Central Services by indent upon the provinces, and in Appendix IV, will be found a statement of appointments ordinarily held by members of the Indian Civil Service, together with the pay of each. These are divided into posts for the occupancy of which a definite term is set (Part I) and those for which no such tenure is laid down (Part II). The theory is that adequate provision is made for these posts in the different provincial cadres both by specific provision for so many superior posts at the Centre, and by the addition to each provincial cadre of a definite reserve of 7 per cent. of the provincial superior posts for direct recruitment in order to provide for temporary posts, deputation proper and foreign service, whether under the Imperial or particular Provincial Government.

Provision under both heads carries with it an addition for inferior duty posts at the rate of 38·7 per cent. of the superior posts, whereas the requirements of the Government of India in the matter of inferior posts are as follows:—

4 Under Secretaries.

3 Assistant Collectors of Customs.

4 posts in Class I of the General List of the Indian Audit and Accounts Service.

11

Since it was decided in 1932 to abolish the last 4 posts as they fell vacant and as deputations of officers on the junior scale are infrequent, the reserve should normally suffice, but for the short recruitment in recent years (*vide* para. 10) and the reduction in the number of provincial Under Secretaries which has rendered fewer men available with previous Secretariat experience.

In respect of superior duty posts under the first category, provision is made for 58 superior appointments (indicated by asterisks in Appendix IV) which are borne on the provincial cadres in proportion to the strength of the Service in each province, the details of allotment are indicated below*.

* Madras	8
Bombay	7
Bengal	8
United Provinces	9
Punjab	7
Burma	8
Bihar and Orissa	5
Central Provinces	4
Assam	2

In actual practice, however, the number of officers of the Indian Civil Service employed under the Government of India is much larger. For instance, in 1935, 33 officers were employed in superior posts in the Political Department against the provision of 29 posts included in the above total.

There are moreover certain other permanent superior posts not borne on the cadre of the Indian Civil Service which are not infrequently held by members of that Service, *e.g.*, posts of Member, Central Board of Revenue, some posts of Commissioner of Income-tax, Director-General, Posts and Telegraphs, Deputy Director-General, Posts and Telegraphs, Commissioner, Northern India salt Revenue, Deputy Indian Trade Commissioner, London, Indian Trade Commissioner, Hamburg, Deputy Auditor-General, Secretary to the Government of India, Defence Department, and one post of Post-master General. The number of such extra-cadre posts held by the Indian Civil Service in 1935 was 22.

The provincial deputation reserve, calculated on the basis of 599 superior posts for direct recruitment is 42. Figures for 1935 show that there were 12 officers of the Indian Civil Service employed in temporary superior posts under the Government of India. Statistics of officers serving in temporary superior posts under the local Governments or on foreign service in 1935 are not readily available, but the number of such officers in 1932 was approximately 60. We doubt if there has been a reduction in this number since, and we therefore assume the same figure for 1935.

It will thus be seen that, while the provincial Indian Civil Service cadres contain provision for 58 superior posts under the Government of India and 42 officers for the deputation reserve, according to our calculations, 156* officers were employed either in permanent or temporary superior posts under the Government of India, temporary posts under the Local Governments or on foreign service in 1935.

Put in another way, the number of Indian Civil Service officers employed under the Government of India either in permanent or temporary superior posts in 1935 was 96, while the number of I. C. S. officers employed in temporary posts under the Local Governments and on foreign service was 60, making a total of 156 in comparison with a cadre provision under both categories of 100. In other words, the provision in the different cadres is quite inadequate to meet the actual demands, and this feature has persisted over a series of years.

* 33 officers in superior posts in the Foreign and Political Department.

29 officers in superior posts (other than those in the Foreign and Political Department) under the Government of India borne on the cadre of the I. C. S.

22 officers in permanent superior posts under the Government of India not borne on the cadre of the I. C. S.

12 officers in temporary superior posts under the Government of India.

60 officers in temporary superior posts under local Governments or on foreign service.

The way in which this discrepancy has hit the different provinces is shown below:—

Province.	Provision in the cadre for superior Government of India posts.	Deputation reserve calculated on the number of provincial superior posts.	Total.	Number of officers with the Government of India in 1935.
Madras	8	6	14	13
Bombay	7	5	12	5
Bengal	8	6	14	10
United Provinces	9	7	16	18
Punjab	7	5	12	22
Burma	8	5	13	4
Bihar and Orissa	5	4	9	11
Central Provinces	4	3	7	10
Assam	2	1	3	3
	58	42	100	96

Since the provinces have to meet also their own temporary needs out of the total provision of 100, it is obvious that very little margin has been left to them for the purpose, and, as already mentioned, the requirement of all provinces on this account is normally about sixty.

10. *Special factors affecting recruitment in recent years.*—In considering these figures, however, the following further facts have to be borne in mind:—

(a) Since 1920 all provinces have been subject, over and above the normal casualties, to a considerable drain in the shape of retirements on proportionate pension. Details are given in Appendix V, but the total number so lost is 167. Although such losses were actually larger in the earlier years, it is noticeable that they still continue. All provinces have suffered, but in proportion to their cadre strength, Bengal and (to a less extent) Bombay seem to have been hardest hit.

(b) For some years past—noticeably since 1931-32 and in the War years 1915—1918—recruitment to the Indian Civil Service has been anything but satisfactory either in respect of the total number obtained or since 1925-26 (on a fifty fifty* basis) of the number of British recruits secured. Details since 1914 are given in Appendix VI, and the figures speak for themselves. During this period there was a total shortage of 80 on the present sanctioned strength of the Indian Civil Service. Since 1925-26, 256 British recruits only have been secured against 322 Indians.

This point is of particular importance in connection with the recruitment for the Political Department, which ordinarily asks for British officers and retains them permanently. Its requirements from the Indian Civil Service are ordinarily two officers each year and three every third

* This basis was adopted in 1925-26 following the recommendations of the Lee Commission.

minor changes in methods of calculation, nothing was actually done, the discussions being complicated by doubts as to the result of reducing the total required under the heads of leave and training, possible alterations in the system of recruitment for the Foreign and Political Department, the possible cessation of recruitment from the I. C. S., for the Audit and Accounts, Posts and Telegraphs and Income-Tax Departments and motives of economy. Further, the practical difficulties which were being experienced in securing the numbers needed annually for the Indian Civil Service as a whole made the theoretical raising of the deputation reserve of subsidiary importance. The soundness of the whole system of recruitment for the Indian Civil Service has in fact been occupying the attention of the Government of India and local Governments since 1932, and is still the subject of correspondence with the Secretary of State.

12. *Vital importance of bringing the Indian Civil Service up to strength.*—We would emphasise that this problem is the predominant factor in the whole question which has been referred to us. It involves political considerations upon which we are not called upon to pronounce, but until a solution is found and the Indian Civil Service is restored to a position in which it is numerically strong enough to satisfy the various demands upon it, it is impossible to expect a way out of existing difficulties by modifications in the details of the selection of recruits. If the men are not available, no paper scheme will produce them.

The alternative of seeking other sources of supply is discussed below (para. 19).

13. *Complaints of provinces.*—The unanimous testimony of the different departments of the Government of India as to the great difficulties experienced in recent years in obtaining officers from the provinces has its counterpart in the equally unanimous complaints of the provinces as to the undue strain which is being placed upon their cadres in the endeavour to meet the requirements of the Central Government. The provincial grievances were voiced practically* everywhere in very similar terms and may be summarised as follows:—

- (a) that they were required to find men in excess of the provision in their cadres for the purpose, and that the burden was not equally distributed between different local Governments:
- (b) that they were asked by the Foreign and Political Department in particular to give up an undue proportion of British officers:
- (c) that there was an increasing tendency on the part of the Government of India to retain the men who were supposed to be lent to them for a term; in other words that the theory of the interchangeability of officers was breaking down:
- (d) that they were bombarded at irregular intervals by different departments of the Government of India with requests for men to the detriment of their own administration.

With the first two points we have already dealt and it is undoubted that a real and substantial grievance exists except, in regard to the first

* In Bombay only was the allegation made that the province was under represented in the Central Secretariat.

point, in the Central Provinces. That province has not so far been embarrassed by being required to supply men to the Government of India in excess of the provision in its cadre, since owing to the abolition of certain superior posts as a measure of retrenchment the actual strength of the cadre at present exceeds the sanctioned strength by 10. We deal with the fourth point in para. 27.

14. *Theory of the tenure system.*—As regards the third point, it has already been noted that not all posts under the Government of India are governed by the rule of tenure, the exceptions for the most part being found in the Foreign and Political, Indian Audit and Accounts, Posts and Telegraphs, Customs and Income-Tax Departments. Men once joining these services are ordinarily lost to their provinces of origin for good.

The imposition of a limit to the occupancy of certain appointments has long been a feature of Indian administration, and the posts governed by it range from that of Governor-General and Member of Council to such junior ranks as those of Under Secretaries. The rule obtains both in the Government of India and in the provinces, and in Appendix VIII we give details of the terms in force in the provincial Secretariats together with brief notes as to the extent to which they are actually observed. It will be noticed that the principle obtains generally except in Bihar and Orissa (for Secretaries, though in practice, a maximum of four years has been applied), the Central Provinces and Assam (where the smallness of the cadre presents special difficulties). Further the tenure laid down is ordinarily three years (four in the Punjab), though in individual cases officers have served for more protracted periods in the Secretariat. In that connection the experience of the United Provinces is interesting.

We do not recapitulate the history of the tenure system, as it has already more than once been placed on record. We merely note that, as applicable to the Imperial Secretariat, it dates from Lord Curzon's time in 1905: that it was re-examined in 1920 after the enquiry of the Llewellyn Smith Committee, who favoured a slight extension of the term, though no change was ultimately made, and again in 1935 when, pending the re-examination of the whole question by this Committee, the previous customary term of three years (ordinarily) was in some cases extended.

The arguments underlying the practice as enforced in the Secretariats may be summarised as follows:—

- (i) that it is desirable that officers of the Indian Civil Service should have a good grounding in district experience, bringing them into direct contact with the people, teaching them to assume responsibility and cultivating a sound judgment by the handling of a varied range of affairs:
- (ii) that it is not desirable that the officers who man the Imperial and Provincial Secretariats should be for too long divorced from the actual facts of administration in the provinces and districts; otherwise they are apt to become immersed in paper discussions and to lose touch with the practical bearing of the orders passed upon the lives and interests of the people:
- (iii) that the provinces benefit on the reversion of their officers loaned to the Government of India by the wider experience which their servants have gained:

- (iv) that with the strain imposed upon officers by secretariat work they may tend to grow stale if kept in the same employ for more than a certain time:
- (v) that in so far as secretariat work usually carried with it higher pay and other amenities (residence in the hills during the hot weather and possibly better prospects of promotion), it is conducive to the smooth working of the service as a whole that those members who show themselves qualified and capable should have a reasonable chance of a spell at headquarters: otherwise jealousies and discontent may be engendered, since secretariat work is only one aspect of the duties devolving upon the Service:
- (vi) that should an officer prove unsuitable for work of this description, the existence of a tenure facilitates his return to other lines.

On the other hand, the following considerations are urged with special reference to the Government of India Secretariat with which we are primarily concerned.

- (vii) that in the Finance and Commerce Departments of the Government of India, in particular, the increasing complexity of public affairs tended, and would tend still more in the future, to require officers to specialize in the subjects under their charge and demanded systematized measures for the recruitment, training and retention of an expert cadre:
- (viii) that analogous specialisation is admittedly necessary in the Legislative Department (the Foreign and Political Department is already specialised):
- (ix) that with the advent of Federation it is essential that Ministers at the Centre should, so far as it is practicable so to arrange, have available to them officers able to speak with knowledge, independence and authority born of experience of the particular subjects in their charge:
- (x) that although it is true that the Central Administration in its ultimate effect will impinge on the Provinces (*cf.*, paras. 5 and 7 *supra*), yet the scheme of the future constitution is such that the executive and administrative authority of the Provinces and of the Centre are demarcated; and both as to legislative and administrative powers, the underlying idea of the new constitution is indicated by section 8 (1) of the Act of 1935. In Provincial matters, the executive authority of the Federation extends to matters with respect to which the Federal Legislature has power to make laws and does not, save as expressly provided, extend to matters with respect to which the Provincial Legislature has power to make laws. In the result, excepting in the matter of the Governor-General's special responsibilities, the field of concurrent legislation and the machinery for research and co-ordination, there are really separate fields of administrative jurisdiction, namely, Provincial and Central:
- (xi) that district experience has little direct bearing on matters like emigration and the interests of Indians overseas, and to

some extent labour problems, in addition to the topics dealt with by the Finance and Commerce Departments: further that in many subjects dealt with at the Centre, contact with the Legislature is of prime importance.

Before proceeding further, we think it would be useful to examine in some detail how, in fact, the existing arrangements have actually worked. We have accordingly scrutinised the records of the officers appointed to the Imperial Secretariat between 1919 (the date of the Montagu-Chelmsford Reforms) and 1935, and the results are summarised below.

15. *Practical working of the tenure system in the Imperial Secretariat.*—The following table shows the extent to which the tenure rule of 3 years has not been observed during that period.

Department.	No. of I.C.S. officers since 1919 who have occupied substantively the post of				No. of I.C.S. officers who occupied for more than 3 years and 3 months the post of			
	Secretary.	Joint Secretary.	Deputy Secretary.	Under Secretary.	Secretary.	Joint Secretary.	Deputy Secretary.	Under Secretary.
Home	6	6	8	7	3	1	1	1
Education	6	4	9	6	3	..	1	1
Health and Lands	8	5	6	3	1	..	..	..
Commerce	4	..	4	1	3	..	2	..
Defence	5	2	7	5	2	1	2	1
Industries and Labour.	8	3	11	5	..	..	1	..
Finance	8	3	12	5	..	..	1	..
Foreign and Political.	Tenure rule does not apply.	3	12	2	..	..	..	..
Imperial Council of Agricultural Research.	..	..	2	..	..	..	..	..
Total	37	23	59	29	13	2	8	3

On the face of it, therefore, the rule was broken to the extent indicated below*, but, as regards Secretaries, in only 3 instances (one in the Education, Health and Lands Department and two in the Defence Department).

Notes.—1. The officers in the Reforms Office have been excluded from this statement as it is on a temporary basis.

2. The officers in the Legislative Department have been excluded, as prior to 1925 no tenure was laid down for posts in that Department.

	Percentage.
* Secretaries	22.4
Joint Secretaries	8.7
Deputy Secretaries	13.6
Under Secretaries	10.4

ment), and among Deputy Secretaries only in 4 cases*, was the extension for more than one year. There were two extensions of over 2 years [Defence Department 1 (Secretary) and Finance Department 1 (Deputy Secretary)]. Since an extension of a few months is not a very serious matter and perfectly legitimate reasons for it may easily be imagined, we think that it can be said that in most cases the rule has been followed in the main in respect of particular appointments.

16. But to the theory that an officer having gained wider experience under the Central Government carries it back with him to the benefit of his province of origin, there have been various noticeable exceptions.

Of 84 †Secretaries who have held that post since 1919, only 11 reverted to the provinces (4 as Governors of other provinces: 2 as Governors, 4 as Members of Council and 1 as Commissioner in their provinces of origin). 13 obtained other appointments under the Government of India, and 10 retired.

Of 20 †Joint Secretaries, only 5 reverted to their provinces. 11 were appointed as Secretaries and 3 to other posts under the Government of India, while one retired.

Of 44 †Deputy Secretaries 20 †reverted to their provinces. 2 became Secretaries, 8 Joint Secretaries, 6 Deputy Secretaries in other departments, and 5 joined other posts under the Government of India. 2 reverted to Central Services, and one retired.

Of 22 †Under Secretaries 8 reverted to their provinces. 9 became Deputy Secretaries, 1 an Under Secretary in another department and 2 went to other posts under the Government of India. 2 reverted to Central Services.

Out of ||21 officers holding tenure appointments in the Government of India Secretariat on the 31st October 1935, one has had over eight years' service at the Centre: 1 over eleven; 1 over fourteen and 1 over fifteen years. During 1919—1935, we note 3 cases of officers passing from one Secretaryship to another; 5 from one Deputy Secretaryship to another, and 2 cases of officers passing from a Joint Secretaryship in one department to a Secretaryship in another department. Also (not counting the Legislative and Foreign and Political Departments) 11 cases of officers going on from one secretariat post to another in the same department, and two of officers occupying successively four posts in the same department (Under Secretary, Deputy Secretary, Joint Secretary and Secretary) with little or no interval between them.

From these details we may perhaps draw the following broad conclusions:

- (a) Secretaries to the Government of India either obtain high posts (Governorships and Memberships of Council) or retire; they do not revert to the Provincial Secretariats:

* Home Department	1
Education, Health and Lands Department	1
Industries and Labour Department	1
Finance Department	1

† Present incumbents have been excluded.

‡ Two returned to the Government of India as Secretaries, 2 as Joint Secretaries and 1 as Deputy Secretary.

§ Two returned to Government of India as officiating Deputy Secretaries.

|| Excluding the Foreign and Political Department and Reforms Office of which the circumstances are special and the Legislative Department to which the tenure rule has been applied only recently.

- (b) there is a distinct tendency to promote Joint Secretaries to be Secretaries: Deputy Secretaries to be Joint Secretaries and Under Secretaries to be Deputy Secretaries also for officers to hold on to successive secretariat posts in the same department:
- (c) of Joint Secretaries 25 per cent., of Deputy Secretaries 45·4 per cent. and of Under Secretaries 36·4 per cent. reverted to their provinces.

In other words, the complaint of the provinces that in a large number of instances they do not reap the benefit of the reversion of their officers lent to tenure posts is well founded, while some officers tend to do protracted spells of secretariat duty.

17. *Recommendations and conclusions.*—On the basis of the facts as thus set forth, we now submit our recommendations and conclusions regarding this aspect of our enquiry.

18. (a) *The system of recruitment.*—We are of opinion that the existing staffing of the Government of India Secretariat by officers drawn from the provinces is sound, and in this we are fortified by two recent pronouncements of weight. The Simon Commission remarked as follows (para. 828, Volume II):—

“It is far from our intention to recommend a separate cadre of officers for the departments of the Central Government, for we believe that the present system whereby the Central Secretariat is drawn from members of the services in the provinces is most valuable. A proper circulation between the provinces and the Centre is essential if contact is to be maintained over so large an area.”

While the report of the Services Sub-Committee of the First Round Table Conference (para. 3) contained the following comment:—

“In existing circumstances the Government of India can and does obtain officers from the provinces to fill certain Central appointments. Under the new regime we hope that it will be possible to conclude arrangements between the Government of India and the Provincial Governments so as to secure the continuance of the practice, which has obvious advantages.”

In fact, nobody among those whom we have questioned has been able to suggest any satisfactory alternative. It was mentioned as a possibility that the Centre might rank as a province in the initial allotment of officers on recruitment to different areas, men being assigned to it from the beginning of their service just as they are now posted to Madras, Bombay, etc. Subsequently, they might be deputed to different provinces for a period of district training, after which they would revert to the Centre for good. No one, however, favoured this solution. Men so sent to the provinces would be birds of passage, having no permanent interest in the work there and consequently regarded with little concern by the local Governments. Again, men's aptitudes develop in the course of their service, some for secretariat work in general or in specialised lines (e.g., Finance), some for district work, some for both, and others for the judicial

sphere; they cannot be classified on first selection, and the Government of India might find themselves landed with officers who were quite unsuitable for their purposes. Further, the difficulties of working a small cadre of this type would be extreme, and to deprive the Service in general of such prospects of promotion would occasion deep resentment. At the same time, it would emphasise the cleavage between the Centre and the provinces. Already, with the prominence given to the idea of Provincial Autonomy, there is some risk of separatist tendencies developing. It would be most unfortunate if anything were done to strengthen them.

But it has been suggested that, whatever the merits of a system under which the Centre obtains its officers from the provinces, its actual working may be difficult under Provincial Autonomy. It has been apprehended that Ministers may look primarily, if not solely, to the interests of their own charges and may be reluctant to let their best men go. Possibly there may be some intensification of this feeling, but we do not think it will lead to a deadlock, nor did the evidence of existing Ministers point to that presumption. After all, however much Central and Provincial administration may tend to fall within different spheres, the matters dealt with by the Centre intimately concern the provinces; it is by the provinces that their good or bad administration will be felt, and the provinces are vitally concerned to see that their points of view are not neglected. Again, there are already Ministers, and we have had considerable evidence that many of them do appreciate the advantages of having officers of their province in the Government of India and recognise that training there should (on their reversion) impart a wider outlook with consequent increased efficiency. In fact, almost all of the present Ministers were in favour of continuing the present system. But they do expect that an attempt will be made to meet their reasonable complaints (*vide* para. 13). We understand the legal position to be that, reading sections 54, 126(1), 244 and 246 of the Government of India Act, 1935, it would be possible for the Governor-General in the last resort to insist, in the face of an absolute provincial refusal, on obtaining the services of a particular officer, but it is in every way undesirable that matters should come to that pass. A sound convention of mutual assistance should suffice, based upon give and take and the recognition of the needs and difficulties of both sides. Our subsequent recommendations in this connection are designed to secure this result.

19. (b) *The state of the Indian Civil Service cadre.*—Nothing could do more to conciliate the provinces than the placing at their disposal of sufficient men to meet both the requirements of the Government of India and themselves. We regard it as essential that the reserves of either category (*vide* para. 9) should be brought into closer correspondence with the probable demands upon them, and that the provincial cadres should be restored to an efficient state both in respect of total strength and racial distribution.

Even then it is unlikely that an immediate remedy for the existing difficulties can be found, and we think that it behoves the Government of India carefully to consider what alternative sources of supply to the Indian Civil Service can be tapped. Local Governments have material to hand in the officers filling listed posts and in the Provincial Civil Services. In some provinces officers holding listed posts have occupied the positions of Secretary and Deputy Secretary, and, it may be, if

properly selected and trained, some may be found qualified to enter the Central Secretariat. The counterparts in the Government of India are the Departments of Audit and Accounts, Customs and Income-Tax. The first two services appeared before us definitely to urge their claims. The former, however, acknowledged that out of 12 appointments in the Finance Department classified by them as important they already held eight: their complaint was that they were not considered eligible for the posts of Finance Secretary, Deputy Secretary, Under Secretary and Financial Adviser, Military Finance. From the Customs Service an officer has recently been taken (temporarily) as a Member of the Central Board of Revenue, in which on two occasions and officer of the Income-tax Department was also temporarily employed. We recognise the difficulty arising from the reservation of certain posts for members of the Indian Civil Service, to which by that service much importance is attached, as also the force of the opinion of the Simon Commission which was expressed as follows (para. 328):—

“We readily recognise the high standing of the Provincial Services; but an All-India Service has a much wider field of choice, and the status and tradition attaching to it secure for it recruits of a class for which a Provincial Service has no attractions.”

We do not wish, therefore, to suggest any rigid recognition of claims, or rather aspirations, but in so far as these Services produce competent officers (and by the careful selection and training of junior men this process might be facilitated), the Government of India would do wisely to make use of them.

20. (c) *Recruitment for the Foreign and Political Department.*—We understand that the whole question of the future system of recruitment for the Foreign and Political Department is at present under consideration, although no decision has as yet been arrived at. Since the question is governed by considerations which are outside our terms of reference, we can only say that it would be an enormous relief to the provincial cadres if they could be spared the constant drain upon them (particularly in respect of British officers) on this account.

21. (d) *The tenure system in general.*—We have already described the tenure system as it affects secretariat appointments and have examined the extent to which in recent times it has been observed at the Centre. We have also summarised the considerations on which it is based and others relevant to the future constitution and duties of the Government of India. Before proceeding to deal with details we would state three general considerations:

(i) A system of tenure extensible (for no special reason) at option is essentially bad. There cannot be an absolute rigidity, as special occasions in which short extensions are justifiable are imaginable, *e.g.*, if the officer was engaged upon a particular task which should be seen through by one and the same individual (for example, a budget or a tariff agreement), or in order to avoid a simultaneous change of Member or Minister and Secretary. But otherwise to renew tenures on no specific ground may lead to intrigue and the suppression of independent opinion. It is essential that the judgment of secretariat officers should not be affected by the expectation of currying favour with those above them. Even when legitimate extensions are granted, we think that this should be the act of Government as a whole, not of the particular department affected.

(ii) To allow an officer to progress from Under to Deputy Secretary, to Joint Secretary and Secretary is not good either for the department or the officer himself. The periodical infusion of fresh blood is advantageous to the department, and work of a different type saves the officer from becoming stale. Moreover if an officer remains too long in the same groove, it practically unfits him for any other, and protracted service under the Government of India puts him entirely out of touch with local conditions. We think that, up to the stage of Secretary, a secretariat tenure should either be followed by a spell of administrative work under the Government of India or of administrative or secretariat work under a local Government.

(iii) Although apart from the Secretariat proper, there are certain posts of an administrative type under the Government of India which may legitimately be filled by men who have been in the Central Secretariat, particularly if they are akin to a specialised department in which it is expedient to give an officer concentrated training (*vide* para. 23 *infra*), yet the only way to reconcile Provincial Governments to the loan of their servants is to allow them to benefit by the reversion to them of their officers who have thus acquired wider experience, and in respect of the non-specialised departments in particular, we consider that every effort should be made to secure this result. This need not debar such an officer from returning to the Government of India at a later date.

22. (e) *Special cases of the Foreign and Political, Legislative and Legislative Assembly Departments.*—We do not offer our remarks on the subject of tenures as applicable to the Foreign and Political, Legislative and Legislative Assembly Departments.

The first named has a cadre of its own from which it draws its secretariat officers and may be left to adjust its system to its own peculiar needs.

In the case of the Legislative Department, until recently, the tenure system did not prevail, but it has recently been applied to the Secretary and Deputy Secretary (*vide* Appendix IV, Part I). We see no necessity for so doing. The work is essentially that of an expert specialist, and prolonged experience should add to an officer's value. Moreover, the present orders as to the Secretary's term of office (5 years extensible by another 5) amount very nearly to an absence of tenure, having regard to an officer's probable seniority on appointment. Probably, however, in his own interest, a Deputy Secretary may not seek stay too long in the job.

The circumstances of the Legislative Assembly Department are entirely special.

23. (f) *The tenure system as applicable to Under and Deputy Secretaries*—Bearing these considerations in mind we would treat the cases of Under and Deputy Secretaries according as they fell within a specialised or non-specialised department. In the former, we would class the Finance and Commerce Departments; in the latter those of Home, Education, Health and Lands, Industries and Labour, Defence and the Imperial Council of Agricultural Research. In the first class, we are concerned with 2 Deputy Secretaries (including the Secretary to the Central Board of Revenue) and 1 Under Secretary; in the latter with 6 Deputy and 3 Under Secretaries.

Taking the period 1919-1935, the average length of service on appointment of Deputy and Under Secretaries was about 13-1/8 and 6 years respectively. But in the former case it was noticeably shorter in the

Departments of Industries and Labour (10½ years) and Commerce (11½ years), in the department first named apparently owing to the practice of letting the Under Secretary proceed to the Deputy Secretaryship, which we have condemned, and in the second to the selection of two officers at an unusually junior stage.

For an Under Secretary this average stage of service seems to be about right. The old fixed rate of pay for an Under Secretary was Rs. 1,200; the present pay is on the junior time scale *plus* Rs. 800, which is equivalent to Rs. 1,200 in the ninth year of service; in the tenth year it would be Rs. 1,300.

For a Deputy Secretary (pay on the senior time scale *plus* Rs. 400) a maximum of Rs. 2,250 is prescribed. He would not reach this on the senior time scale till his 23rd year of service, but by that time he might be drawing more than Rs. 2,250 in other posts *e.g.*, as a Secretary to a local Government. Again, the old rate of fixed pay for a Deputy Secretary was Rs. 1,800, which means that from his 12th year (pay on senior time scale, Rs. 1,425 *plus* 400) a Deputy Secretary is costing more than previously, and the discrepancy increases up to the maximum with every year of his retention.

In both cases, therefore, we would make the tenure of each appointment three years, and on its expiry would insist on reversion to an administrative post. In the case of the non-specialised departments, reversion should ordinarily be to the province of origin, though in the Department of Education, Health and Lands there are two posts* and in the Department of Industries and Labour one† post which might afford possible, but not necessarily invariable, exceptions, since both appointments might suitably at times be filled direct from the provinces.

It was suggested in some quarters that for the post of Under Secretary two years might suffice, and in some provinces this seems to obtain. It was argued that more officers could thus be trained. But considering that in the Government of India an Under Secretary is confronted with an entirely new range of problems, we think a 3 year term is preferable.

The case of the specialised departments calls for special notice. Reference to Appendix III will show that the work in both is of a technical character with which an officer gains little acquaintance in the ordinary line. On the other hand it is work of intense, and as regards Commerce, of growing, importance and some complexity. We consider it to be most desirable that from among officers who show a special aptitude in these directions an expert cadre should be built up, and it should be the definite endeavour of each department so to do. From Appendix IV it will be seen that in both departments there are a variety of appointments connected with the special subjects with which they deal, while there is a considerable affinity between the business of the two departments. We see no objection, therefore, to these posts being regarded for the present purpose as on a common footing, and [except for the general rule referred to in para. 21 (ii)] to officers passing their careers in these particular lines. Indeed those who join the Audit and Accounts, Customs, and Income-Tax Departments are already ordinarily regarded as lost to

* Secretary to the Agent-General for India in the Union of South Africa and Agent to the Government of India in Ceylon.

† Controller of Emigrant Labour.

the provinces from which they come. The only difference would be that the Secretariat posts in these departments would be more explicitly linked up with the kindred administrative departments.

The existing position as regards these services is that in the Indian Audit and Accounts Service 3 posts of Accountant-General and 4 training posts are reserved for members of the Indian Civil Service, it being considered desirable that the department should be strengthened by the infusion of an element possessed of wider administrative experience. Recently, mainly on the score of economy, it was considered that this practice might gradually lapse and only 2 and none such posts respectively are actually so held at the moment. In the Customs Service, 2 posts of Collector (to be reduced to one after the separation of Burma) and 3 of Assistant Collector (then to be reduced to 2) are similarly so reserved. There are further 4 posts of Trade Commissioner in Europe of which 2 are at present held by members of the Indian Civil Service. It was said that the number of these would probably increase, though, on the other hand, there was a movement in favour of the appointment of non-officials. There are also 2 posts in the Commercial Intelligence Department which have been held by members of the Indian Civil Service in the past, although this is not at present the case. In the Income-tax Department there is no such reservation, but 4 posts of Commissioner (out of 6) and one of Assistant Commissioner (out of 28) are at present held by the Indian Civil Service, although the theoretical aim is to make the department ultimately self-contained. In view, however, of the definite desirability of having officers in the Secretariat with experience of these special subjects we should be sorry to see the Indian Civil Service element disappear, irrespective of the benefit which these particular departments derive from its presence.

But apart from its own needs, the Imperial Finance Department is deeply interested in the efficiency of its provincial counterparts, and it should endeavour to assist local Governments by the reversion to them for a term of service in this line of officers who have been trained in the intricacies of its business. Finance in the provinces will assume added importance under Provincial Autonomy, when provinces will have to manage their own ways and means and will possibly develop a bolder borrowing policy. This has already been recognised, and provincial officers are in anticipation undergoing a short course of specialised training which is probably all that can be managed at the moment. But the Finance Department should recognise the obligation to help provinces in the future, and in the event of a province desiring to appoint to a financial post an officer serving with the Central Government the latter should endeavour to spare him. Their own needs should have preference, but it should be possible to meet both requirements.

We were shown a scheme on these lines which was aimed at creating a definite pool of officers for the Finance and Commerce Departments which should be rigidly adhered to. It entailed various difficulties of adjustment of pay in the different departments, etc., and did not find much favour among those who appeared before us. We think the more elastic system outlined above will meet all that is needed and may avoid some complications. Of course, if an officer was not required in a specialised line at the Centre, he should revert to his province without stipulation as to the mode of his subsequent employment there. If however, he

was required further by the specialised department at a date only a few months later than the expiry of his term, no question of his reversion to his province for so short an interval need arise.

24 (g) *The tenure system as applicable to Joint Secretaries and Secretaries.*—During the same term as above (1919—85), the average length of service on appointment of Secretaries and Joint Secretaries was 22 and 19 years respectively, the Defence Department ((19-1/3 years) being a noticeable exception in the first case and the Departments of Industries and Education, Health and Lands (17 and 16 years respectively) in the second. Between 1900 and 1920, Secretaries when selected were slightly more senior as a rule (23 years).

Regarding these officers it will be seen from the details given in Appendix IX that on the executive side, with the approaching disappearance of Members of Council in the provinces, and excluding Governors, the pay of a Secretary to the Government of India (Rs. 4,000) will be higher than that of any provincial appointment. The nearest approach to it will be that of Chief Secretaries in the Presidencies (Rs. 3,750) and Members of the Board of Revenue and Financial Commissioners (Rs. 3,750 or Rs. 3,500). We have already noted (para. 16) that in the past practically all Secretaries to the Government of India, on completing their term either were promoted to be Governors or Members of Council or retired. In future, the only avenue of promotion normally open to them will be a Governorship or a Counsellorship or other superior post at the Centre. On the other hand, there are various provincial appointments of which the emoluments are higher than those of Joint Secretaries (Rs. 3,000).

For the sake of comparison we also show in Appendix IX the rates of pay of Provincial Secretaries. In view of the greater importance which will attach to these officers under Provincial Autonomy, we understand that one local Government is already considering the raising of the pay of the Chief Secretary to Rs. 4,000.

As regards the appropriate length of tenure which should govern the posts of Secretary and Joint Secretary to the Government of India in future, we are not in agreement. The majority of us are in favour of these officers being appointed without a specified limit being placed on their tenure of these posts. Sir Henry Wheeler would advocate a tenure of five years. The reasons for our respective views are set forth in Addenda A and B.

25. (h) *Probation, leave, deputation, etc.*—There do not seem to be any existing definite orders on the subject of probation, although an unsuitable officer would presumably be reverted. For Under Secretaries we would like to see a recognised trial for six months. Above that grade sufficient should be known of the officer prior to appointment to render this unnecessary.

During a three year tenure we consider that leave should not ordinarily be taken. If an absolute necessity of so doing should arise, its period should be limited to four months, and every endeavour should be made to fill the vacancy by some local arrangement without indenting upon the provinces for a substitute.

Where a tenure is prescribed, any time spent on probation, leave or deputation should be included in it.

26. (i) *Confidential reports*.—Under recent orders, but not previously, confidential records are maintained of the work of the superior secretariat staff and this appears to us to be desirable. It might well be followed uniformly in the provinces where at present the practice varies.

We were told that confidential reports on ministerial officers tend to become colourless owing to the obligation of showing them to the officer concerned. A note of this type is valueless, and while it is a well established practice that remediable defects should be communicated, we see no need to pass on the whole report.

27. (j) *Systematisation of recruitment*.—We were greatly struck by the absence of any regular system in the indenting on the provinces for officers required by the Centre. Till very recently each department appears to have gone as it pleased, as and when the occasion arose. Sometimes an officer is asked for by name: sometimes a province may be asked to suggest names, or a general reference of this type may be made to all provinces. Consequently, the local Governments never know when a demand may be made upon them, and irritation is caused by a series of disconnected calls. Lately, it has been arranged that the Secretary to the Executive Council shall maintain the confidential records (*vide* para. 26) and be consulted by the department requiring a fresh officer. But we doubt the adequacy of this solution. The addition to this particular officer's work is rather outside the sphere of his other functions, and he has not at his command the materials for dealing with the matter. We are decidedly of opinion that a more definite and centralised procedure should be followed and that one department should be entrusted with the task of ensuring co-ordination though in full consultation with the other departments concerned. This would naturally, during the transitional stage, be the Home Department which already is the repository of service interests in general. Under Federation, remembering the special responsibilities of the Governor-General, one of the Counsellors would be an appropriate authority. Whoever it was, there would be no question of his dictating to or directing other Departments. It would be the duty of such an authority to maintain the requisite records, and at the commencement of each year, or at some other convenient time, to obtain from other departments a forecast for the year of their probable requirements, preparing a consolidated statement for the whole Government. This could then be considered, say, by a committee of Secretaries, (presided over, say, by the Vice-President of the Executive Council) in the light of the existing composition of the Secretariat and other offices, the demands already made upon different provinces, the state of the provincial cadres, the qualifications and standing of the individuals likely to be available and any other relevant information, submitting proposals to Government, the ultimate orders of which would be required. We are aware that with the vicissitudes of official life in India it is impossible to forecast every contingency, but many could be foreseen and others, as they arise, could be dealt with on similar lines. It would be the duty of such a committee to ensure compliance with any orders which may be passed on the matters with which we are now dealing. Given such a system, local Governments would have some assurance that their interests are receiving consideration, while had such a practice obtained in the past it is probable that prominent attention would have been drawn before now to the imminence of the difficult situation which has arisen.

CHAPTER III.—ORGANISATION OF THE SECRETARIAT.

23. We proceed now to examine various matters connected with the organisation of the Secretariat.

29. *Business of Departments.*—The Llewellyn Smith Committee devoted considerable attention to the allocation of business among the different departments of the Government of India and made a series of recommendations in that connection, of which the most noticeable result was the addition of one Member to the Executive Government with the separate portfolio of Industries. Taking matters as they now stand, we doubt if the distribution of business calls for further detailed comment, since the various subjects seem, on the whole, to be grouped systematically and conveniently. The only suggestion for material change which was brought to our notice was for the creation of a Department of Ways and Communications, embracing all functions relating to transport and Posts and Telegraphs, which are at present divided between the Railway and Industries and Labour Departments. This idea also commended itself to our predecessors, and it has been accepted in principle by the Government of India (*vide* a resolution in the Council of State, dated 18th of March 1925).

It would appear from debates in the Legislative Assembly last year that a remodelling of the Commerce Department was unofficially advocated, but no very definite scheme was outlined or has since been elaborated.

On the face of it, the control of agricultural and veterinary research institutions at Pusa and Muktesar would seem to fall more appropriately within the purview of the Imperial Council of Agricultural Research than of the Department of Education, Health and Lands, but the point was fully discussed in 1931-32, and we accept the conclusion then arrived at that change was inexpedient.

Otherwise, minor suggestions have been made to us for the transfer of Commercial Education from the Commerce Department to the Department of Education, Health and Lands, and of Copyright from the Department of Industries and Labour to that of Education, Health and Lands, the latter reversing a recommendation, which was accepted at the time of the Llewellyn Smith Committee. Neither subject is of major importance, nor does any special issue of principle seem to be involved.

But a convincing reason for avoiding any considerable disturbance now of the existing system is that with the advent of Federation the question will have to be reviewed from a different angle. Section 9 of the Act of 1935 fixes the maximum strength of the future Federal Ministry at ten, although we understand that no particular conclusion is to be inferred therefrom as to what may be an appropriate figure, but it is likely that the future number of Ministers will be greater than that of the present Members, thus necessitating a rearrangement of portfolios. The statutory obligation to appoint a Law Member will also cease to be operative. The political considerations of the time will presumably be the determining factor, and these it is impossible at this stage to define. But clearly, until they are known, it will be convenient to avoid intermediate changes.

30. *Organisation of Departments.*—Within a department our predecessors envisaged (paragraph 71) an ideal organisation in the nature of a pyramid of which (above the office proper, as defined in paragraph 63), the base was an adequate number of Assistant Secretaries, submitting cases through Deputy Secretaries

to one Secretary at the top. Under Secretaries (except in the Finance Department—paragraph 77) were to disappear, and the device of Additional and Joint Secretaries (except in cases of temporary emergency) was definitely condemned as tending to weaken the control of the Secretary and to impair the unity of the department (paragraph 10).

31. *Joint Secretaries.*—It will be seen from the details given in Appendix X that this ideal has not been realised, and in fact the Government of India (*vide* their resolution of the 1st September 1920) held at the time that all departments could not be treated alike. Every department except Defence and Finance (and in the latter the post of Additional Secretary is only recently in abeyance) has now a Joint Secretary. The pressure and growth of business have rendered it impossible to pass all files to the Member-in-Charge through one Secretary; also the demands of the Legislature have required the presence of two representatives in addition to the Member from every department except Education, Health and Lands and Defence. As already remarked (paragraph 6), this latter factor will cease to be operative under Federation, when officials will no longer sit in the Legislature, but it is probable that they will have still to be in constant attendance on their Ministers and it is difficult now to forecast the precise result. We doubt if it would be possible generally to revert to the old system of one department, one Secretary, though an increase in the number of Ministers would tend in that direction. However, even as matters stand, the Secretary is definitely regarded as of higher status than the Joint Secretary, and the responsible head of the departmental Secretariat. Incidentally, too, he draws higher pay. This position seems to us to be correct, and we would not attempt to assimilate the status of the two officers.

In practice, the various Branches are definitely divided between the Secretary and Joint Secretary, though presumably the Secretary ordinarily deals with the most important work. We were told that in exceptional cases both officers might see, and that as all cases are returned to the office through the Secretary, he could (in theory) keep himself acquainted with everything which was going on, but we think it most undesirable that there should be any system of double noting (in one department there seems to be a tendency in that direction), and the separate responsibilities should be recognised and enforced.

Equally, below the Secretary and Joint Secretary there should ordinarily be the intervention of one officer only, whether Deputy, Under or Assistant Secretary. The interposition of two is an unnecessary delay to business. For the most part this is the present procedure, but any infringement of it should be checked. If, of course, a case is such as the Deputy Secretary could dispose of finally, there is no objection to its submission to him by an Under or Assistant Secretary, and in the Defence Department, in order to facilitate such disposal, all cases go through the Deputy, but ordinarily this would seem to be undesirable.

32. *Deputy Secretaries.*—We were informed, however, that where there was a Secretary, Joint Secretary and Deputy Secretary, the position of the last named was apt to approximate to that of an Under Secretary. This seems wrong in principle. For the pay of a Deputy Secretary two Under Secretaries could be secured, and if the knowledge of a senior officer (who, *inter alia*, can dispose of more cases personally and submit certain cases direct to the Member) is not needed, then one of junior status would be an economy.

if these posts are in any way to fulfil the expectation in which they were advocated.

There is a noticeable difference in the use that has been made of these officers in different departments. In the Home, Education, Health and Lands, and *Legislative Departments, they have been employed mainly for the purpose of office supervision and in connection with ministerial establishment cases. In the Finance, Commerce and Industries and Labour Departments, their primary duty is to note on cases, and this we think is their correct function. Otherwise an officer of the Registrar class should suffice and would cost less. The whole idea of the Assistant Secretaryship was to create a permanent *officer* class, not a superior *ministerial* grade. We would not debar the promoted ministerial officer, if properly chosen, or lay down that the Assistant Secretary should be dissociated from such matters as control of the office personnel and accounts, but the aim to be borne in mind is to constitute a secretariat type which by reason of its prolonged acquaintance with actual departmental business can not only render assistance in its disposal of a greater value than that which can be expected from a ministerial officer, but also facilitate a greater measure of devolution. With the important matter of office supervision we deal below.

The pay of an Assistant Secretary (Rs. 750—25—900) is adequate to attract a man of a good standard of ability, and it was suggested to us that it would strengthen the Secretariat if a superior type of officer could be recruited explicitly for these posts of Assistant Secretary with the expectation of being appointed to them after a materially shorter training as an assistant than is usual in the case of an officer so promoted at present. The recommendation would apply only where there is not already (as in the Indian Audit and Accounts Department) a suitable outside field of selection. We should have thought that the Customs and Income-Tax Departments might similarly have produced suitable candidates, but they do not seem to have been drawn upon. But otherwise we doubt the desirability of attempting to recruit specially to anything in the nature of a Secretariat Service on a par with the Provincial Civil Services. It is true that in the provinces resort is usefully had to the latter Services, and in Appendix XI we give details of the prevailing practice and indicate the general opinion on the results achieved, since provincial experience in this matter is not without its value in considering the needs of the Government of India, but an officer taken from a Provincial Service brings with him a definitely different earlier experience in executive work and has probably in it to some extent been entrusted with personal responsibilities. We make proposals below which should procure a better type for division I of the Secretariat, and granted this and so long as selection is observed in taking men from the ministerial ranks, and they are not kept too long waiting for promotion, there appears to be no particular advantage in starting a special service. At the same time, we are definitely of opinion that appointments to the posts of Assistant Secretary should not be confined to members of the ministerial service, and we advocate recourse to the wider field indicated above.

85. *Registrars*.—With the increased appointment of Assistant Secretaries, Registrars have disappeared. In 1919, these numbered ten. In the Finance Department, there is a post of Chief Superintendent. *i.e.*, a senior

* The case of the Legislative Department is doubtless special.

superintendent in receipt of a special allowance, who is supposed to discharge the duties of a Registrar. We have already said that, in our opinion, the proper functions of an Assistant Secretary do not cover the duty of detailed office supervision, and the class should not be confused with that of Registrar. The latter was never intended to be more than the principal ministerial officer whose function it was to superintend the establishment, ensuring its smooth working and the prompt disposal of work. We are disposed to think that the importance of this duty has tended to be underestimated, and while we do not advocate a revival of the post of Registrar, we discuss this point further in connection with the general question of office supervision (paragraph 38 *infra*).

36. *The Ministerial Service.*—On the recommendation of the Llewellyn Smith Committee (Chapter III), a system of recruitment of the ministerial staff through a Staff Selection Board was substituted for the previous independent and rather haphazard methods of individual departments, and this continued in force until 1926. Towards the end of that year, the functions of the Staff Selection Board were transferred to the Public Service Commission, and on their recommendation the Government of India convened an interdepartmental conference in 1927 to examine the system of recruitment to the ministerial establishment of the Secretariat and its Attached Offices. The system recommended by the conference was adopted with minor modifications and is still in force. Its salient features are set forth in Appendix XII.

That there is no lack of candidates is shown by the following figures.

Year.	Number of candidates.		Number of vacancies.		
	I & II Divisions.	III Division.	I Division.	II Division.	III Division.
1933	1,069	420	24	4	54
1934*		398			(a) 143
1935	674	252	(b) 4	(b) 6	(c)

Applicants come from all over India, though we were told that those from Madras, the United Provinces and the Punjab ordinarily prove most successful. Apparently candidates are much of the same type and apparently even for division III about one half are graduates. Indeed it seems to be not uncommon for some candidates to appear for all the main examinations conducted by the Public Service Commission, *i.e.*, Indian Civil Service (Delhi), Indian Audit and Accounts and the Ministerial Service (divisions I, II and III), and in default of anything better to take division III not with the intention of staying in it but pending better prospects. There is no *viva voce* test, which is to be regretted since we were told that the physique of many candidates was poor, but the numbers to be examined preclude it.

* There was no examination for divisions I and II in 1934.

(a) The list will remain in force up to 31st March 1936.

(b) The list will remain in use till 30th September 1937.

(c) The list comes into operation with effect from 1st April 1936.

There was general unanimity that, although it was perhaps too early to express a final view, the present mode of recruitment has secured a better type than previously and that the men so chosen were on the whole shaping well. At the same time, the view was strongly pressed by the Educational Commissioner that the best type available is not being obtained and that for the pay offered in division I more competent men should be procurable. The argument was that the examination described in Appendix XII is of so elementary a type that it does not differentiate sufficiently between the candidates and that a more severe test is needed in order to ensure that the best men come to the top. After looking at some of the papers, we think that they are open to this criticism and that a higher standard should be set. In order to combine this with the avoidance of a multiplicity of examinations, we considered whether it would be possible to link up recruitment for the ministerial service with that for the Indian Audit and Accounts which undoubtedly secures candidates of good calibre, but to this course there are various objections. The numbers appearing for the Indian Audit and Accounts examination are already inconveniently high; anything which might tend to add to them by introducing another element is to be deprecated. Importance is attached to the fact that the examination for the ministerial service is held at different centres, thus facilitating the appearance of candidates from the different provinces; indeed there is already a demand for more centres. It would certainly be resented were the examination for division I to be centralized. The subjects for the examination for the Indian Audit and Accounts Service, again, are of a needlessly high standard for division I.

On the whole, therefore, we do not favour this solution, and the alternative is to stiffen up and extend the scope of the existing test. We recommend that action should be taken on these lines, but the details can best be elaborated in consultation with the educational authorities.

It is an accepted principle that while the difference between divisions I and II is one of degree, that between them and division III is generic. At the same time the syllabus for division III is on the same lines (though the standard required is lower) as that for the other two. The reactions on the examination for the third division of any change in the examination for divisions I and II will require to be examined at the same time.

We were glad to learn that the provision of a leave reserve, as recommended by our predecessors, has resulted in the stoppage of the admission of temporary hands (who tended to establish claims to permanency) other than through the recognised channels, and any such practice should be firmly suppressed.

In this connection the systems of recruitment followed in the different provinces are not without interest. Recruitment generally is both direct and by promotion. Examinations are held in Madras, Bengal, the United Provinces and Bihar and Orissa. Elsewhere selection prevails (in Assam after a test).

In Appendix XIII we compare the rates of pay current in the Government of India and Provincial Secretariats. For superintendents there is a high maximum in the Punjab, but the rate is highest (as might be expected) in the Government of India. Bombay, Bengal, the United Provinces and the Punjab fall more or less in one group, but in Bihar and Orissa, the Central Provinces and Assam the rate of remuneration is distinctly lower.

CHAPTER IV.—SECRETARIAT PROCEDURE.

37. *Secretariat procedure.*—The Committee of 1919 devoted much time to the examination of Secretariat procedure and made various detailed recommendations in connection therewith. In Appendix XIV we note the more important of these and indicate the action taken in respect of each, while adding further suggestions of our own. Beyond this, we do not think it is necessary to retrace the ground then covered. We have had the advantage of consulting many experienced secretariat officers of different standing, serving both with the Government of India and the provinces (and in essence all Secretariats proceed on similar lines), and it was their unanimous opinion that the system, as such, is suitable. The conditions governing it, *i.e.*, a transitory cadre of a few superior officers controlling a permanent but less qualified office, were noticed by our predecessors (paragraphs 64 and 108) and remain unchanged. But while it is natural that officers brought up under a system should be reluctant to recognise an alternative, we have not discovered, nor did our predecessors, any other method likely to be equally suited to the transaction of Government business, given the circumstances governing its disposal. No secretariat system will guarantee that the orders ultimately passed are necessarily sound; all that can be sought is that an efficient examination of cases should precede their reasonably prompt disposal. The cardinal fault to which all Secretariats are prone is delay, and the particular vices of the Indian secretariat system are usually recognised to be—

- (a) the dilatory referencing and submission of cases (partly due to defective indexing—paragraph 114 of the report of 1919);
- (b) needless references either to other branches within the same department or to other departments in connection with no specific point but, vaguely, that the case may there first be seen;
- (c) excessive and irrelevant noting (paragraph 119 ditto);
- (d) careless editing of files prior to printing (paragraphs 123, 124 ditto).

All officers are cognizant of these faults and in fact admit them. There are existing rules condemning them and seeking to correct them, but the remedy does not lie in the multiplication of rules but in insistence on their observance. Officers see the work of their subordinates daily, and when defects reveal themselves they should be pointed out and their avoidance in future insisted upon. Otherwise there is no hope of improvement, and the multiplication of instructions which are disregarded leads nowhere.

38. *Office supervision.*—The fact that all superior officers are overworked was noted by our predecessors (paragraph 73) and was equally emphasised before us. There was no attempt to conceal the fact that Secretaries and Under Secretaries have no time to inspect their offices, while Assistant Secretaries, when engaged in case work (*cf.* paragraph 34 *supra*), are in very similar plight. We admit the difficulty, but are not satisfied that more might not be done than at present seems to be the case. The supervision of the office is left to the superintendents, and we doubt whether this is sufficient. Our predecessors (paragraph 108)

postulated as essential conditions of permanent and substantial improvement:—

- (i) the improvement of office supervision through the strengthening of the staff of responsible officers, especially Assistant Secretaries;
- (ii) the appointment of an Inspector of Office Procedure (paragraph 139).

We have already said that we do not consider this to be the proper function of an Assistant Secretary and the qualifications required for effective office control are not necessarily the same as those needed for an efficient Assistant Secretary. We have considered, therefore, the general revival of the post of Registrar, but so long as this remained as a reward of lengthy ministerial service it was always apt to be regarded as a dignified shelf. However much it might be argued that this need not necessarily be so, given proper selection, it seemed to be the natural course of events. At the same time, there appears to us to be the definite need of a responsible officer sitting in an office to be in constant touch with the work in it, ensuring that files are not lying neglected upon assistants' tables but are being dealt with promptly and intelligently. We think this could best be secured without the atrophying results which seem to attend appointment as a Registrar by selecting a capable, tactful and energetic superintendent (as in the Finance Department), explicitly entrusting him with this duty, but allowing him still to keep in touch with the more live work of a superintendent, though reducing the latter to an extent which would leave him time for general superintendence. In some departments it may be possible to arrange this among the existing staff; in others it might entail the addition of one superintendent. But even if it did, the matter is of sufficient importance to justify this course. Since such a Chief Superintendent would still have opportunities of further promotion, it would be to his interest to display a more active interest in his work than was the case under the old system of Registrars.

The suggestion for the creation of a post of Inspector of Office Procedure was accepted, and such an appointment was actually made in 1920 on a salary of Rs. 2,000—50—2,500 per mensem. The main duty entrusted to the Inspector was to facilitate the introduction of the revised office system recommended by the Committee and to ensure its progressive improvement and adaptation to changing conditions. It appears, however, that while he did useful work in many matters connected with the re-arrangement of office accommodation in the secretariat buildings, New Delhi, to which the Committee drew attention (paragraph 66), he was able to achieve very little in regard to the improvement of the internal management of the office. The post was abolished in 1923 as a measure of economy on the recommendation of the Inchcape Committee. The evidence tendered to us shows that the failure of the experiment was due partly to the personal equation, partly to the Inspector's employment largely on other duties, and partly to opposition on behalf of the offices inspected by him. These defects should be remediable, but, on the whole, agreeing with the majority of witnesses, we doubt the advisability of a whole time special appointment. We would rather see the periodical deputation of, say, an experienced officer with special aptitude for this class of work, to overhaul an office, particularly one which was demanding an increased staff. It was represented to us that, at present, the

Finance Department often finds difficulty in gauging the merits of such applications, and in two recent cases this procedure was actually followed with advantage. In 1931-32 all departments were so inspected in connection with retrenchment. Such deputations should be recognised as a normal procedure. A wise Secretary should welcome them, and any attempt at ministerial obstruction should be suppressed. In this connection, it is noticeable that in the United Provinces, which is the only province to employ a Chief Inspector of Offices and staff (from whose labours excellent results are claimed), his regular inspections do not extend to the Secretariat, though they might be undertaken by request.

We think, too, it might be advantageous if the Home Department convened periodical conferences of Chief Superintendents at which defects might be brought to notice and improvements suggested.

39. *Training of subordinates.*—At present, except in the Department of Industries and Labour, there is no systematic training of subordinates when they join the Secretariat, and we gathered the impression that they are turned out to find their own feet. Our predecessors (paragraph 50, discussed the possibility of training classes and recognised the difficulties in starting them; but we think that it should be definitely recognised that a new recruit ought to be put through the different stages of office procedure definitely for training under the supervision of the Chief Superintendent before being entrusted with individual work. This, of course, does not detract from the need of supervision and advice from his superior officers throughout his career.

CHAPTER V.—CONCLUSION.

40. We have now completed our review of the more important points which have been brought to our notice during the course of our enquiry and which are relevant to the matters referred to us. We have endeavoured to give an up to date picture of the actual working of the Secretariat of the Government of India since 1920, and have noticed such facts relating to the Provincial Secretariats as seem to have some bearing on the problems of the Centre. We have examined in some detail the system of recruitment to the Central Secretariat and the probable effect of impending changes upon it, which, in our view, is by far the most important matter that has been referred to us. Lastly, while accepting in the main the existing secretariat organisation and procedure, we have suggested some directions in which it seems susceptible of improvement.

Necessarily much of this has dealt with the past, whereas the Government of India are about to enter upon the transitional stage as a prelude to Federation, and in the provinces the far-reaching innovation of Provincial Autonomy is impending. We have attempted to weigh the reactions of these changes upon the subject of our investigation, but inasmuch as large political issues in connection with such important future developments as the position and functions of the Counsellors and the Financial Adviser still remain unsettled, and are outside our purview, it is impossible for us to forecast their reaction upon the work of the Secretariat. Obviously, under Federation, the position of the Home Department in particular will not remain what it has been in the past or is likely to be during the transitional period, while an enlarged Secretariat of the Governor-General and the extent to which in many matters it will correspond in the name of the Governor-General with Provincial Governors and not with local Governments will necessitate considerable adjustments with the existing machinery. Again, there will be the Crown Department and the Reserved Departments, whose relations with the Federal Government are still to be elaborated. All these questions involve political considerations upon which we are not asked to advise; until they are decided, the discussion of details of secretariat procedure and the strength of the future staff can only be hypothetical. But we are hopeful that such information as we have brought together and such opinions as we have expressed may be of help to those who have to deal with these matters in the future.

41. It only remains to acknowledge the very able assistance of our Secretary, Mr. C. M. Trivedi, C.I.E., O.B.E., I.C.S. His experience of the Secretariat and wide knowledge of the subjects which have come before us have been of the greatest value to us:

We have the honour to be,

SIR,

Your most obedient servants,

H. WHEELER,

Chairman.

C. M. TRIVEDI,
Secretary.

C. P. RAMASWAMI AIYAR,
JAMES RAE, } Members.

ADDENDUM A

1. As stated in para. 24 of the Report we are unable to concur in the view that the Secretaries and Joint Secretaries in the Government of India Secretariat should be appointed on the basis of a limited tenure. In our opinion they should be appointed without any specified limit being placed on the tenure of their posts. Our reasons are as follows.

2. The system of limited tenure was, we have no doubt, well suited to the position which existed in 1905 when it was introduced. The present position is already different by reason of the Reforms of 1919 and the difference will be more marked with the advent of Federation. Indeed it is true to say that the position under Federation so far as it affects the point under discussion will bear little, if any, resemblance to the position in 1905.

3. Under Federation, the official element in the Executive Council will disappear and control of policy will be vested in Ministers, subject, of course, to the powers of the Governor-General. It is vital in the interests of efficient Government that these Ministers, whose period of office may be uncertain and who may, in many cases, be unlikely to have had any official or administrative experience, should, so far as it is practicable, have available to them, as their principal advisers, officers able to speak with knowledge and authority arising out of experience in their particular posts.

4. It may be that this result could be obtained by prescribing a fairly lengthy tenure and making provision for extensions to meet special circumstances. This brings us to our second main point.

5. The relation of Civil servants to Ministers under a Parliamentary system has been summarised in the following extracts from a memorandum submitted by Sir Warren Fisher, G.C.B., G.C.V.O., D.L., the Head of the Home Service, to the Royal Commission on the Civil Service 1929-30:—

“Determination of policy is the function of Ministers and once a policy is determined it is the unquestioned and unquestionable business of the Civil Servant to strive to carry out that policy with precisely the same energy and precisely the same good will whether he agrees with it or not. That is axiomatic and will never be in dispute. At the same time it is the traditional duty of Civil servants, while decisions are being formulated, to make available to their political chief all the information and experience at their disposal, and to do this without fear or favour, irrespective of whether the advice thus tendered may accord or not with the Minister's initial view. The presentation to the Minister of relevant facts, the ascertainment and marshalling of which may often call into play the whole organisation of a department, demands of the Civil Servant the greatest care. The presentation of inferences from the facts equally demands from him all the wisdom and all the detachment he can command.”

“The preservation of integrity, fearlessness, and independence of thought and utterance in their private communion with Ministers of the experienced officials selected to fill the top posts in the Service is an essential principle in enlightened

government; as—whether or no Ministers accept the advice thus frankly placed at their disposal, and acceptance or rejection of such advice is exclusively a matter for their judgment—it enables them to be assured that their decisions are reached only after the relevant facts and the various considerations have, so far as the machinery of government can secure, been definitely brought before their minds”

6. The point we would emphasise in this extract is the duty of an officer holding the position of a principal adviser to a Minister to give to the Minister independent advice whether the advice thus tendered may accord or not with the Minister's initial view. The Governors-General of the future will also stand in need of such independent advice. An extensible tenure system seems to us to be inconsistent with the proper discharge of this highly important duty. However clearly defined may be the “special circumstances” in which an extension is to be granted—and there are obviously limits to the extent to which definition is possible—the Governor-General will be bound in a matter of this kind to have regard to the wishes of the particular Minister concerned. We have no doubt that, in practice, the grant of extensions will largely be dependent on the Minister's wishes although it may be true that the Secretary is, in theory, a Secretary to Government as a whole and not to any particular Minister. Such a practice would strike at the root of an efficient public service under a Parliamentary system, and, as an inextensible tenure system is admittedly unworkable for these posts, we find ourselves forced to the conclusion stated in this note.

7. As illustrating the danger we have in mind, we may mention the position of a Secretary towards the end of his tenure. Failing an extension he has either to face (i) reversion to his province, where in all probability he would have no appropriate place and where he will receive substantially reduced emoluments and status, or (ii) premature retirement. Such a situation is pregnant with risks. It is relevant in this connection to mention that, of the 13 Provincial Ministers from whom we received evidence, no fewer than 7 were in favour of *extensible* tenures, and it was evident from their evidence that amongst the advantages accruing from such an arrangement was the fact that it would enable Ministers to retain Secretaries “whom they liked” and also to replace those with whom they could not get on. Further, numerous witnesses have frankly admitted the difficulties facing the Secretaries to the Government of India at the end of their tenure without, however, putting forward any real solution.

8. We do not think that the advent of Federation will make a revolutionary, or indeed any, change in the type of Secretaries available in the future. On the other hand, we consider that our system is specially designed to attract the right type of men to those key posts and to keep them in those posts when they have been obtained. Nor do we suggest that Secretaries in the past have subordinated their judgment to their personal interest. When independence of judgment is insisted upon, it is not that we are contemplating deflection from probity as a normal feature. What we are anxious to do is to eliminate the possibility of temptation, so far as it is practicable so to do, and to see in existence a rule and a safeguard which will not only tend to produce an independent outlook and attitude on the part of the Secretary and Joint Secretary, but will also make the public at large believe that such independence will be maintained. The matter is of special importance in this

country in view of the communal and other factors on which we do not wish to dilate but which cannot be overlooked. The scheme of special responsibilities including safeguards for the protection of the Government of India Act does not involve a distrust of the various authorities in respect of whom the safeguards are enacted.

9. We turn now to the objections to the course, we recommend. It is apprehended that the same officers will hold their posts for unduly prolonged periods with the result that (i) the Government of India will be faced with "tired" Secretaries, (ii) the prospects of junior officers will be prejudiced.

10. On the question of "tired" Secretaries, it is not accurate to postulate a completely static position amongst Secretaries. Not only are some Governorships open to the Services but they will presumably be represented amongst the Counsellors. There are also possibilities in other directions under the Act of 1935. All this points to the fact that vacancies in the posts of Secretary are bound to arise from time to time and will be a means of avoiding that unduly prolonged tenure the possibility of which has given rise to fears. Indeed it is open to doubt whether under our proposals the tenure of a Secretary would in practice exceed by more than a year or two at most that which would be the case under an *extensible* tenure of five years. After all, it must not be forgotten that if the proposed interchange between the Provinces and the Centre and the fixation of a limit to the tenures of the same post are adhered to up to the stage of Joint Secretary, the officer concerned will have put in a service of about 20 years when he becomes a Joint Secretary and if it be also understood that Joint Secretaries should not automatically or as a matter of course ascend to Secretaryships but should ordinarily, before they become Secretaries, work in some outside sphere at the Centre or in a province under a system of mutual agreement, or in an allied department, an officer will not, normally speaking, attain to a Secretaryship before 23 to 25 years of service. When these results are analysed, and when it is remembered that higher posts exist to which Secretaries will probably proceed, it will be seen that an officer, under ordinary conditions, will not remain as Secretary for more than a maximum of 7 or 8 years from which, if leave be deducted, he will normally serve 6 or 7 years. The alternatives before the Committee are not therefore so essentially divergent or incompatible as may at first sight appear and are only between an *extensible* period of 5 years (less leave) and a period of 6 or 7 years. The divergence of views is thus not really between a permanent and a non-permanent tenure in the sense in which the expression "permanent" is ordinarily used. The real difference arises from the distinction between an *extensible* tenure and one which is not dependent upon outside factors. The advantages of the outlook accruing from the latter system are to our mind decisive.

11. As to the danger sometimes apprehended of a person becoming Secretary with say, 23 years' service and staying on for 12 years, we would further observe that, especially latterly, very few people have stayed on until the 85-year limit is reached and it is unlikely that they will so stay on in future. In fact actuarial calculations made some time ago appear to have reached the conclusion that service at the time of retirement is about 29 years. Further a "tired" Secretary can often be dealt with by a transfer to other work and we should have thought that an

officer who can be so described would be apt to retire on his own initiative or on receipt of a hint. But we would unhesitatingly accept the risk of an occasional "tired" Secretary who wished to hold on to his post after he had ceased to be able to carry out effectively the duties thereof rather than adopt the alternative which has been put forward. The cases of exceptional rapidity of promotion on the ground of exceptional merit are of a special character and must be recognised as such. In these cases the person concerned will *ipso facto* have better chances of curing recognition elsewhere.

12. We would remark that the risk of the "tired" Secretary is not sought to be avoided in the case of the Foreign and Political and Legislative Departments.

In order to deal with the problem when it arises of the "tired" Secretary who is really played out but still hangs on, the right course in our view is for the Government of India to take power to deal with the problem, *e.g.*, on the lines of Note (i) to Article 465A of Chapter XVIII of the Civil Service Regulations. The difficulty is apparently not a new one, and there is much to be said for a power of the kind suggested whatever decision is reached on the point under discussion.

13. On the point of the possible loss of prospects, it may well be that fewer officers will succeed to the present posts of Secretary and Joint Secretary. But it is relevant to point out:

- (i) that the number of these posts is likely under Federation to be higher than at present having regard to the possibility of 10 Ministers and 3 Counsellors, to say nothing of other high appointments that are likely to come into existence after the advent of Federation:
- (ii) that in recent years the appointments to these posts have been restricted to a somewhat narrow field in contrast to the wider field contemplated by the general proposals of the Committee: and
- (iii) that, as we feel sure the Service would be amongst the first to recognise, the interests of the State are paramount in a matter of this kind.

14. With regard to the effect on prospects of promotion of other officers if our proposals are applied to the present Secretaries and Joint Secretaries to the Government of India, we wish to observe that these officers were appointed on a limited tenure basis and can have no absolute claim to automatic re-appointment on the new basis. It need not, therefore, be assumed (i) that all the officers in question will automatically, and without adequate balancing of pros and cons, be appointed to posts on the new basis, or (ii) that these officers will remain in their existing posts up to the date of the completion of 35 years' service.

15. On the question of the evidence submitted to the Committee we fully recognise that the bulk of the evidence is in favour of a tenure system, but we consider it our duty not merely to record evidence for and against a particular view, but in addition to weighing up the evidence, which we have done with the utmost care, to bring to bear on the problem such experience as we possess in different spheres and our conception of the future under the Government of India Act. Importance must be attached to the fact that the new Government of India Act is inaugurating the first stage of a democratic constitution based to a large extent on

the British model of Parliamentary Government, and while we would not for one moment seek to minimise the experience and the attainments of the witnesses that appeared before us, the fact remains that the vast majority of those witnesses were officers belonging to the Indian Civil Service who are familiar with and had worked under the present system.

16. We seek to draw no analogy from the Home Service except on the one point of the relations between Ministers and their principal advisers. At Home, as in India, there is an elaborate system of noting and record. It may not—particularly in the matter of printing—be so elaborate as the Indian system but it does ensure that a new comer can acquaint himself with the history of cases coming before him. Nevertheless, neither at Home nor in India can the material recorded in files serve as an effective or justifiable substitute for the many "contacts" with persons and bodies so essential for the efficient and expeditious handling of affairs. The adoption of our proposal in no way involves the recasting of the Government of India Secretariat on British lines. The latter would not in our view suit the circumstances of India. The prospects in the Home Civil Service do not appear to us to be relevant. Since, however, reference is made to this matter, we feel it necessary to say that a large proportion of the class in England recruited normally at the same examination as the Indian Civil Service do not proceed beyond the grade of Assistant Secretary the maximum salary of which is £1,450 per annum. This salary is approximately the same as the emoluments of an Indian Civil Servant who is just above the half way line in the senior time scale, overseas pay being ignored.

17. There is a further point to which we should refer. The tenure system in the case of a Secretary to the Government of India involves, as pointed in paragraph 7 above, a risk of premature retirement. It is not taking a pessimistic view of human nature to assert that Secretaries who do not obtain promotion as Governors, Counsellors or otherwise would be more likely to retire than to go back to the province. We must point out that such retirements would, especially in the initial stages of the new constitution, be very detrimental to efficiency as it would deprive the Ministers of the services of highly trained and competent officers. The remarks in the Report on the depleted state of the cadre are very relevant in this connection.

C. P. RAMASWAMI AIYAR.

JAMES RAE.

ADDENDUM B.

I regret that I am unable to concur in the majority view that in the case of Secretaries and Joint Secretaries to the Government of India no specific limit should be placed on their tenure of these posts. As indicated in para. 24 of the Report, I would advocate a longer tenure than that which at present obtains, but would limit it to five years.

2. In considering this matter I attach more importance than my Colleagues are disposed to do to the weight of opinion among those questioned by us. Out of 65 persons who expressed opinions on this point, only 7 favoured a permanent tenure—in one instance because a specially recruited Central Secretariat was proposed. None of the Heads of Provinces advised this course, while out of eight Secretaries and Joint Secretaries at headquarters whom we examined only 2 (both in the Department of Education, Health and Lands, who also recognised that all departments could not be treated alike) supported this solution. Out of 13 provincial Ministers whom we interviewed only one desired permanency; all eight Indian Members who met us would retain the tenure system and several definitely emphasised that extensions should be resisted. - Indeed my Colleagues "fully recognise that the bulk of the evidence is in favour of a tenure system".

They would, however, discount the value of this testimony by the argument that much of it came from members of the Indian Civil Service. This, in the circumstances, was inevitable, but most of these witnesses must also have some "conception of the future under the Government of India Act" and are not without experience of other spheres. Also, after all, the problem is an Indian one.

Secondly, my Colleagues argue that 7 Ministers were in favour of extensible tenures. If the inference implied is that they wished to keep their Secretaries dangling on a string according as they proved complaisant or not, this was neither suggested nor advocated. The question as put to the majority of witnesses was whether it was not likely that Ministers would like to keep Secretaries to whom they had grown accustomed for longer than three years, and 7, it is true, said they would like to be able to extend that term. But, of these, one would make the post a permanency; one desired to keep his present Secretary as long as he was in office; one wanted an extension for a definite term, though not a permanency, and two gave as one reason that it was not sound to have a simultaneous change of Minister and Secretary. Of the rest five were definitely against extensions, while one wished for a longer initial term. None of these gentlemen were questioned as to the possible reactions of extensions upon the independence of their Secretaries. In fact, the point was hardly stressed until towards the close of our enquiry when it was raised by two witnesses. One witness had previously admitted this risk; three had repudiated it when it was suggested.

I find it difficult to believe that so many experienced individuals—both official and non-official—were altogether mistaken in their views or have overlooked any fundamental consideration in the case. It is true that there was an appreciable measure of agreement that under the new constitution a longer tenure for the highest secretariat posts would be desirable, but this was mostly put at from four to six years and permanency was explicitly deprecated.

3. My Colleagues proceed to emphasise the special need of Ministers under Federation having "available to them, as their principal advisers, officers able to speak with knowledge and authority arising out of experience in their particular posts" and they rightly lay stress upon the need of absolutely independent advice. They argue that "the position under Federation, so far as it affects the point under discussion, will bear little, if any, resemblance to the position in 1905".

It is, of course, the case that the existing official Members of Council will give place to Ministers, and that this will mean a momentous change in the constitution, but *quid* the Secretariat I cannot agree that so marked a change will ensue. Sir Warren Fisher's admirable summary of the position of civil servants under Ministers is equally true of their position under Members. The post of *Secretary to the Government of India has always been regarded as a responsible one to which it is sought to attract the best men. Speaking generally, I doubt if it can be said that Secretaries in the past have been lacking either in experience or ability, and the Ministers of the future will have to work with the material available.

4. To my mind, the fundamental fallacy underlying the argument of my Colleagues is that the choice lies between an extensible tenure system and one of unlimited tenure, and by implying that an "extensible" term means one extensible for reasons of sheer favour. In paras. 21 (i) and 28 of our Report we have enumerated certain perfectly legitimate reasons for keeping on a Secretary for a short time after the expiry of his tenure; they imply no question of favouritism: they are based upon the public interest and are easily recognisable. Allowing for this contingency, which need occasion no abuse, I do not follow the statement that "an inextensible tenure system is admittedly unworkable for these posts". It is certainly not admitted by me. Neither (subject to this contingency) do I recommend an extensible system.

5. Apart from this, my Colleagues base their conclusion in favour of no prescribed tenure on the following grounds:—

- (a) that, in fact, whatever is laid down, no tenure rule will be observed and the grant of extensions will be dependent on the wishes of the particular Minister concerned;
- (b) that whereas it is essential that a Secretary should tender his advice without fear or favour, his judgment will always be liable to be deflected by the desire to gain favour with his superiors in the expectation of an extension of his term, rather than having to face the alternative of premature retirement or reversion to an inferior post.

Touching these arguments, I see no reason to suppose that future Ministers will not themselves realise the advantages underlying a system of tenures. The argument used before us as justifying a longer tenure than three years was, as I have already said, that Ministers, being once accustomed to a Secretary they liked, would be loth to change him. A longer tenure of five years will largely meet that point. On the other hand, it is possible that a Minister may himself prefer a different Secretary, while Ministers themselves will come and go. Moreover Ministers in the

* I use the term "Secretaries" for brevity's sake. Unless the contrary is clear from the context, it includes Joint Secretaries also.

past have worked with changing Secretaries without undue embarrassment. Again, if a term is prescribed it will be for the Governor General to see that it is observed. The posts of Secretaries and Joint Secretaries will presumably be reserved under section 246 (2) and appointments to them will be made by him in the exercise of his individual judgment, while section 17 (4) of the Act recognises the most important principle that a Secretary is a Secretary to Government, not the personal Secretary of a Minister. When one remembers the many special responsibilities of the highest importance which the Governor General may have to discharge, it may be, at variance with his Ministers, this matter of extensions becomes relatively insignificant as a possible source of disagreement. I do not agree that "the Governor-General will be bound to have regard to the wishes of the particular Minister concerned".

6. Again, I doubt if it can be said of Secretaries in the past that they have subordinated their judgment to their personal interests, and, be it observed, the temptations to do so have been in the past exactly what they will be in the future, or rather greater since extensions have been granted in the past for reasons which I would not admit hereafter. Why then assume so serious a deterioration in the future or an attitude on the part of future Ministers which will be hostile to any man of independent outlook and will usually, *ex-hypothesi*, be unsound? Moreover, assuming either tendency to exist, it is not only, or even most markedly, in connection with extensions that there is a risk of its manifesting itself. There are other appointments to which a Secretary may aspire. Surely if an officer is disposed improperly to curry favour the expectation of promotion is a powerful lure. Again Honours are an attractive bait. Of course these are in the gift of the Governor-General or the Crown, and although popularity with the Ministry will doubtless be no handicap, a Secretary might find himself in the quandary of either having to play up to the Governor-General in the hope of another post or to his Minister in the hope of an extension. But, presumably, an officer so amenable to these influences as my Colleagues envisage will solve the difficulty somehow. Given human nature, as it is, it can never, of course, be guaranteed that weaknesses will be eliminated, but it seems to me unwise in the hope of avoiding one possible temptation to incur more serious risks.

7 The reasons which weigh with me in urging the retention of a tenure in these posts are, briefly, that—

- (i) after a certain term of office and age the ordinary officer will not prove to be an efficient and energetic Secretary. We had ample testimony to the strain entailed by these appointments; I can corroborate it from personal experience. The Government of India hitherto have not experimented to any extent with officers of over 30 years' service as Secretaries, and I very much doubt the success of this innovation. The relief afforded by promotion, as has happened in the past, to a Membership of Council or Governorship is immense. I do not believe that the ordinary keen officer will stand the racket for longer than a reasonable term, in the not very stimulating atmosphere of Delhi or Simla; he will work himself out and go, but there is a danger of a type of man coming to the fore, who, it may be, disappointed for one

reason or another or of diminishing mental activity, will be content to slack or throw his responsibilities upon others, remaining quietly in a highly paid appointment till the end of his tenure and growing increasingly out of touch with realities. If we are to assume that it will be difficult to refuse an extension, it will be practically impossible to dislodge an officer who has given no marked cause of offence. It is easy to slack and yet to avoid disaster, and most of us who have served for any time in India know well the man who is really played out but who still hangs on. My Colleagues favour the innovation of taking, in the case of the Indian Civil Service, the power compulsorily to retire an officer at the end of his minimum service for pension (25 years) without giving any reasons. I can imagine no more powerful weapon to place in the hands of a Minister who wishes to bring a too independently minded Secretary to book, since we are presumably to assume here also, on my Colleagues' theory, that the Governor-General will "be bound to have regard in a matter of this kind to the wishes of the particular Minister concerned". If the Secretary of State were to intervene it would, of course, make the relations between Minister and Secretary impossible:

- (ii) the expectation of appointment to a Secretaryship under the Government of India is legitimately prized by the Indian Civil Service, and materially to reduce the prospects of many of them of attaining it would undoubtedly arouse resentment. At a moment when the attractions of the Indian Civil Service are scarcely as great as they were, it seems inopportune to add another grievance. It is easy to say that the interests of the State must prevail over those of the Service. But it is to the interest of the State to have an efficient and contented Service, and I have argued that a marked change in this respect is not necessarily to the interest of the State at all. Again capable, competent and keen officers are to be found at all stages of service. It is in every way advantageous to utilise their services by bringing in fresh blood at reasonable intervals, rather than disappointing them in favour of their more lucky seniors. If the existing system of tenures were abrogated in respect of the present Secretaries to the Government of India, it would mean (excluding the Foreign and Political and Legislative Departments) that they might remain for 3, 7, 12 (in two cases); 14 and 15 years respectively. The present Joint Secretaries might similarly remain for 9, 10, 11, 14 and 19 years respectively. The consequent possible block in promotion is obvious. However capable a Deputy or Joint Secretary may show himself, it is easily conceivable that his chances of ever reaching the grade of Secretary will be seriously prejudiced. My Colleagues reply that they would not necessarily bring all the existing Secretaries and Joint Secretaries on to the new system which they propose. Apart from the fact that it will be a somewhat delicate task to differentiate between them and in favour of new men, if the existing staff is to

complete their present terms in uncertainty whether they will then be retained or told to go, it can scarcely conduce to the smooth working of the Secretariat and will certainly offer the very temptation of the "extensible" tenure which my Colleagues seek to avoid.

8. In this respect analogies drawn from the Home Civil Service are apt to be misleading. In England the strength of the administrative class (recruited normally at the same examination as the Indian Civil Service) is approximately three-fourths of the whole strength of the latter. It affords a self-contained secretariat career, enjoyable in more or less uniform conditions and offering in itself a reasonable range of promotion to all. But secretariat work is only one aspect of the duties of the Indian Civil Service which vary greatly in attractiveness. Jealousy will be inevitable if the chief piums are to be reserved in great measure for the favoured few. Clearly, too, the conditions of work in England are far less conducive to staleness and exhaustion than in India.

9. My Colleagues seek to meet these objections by the argument that, in practice, Secretaries will not get tired or unduly block promotions because, in fact, some will not stay on for 35 years and others will get other posts. I have agreed that the keen man will very likely not serve indefinitely in the Secretariat: my apprehension is that the slacker may, if he has the chance, and such a man is scarcely likely to be influenced by "hints" to retire. Again if a more permanent superior Secretariat is never likely to be achieved, why in the hope of doing so incur the risks attendant on the disappearance of tenures? And if it is true that in the ordinary course of events Secretaries will seldom wish, or need, to serve for a protracted period, then the overwhelming temptation to wangle an extension rather than retire or revert will not be experienced. I think, however, that the opportunities of promotion are over estimated. Certainly two of the higher posts (the Auditor-Generalship and Financial Adviser-ship) can only go to men of financial training, and the latter is more likely than not to go to a man from Home. While, too, experience in the Secretariat at the Centre will doubtless be a noticeable qualification for appointment to a Counsellorship or Governorship, it can hardly be assumed that such promotion will be limited to this field, and although there have been exceptions, it is the normal practice that the Governor of a province is selected from among those who have served in it. It does not follow that a suitable province will always be vacant when a senior Secretary is desirous of it; neither will the highly specialised training which certain departments call for, and which we would seek to afford, necessarily fit a man to be the Head of a province. But to the extent to which these higher appointments are available, I have already observed that, if my Colleagues' fears are justified, they too may undermine the morale of the Secretariat. As regards the argument that the Service will find compensation in the fact that under an enlarged Federal Ministry more Secretaryships and possibly one or two new high appointments will be available, I question whether this will be the case to any marked extent. The existing total of 17 Secretaryships and Joint Secretaryships (Appendix X) should suffice to man a larger number of separate departments and the motive of economy will operate against any avoidable increase. Moreover, it is to be remembered that the abolition of 13 Memberships of Council means a serious curtailment of the prospects of promotion.

10. I would only advert briefly to a few other points.

It is not essential in order to secure effective knowledge of the work of a department that an officer should remain for an unduly protracted time in it. Doubtless the English system is able to achieve this by continuity in the superior personnel; the Indian system seeks, and attains, the same end by a more elaborate system of noting and record. In this connection paras. 6 and 64 of the report of the Llewellyn Smith Committee may be read. It would be impossible to follow the English model unless the superior Secretariat is to be recast upon English lines, which, politically and financially, is difficult. But even granting certain disadvantages of the Indian method, it does ensure that an officer coming newly to a secretariat post can acquaint himself with the history of the cases which come before him. It may mean that for the first six months or so he will have to do considerable reading of old papers, but the difficulty is not insuperable.

11. Again, given the conditions of Indian service, continuity must periodically be disturbed by the requests of officers for leave. This contingency is inevitable.

12. The liability to reversion or retirement on the expiry of a term is no new thing in Indian service. Governors and Members of Council (who cannot revert) have, in some instances, had to retire before completion of 35 years' service. Secretaries have similarly had to retire and in a few cases have reverted. It is well recognised that the officer concerned has enjoyed the amenities of a high appointment and accepted it knowing the conditions attaching to it. The contingency in no way is regarded as a Service grievance, and the contention that the State loses unduly by dispensing with such senior officials turns entirely upon the theory that their retention as Secretaries is expedient, which, beyond a point, I have argued that it is not.

13. On all these grounds I would not depart from the well established practice of appointing Secretaries or Joint Secretaries for a term only, but I would recognise the opinion in favour of a longer tenure and would put it at five years. I would not absolutely debar a Joint Secretary from going on continuously to be a Secretary, since at the former stage he should already have gained the requisite administrative experience, but in that event I would limit his total tenure of both appointments to five years. I would impose the same limit in the event of an officer moving from a Secretaryship in one department to the corresponding post in another, though ordinarily I doubt if the practice is to be commended.

14. Since writing the above I have seen the second note by Sir James Rae of the meaning of which I am not sure. If it merely contemplates the case referred to in the last four lines of para. 23 of the Report, then there is no disagreement. If the expressions "a greater measure of elasticity" and "*reasonable** extension" connote more than this, then my Colleague is perilously near advocating the tenure extensible at option which we all condemn.

H. WHEELER.

* Italics are mine.

ADDENDUM C.

NOTE BY SIR JAMES RAE WITH REFERENCE TO PARAGRAPH 28
OF THE REPORT.

I should prefer to see a greater measure of elasticity as regards the period of service in the specialised departments of Under and Deputy Secretaries.

In the case of the non-specialised departments, these officers will be recruited on the understanding that at the end of their tenure they will ordinarily revert to the province of origin. The Under and Deputy Secretaries in the specialised departments will stand in a different position. They will form part of an expert cadre and the primary consideration in their case will be the provision of the requisite training and experience. A rigid time limit on their period of service as Under and Deputy Secretaries may, on occasions, prove to be an obstacle in this connection. For example, a vacancy in a post of the type to which an officer should next be appointed may not coincide with the termination of his 3 years. I would, therefore, advocate an arrangement which recognises that the 3-year period in the case of the specialised departments is subject to reasonable extension for the purpose of facilitating transfers to other posts available in connection with the expert cadre.

I should like to make it clear that in these observations, I do not contemplate the indefinite retention of officers as Under and Deputy Secretaries.

JAMES RAE.

APPENDICES.

	PAGES.
APPENDIX I.—Summary of main recommendations	48
APPENDIX II.—Statement showing the Attached Offices of the Government of India created since 1919	50
APPENDIX III.—Effect of the introduction of Provincial Autonomy on the work of the Government of India	51
APPENDIX IV.—Statement showing the posts under the Government of India ordinarily held by members of the Indian Civil Service	61
APPENDIX V.—Statement showing the number of officers of the Indian Civil Service who retired on proportionate pension since the inception of the scheme up to 30th September 1935.	66
APPENDIX VI.—Statement showing the recruitment to the Indian Civil Service since 1914	67
APPENDIX VII.—Statement showing the actual as compared with the theoretical distribution of the Indian Civil Service cadre	69
APPENDIX VIII.—Details of the tenures in force in Provincial Secretariats and the extent to which they are actually observed	70
APPENDIX IX.—Statement showing—	
(a) the rates of pay of Secretaries in different Provinces	
(b) the highest paid posts in different Provinces outside the Secretariat	72
APPENDIX X.—Number of Secretaries and Joint Secretaries in departments of the Government of India	74
APPENDIX XI.—Method of appointment of Assistant Secretaries in Provinces and the working of the system	75
APPENDIX XII.—Constitution and system of recruitment of the Ministerial Service of the Government of India Secretariat	76
APPENDIX XIII.—Rates of pay admissible to the ministerial staff in the Government of India Secretariat and Provincial Secretariats	78
APPENDIX XIV.—The more important recommendations of the Llewellyn Smith Committee regarding Secretariat procedure, indicating the action taken thereon and certain further suggestions by the present Committee	80

APPENDIX I.

Summary of main recommendations.

(i) The staffing of the Government of India Secretariat by officers drawn from the provinces is sound. (Para. 18.)

(ii) The provision in the Indian Civil Service cadre for posts under the Government of India and the deputation reserve should be brought into closer correspondence with the probable demands upon them, and the provincial Indian Civil Service cadres should be restored to an efficient state both in respect of total strength and racial distribution. The Government of India would do well to consider what alternative sources of supply to the Indian Civil Service can be tapped. (Para. 19.)

(iii) It would be a relief to the provincial Indian Civil Service cadres if they could be spared the constant drain upon them (particularly in respect of British officers) by the Foreign and Political Department. (Para. 20.)

(iv) It is not necessary to apply the tenure system to the Foreign and Political, Legislative and Legislative Assembly Departments. (Para. 22.)

(v) In the remaining departments, the tenure of Under and Deputy Secretaries should be 3 years. (Para. 23.)

(vi) On the completion of his tenure, an Under or Deputy Secretary, if serving in the non-specialised departments, namely, Home, Education, Health and Lands, Industries and Labour, Defence and Imperial Council of Agricultural Research should ordinarily revert to his province. (Para. 23.j)

(vii) In the specialised departments, namely, Finance and Commerce, an expert cadre is required and should be built up, the two departments being regarded for this purpose on a common footing. An Under or Deputy Secretary in these departments will ordinarily revert to one of the various appointments of a financial or commercial character, and the claims of the Government of India in this connection should have preference. (Para. 23.)

(viii) The retention of the Indian Civil Service element in the Indian Audit and Accounts, Customs and Income-Tax Departments is recommended. (Para. 23.)

(ix) In the event of a province desiring to appoint to a financial post an officer serving with the Central Government, the latter should endeavour to spare him, their own needs, however, having preference. (Para. 23.)

(x) The majority are in favour of officers being appointed to the posts of Joint Secretary and Secretary without a specific limit being placed on their tenure of these posts. The Chairman advocates a tenure of 5 years. (Para. 24.)

(xi) Leave, if granted, during a three year tenure, should be limited to 4 months. Where a tenure is prescribed, any time spent on probation, leave or deputation should be included in it. (Para. 25.)

(xii) The system of maintaining confidential reports of the work of the superior secretariat staff might well be followed uniformly in the provinces where at present the practice varies. (Para. 26.)

(xiii) A more definite and centralised procedure of recruitment to the Government of India should be followed. (Para. 27.)

(xiv) The existing allocation of business among the different departments is, generally speaking, suitable. (Para. 29.)

(xv) Double noting by Secretary and Joint Secretary should be avoided, and the separate responsibilities of each of these officers should be recognised. Below the Secretary and Joint Secretary, there should ordinarily be the intervention of one officer only, whether Deputy, Under or Assistant Secretary. (Para. 31.)

(xvi) Members and, under Federation, Ministers should, if they so desire be provided with the services of an official Private Secretary drawn from the Indian Civil Service of about the standing of an Under Secretary, and the tenure of the appointment should be three years. (Para. 33.)

(xvii) Appointments to the posts of Assistant Secretary should be made strictly by selection. They should not be confined to the members of the ministerial service, and other services might be drawn upon for this purpose. (Para. 34.)

(xviii) The standard of examination for divisions I and II of the ministerial service should be raised. The reactions on the examination for division III of any change in the examination for divisions I and II should be examined at the same time. (Para. 36.)

(xix) The superior secretariat officers should pay more attention to the supervision of the office than at present.

Office supervision in each department should be specifically entrusted to a Chief Superintendent. (Para. 38.)

(xx) Certain further suggestions in connection with the recommendations contained in paras. 97, 102, 107 and 108-34 of the report of the Llewellyn Smith Committee are made in Appendix XIV of the Report.

APPENDIX II.

Statement showing the Attached Offices of the Government of India created since 1919.

Office.	Year in which constituted.
Director of Public Information	1920
Indian Stores Department	1922
Tariff Board	1923
Central Board of Revenue	1925
Public Service Commission	1926
Director of Civil Aviation	1927
Statistical Research Board	1933
Controller of Broadcasting	1935
Agricultural Marketing Adviser	1935

APPENDIX III.

PART A.

Items of business of the Government of India which obviously remain unaffected by Provincial Autonomy.

COMMERCE DEPARTMENT.

- (i) *Shipping, including ports and the lighting of coasts.
- (ii) Trade and Commerce, including company law, commercial intelligence and statistics and tariffs.
- (iii) Import and export regulations.
- (iv) Exhibitions outside India.
- (v) Life assurance.
- (vi) Actuarial work.

DEPARTMENT OF EDUCATION, HEALTH AND LANDS.

- (vi) Archæology and Epigraphy.
- (xii) Survey of India.
- (xix) Central agencies for research.
- (xx) Botanical Survey of India.
- (xxi) Zoological Survey of India.
- (xxiii) †Administration of the Indian Emigration Act, Indians overseas, etc.
- (xxv) Imperial Library.
- (xxvi) Local self-government in the Centrally Administered Areas.

FINANCE DEPARTMENT.

- (i) General Finance.
 - (e) Taxation.
- (ii) Customs.
- (iii) Taxes on income.
- (iv) Salt.
- (v) Opium.
- (vi) †Excise.
- (xi) Army Finance.
- (xii) The Military Accounts Department.

* It is possible that under Federation and in order to secure co-ordination, the Federal Government might have to maintain a greater direct control than at present over major ports.

† The separation of Burma is likely to increase work under this head.

‡ It is possible that in future the need will be felt for greater centralisation in the administration of certain excises in which Provincial Governments at present act as agents for the Government of India.

24

DEPARTMENT OF INDUSTRIES AND LABOUR.

- (iii) Geological Survey of India.
- (iv) The Indian Explosives Act.
- (v) The Indian Petroleum Act.
- (vi) Patents and Designs.
- (viii) Copyright.
- (xii) Inter-provincial migration.
- (xv) International Labour Organisation.
- (xvi) Meteorology.
- (xvii) Post Office.
- (xviii) Telegraphs.
- (xix) Telephones.
- (xx) Wireless telegraphy (subject to section 129, Government of India Act, 1935).
- (xxi) Cables.
- (xxii) Civil aviation.
- (xxvii) Allotment of office accommodation.
- (xxviii) Ecclesiastical.

LEGISLATIVE DEPARTMENT.

- (i), (iii), (v) and (vii) The business of the Indian Legislature.
- (vi) Publication and supply of Acts.
- (vii) Preparation and publication of codes.
- (x) *Unofficial references for opinion from other departments.
- (xi) Duties of the Solicitor to the Government of India.
- (xii) The League of Nations.

IMPERIAL COUNCIL OF AGRICULTURAL RESEARCH DEPARTMENT.

- (i) All business connected with the administration of the Imperial Council of Agricultural Research.
- (ii) Cess imposed by the Indian Lac Cess Act, 1930.

* Probably under the new constitution an increase of work may be anticipated.

PART B.

Notes on the bearing of Provincial Autonomy on the remaining items of Business of the Government of India.

DEPARTMENT OF EDUCATION, HEALTH AND LANDS.

(i) *Education*.—Education is a provincial subject, but there are certain central institutions, e.g., the Benares Hindu University and the Aligarh Muslim University which will be unaffected by Provincial Autonomy. The Central Advisory Board of Education will also continue. References in connection with the Indian Educational Service will, however, gradually disappear.

(ii) *Oriental languages*.—The Department prescribes rules for examination in Russian and Tibetan—a small item.

(iii) *Records*.—The work is mainly with the Imperial Records Department and will continue.

(iv) *Books and publications*.—The work is mainly in connection with the India Office, High Commissioner, etc., and will continue.

(v) *Reformatory schools*.—This item will disappear.

(vi) *Arts and museums*.—The Indian Museum, Calcutta and two museums at Delhi will remain Central.

(viii) *Medical institutions and the Civil Medical Services*.—The bulk of the work is in connection with the Indian Medical Service, and will continue even though Medical Administration is a provincial subject.

(ix) *Medical research*.—There are certain institutions for Central research.

(x) *Public health*.—The department is concerned with port quarantine and with the prevention of the extension from one unit to another of infectious or contagious diseases or pests affecting men, animals or plants.

(xi) *Land revenue*.—This is provincial subject. Few provincial Bills now come to the Government of India for previous sanction. This small item will disappear.

(xiii) *Land acquisition and alienations*.—This is a provincial subject, but the department has work in connection with New Delhi. Under Provincial Autonomy, the provinces will not refer alienations to the Government of India as at present they do in some cases. The work involved is not great.

(xiv) *Civil Veterinary Department*. (xv) *Agriculture*.—There are certain Central research institutions. References in connection with the existing All-India Services will tend to disappear.

(xvi) *Famine*.—This gives practically no work to the Government of India.

(xvii) *Co-operation*.—Periodical Central conferences are held. The subject is provincial.

(xviii) *Forests*.—There is a Forest Research Institute at Dehra Dun. Forest administration in the Andamans is Central. References in connection with the All-India Forest Service will tend to disappear. The research

institutes under this head as well as heads (ix), (xiv) and (xv) provide the bulk of the work that the department does now. This work will not diminish.

(xxii) *Foodstuffs*.—Will disappear.

(xxiv) *Cinchona cultivation*.—Will disappear.

(xxvii) *Well irrigation*.—Apparently is a meaningless item which gives no work.

FINANCE DEPARTMENT.

(i) *General Finance*.—(a) *the public accounts and estimates*, (b) *the public expenditure*, (c) *the public ways and means* and (d) *the management of the public funds*.—Under Provincial Autonomy provinces will have their own balances and be responsible for their own ways and means. This will add to work in the provinces, but not affect it greatly at the Centre.

(i), (f) *Provincial and local finance*, (g) *the borrowing of public bodies*.—Although Provincial Governments and public bodies will in future have wider borrowing powers than now, it is probable that they will continue to consult the Finance Department.

(vii) *Stamps*.—Although the legal position will in certain respects be altered under the new Act, no appreciable diminution of work is expected.

(viii) *Currency and banking*.—The Reserve Bank will assume certain functions under this head, but mints and coinage will remain unaltered and in respect of paper currency and general policy the Government of India will still be closely interested.

(ix) *Salaries and allowances*.—References from the provinces may be somewhat fewer, but they have already been greatly reduced by previous delegations of authority.

(x) *The Civil Accounts Department and treasuries*.—If provinces took action under section 167 of the Act of 1935, this head would be affected, but it remains to be seen whether they will do so. The Government of India will in future be only concerned with direct treasury administration in Centrally Administered Areas.

DEPARTMENT OF INDUSTRIES AND LABOUR.

(i) *Development of industries (Central aspects)*.—Such aspects as exist at present are likely to continue to do so, e.g., the Bureau of Industrial Intelligence and Research, the Sericultural Committee, the Handloom Weaving Fund and the Industries Conference. There is at present a tendency for general industrial questions of all-India importance to increase.

(ii) *Industrial Exhibitions (Central aspects)*.—This head gives practically no work now, nor is likely to give much in future.

(iii) *The administration of the Indian Mines Act (Mines and minerals)*.—As "Regulation of labour and safety in mines and oilfields" will be Federal, the administration of the Indian Mines Act will not be affected. The regulation of mines and oilfields and mineral development may be declared by Federal law to be a Federal interest, and any measures of coal conservation, for example, would almost certainly have to be Central. The Mining Rules governing the grant of mineral concessions are at present Central and do not involve a large amount of work.

(vi) *Printing and Stationery*.—The Government of India presses will not be affected. The Controller of Stationery now supplies some provinces also; even were this to cease, it would not affect his work in general.

(xiv) *The Indian Factories Act*.—The administration and rule-making power are already provincial, but where Central legislation has been necessary in the past, it is likely to be so in the future.

(x) *Legislation relating to steam boilers*. (xi) *Legislation on the subject of electricity*.—Administration is at present provincial, though the rules are Central. No change is expected.

(xiii) *Stores*.—At present the Chief Controller of Stores makes purchases for the provinces other than the United Provinces. This practice might cease, though it is perhaps unlikely. Even if it did, the work of the Government of India (by far the greater part, since the provincial work constitutes less than 5 per cent. of the Stores Department's purchases) would continue.

(xiv) *Labour legislation*.—As in the past, Central legislation is probable.

(xxiii) *Civil buildings*.—The Central Public Works Department will continue and may extend as regards Government of India buildings in the provinces.

(xxiv) *Communications*.—The administration of the tax on petrol through the Standing Committee on Roads and the Consulting Engineer (Roads) will presumably continue.

(xxv) *Irrigation and canals*.—The Central Board of Irrigation and Bureau of Irrigation will presumably continue. Work may be reduced to the extent that provinces in future sanction their own major projects.

(xxvi) *Miscellaneous Public Works*.—Cases relating to the disappearing Indian Service of Engineers will tend to disappear also.

LEGISLATIVE DEPARTMENT.

(ii) *Legislation in local Councils*.—Under the new Act there will be a substantial reduction in the provincial Bills submitted to the Government of India.

(iv) *Rules for the conduct of business in local Councils*.—This business will disappear under Provincial Autonomy.

(ix) *Indian Law Reports*.—This entry is already obsolete, the work having been provincialised for some time.

(xiii) *The Peace Treaties*.—Already a disappearing item.

PART C.

HOME DEPARTMENT.

The work of the Home Department can most conveniently be dealt with under the six sections into which the office is divided and which are enumerated below.

Political.—The main concern of this section is what may be generally described as internal politics, including such matters as the general policy of Government in regard to all-India organisations and movements of a political nature, *e.g.*, such movements as terrorism, communism and civil disobedience. Under the new Act neither the Governor-General in Council in the transition stage nor the Federal Government under Federation will have powers of administrative control over the provinces in regard to these matters, nor will legislation for the control of such movements be exclusively Central. But on the other hand, it will be essential for the Governor-General in Council and later for the Federal Government to have information of what is going on in the provinces in such matters, since political activities in the provinces may not only have reactions in the Centrally Administered Areas but may also have an important bearing on the administration of Central subjects, such, for example, as Posts and Telegraphs, Railways, etc. It will also be essential for the Governor-General to have such information in order to enable him to discharge his special responsibility, especially his responsibility for the prevention of any grave menace to the peace or tranquillity of any part of the country. The most convenient arrangement in the transition period generally would be for the Home Department to continue to handle these questions and to keep the Governor-General fully informed of the general internal political situation, the main change being only in the channel of communication, namely, as between Governor-General and Provincial Governors instead of as between the Home Department and a Secretary to a local Government.

This section also deals with questions relating to the control of the press and of printing presses. In the new constitution the administration of this subject lies with the provinces, and legislation may be either provincial or Central. To the extent that the Central Government endeavours to maintain such press legislation as it considers necessary on a uniform basis, it will doubtless continue to keep a careful watch on the press, even though it has no administrative control outside the Centrally Administered Areas.

The section also exercises administrative control over the office of the Director of Public Information and deals generally with Government publicity arrangements, which are becoming of increasing importance.

A matter of minor importance dealt with in the section is the control of dramatic performances and cinemas. Under the new Act the control of dramatic performances and cinemas, excluding the censorship of films, will be a provincial subject. Censorship is included in Part II of the concurrent legislative list and will therefore be a subject over which the Centre will exercise administrative control. Most of the work of the section under this head is at present concerned with matters relating to censorship, and no reduction of that work is to be expected.

Establishments.—In so far as the work relates to office establishments, the introduction of provincial autonomy will not reduce it, since the establishments with which the section deals are those of the offices of the Central Government, such as the Secretariat and offices in Centrally Administered Areas. The transfer of administrative control over Ajmer-Merwara to the Home Department will, on the other hand, involve some increase. In relation to Central Services the work consists partly in advising other departments on service cases and partly in dealing with matters of common interests to all services, *e.g.*, communal representation, and no reduction is to be expected. The Public Service Commission is under the administrative control of the Home Department, and here again there will be no change.

At present the All-India Services are a Central subject (item 40 of Part I of Schedule I of the Devolution Rules). The control over each individual service is exercised by that department of the Government of India which deals with the branch of administration which the service serves. Thus the Home Department deals with the Indian Civil Service and the Indian Police, the Education, Health and Lands Department deals with the Indian Forest Service, the Indian Educational Service, the Indian Agricultural Service, etc., and the Industries and Labour Department with the Indian Service of Engineers. But most matters which are common to all these services, for example, rules regulating premature retirement, passage regulations, etc., are dealt with in the Home Department. The position created by the Act appears to be that while the Secretary of State will have the ultimate control, will make appointments to, and determine the strength of, the services and regulate all important conditions of service, the Federal Government and the Provincial Government will exercise day to day control over members of the services serving respectively in connection with the affairs of the Federation and the affairs of the province, subject to the exercise by the Governor-General and the Governor, as the case may be, of his individual judgment in certain specified matters. Many service questions arising in a province, *e.g.*, amendments of rules governing the conditions of service, reduction in the number of reserved posts and possibly disciplinary cases will, however, be cases in which the Governor has a special responsibility for safeguarding the interests of the service under section 52(c) of the Government of India Act, and he will therefore be subject to the control and superintendence of the Governor-General in his discretion as provided in section 54. Moreover, it would be highly inconvenient to deprive the Secretary of State of the co-ordinating influence and wider outlook which can only be supplied by the Governor-General. We assume, therefore, that correspondence between the Provincial Governments and the Secretary of State relating to the All-India Services in general or to individual members of these services will be submitted through the Governor-General, who would forward it with his recommendation, and in these matters he would naturally seek the advice of the Home Department.

Public.—The section deals with a wide range of miscellaneous subjects. Before the creation of a separate Reforms Office, it dealt with all questions connected with the structure of the constitution. The Reforms Office is only on a temporary basis. When it is no longer necessary, constitutional questions will again be dealt with in the Home Department. For example, the department would then have to deal not only with the

preparation and amendment of many Orders in Council which might not be the specific concern of any particular department, but also with general questions affecting the constitution coming up before the Federal Court. Further such matters as the Rules of Executive Business and Secretariat Procedure are within the Home Department's range. It also deals with all matters connected with appointments, pay, allowances and leave of the Governor-General, Governors and Members of Executive Councils. The work under this head will decrease to some extent when there cease to be Members of Council in the provinces, but all questions connected with the pay, privileges, etc., of Counsellors of the Federal Government will presumably remain. Other heads are the furnishing of Government Houses, the Warrant of Precedence, the Government Servants' Conduct Rules, the naturalization of aliens, the grant of compassionate allowances based on mutiny services, the repatriation of Indians from abroad, the acceptance by Government servants of private employment in Indian States, and a large number of smaller cases including those connected with the memorial rules, the regulation of ceremonial, uniforms and flags, the recognition of associations of Government servants, the grant of certain medals, the fixing of Government holidays and the holding of the decennial Census. This wide range of subjects is essentially Central and neither the introduction of provincial autonomy nor later of Federation is likely to result in any decrease of work.

Police.—The subjects which generally occupy most of the time of this section are questions relating to (i) the Indian Police, (ii) the Central Intelligence Bureau, (iii) Railway police organization, (iv) the Police force in Centrally Administered Areas, (v) the administration of the Arms Act and Rules and (vi) awards of Police medals.

(i) has already been dealt with under the head "Establishments". There will be no change in the constitutional position in regard to (ii), (iv), (v) and (vi), but the transfer of Ajmer-Merwara to the Home Department will involve some increase of work under (iv) and any expansion of the work of the central organisation will tend to some increase under (ii). Railway Police organisation other than the watch and ward staff which is under the Railway Administration, is at present provincial and under the new Act as it stands at present will remain so. Neither the Governor-General in Council nor the Federal Government will have any general power of superintendence, direction and control, and the Governor-General acting in his discretion [*vide* section 187 (3)] will only be brought in to solve differences which may arise between the Federal Railway Authority and Provincial Governments in regard to the allocation of cost.

Judicial.—The bulk of the work of this section may be grouped under the following main heads: (i) Legislation, (ii) High Courts, (iii) Law Officers and (iv) death sentences.

Cases dealing with legislation are numerous. So far as Central Legislation is concerned, the position will remain much as at present. Civil law, including laws regarding status, property, civil rights and liabilities and civil procedure is at present a Central subject, and under the new Act the various branches of civil law are included in Part I of the concurrent legislative list. The same applies to criminal law and criminal procedure. Government measures dealing with these matters are initiated and handled throughout in this section. All private Bills dealing with these matters have also to be examined, and the Government attitude in

regard to them has to be decided. This branch of work is not likely to decrease. On the contrary it may tend to increase. In the sphere of provincial legislation, on the other hand, there is certain to be some decrease. Under the present Act any Bill which affects either civil law or criminal law, and few Bills affect neither, requires the previous sanction of the Governor-General before introduction. Every provincial Bill which affects either civil law or criminal law comes to this section for consideration of the advice in regard to sanction to be given by the Governor-General. Under the new Act the section will be relieved of this work.

Work in connection with High Courts is not likely to decrease. In future the department will be relieved of work connected with the establishment of the Calcutta High Court. But in the case of other High Courts, and these in future will include the new courts of Nagpur and Karachi and the Judicial Commissioner's Court in the North-West Frontier Province, it will be required to advise the Governor-General in the exercise of his discretionary powers in respect to not only permanent and additional but also acting appointments. This will involve an appreciable increase of work. Work connected with the High Court Judges' rules will continue as at present. A new item will be all cases connected with the Federal Court. Any reduction in work resulting from the transfer of the Calcutta High Court establishment to provincial control is therefore likely to be more than counterbalanced by increases under other items.

Law Officers.—This section deals at present with all references relating to the Advocate-General, Bengal, Standing Counsel, Bengal, and the Government Solicitor, Bengal, whom the Government of India share in common with the Government of Bengal. In future, there will be an Advocate-General of India appointed by the Governor-General exercising his individual judgment under section 16 of the new Act, and it is proposed to have a separate Government Solicitor in Calcutta. These changes will have no appreciable effect on the work of the section.

Death sentences.—On an average about 700 petitions for mercy from prisoners condemned to death are received each year. It is anticipated that the separation of Burma will cause an annual drop of some 100 cases. The Governor-General will under section 295 of the new Act have to deal with these cases in his discretion, which will involve the submission of all cases to him, and presumably, during the transitional period at any rate, this will be done through the Home Department.

Jails.—The main heads of business are the administration of the Andaman and Nicobar Islands, jails and lunacy and lunatic asylums.

The Andaman and Nicobar Islands will remain a Centrally Administered Area, and no decrease of work under this head is to be expected. The position under the new Act will be that the Central Government will have no control over jails in the provinces and will be able to legislate on jail matters generally only for the Centrally Administered Areas, though in regard to the one specific matter of inter-unit transfers it will be able to legislate for the whole of India. The main concern of the section in the future so far as jails are concerned will therefore be with the jails (including the detention camp at Deoli, as long as it continues to exist) in the Centrally Administered Areas, namely, the Andamans, Delhi, Coorg and Ajmer-Merwara; in as much its concern with provincial jail administration has for many years been practically confined to the direction of policy on only a few matters such as the classification and treatment of prisoners.

the segregation of terrorist prisoners and the treatment of hunger-strikes, and as the Central Government will have to continue to direct policy not only in these but in all matters in Centrally Administered Areas, this change will not affect the work of the section to any considerable extent. Provincial Governments are at present required to employ a certain number of Indian Medical Service officers as Jail Superintendents. That requirement will ultimately disappear, but for some time to come Indian Medical Service officers will continue to be appointed, and any decrease of work under this head will be gradual.

In the new Act Lunacy, including places for the reception and treatment of lunatics which is at present a provincial transferred subject, is included in Part I of List III of the Seventh Schedule, and the Ranchi European Hospital is in List I of the same Schedule. There will therefore be no material change under this head, except that the Central Government's interest in the Ranchi Hospital will become more direct.

The activities of the League of Nations in regard to such matters as the treatment of prisoners, child welfare and the protection of women and children have in recent years shown a distinct tendency to increase the work of this section in the shape of demands for information which can only be supplied by references to all provincial Governments, and even in some cases to Indian States, and thereafter by some collation of the replies.

APPENDIX IV.

Statement showing the posts under the Government of India ordinarily held by members of the Indian Civil Service.

I.—TENURE POSTS.

No. of posts.	Designation.	Pay.†	Period of tenure.	Remarks.
3*	Members of Council .	Rs 6,666	5 years.	
3		<i>Home Department.</i>		
1*	Secretary	4,000	4 years.	
1*	Joint Secretary . .	3,000	3 years.	
1	Ditto (temporary).	3,000	3 years.	
1*	Deputy Secretary .	Grade pay in the senior time scale plus special pay 400, subject to a maximum of Rs. 2,250.	3 years.	
1	Ditto (temporary)	Ditto	3 years.	
1	Under Secretary . .	Grade pay in the junior time scale plus special pay 300.	3 years.	
1*	Chief Commissioner, Andaman and Nicobar Islands.	3,000	3 years.	
1*	Deputy Commissioner, Andaman and Nicobar Islands.	Grade pay in senior time scale plus special pay 150, subject to a maximum of Rs. 1,850.	3 years	Not at present held by a member of the I.C.S.
1*	Chief Commissioner, Delhi.	3,000	5 years.	
1*	Deputy Commissioner, Delhi.	Grade pay in senior time scale plus special pay 150.	3 years.	
1	Member, Public Service Commission.	2,500	5 years.	
1	Secretary, Public Service Commission.	Grade pay in the senior time scale of pay plus special pay 400, subject to a maximum of Rs. 2,250	5 years . .	The post has once been held by a member of I.C.S. and twice by a member of I. E. S. The present incumbent is not an I.C.S. officer.
1	Private Secretary to the Governor-General.	Grade pay in the senior time scale plus special pay 250.	The appointment is made at the discretion of His Excellency.	The present incumbent is not an I.C.S. officer.
13				

† Overseas pay has been omitted throughout.

No. of posts.	Designation.	Pay.	Period of tenure.	Remarks.
		<i>Finance Department.</i> Rs.		
1*	Secretary	4,000	4 years.	
1*	Deputy Secretary	Grade pay in the senior time scale plus special pay 400, subject to a maximum of Rs. 2,250.	3 years.	
1	Under Secretary	Grade pay in the junior time scale plus special pay 300.	3 years.	
1	Ditto	Ditto	3 years.	
2	Members, Central Board of Revenue.	3,500 (May be raised to 3,750 after expiry of normal tenure).	4 years.	
1	Secretary, Central Board of Revenue.	Grade pay in the senior time scale plus special pay Rs. 300, subject to a maximum of Rs. 2,150.	3 years.	
1	Commissioner, Northern India Salt Revenue.	Grade pay in the senior time scale plus special pay Rs. 200.	5 years.	
2*	Collector of Customs	2,250—100—2,750 (One selection post Rs. 3,000).	Recently made tenure posts for 3 years.	
3	Assistant Collectors of Customs	Senior or junior time scale of pay plus special pay Rs. 200.	Recently made tenure posts for 3 years.	
1*	Financial Adviser, Military Finance.	3,250	4 years.	
1	Financial Commissioner, Railways.	4,000	5 years	The present incumbent is not an I.C.S. officer.
15				

Department of Education, Health and Lands.

1*	Secretary	4,000	4 years.	
1	Joint Secretary (temporary).	3,000	3 years.	
1*	Deputy Secretary	Grade pay in senior time scale plus special pay 400, subject to a maximum of Rs. 2,250.	3 years.	
1	Ditto (temporary).	Ditto	3 years.	

No. of posts.	Designation.	Pay.	Period of tenure.	Remarks.
<i>Department of Education, Health and Lands—contd.</i>				
		Rs.		
	Under Secretary .	Grade pay in junior time scale <i>plus</i> special pay 300.	3 years	In abeyance.
1	Secretary to the Agent-General for India in the Union of South Africa (temporary).	Grade pay in senior or junior time scale <i>plus</i> special pay 300.	3 years.	
1	Agent to the Government of India in Ceylon (temporary).	Ditto . . .	3 years.	
7				
<i>Commerce Department.</i>				
1*	Secretary . . .	4,000	4 years.	
1	Joint Secretary (temporary).	3,000	3 years.	
1*	Deputy Secretary .	Grade pay in the senior time scale <i>plus</i> special pay 400, subject to a maximum of 2,250.	3 years.	
1	Deputy High Commissioner for India.	£1,800—40—2,000 per annum.	5 years.	
1	Indian Trade Commissioner, Hamburg.	£1,000—50—1,500 per annum.	5 years.	
1	Deputy Indian Trade Commissioner, London.	Deputation pay regulated under Fundamental Rule 51.	3 years.	
1	Secretary, Public Department, High Commissioner's Office, London.		3 years.	
1	Secretary, Indian Tariff Board (temporary).	Grade pay in junior time scale <i>plus</i> special pay 300.	Period not specified as the post is temporary.	
8				
<i>Department of Industries and Labour.</i>				
1*	Secretary . . .	4,000	4 years.	
1	Joint Secretary (temporary).	3,000	3 years.	
1*	Deputy Secretary .	Grade pay in senior time scale <i>plus</i> special pay 400, subject to a maximum of Rs. 2,250.	3 years.	

No. of posts.	Designation.	Pay.	Period of tenure.	Remarks.
<i>Department of Industries and Labour—contd.</i>				
		Rs.		
1	Under Secretary	Grade pay in junior time scale <i>plus</i> special pay 300.	3 years.	
1	Director-General, Posts and Telegraphs.	3,500—100—4,000	5 years.	
1	Senior Deputy Director-General, Posts and Telegraphs.	2,250—100—2,750 <i>plus</i> special pay Rs. 250.	4 years.	
1	Controller of Emigrant Labour.	Grade pay in senior time scale <i>plus</i> special pay Rs. 300.	Period not specified.	
7				
<i>Legislative Department.</i>				
1*	Secretary	4,000	5 years. Extensible for a further period of 5 years.	
1*	Deputy Secretary	Grade pay in senior time scale <i>plus</i> special pay Rs. 400, subject to a maximum of Rs. 2,250.	4 years.	
2				
<i>Defence Department.</i>				
1	Secretary	4,000	4 years.	
1	Deputy Secretary	Grade pay in senior time scale <i>plus</i> special pay 400, subject to a maximum of Rs. 2,250.	8 years.	The post is at present held by an Army Officer.
1	Under Secretary	Grade pay in junior time scale <i>plus</i> special pay Rs. 300.	3 years.	
3				
<i>Department of Imperial Council of Agricultural Research.</i>				
1	Secretary	Grade pay in senior time scale <i>plus</i> special pay 300, subject to a maximum of Rs. 2,150.	3 years.	
1				

*Superior posts borne on the cadre of the Indian Civil Service.

NOTE.—The total number of tenure posts is 59 of which 49 are superior posts and the remaining inferior. Of the 49 superior and 10 inferior posts, 8 and 2 respectively are temporary. One inferior post is in abeyance at present. 5 out of 49 superior posts are not at present held by the officers of the I. C. S.

II.—NON-TENURE POSTS.

No. of posts.	Designation.	Pay.	Remarks.
<i>Rs.</i>			
<i>Finance Department.</i>			
1*	Auditor-General	5,000.	
1	Deputy Auditor-General	3,500.	
4	Commissioners of Income-Tax—		
	1 Bengal	2,250—100—2,750 <i>plus</i>	
		special pay 250.	
	1 Burma	2,250—100—2,750 <i>plus</i>	
		special pay 200.	
	2 Madras and Punjab	2,250—100—2,750.	
1	Assistant Commissioner of Income-Tax.	Grade pay in senior time scale <i>plus</i> special pay 200, subject to a maximum of Rs. 1,750.	
1*	Controller of Currency	3,000—125—3,500	Not held at present by an I. C. S. officer.
1*	Accountant-General	3,000	} Only one post held by a member of I.C.S.
2*	Accountants-General	2,250—100—2,750	
4	Posts in Class I of the General List of the Indian Audit and Accounts Service.	Senior or junior time scale of pay <i>plus</i> special pay Rs. 200.	None held at present by members of the I. C. S. owing to the decision not to recruit I. C. S. officers to the Indian Audit and Accounts Service.
<i>Legislative Department.</i>			
1*	Joint Secretary	3,000—100—4,000. If the officer is of non-Asiatic domicile; 3,000, 3,000, 3,200—100—4,000.	
<i>Department of Industries and Labour.</i>			
1	Postmaster-General	2,250—100—2,750.	
<i>Foreign and Political Department.</i>			
29*	Superior posts in the Foreign and Political Department borne on the cadre of the Indian Civil Service including one Secretaryship.	....	In 1935, 33 Indian Civil Service officers were holding superior posts in the Foreign and Political Department, 12 officers are at present holding inferior posts.

*Superior posts borne on the cadre of the Indian Civil Service.

NOTES.

1. The total number of non-tenure posts, excluding the posts in the Foreign and Political Department is 17. Of these 13 are superior posts and 4 inferior. 3 out of 13 superior posts are not at present held by officers of the Indian Civil Service.

2. Taking tenure and non-tenure posts together, excluding the Foreign and Political Department, 54 superior and 9 inferior posts are at present held by officers of the Indian Civil Service.

APPENDIX V.

Statement showing the number of officers of the Indian Civil Service who have retired on proportionate pension since the inception of the scheme up to 30th. September 1935.

Year.	Madras.	Bombay.	Bengal.	United Provinces.	Punjab.	Burma.	Bihar and Orissa.	Central Provinces.	Assam.	Total.
1922	5	3	2	3	3		2			18
1923			2	6	1	(a) 1	1	2		13
1924	1	2	3	4	3	(b) 2	3	2		20
1925	4	3	7		5	4		2		25
1926	4	1	3	3	1	1	1	2		16
1927	1	1	4	1		3			1	11
1928	1	1	2		1			1	1	7
1929		3		3		2	4			12
1930			1	1	1	1			1	5
1931		2	4	3		3				12
1932	2	3		1	1	1		1	1	10
1933	1	1	1		1		2	1	1	8
1934	1		1		1	1		1	1	6
1935	3					1				4
Total	23	20	30	25	18	20	13	12	6	167
Sanctioned strength of cadre on 1st April 1935;	170	140	176	195	146	158	108	77	41	1,211

(a) Excluding 3 military officers of the Burma Commission.

(b) Excluding 1 Military Officer of the Burma Commission.

APPENDIX VI.

Statement showing the recruitment to the Indian Civil Service since 1914.

Year.	Theoretical recruitment.	Actual recruitment.		Recruitment made by			
		British.	Indian.	Examination.		Nomination.	
				British.	Indian.	British.	Indian.
1914	47	46	7	46	7	..	..
1915	52	11	3	11	1	..	2
1916	51	4	5	4	2	..	3
1917	46	2	4	2	3	..	1
1918	44	..	9	..	9	..	..
1919	42	62	39	..	5	(a)62	24
1920	42	44	6	..	6	(a)44	..
1921	61	30	25	3	13	(a)27	12(d)
1922	43	9	24	6	19	(a)3	5(b)
1923	45	21	15	7	13	(a)14	2
1924	45*	3	15	3	13	..	(1 Burman) 2
1925	56	21	29	21	23	..	6
1926		29	27	29	20	..	(2 Burmans) 7
1926-27	64	29	27	29	20	..	(4 Burmans) 9
1927-28	70	37	36	37	27	..	(4 Burmans) 9
1928-29	68	36	36	36	30	..	(4 Burmans) 6
1929-30	72	35	31	35	25	..	6
1930-31	68	25	43	25	41	..	2
1931-32	66	24	22	24	18	..	4
1932-33	62	14	23	14	23	..	..
1933-34	65	17	27	17	25	..	2
1934-35	42	13	(c)22	13	20	..	2
1935-36	46	5	26	5	26	..	..
Total	1,197	488	474	338	369	150	106
		962			(24 Burmans)		(11 Burmans)

(a) Service candidates.

(b) Includes one service candidate.

(c) Including one Anglo-Indian of non-Asiatic domicile.

* No calculations were made. The figure for the previous year has therefore been taken.

NOTES.

Although there is a shortage of 235 (1,197—962) recruits on the above figures, the actual deficit at the end of 1936 is estimated to be 80. This is due to the changes in the sanctioned strength of the cadre from time to time, the present sanctioned strength of the cadre being 1,211, as against 1,352 in 1914 and 1,405 in 1921. The sanctioned strength of the cadre was raised in 1921 as a result of the increase in the deputation reserve from 4 per cent. to 7 per cent. and the present reduced strength of the cadre is due to the increase in the number of listed posts in accordance with the recommendations of the Lee Commission, and the abolition of some superior posts.

2. Since 1925-26 the total recruitment made in the London examination of one year and the examinations and nominations in India in the succeeding year have been taken together as forming one recruitment year for the purpose of the calculations for theoretical recruitment. The allotment figures for 1925-26 include the intake from the Allahabad examination of 1925, the London examination of 1925 and the Allahabad examination of 1926.

3. The London examination of 1935 yielded 15 Indians. It is proposed to take 9 Indians on the results of the Delhi examination—3 by competition and 6 by nomination and 2 Burmans on the results of the Rangoon examination.

APPENDIX VII.

Actual as compared with the theoretical distribution of the Indian Civil Service cadre.

Years of service.	Madras.		Bombay.		Bengal.		United Provinces.		Punjab.		Bihar and Orissa.		Central Provinces.		Assam.		Total.	
	Distribution.		Distribution.		Distribution.		Distribution.		Distribution.		Distribution.		Distribution.		Distribution.		Distribution.	
	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.	Theoretical.	Actual.
30 and over	9.0	16	7.3	17	9.8	9	11.0	17	6.3	19	5.8	8	5.0	3	2.0	5	58.2	94
24—29 .	21.4	12	17.4	16	23.4	17	26.0	35	19.8	16	13.8	19	11.8	13	4.9	6	138.5	134
18—23 .	30.5	21	24.7	16	33.2	24	37.1	30	28.2	16	19.6	21	16.8	10	6.9	8	197.0	136
12—17 .	32.6	38	26.4	18	35.5	41	39.5	30	30.2	18	21.2	15	17.9	26	7.5	9	210.8	192
6—11 .	34.3	38	27.8	38	37.3	38	41.7	42	31.6	34	22.1	21	18.9	21	7.8	4	221.5	226
1—5 .	30.2	33	24.4	33	32.8	43	36.7	48	27.9	43	19.5	18	16.6	14	6.9	7	195.0	239
Total .	158.0	158	128.0	128	172.0	172	192.0	192	146.0	146	102.0	102	87.0	87	36.0	36	1021.0	1021

NOTE.—The theoretical distribution has been worked out on the basis of the Indian Civil Service Life and Service Tables compiled by Mr. Meikle in 1919 and on the number of Indian Civil Service officers as shown in the Civil Lists of the United Provinces of 1st May, Madras, Bombay, Bengal and Punjab of 1st July, and Bihar and Orissa, Central Provinces and Assam of 1st October 1935.

APPENDIX VIII.

Details of the tenures in force in provincial Secretariats and the extent to which they are actually observed.

Madras.—The tenure of Secretaries, Deputy Secretaries and Under Secretaries to Government excluding the Chief Secretary and second Secretary, for whom no tenure is prescribed although in practice the posts are not held for more than four years, is limited to 3 years, the period being calculated with reference to the date from which an officer holds the appointment continuously. A period of 3 months' probation has been prescribed only in respect of the post of Under Secretary. This period is taken into account in calculating tenure. An officer holding a Secretariat post is not ordinarily granted leave during his 3 years' tenure except for very special and urgent reasons. Such leave when granted is not taken into account in calculating tenure. If, however, an incumbent of the post of Secretary or Deputy Secretary takes long leave during his 3 years' tenure, the question whether he should or should not return to the post at the end of the leave is determined on the merits of each case.

The period of the tenure is generally observed. Extensions are only given in exceptional cases and even then for very short periods. Transfers from one department of the Secretariat to another are sometimes made.

Bombay.—The tenure fixed for the posts of Secretary, Deputy Secretary and Under Secretary is three years. Leave taken counts towards the tenure period. Officiating service, unless followed by confirmation without break, does not count towards the tenure period.

The tenures are generally observed in the case of Deputy and Under Secretaries, but an extension of one year is not uncommon for Secretaries and Secretaries are also transferred from one department to another. Cases were mentioned of officers who had served for long periods in the Secretariat.

Bengal.—There is a fixed tenure of 3 years in the case of Secretaries only. This is observed strictly, except in regard to the posts of Chief Secretary and Secretary, Legislative Department. Both leave and officiating service are taken into account in calculating the tenure. Although there is no fixed tenure for the posts of Deputy Secretary and Under Secretary, in practice, Deputy Secretaries do not hold their posts for more than three years and Under Secretaries for much more than two years.

There is no absolute bar to the transfer of officers from one department of the Secretariat to another; in the past various officers have held more than one Secretaryship with intervening periods of other employment. One recent case of direct transfer was noted.

United Provinces.—The rule is that the term of appointment of a Secretary, other than the Chief Secretary, should not exceed three years, and that of a Deputy or Under Secretary two years.

The rule has not been regularly observed, particularly in the case of Secretaries, since extensions have been frequently granted. Secretariat officers are also not infrequently transferred from one department to another without reversion to district work. The Local Government report that this practice during 1918 to 1930 tended to cause the Secretariat to

lose touch with district administration and to be resented by District Officers.

Punjab.—The tenure of Secretaries is limited to a maximum of four years. The tenure of Senior and Junior Secretary to the Financial Commissioners is three years and of Under Secretaries 2 or 2½ years. In calculating tenure, leave and officiating service is taken into account.

Tenures are strictly followed and extensions are only rarely given, but owing to the shortage of senior officers, it has been necessary to transfer officers from one department of the Secretariat to another.

Bihar and Orissa.—There is no fixed period for the tenure of a Secretaryship. The Deputy Secretary in the Legislative Department is a barrister specially recruited for the post and holds it permanently. Under Secretaries are subject to a tenure of three years. As a general rule, however, a Secretary does not serve for a period much in excess of three years, including officiating tenure but not including periods of leave. Since 1920, in the three posts of Chief Secretary, Finance Secretary and Revenue Secretary, no officer served for four years, but four served for a period of between three and four years. One officer held the post of Judicial Secretary for 4½ years and the present holder is likely to remain for over 4 years. In the two Transferred Departments of Local Self-Government and Education, two officers served for about 3½ years, one for 4½ years, and one for 5½ years.

There has been no case of an Under Secretary in the Civil Secretariat serving for the full period of three years. The average period of service is about two years owing to the fact that an Under Secretary becomes eligible for a superior post before he has completed the period of tenure.

Cases have occurred in which an officer serving as a Secretary has been transferred to the post of Secretary in another department, but these have usually been for the purpose of filling a leave vacancy. In most cases Secretaries have reverted to non-secretariat posts before being appointed to another permanent Secretaryship.

Central Provinces.—No limit of tenures is fixed for the posts of Secretary and Under Secretary. It was said that it would be inconvenient to have a tenure system with a small cadre. In actual practice, the post of Secretary is not held by the same officer for more than 3½ to 4½ years and that of Under Secretary for more than 2 to 2½ years. Officers are sometimes transferred from one department to another in the Secretariat, particularly in leave vacancies.

Assam.—There is no fixed tenure either by rule or practice for the posts of Secretary, and it was said that with so small a cadre it would be difficult to observe. Two officers held the post of Chief Secretary for five years, including spells of leave. The tenure of Under Secretary is ordinarily limited to three years. On the whole the rule is observed, but there was one case in recent years where an officer held the post for 4 years. Since 1920, there have been two cases where the Secretary in another department became Chief Secretary. Occasionally for short periods Secretaries and Under Secretaries in one department acted as such in another department.

APPENDIX IX.

(a) *Statement* showing the rates of pay of Secretaries in different provinces.*

Provinces.	Pay of Chief Secretary.	Pay of other Secretaries.	
	Rs.	Rs.	
Madras	3,750	2nd Secretary Rs. 3,000.	
Bombay		Other Secretaries. Grade pay (Senior time scale as for Collectors) plus special pay 250.	
Bengal	3,000	3,000.	
United Provinces		2,750.†	
Punjab		Grade pay in senior time scale plus special pay 250.	
Bihar and Orissa		Grade pay in senior time scale plus special pay 400.	Grade pay in senior time scale plus special pay 150.
Central Provinces			
Assam			

(b) *Statement* showing the highest paid posts in different provinces outside the Secretariat.*

Province.	Designation of post.	Pay.
		Rs.
Madras	Members of Council	5,333 1/3
	High Court Judges	4,000
	1st Member, Board of Revenue	3,750
	2nd Member, Board of Revenue	3,500
	3rd Member, Board of Revenue	3,000
	District and Sessions Judge, selection grade	3,000
Bombay	Members of Council	5,333 1/3
	High Court Judges	4,000
	Municipal Commissioner, Bombay	3,500
	Judicial Commissioner, Sind	3,500
	Four Commissioners, 1st grade	3,500 plus special pay of Rs. 500 if Commissioner in Sind.
	One Commissioner, 2nd grade	3,000
Bengal	Members of Council	5,333 1/3
	High Court Judges	4,000
	Member, Board of Revenue	3,750
	Chairman, Calcutta Improvement Trust	3,000
	Commissioners	3,000

* Overseas pay has been omitted throughout.

† There are minor variations relating to the Secretary in the Legislative Department (Bengal and Punjab) and the Judicial Secretary (Bihar and Orissa) which it is needless to detail.

Province.	Designation of post.	Pay.
		Rs.
Bengal	Commissioner, Rajshahi Division	3,000 and special pay 300.
	District and Sessions Judges, selection grade	2,000
	Superintendent and Remembrancer of Legal Affairs	2,750.
	Legal Remembrancer, Assam (when promoted to selection grade of District and Sessions Judges)	3,000
United Provinces	Members of Council	5,333 1/3
	High Court Judges	4,000
	Chief Judge, Chief Court of Oudh	4,000
	Members, Board of Revenue	3,500
	Judges of the Chief Court of Oudh	3,500
	Commissioners	3,000
	District and Sessions Judges, selection grade	3,000
	Legal Remembrancer (when promoted to selection grade of District and Sessions Judges)	3,000
Punjab	Members of Council	5,000
	High Court Judges	4,000
	Financial Commissioner	3,500
	Commissioners	3,000
	District and Sessions Judges, selection grade	3,000
	Legal Remembrancer and Secretary Legislative Department (when promoted to selection grade of District and Sessions Judges)	3,000
Bihar and Orissa	Members of Council	5,000
	High Court Judges	4,000
	Member, Board of Revenue	3,500
	Commissioners	3,000
	District and Sessions Judges, selection grade	3,000
	Superintendent and Remembrancer of Legal Affairs and Secretary, Judicial Department (when promoted to selection grade of District and Sessions Judges)	3,000
*Central Provinces	Members of Council	4,000
	Chief Justice, High Court	50,000 per annum.
	Other Judges of the High Court	40,000 " "
	Commissioners	3,000
Assam	Members of Council	3,500
	Commissioners,	3,000

* There is a proposal to create on the inauguration of Provincial Autonomy a Board of Revenue consisting of one member on a pay of Rs. 3,500 per mensem.

APPENDIX X.

Number of Secretaries and Joint Secretaries in Departments.

Departments.	Secretaries.	Joint Secretaries
Home	1	2
Finance	1	1
Commerce	1	1
Industries and Labour	1	1
Education, Health and Lands	1	1
Legislative	1	1
Foreign and Political	3	1
Defence	1	1
TOTAL	10	7

NOTES 1.—The Railway Department, the Imperial Council of Agricultural Research, the Central Board of Revenue and the Military Finance Department are not included. In these four departments there are at present 4 and 4 officers with the status of Secretary and Joint Secretary respectively.

2. One post of Secretary and 5 posts of Joint Secretary are at present temporary

APPENDIX XI.

Method of appointment of Assistant Secretaries in the provinces and the working of the system.

Madras.—There are 11 Assistant Secretaries, of whom 8 are temporary. One is drawn from the Bar; one from the Provincial Civil Service and the rest are promoted ministerial officers. Assistant Secretaries note on pages and are responsible for the general supervision of the office. Both types of Assistant Secretary were stated to be doing well.

Bombay.—There are Assistant Secretaries in all departments, their number at present being 11. The posts of Assistant Secretary are generally filled by promotion from among members of the upper division of the Secretariat establishment, and in exceptional cases by direct recruitment or from the Provincial Civil Service. Of the present Assistant Secretaries, one is a direct recruit, one a Sub-Judge and the rest promoted ministerial officers. Assistant Secretaries are responsible for the general supervision of their respective departments. They also note on fairly well defined matters such as budgets, loans, etc., and in some departments on important cases as well. The local Government considers that it is difficult to obtain by direct recruitment the type of officer required for the post of Assistant Secretary, and that, on the whole, recruitment by promotion is satisfactory and works well in practice in view of the need for officers with experience of departmental work in all its stages. There are no Registrars.

Bengal.—There are 8 Assistant Secretaries, all but one being officers of the Provincial Civil Service. They note on cases and are also supposed to supervise the office, but the view generally held was that supervision of the office tended to be neglected owing to the pressure of case-work. The general opinion of the work of Assistant Secretaries was good. In the Appointment and Finance Departments there are Registrars.

United Provinces.—There are 2 Assistant Secretaries. Both are promoted ministerial officers. They deal with office supervision and establishment cases. Local opinion seemed to be that the Assistant Secretaryships would not be sufficiently attractive to members of the Provincial Civil Service.

Punjab.—There are 2 Assistant Secretaries, both promoted ministerial officers. The Assistant Secretary in the Chief Secretary's branch is responsible for the smooth running of the Secretariat and deals with work relating to the whole menial and ministerial establishment. He is also a disbursing and controlling officer of the Secretariat contingent grant. The Assistant Secretary in the office of the Financial Commissioner deals mainly with stamps and district and divisional establishments.

Bihar and Orissa.—There are 3 Assistant Secretaries who may be either officers of the Provincial Civil Service or promoted from the clerical ranks. At the time of the Committee's visit, the Assistant Secretary, Revenue, was of the latter category and did office routine work. In the Education Department he was a member of the Provincial Civil Service. The same was the case in the Local Self-Government Department, where he noted on cases.

Central Provinces.—There are no Assistant Secretaries. There is a Registrar for the whole Secretariat.

Assam.—There is one Assistant Secretary in the Revenue and Finance Departments. He is a ministerial officer borrowed from the United Provinces Secretariat and both notes on cases and disposes of work. There is one Registrar for the whole Secretariat.

APPENDIX XII.

Constitution and system of recruitment of the Ministerial Services of the Government of India Secretariat.

Superintendents are appointed by selection from among the first division assistants.

First Division.—One half of the vacancies in this division is filled by promotion from the second division. The orders emphasise that promotion should be made strictly by selection from among the most meritorious departmental men, and the remainder by recruitment of external candidates who have been successful at a joint competitive examination for the first and second divisions. Subject to communal representation, vacancies in the two divisions are offered to the candidates in order of merit.

Second Division.—All vacancies in this division are filled by recruitment of candidates who have been successful at the joint competitive examination referred to above. It is open to departments in cases of exceptional merit to promote a member of the third division to the second division, but such promotions are not allowed in more than one out of every five vacancies.

Third Division.—This consists of typists and routine clerks and is recruited wholly by a separate competitive examination.

25 per cent. of the vacancies for direct recruitment in each division are reserved for Moslems and $8\frac{1}{3}$ of vacancies for members of other minority communities.

The educational qualifications for the examination for the first and second divisions is the possession of a University degree or the Cambridge School Certificate "A" or the European High School or School Leaving Certificates of the Education Departments of certain provinces; and for the third division, the Matriculation examination or the Cambridge Junior or certain other equivalent certificates. In addition, candidates for the third division are required to produce a certificate of proficiency in typewriting from a recognised typewriting institution.

To be eligible to appear at the first and second division examination candidates must be over 20 and under 24 years of age. For the third division the age-limits are over 17 and under 24.

The subjects for the three divisions are the same, namely:—

- (a) *Arithmetic.*—The questions are designed to test intelligence, accuracy and rapidity in working.
- (b) *General knowledge.*—Candidates are required to give brief answers to questions concerning current events, common phenomena and matters of every day interest or common knowledge.
- (c) *English composition.*—Candidates are tested in (i) drafting, (ii) precis writing, (iii) correcting mistakes in English, and (iv) proof correcting.

the passage, marks are deducted in proportion to the shortage

- (d) *Handwriting.*—Candidates are required to copy a passage printed in English. Marks are awarded for accuracy, legibility, neatness and speed. If a candidate is unable to copy the whole of

The examination for the first and second divisions takes place biennially and for the third division annually. These examinations are held at different centres in India.

The function of the Public Service Commission is confined to the holding of examinations and preparing lists of candidates in the order of merit. The postings of successful candidates to departments is settled by the Home Department, who, for this purpose, obtain from other departments annually a forecast of the number of definitely foreseen vacancies to be filled by external candidates, together with a statement of their preference, if any, for candidates of a particular community. The Home Department endeavours to allot to departments candidates of the communities desired by them, in so far as this is possible, having regard to the results of the examinations and the observance of the prescribed communal proportions.

APPENDIX XIII.

Rates of pay admissible to the ministerial staff in the Government of India Secretariat and the Provincial Secretariats.

	Rs.
<i>Government of India—</i>	
Superintendents	500—20—600.
Assistants	140—10—280 (efficiency bar)—10—310—15—400.
Clerks (second division)—	
Men	80—4—120—5—200 (E. B. after 125).
Women	100/3—104/2—108/2—112/2—4—120—5—200 (E. B. after 125).
Clerks (third division)—	
Men	60—2—80—3—125 (E. B. after 95).
Women	100/4—104/4—108/4—112/4—116/4—120—5—125 (E. B. after 112).
Stenographers	125—5—180—10—300.
<i>Madras—</i>	
Superintendents	175—25/2—200—30/2—260—40/2—300—50/2—350
Upper division clerks	60—10/2—120—15/2—150.
Lower division clerks	} 40—3/2—55—5/2—70.
Typists and steno-typists	
<i>Bombay—</i>	
<i>Upper Division—</i>	
Senior superintendents	400—25—500.
Junior superintendents	275—20—375.
Senior assistants	180—10—200—15—260 (175—15—280 in Legal Department).
Junior assistants	100—5—120—10—220 (E. B. at 170) (100—10—200 in Legal Department).
Stenographers	150—5—250—10—300.
<i>Lower Division—</i>	
Clerks higher grade	100—5—160.
Clerks lower grade	50—3—95.
Typists	Typists are generally remunerated on a piece work system.
<i>Bengal—</i>	
Upper division	115—20/2—215—25/2—280—20/2—350 (Selection Grade Rs. 375—25—425).
(Senior and junior head assistants receive a special pay of Rs. 85 and Rs. 42/8 respectively)	
Lower division	60—5/2—70—6/2—130 (Selection grade 150—175).
<i>United Provinces—</i>	
Superintendents	300—25—450.
<i>Superior Service—</i>	
Mir Munshi	100—10—300.
Assistants	100—8—180—15—240.

Rs.

Subordinate Service—

Reference clerks . . .	110—8—150.
Assistants . . .	50—2—60—4—100.

Stenographers—

Reporters . . .	200—10—300.
Non-reporters . . .	100—10—200.

Punjab—

Superintendents . . .	350—25—500 (E. B.)—30—650.
Assistants . . .	120—10—300 (E. B. at 200).
Senior clerks . . .	75—5—150 (E. B. at 100).
Junior clerks . . .	45—3—105 (E. B. at 90).
Senior translators . . .	150—10—250.
Junior translators . . .	75—7—145.
Stenographers . . .	150—10—300 (E. B. at 200).

NOTE.—New scales of pay have not yet been introduced. The rates given above have been temporarily reduced by 15 per cent. for all entrants appointed on or after 1st January 1931.

Bihar and Orissa—

Head assistant . . .	300—15—375.
Upper Division—	
Assistants . . .	125, 170, 210 and 240.
Probationers . . .	85, 105 (second year).

Lower Division—

Assistants . . .	90—5—130.
Assistants . . .	85—5—130.
Assistants (Grade) . . .	50, 55, 65, 75, 85.
Typists . . .	60—5/2—85.
Typists . . .	40—2—60.
Stenographers . . .	100—7—170.

Central Provinces—

Superintendents . . .	250—10—350.
Upper division—	
1st Grade . . .	125—5—150 (E. B.)—10—200.
2nd Grade . . .	60—5—125.
Lower division . . .	40—5—50—3—60 (E. B.)—2—100.
Stenographers . . .	2 posts on 100—5—200—10—250. 6 posts on 100—5—200.

Assam—

Head assistants . . .	300—10—350.
Special grade head assistants . . .	150—10—250—10—300.
Upper division assistants . . .	150—10—200—10—270.
Lower division assistants . . .	60—4—100—5—140.
Stenographers . . .	100—5—200.
Typists . . .	50—5/2—75—5/3—85.
	(Selection grade 90—5/3—100.)
Routine clerks . . .	30—3—60.

APPENDIX XIV.

The more important recommendations of the Llewellyn Smith Committee regarding Secretariat procedure, indicating the action taken thereon and certain further suggestions by the present Committee.

Para 54.—That in dealing with the recommendations of important special Committees or Commissions of Inquiry, the normal procedure, which should be embodied in the Rules of Business, should be to place a qualified officer of suitable standing on special duty for the purpose of obtaining the necessary decisions of Government thereon, of carrying through the requisite consultations with departments of the Government of India and Provincial Governments, and of seeing that such recommendations as are approved are brought into operation; and that this officer should have as independent a position as possible.

Para. 80.—That modifications are required in the organisation and procedure of the office of the Auditor-General.

Para. 83.—That the cases coming before Council should be carefully scrutinised, and if it be found that these include cases which ought to be settled by the departments concerned, the appropriate steps should be taken to secure the necessary alteration in practice, and that rule 19 of the Rules of Business should be modified so as to ensure that cases are not brought before Council unnecessarily.

Paras. 85, 86-87 and 89.—That the procedure in connection with the Executive Council is susceptible of improvement

Paras 91-94.—That references to the Secretary of State on minor financial matters should be reduced in number.

Para. 95.—That Secretaries should be allowed to communicate more freely with the India Office by letter in place of formal despatches.

Para. 97.—That reference to the Secretary of State for sanction to expenditure should ordinarily issue from the administrative department concerned.

Accepted and inserted in Secretariat Instructions (no. 50).

Resort was had to this procedure on various occasions during the last fifteen years. It is impossible to lay down any hard and fast rule.

We understand from the Auditor-General that features in the organisation and procedure of his office leading to avoidable delays have been corrected as far as reasonably possible.

The Rules of Business regulating the procedure in regard to proceedings of the Executive Council have recently been revised.

The financial powers of the Government of India and Local Governments have been greatly enhanced and the Auditor-General has been empowered to condone an omission to make a previous reference to the Secretary of State in Council when the failure to obtain the previous sanction of that authority has involved a breach of the letter rather than the spirit of the rule or order. [Rule 16 (2) of the Auditor-General's Rules.]

Accepted and inserted in Secretariat Instructions (no. 42). The procedure of Secretaries' letters is now well established.

This is now done, though some relatively unimportant drafts are seen in the Finance Department before issue. We consider that such references should be confined to drafts of major importance.

Paras. 98—100 (a) That deputation of officers to discuss with local Governments and conferences with local Governments should be substituted where possible for correspondence.

(b) That references to local Governments should be confined to those principally concerned and that the latter should only consult selected officers. That a time limit should be fixed for receipt of replies.

Para. 102.—That no case should be referred to another department except with the authority of a Deputy Secretary.

Para. 102.—That all departments should consider whether any references to other departments at present required by long standing rules or practice could under modern conditions be dispensed with; for example, a good many minor references to the Finance Department should be obviated if greater financial powers could be given to other departments.

Para. 107.—That, wherever possible, consultation with other departments should be effected by personal interview between responsible officers of the departments concerned, that the result should be recorded on the file by a note agreed between those officers; and that rule 11 (1) of the Rules of Business should be amended to make it clear that such consultation satisfies its requirements.

That when a case has been referred to and returned from another department and a difference of opinion between the departments is disclosed, personal discussion should invariably be substituted for further noting; and that in any case where the two Members in charge of the departments agree after personal discussion, the Secretaries should meet and put up a joint note giving the decision, after which there should be no further noting.

Para. 107.—That any file referred to another department should have attached to it a special form, signed by the officer by whose direction it is referred, specifying precisely the points on which the opinion of the other department is sought, or which it is desired to bring to the attention of that department.

These points seem to be adequately borne in mind

Accepted with the modification empowering an Under Secretary or in departments where there is no Under Secretary, an officer of the rank next below that of Under Secretary, to refer cases to another department [Secretariat Instructions No. 23 (i)]. Actually files of minor importance are referred to other departments by Assistant Secretaries and we think that this practice might ordinarily be made the rule. We were told that the rigidity of the present rule involves delay and throws needless work on higher officers.

In their resolution on the report, the Government of India stated that this recommendation was accepted and would be acted upon. Conditions have greatly changed since the report of the Llewellyn Smith Committee and we suggest that the possibility of reducing still further the number of inter-departmental references should be further examined.

Accepted and inserted in Secretariat Instructions (nos. 22 and 14 respectively). Personal discussions do take place between officers at present, but we feel that they might be resorted to more frequently, specially in cases of difference of opinion.

Accepted and inserted in Secretariat Instructions [23(2) and 24(1)] with the modification in the case of the first recommendation that the requirement of a special form is waived. In actual practice these recommendations are not strictly observed. Opinions of witnesses before us on the merits of the first proposal were divided, but the

That where it is necessary to consult more than one department on a case, such consultation should take place simultaneously, except when the multiplication of documents to be sent would involve an excessive expenditure of time and labour, or when the occasion for consulting the second department does not arise until the result of consulting some other department is known.

majority considered that the suggestion merely entailed unnecessary work. With this, in most cases, we are disposed to agree, but it is essential that a case should only be referred to another department or to another branch within the same department when there is some definite reason for so doing. The vague order "So and so may first see" is a favourite device for getting rid of a file for the moment and either postponing its proper examination or shifting the burden of work on to another department. Given the conditions prevailing in the Government of India Secretariat we consider that the system of the inter-departmental reference of files is suitable, but we suggest a more rigid observance of Secretariat Instruction no. 24(i) which prescribes simultaneous consultation when it is necessary to consult more than one department or when information from several departments has to be collected. The slow progress of one file through various departments is a common cause of delay. We think it very desirable, further, that all important cases referred to another department and all cases referred for a second time to a department should be referred to an officer by name or designation. This procedure is resorted to at present at times, but it would expedite work if more generally adopted, as the existence of such cases would at once become known to an officer, who could ensure that they were not neglected.

Para. 108—24.—That the revised Secretariat procedure detailed in Appendix B of the Llewellyn Smith Committee Report be introduced.

The recommendations in this Appendix were accepted subject to a few modifications and inserted in Appendix B of Appendices to Secretariat Instructions. The procedure laid down in that Appendix was first introduced in the Commerce Department and later extended to other departments. The present procedure of departments is substantially the same as that laid down in Appendix B of the Secretariat Instructions. We need only note the following points:—

(i) *Indexing (para. 16 of Appendix B of the Report).*—Our predecessors considered it most important that the main work of indexing should be done at the time of the receipt of correspondence and that there should be available in each branch an index accurate and always up-to-date (para 114 of the report). We find that in some departments this work is not attended to promptly, but every effort should be made to maintain an up-to-date index, and it should be the duty of the Chief Superintendent to ensure that this is done.

(ii) *Numbering of letters. (Para. 24).*—Almost all departments have introduced the system of fixed numbers for cases on which references are received frequently, and in some departments, e.g., the Industries and Labour Department, the numbers have been fixed once for all, and are not changed from year to year. This procedure facilitates referencing, and we suggest that the

system of permanent numbers (possibly with the addition of the year in which the file was started) should be adopted as far as possible. Some departments give, in addition, a separate serial number to all letters issued to the India Office. This seems unnecessary and should be discontinued. The object in view should be to make the reference number as brief as possible, since we were told that the length of some existing numbers adds appreciably to the cost of telegrams.

(iii) *Action by officers on fresh receipts.* (Para. 27).—Official receipts are generally seen by the Assistant Secretary and in certain departments also by the Under and Deputy Secretary. We recognise, however, that it is not possible, except in a limited number of cases, for these officers to dispose or make suggestions for disposing of these receipts or to give instructions to the office as to the scope of the note to be prepared and the extent to which they desire precedents or references to be put up. At the same time it is desirable that they should continue to see receipts on arrival for the purposes indicated above. Moreover the practice enables them to know what references have been received in the department, and also it constitutes a salutary check on delays by the office. Further we consider that all files marked by one department to another should, on receipt in the department concerned, be seen by the branch officer.

(iv) *Printing.* (Para. 54).—There seems to have been an improvement in the editing of notes before printing since 1920, but the evidence before us suggests that there is still scope for more care and Chief Superintendents should pay particular attention to this point.

(v) *Checks on delay.* (Para. 66).—It was decided to continue reminder lists, arrear lists and suspense and await lists. Not all departments maintain every one of these lists and we do not propose to add to their work by insisting on uniformity. It is suggested, however, that each department should satisfy itself that the checks on delay imposed by it are adequate in actual practice.

REPORT
OF THE
Motor Vehicles Insurance
Committee

1936-37



PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI
PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, NEW DELHI.
1937.

List of Agents in India from whom Government of India Publications are available.

(a) PROVINCIAL GOVERNMENT BOOK DEPOTS.

MADRAS:—Superintendent, Government Press, Mount Road, Madras.
BOMBAY:—Superintendent, Government Printing and Stationery, Queen's Road, Bombay
SIND:—Manager, Sind Government Book Depot and Record Office, Karachi (Sadar).
UNITED PROVINCES:—Superintendent, Government Press, Allahabad.
PUNJAB:—Superintendent, Government Printing, Punjab, Lahore.
BURMA:—Superintendent, Government Printing, Burma, Rangoon.
CENTRAL PROVINCES:—Superintendent, Government Printing, Central Provinces, Nagpur.
ASSAM:—Superintendent, Assam Secretariat Press, Shillong.
BIHAR:—Superintendent, Government Printing, P. O. Gulzarbagh, Patna.
NORTH-WEST FRONTIER PROVINCE:—Manager, Government Printing and Stationery, Peshawar.
ORISSA:—Press Officer, Secretariat, Cuttack.

(b) PRIVATE BOOK-SELLERS.

Advan Brothers, P. O. Box 100, Cawnpore.
 Aero Stores, Karachi.*
 Banthiya & Co., Ltd., Station Road, Ajmer.
 Bengal Flying Club, Dum Dum Cantt.*
 Bhawanani & Sons, New Delhi.
 Book Company, Calcutta.
 Booklover's Resort, Talkad, Trivandrum, South India.
 Burma Book Club, Ltd., Rangoon.
 Butterworth & Co. (India), Ltd., Calcutta.
 Chatterjee & Co., 3, Bacharam Chatterjee Lane, Calcutta.
 Chakraverty, Chatterjee & Co., Ltd., 13, College Square, Calcutta.
 Das Gupta & Co., 54/3, College Street, Calcutta.
 Delhi and U. P. Flying Club, Ltd., Delhi.*
 English Book Depot, Ferozepore.
 English Bookstall, Karachi.
 Faqir Chand Marwah, Peshawar Cantt.
 Fono Book Agency, Simla.
 Higginbothams, Madras.
 Hindu Library, 137/F, Balaram De Street, Calcutta.
 Hyderabad Book Depot, Chaderghat, Hyderabad (Deccan).
 Imperial Book Depot and Press, near Jama Masjid (Machhliwalan), Delhi.
 Indian Army Book Depot, Dayalbagh, Agra.
 Indian Army Book Depot, Jullundur City and Daryaganj, Delhi.
 Indian Book Shop, Benares City.
 Indian School Supply Depot, Central Avenue South, P. O. Dharamtala, Calcutta.
 Insurance Publicity Co., Ltd., Lahore.
 International Book Service, Poona 4.
 Jacques & Co., Kamptee Road, Nagpur, Messrs. Weston.
 Jaina & Bros., Mori Gate, Delhi, and Connaught Place, New Delhi, Messrs. J. M.
 Kamala Book Depot, 15, College Square, Calcutta.
 Karnataka Publishing House, Bangalore City.
 Keale & Co., Karachi.
 Kitabistan, 17-A, City Road, Allahabad.
 Krishnaswami & Co., Teppakulam P. O., Trichinopoly Fort, Messrs. S.
 Lahiri & Co., Calcutta, Messrs. S. K.
 Local Self-Govt. Institute, Bombay.
 London Book Co. (India), Arbab Road, Peshawar, Murree, Nowshera, Rawalpindi.
 Messrs. U. P. Malhotra & Co., Post Box No. 94, Lahore.
 Minerva Book Shop, Anarkali Street, Lahore.
 Modern Book Depot, Basar Road, Sialkot Cantt.
 Mohanlal Dossabhai Shah, Rajkot.
 Nandkishore & Bros., Chowk, Benares City.
 New Book Co., "Kitab Mahal", 192, Hornby Road, Bombay.
 Newman & Co., Ltd., Calcutta, Messrs. W.
 Oxford Book and Stationery Company, Delhi, Lahore, Simla, Meerut and Calcutta.
 Parikh & Co., Baroda, Messrs. B.
 Pioneer Book Supply Co., 20, Shri Narayan Das Lane, Calcutta and 219, Cloth Market, Delhi.
 Popular Book Depot, Grant Road, Bombay.
 Punjab Religious Book Society, Lahore.
 Raghunath Prasad & Sons, Patna City.
 Rama Krishna & Sons, Booksellers, Anarkali, Lahore.
 Ram Krishna Bros., Opposite Bishrambag, Poona City.
 Ram Narain Lal, Katra, Allahabad.
 Ramesh Book Depot & Stationery Mart, Kashmir Gate, Delhi.
 Ray & Sons, 43, K. & L. Edwards Road, Rawalpindi, Murree and Peshawar, Messrs. J.
 Roy Chowdhury & Co., 11, College Square, Calcutta, Messrs. N. M.
 Sarkar & Sons, 15, College Square, Calcutta, Messrs. M. C. Sarkar & Co., Ltd., 18, Shama Charan De Street, and 8/2, Hastings Street, Calcutta, Messrs. P. O.
 Standard Bookstall, Karachi.
 Standard Bookstall, Quetta.
 Standard Book Depot, Lahore, Dalhousie and Delhi.
 Standard Law Book Society, 59, Harrison Road, Calcutta.
 Taraporevala Sons & Co., Bombay, Messrs. D. B.
 Thacker & Co., Ltd., Bombay.
 Thacker, Spink & Co., Ltd., Calcutta and Simla.
 Tripathi & Co., Booksellers, Princes Street, Kalbadoli Road, Bombay, Messrs. A. M.
 University Book Agency, Kachari Road, Lahore.
 Upper India Publishing House, Ltd., Literature Palace, Ammuddaula Park, Lucknow.
 Varadachary & Co., Madras, Messrs. P.
 Venkatesubhan, A., Law Bookseller, Vellore.
 Wheeler & Co., Allahabad, Calcutta and Bombay, Messrs. A. H.
 Young Man & Co., Ajmer and Eserton Road, Delhi,

* Agent for publications on Aviation only.

CONTENTS.

	PAGE.
CHAPTER I.—Introductory	1
CHAPTER II.—Brief account of compulsory insurance in other countries	4
CHAPTER III.—Risks covered by insurance	10
CHAPTER IV.—Analysis of Motor Vehicle Accidents in India	11
CHAPTER V.—The extent to which the legal liability for damages in accidents is at present discharged	26
CHAPTER VI.—Opinions for and against compulsory insurance	30
CHAPTER VII.—The cost of insurance and its effects	33
CHAPTER VIII.—Areas under compulsory insurance	39
CHAPTER IX.—Conclusions regarding compulsory insurance	40
CHAPTER X.—State insurance	42
CHAPTER XI.—Safeguards for third parties	43
CHAPTER XII.—Alternatives to insurance	46
CHAPTER XIII.—Co-operative insurance	47
CHAPTER XIV.—Control over companies	49
CHAPTER XV.—Third parties and their rights	50
CHAPTER XVI.—The enforcement of compulsory insurance	51
CHAPTER XVII.—The position of Indian States	52
CHAPTER XVIII.—“ Safety First ” measures	53
CHAPTER XIX.—The venue of legislation	56
CHAPTER XX.—Summary of recommendations	57

APPENDICES.

APPENDIX 1.—Questionnaire	59
APPENDIX 2.—Extracts from relevant laws	63
APPENDIX 3.—List of non-official witnesses who submitted—	
(i) evidence both orally and in writing ;	72
(ii) oral evidence only, and	74
(iii) evidence in writing only	74

(ii)

NOTE.

The total cost of the Committee, including the cost of printing the report, is estimated to be Rs. 47,900.

X81 (D513).2.N3t
G7

REPORT

OF THE

MOTOR VEHICLES INSURANCE COMMITTEE.

CHAPTER I.

INTRODUCTORY.

The development of motor transport in India has been the subject of anxious consideration by the general public and the various governments in India for a very long time. The first attempt to co-ordinate opinions on the question was made in 1931, in September of which year a Road Conference assembled in Simla. We are only concerned with one aspect of this question: that of compulsory insurance of motor vehicles which was included in the model motor vehicles rules, which were framed in 1932, on the recommendation of this Conference. The proposal was not approved at that time but again came to the fore at the Road-Rail Conference of April 1933 and the opinions of local Governments were invited. For various reasons no immediate action was then taken though compulsory motor insurance was, as is described later in our report, introduced in certain areas by the Government of Bombay. The proposal was again revived at the Session of the Transport Advisory Council in July 1936 and as a result of a recommendation by that body the Government of India appointed our Committee to investigate the proposal.

2. We give below the Resolution of the Government of India appointing the Committee and containing the terms of reference to it:—

RESOLUTION.

DEPARTMENT OF INDUSTRIES AND LABOUR.

PUBLIC WORKS BRANCH.

New Delhi, the 4th November 1936.

No. C.-99.—The question of enforcing compulsory insurance of motor vehicles against passenger and third party risks as a means of promoting public safety and convenience has been under discussion for several years and a definite recommendation for the appointment of a Committee to report on the question was made by the Transport Advisory Council, at its meeting in July 1936. In view of the growth of motor transport in recent years and of the rising toll of accidents, the Governor General in Council considers that the time has come when an attempt should be made to collect all available data on this difficult subject so that a decision may be facilitated. He has accordingly decided, after consulting local Governments

to appoint a Committee to take such evidence as it considers desirable and to submit a report.

2. The terms of reference to the Committee are as follows:—

- (1) The extent to which motor accidents result in injury or death in circumstances where claims for compensation would lie but cannot in fact be recovered;
- (2) the cost of policies of insurance to cover (i) passenger, and (ii) third party risks in relation to their possible effect upon the taxable capacity of the vehicles, and the cost of operating them;
- (3) to what extent owners of motor vehicles and in particular of public motor vehicles are already insured against third party risks; and whether it is desirable that certain classes of motor vehicles should be compulsorily insured against such risks, and if so, what classes, and the amounts for which vehicles of such classes should be insured to cover (i) passenger, and (ii) third party risks;
- (4) in the present state of insurance development in this country whether any special conditions should attach to insurance policies for these purposes, e.g., debarring the insurer from evading a liability on the ground of flaw in the contract between him and the insured or default by the insured;
- (5) if insurance is to be made compulsory, whether it is desirable to impose special conditions upon insurance companies which may transact this class of business, and if so, the nature of those conditions;
- (6) whether it is necessary or desirable that local Governments should specify the companies with which such policies may be effected;
- (7) any other questions which may arise out of the examination of this subject and have a bearing on the question of compulsory insurance.

3. The constitution of the Committee will be as follows:—

Chairman.

The Hon'ble Mr. N. J. Roughton, C.I.E., I.C.S.

Members.

Mr. Nurmahomed M. Chinoy, Managing Proprietor, The Bombay Garage, Bombay.

Mr. Ratan Mohan Chatterjee, M.B.E., Solicitor, Calcutta.

Secretary.

Mr. C. H. Reynolds, I.P.

4. The headquarters of the Committee will be at New Delhi, where it is expected to assemble on the 20th November 1936. The Committee will prepare and notify its programme in due course. Meanwhile persons who desire to be called as witnesses should apply in writing to the Secretary of the Committee care of the Department of Industries and Labour,

Government of India, New Delhi, giving their full names and addresses, together with a brief memorandum on the points on which they desire to give evidence.

5. The Government of India hope that local Governments and Administrations will afford the Committee all the assistance it may require and supply it with any information it may ask for.

S. N. ROY,

Offg. Secy. to the Govt. of India.

3. In accordance with the terms of the Resolution the Committee assembled in New Delhi on the 20th November 1936 and issued a questionnaire which is reproduced in Appendix 1 to this Report. The widest possible publicity was given to the questionnaire, and all local Governments, associations and individuals interested in this important matter were invited to come forward and submit their views.

4. The Committee then proceeded on tour on the 10th December 1936 and returned to Delhi on the 18th February 1937, where the hearing of evidence was concluded on the 25th February. Written evidence was tendered by all the local administrations in India, and in addition the Committee, in the course of its tour, examined representatives of the Governments of Bengal, the Central Provinces, Madras, Bombay, Sind, the Punjab, the United Provinces and Bihar. Oral evidence was tendered by 53 non-officials representing insurance interests, the motor vehicles distribution industry, companies, associations, both co-operative and otherwise and individuals engaged in the business of mechanical transport by road, commercial bodies, automobile associations, safety first associations and the general public.

CHAPTER II.

BRIEF ACCOUNT OF COMPULSORY INSURANCE IN OTHER COUNTRIES.

5. Before proceeding with the examination of the subject before us we think it useful to give a brief history of compulsory motor insurance in Great Britain, on whose practice our proposals are based, and in certain other countries. The great increase in the amount of traffic on the roads of Great Britain together with a corresponding increase in the number of accidents brought the question of insurance against third-party risks into prominence in 1928. It was recognised that the general growth of motoring and the easy facilities for hire-purchase had led to a large increase in the number of motor owners with little financial backing. Insurance was abandoned by some as an economy with the result that, when a judgment was obtained against them for damages due to their negligence, the injured party was unable to obtain satisfaction. By that time compulsory insurance had been introduced in certain other countries, and it was felt that the question of its introduction into Great Britain should be included in the several transport and traffic problems to be considered by the Royal Commission on Transport which was appointed in 1928.

6. A draft Road Traffic Bill was prepared by the Ministry of Transport for the Commission's consideration and also for eliciting public opinion by circulation. Part IV of this draft bill provided for compulsory insurance against third-party risks by owners of public service vehicles in cases where the owner was not in a position to carry his own risk. There was no suggestion of making such insurance generally applicable to all motorists. Representations to the Commission were so forceful, however, that the Commission in its first report, "The Control of Traffic on Roads", dated the 19th July 1929, recommended that the case for compulsory insurance was so strong that an attempt must be made to deal with it. The Commission further made certain proposals based largely on the provisions of the New Zealand Act as to the lines on which legislation should be enacted. It should be made quite clear, however, that the principle underlying the Commission's recommendation was that compensation should be assured only in those cases where the motorist was legally liable. It was never suggested, at any time, that a person should receive compensation for an accident due to his own carelessness or fault, or where there had been contributory negligence on his part.

7. The Road Traffic Act, 1930, was the outcome of the report referred to above, in conjunction with a subsequent report on "The Licensing and Regulation of Public Service Vehicles". Part II of this Act embodies the general scheme for provision against third-party risks arising out of the use of motor vehicles. The main principles are as follows:—

- (a) It is an offence for any person (subject to certain exceptions) to use or to cause or permit any other person to use any motor vehicle on the road unless there is in force in relation to such user in respect of third-party risks a policy of insurance or a security which complies with the requirements of the Act (Section 35).
- (b) The policy must be issued by an authorised insurer and must cover third-party claims in respect of the death of, or bodily

injury to, any person, caused by or arising out of the use of the vehicle on a road, excepting in the case of persons in the employ of the assured or passengers in any vehicle in which they are not carried for hire or reward. (Section 36).

- (c) No insurance policy or security is valid for the purposes of the Act until a certificate of insurance or of security in the prescribed form has been issued to the person concerned by the insurer or giver of the security. [Sections 36 (5) and 37 (2)].
- (d) Any condition in the policy or security purporting to avoid liability in the event of some specified thing being done or omitted to be done after the happening of the event giving rise to a claim which is required to be covered by the Act, is of no effect, but this does not prevent the insurer or giver of the security from recovering subsequently from the assured or the person to whom the security was given (Section 38).

8. The Act came into force on the 1st January 1931, but before long it became apparent that that the intention of the Act was being defeated in some cases by avoidance of liability on the ground of non-compliance with the conditions of the policy, or mis-statements, or suppression of material facts. It therefore became necessary to incorporate the following provisions in the Road Traffic Act, 1934:—

- (a) If judgment is obtained by a third-party in respect of a claim which is required to be covered under the 1930 Act, an insurance company cannot repudiate liability unless and until it has obtained from a Court of law a declaration that apart from any provision contained in the policy, it is entitled to avoid such liability on the grounds that the policy was obtained by the non-disclosure of a material fact or a representation of fact which was false in some material particular. (Section 10).
- (b) Any restriction of liability in a policy by reference to such matters as for example, the age or physical condition of the persons driving, the condition of the vehicle, the number of persons or weight or nature of goods carried, etc., shall be of no effect as regards claims required to be recovered by the 1930 Act. (Section 12).

In each of these two cases, however, the insurer can subsequently recover from the assured just as in cases falling under section 38 of the 1930 Act.

9. Part V, of the *Saorstát Éireann*, Road Traffic Act deals with this subject. Indemnification in respect of injuries to the person is compulsory as in England, and there must be in addition indemnification in respect of damage to property up to the amount of £1,000. The indemnification can be either by

- (i) an approved policy of insurance,
- (ii) an approved guarantee, or
- (iii) an approved combined policy and guarantee.

10. The driving of a vehicle by a person other than any one covered by the policy or guarantee is an offence, and in such a case the owner is also

liable unless he can show that the vehicle was being driven without his consent, and, either he took all reasonable precautions to prevent such vehicle being driven, or the driver was a servant acting in direct contravention of his orders. In the case of a conviction under the foregoing, if the illegal and negligent use of the vehicle has resulted in death or injury, the criminal court passing sentence can inflict a fine which it may award as damages to the injured person, equal to the amount which would in the court's opinion have been awarded in an action for damages in a civil court. Payment of such a fine is a valid defence in any subsequent civil action; and in addition the plaintiff has the right of appeal if he is dissatisfied with the amount awarded.

11. In the event of the insolvency of any insured owner, all moneys payable to him under any policy or guarantee, shall be utilised in discharging in full all valid claims by third parties against him, and no part shall rank as assets or be available for the payment of his other debts. If the assured cannot be found, the injured may with the leave of the court proceed against the insurer direct. Again, injured parties have preferential rights against the deposit which the law requires an insurer to make in the event of his becoming bankrupt. Finally the insurer cannot raise the defence that the contract of insurance is void owing to fraud or misrepresentation, if the person responsible therefor has not been prosecuted and convicted under the relevant section of the Irish Act.

12. The New Zealand Motor Vehicles Insurance (Third Party Risks) Act, 1928, came into force on the 1st January 1929.
New Zealand. Under this Act insurance against third-party risks is compulsory without any limit as regards the amount, but the insurance company is not liable to indemnify the owner against any claim,

- (a) in respect of the death of or injury to any person living with the owner as a member of his family or to any relative of the owner where the degree of relationship is not more than the fourth;
- (b) in respect of the death of or injury to any person in the service of the owner at the time of the accident; and
- (c) in respect of the death of or injury to any person driving or riding in a private vehicle.

An insurance policy, however, must cover fare-paying passengers in a vehicle plying for hire with limits of £2,000 in respect of any one passenger and £20,000 in any one accident. Liability cannot be avoided on the ground that the use of the vehicle was unauthorised.

13. Bad risks in the form of dangerous drivers are governed by section 14, which gives insurance companies the statutory right to apply to a stipendiary magistrate to cancel a driving licence held by the owner of any motor vehicle on the ground that the safety of the public is being unduly endangered.

14. In practice a motor owner at the time of applying for registration of his vehicle is given, in addition to his registration form, an insurance nomination form. On the back of this form is a list of all insurance companies who have notified the Registrar of their willingness to do business

under the Act, and a schedule of the rates of premia for all types of vehicles. The owner is covered against all risks under the Act from the time of paying his premium. The nomination form is sent to the company elected by him and is valid for the period of registration; nor can it be cancelled either by the owner or the company unless the vehicle is destroyed or the consent of the Minister of Transport has been obtained.

15. Premium rates were fixed by an Order in Council after joint consideration of material statistics by Government and life insurance companies. The resultant rates are low. For instance third party insurance of a private motor car costs only seventeen shillings. For a 7-seater bus the premium is £7, with proportionate increases according to seating capacity.

16. From the report of the Commissioner of Transport it appears that up to 1934 the claims ratio to premium revenue varied from 65·94 per cent. to 89·57 per cent. In 1935, however, the ratio rose to 136·30 per cent. the premium revenue being £211,709 against £288,554 for claims paid and the estimated liability for outstanding claims. This we have been informed by an insurance representative, who desires to remain anonymous, is due to juries being unduly generous in their awards, and insurance companies are desirous of replacing them by an official who is expected to take a more impartial view of matters. It is probable that premium rates will be revised.

17. Insurance companies are required to deposit £10,000 before being permitted to operate. Other points of importance are:—

- (a) The contract of insurance continues notwithstanding any change in the ownership of the vehicle.
- (b) An insurance company cannot avoid its liability on the plea that the assured has made a false or misleading statement for the purpose of obtaining a contract of insurance. It can, however, in such cases recover from the assured who is, in addition, liable, on summary conviction, to a fine of £100.

18. Finally under an agreement made between the insurance companies and the Minister of Transport, any person who has been injured by an unknown vehicle in circumstances which would have resulted in a successful claim for compensation, had the vehicle been known, can apply to the Commissioner of Transport for consideration of his case, which is then referred to a Board of Arbitration. This Board consists of three members, one appointed by the claimant, one by the underwriters, and the third, a stipendiary magistrate, by the Commissioner of Transport. The arbitrators can, if they hold the claim to be proved, award compensation not exceeding £1,000 to any one person or £5,000 in the aggregate to the persons injured in any one accident. This amount is paid by the underwriters (insurance companies) in proportion to the premium revenue received by them.

19. The following summary has been compiled from copies of the Swedish Acts and other documents obtained for us by Mr. S. Sundgren, Consul for Sweden, Bombay.

Sweden.
Third party insurance in Sweden became compulsory from the 1st January 1930, as a result of the growth of road traffic accidents. The right is given to an injured party to recover damages awarded against the owner or driver of a motor vehicle from the insurers. Liability extends

to damage to property as well as to the person, but is limited to 20,000 Swedish crowns to any one individual, 60,000 in any one accident, and 10,000 for property. In the case of passenger vehicles plying for hire, the limit is increased by Kr. 5000 for every seat over seven.

20. In order to secure that injured parties receive the compensation to which they are legally entitled, it has been laid down that where there is no insurance, or the insurer cannot be identified, all authorised insurers shall be jointly liable for the damages awarded. They are similarly jointly liable for any balance in a case where a policy has been taken out for less than the prescribed minimum, but can recover the same from the company issuing the policy, who in turn has a right to proceed against the policy holder. The cost of all such payments is apportioned annually amongst all authorised insurers according to their premium income. Further protection is afforded to third parties by rendering invalid conditions in insurance policies which relieve the insurer of liability in the event of driving by an unlicensed driver, drunkenness or gross negligence by the driver, and use other than in accordance with the terms of the policy; in such cases, however, the insurer has the right to proceed against the assured.

21. Such insurance is subject to state supervision and only duly authorised companies can undertake the business. Unless the articles of a company prescribe that its activities are limited to include only certain areas or classes of people, it cannot refuse to accept any proposal. Premium rates must be reasonable, and alterations in rates, with the reasons therefor, must be notified to the supervising Government department. Maximum rates can if necessary be fixed by statute. Competitive working costs must not be added to the ordinary cost loading. The allowance for profits must not exceed 5 per cent. of gross premia, and excess profits are transferred to a special fund to cover subsequent deficits or to form a basis for premium reductions.

22. In order to obtain a greater uniformity of settlement a Joint Claims Settlement Bureau has been set up with a Chairman appointed by the State and to this Bureau are referred all important issues capable of being settled out of court before an offer of settlement is made to the claimants. In the case of a contract of insurance which has been cancelled, liability continues for a period of 30 days from the date on which such cancellation is notified to the registration authorities. It is incumbent on a plaintiff to notify the insurer of any proceedings taken against an owner, so that the insurer can take part in those proceedings.

23. We are indebted for the following information to Dr. F. V. Tousek, Czechoslovakia. Consul for the Czechoslovak Republic in Calcutta.

Compulsory insurance against third-party risks, including damage to property whether carried on the vehicle or not, came into force in March 1935. Insurance must be effected with a company permitted to do business in the Republic, and Government has the right to fix premium rates. It has on two occasions forced companies to reduce their rates. Certificates of insurance must be issued by companies within ten days from the payment of premium and must be carried on the vehicle when driven. A security deposit can be substituted for insurance, the limit in either case being fixed by Government. A person driving a car not covered by insurance can be compelled to pay to a special fund the premium required for his vehicle and an additional premium for the period he has

remained uninsured up to a maximum of three years. This fund is also augmented by contributions from insurance companies amounting to one per cent. of their annual premium revenue. It appears that discretionary grants are made from this fund to those injured, or the dependents of those killed, in circumstances where no claim for compensation lies. It can also be used for any purpose which has for its object the prevention of accidents, *e.g.*, Safety First Education.

24. As far as can be ascertained Massachusetts is the only State which United States of America has adopted compulsory third party insurance in respect of all classes of motor vehicles. Several other States have what might be termed "Financial Responsibility Laws" whereby after the driver of a car is involved in a certain type of accident he must prove his financial responsibility (usually in the form of an insurance policy or bond or deposit of securities) before he can again legally drive the car. This, however, as a witness before the Royal Commission on Transport observed, is not very consoling to a person who has been injured.

25. The majority, in fact almost all, of the States have, however, their own laws or regulations to provide that public carriers shall have adequate resources to meet claims made against them through negligently causing injury or death to human beings or loss or damage to property. It is only to be expected that with so many States in the Union there should be considerable variation in their respective laws, but they generally provide either for the filing of a surety company's bond, or a policy of indemnity assurance, with the Commission that controls State transport. In some cases the amount of the bond or insurance is specified by law, in others fixation of the amount is left to the discretion of the Commission which, in doing so, presumably is guided by the nature of the vehicle and the circumstances under which it is operated. Some States dispense with the bond or insurance if the transport operator can produce adequate proof of his ability to meet all claims for damages arising out of accidents. It is interesting to note that the State of Texas also requires insurance against claims under the Workmen's Compensation Act, and that Louisiana has included in its law a provision which is very similar to the substance of the English Law Reforms (Miscellaneous Provisions) Act, 1934, which we have discussed later in this Report. Several States have also realised the necessity of providing that the rights of the third-party shall be absolute, notwithstanding conditions in the policy to the contrary (*cf.*, Section 38, Road Traffic Act, 1930, and Sections 10 and 12 Road Traffic Act, 1934.) A further point of interest is that, whereas the State of Vermont law provides that the insurer or surety may be made a co-defendant with the motor owner in a suit for damages, yet the North Dakota law prohibits such an action and even forbids any disclosure or comment to the jury that the insurer or surety is ultimately liable.

CHAPTER III.

RISKS COVERED BY INSURANCE.

26. The object of compulsory insurance is to secure that injured parties are not deprived of the damages due to them, owing to the low financial status of the owner or driver of a motor vehicle, where negligence is the cause of the injuries. Where there is no negligence on the motorist's part, he incurs no liability; and it is unreasonable to expect any one to insure against the consequences of an act in the performance of which he, or his agent, is not to blame. Accidents in the truest sense of the word are inevitable in every sphere of life and the responsibility for providing safeguards against them rests with the individual who may suffer from them. A considerable amount of misunderstanding exists at present among the general public as regards the responsibility for damage caused by motor vehicles when accidents occur: we therefore take the opportunity to emphasize the true position.

CHAPTER IV.

ANALYSIS OF MOTOR VEHICLE ACCIDENTS IN INDIA.

27. We have, through questions 1, 3 and 4 of our questionnaire, endeavoured to obtain information as to the recent development of motor traffic in India, the growth of accidents during that development and the approximate extent to which different classes of motor vehicles are responsible for those accidents. We asked for information for the "last four years", but some provinces took this as applying to the period 1932-1935 inclusive, others to the period 1933-1936. Some again have furnished figures for calendar years, others for fiscal years. The latter differences in period may for all practical purposes be regarded as immaterial. The former, however, only enables us to give an approximately complete picture for the period of the three years 1933 to 1935.

28. The figures supplied to the Committee by local Governments and Administrations are given below in tabular form, followed by explanatory notes:—

TABLE A.

(a)	1933.			1934.			1935.		
	Vehi- cles.	F.	N. F.	Vehi- cles.	F.	N. F.	Vehi- cles.	F.	N. F.
Assam	2,649	35	80	2,823	38	107	3,051	50	122
Bengal	20,217	165	1,834	21,750	166	2,007	23,570	206	2,371
Bihar	6,118	51	242	6,617	73	212	6,767	92	253
Bombay	23,224	185	2,229	24,493	217	2,844	26,551	218	3,164
Central Provinces	5,945	54	395	5,909	56	400	6,278	68	463
Madras	17,849	179	748	18,962	172	949	19,522	214	1,000
N.-W. F. Province	1,731	41	128	1,862	50	130	2,194	49	135
Orissa	900	4	17	969	13	20	993	9	38
(b) Punjab . . . . .	..	139	277	..	179	400	10,000	191	624
Sind	3,155	10	184	3,196	11	233	3,488	21	279
(c) United Provinces	13,397	74	411	14,881	116	366	15,794	164	934
Ajmer-Merwara . . . . .	..	..	..	773	4	38	916	10	47
Baluchistan	1,758	2	40	1,949	6	56	2,149	3	35
Coorg	270	..	1	341	1	..	338	4	7
Delhi	2,403	15	25	2,128	33	84	2,704	10	149
(d)	99,616	954	6,611	106,653	1,134	7,946	124,315	1,309	9,621

NOTES—

- (a) F indicates fatal accidents, N. F. not fatal but resulting in injury to a human-being.
- (b) The Punjab Government submitted no figures of vehicles for the period under review. From their taxation returns, however, they were of opinion that the number of private cars, taxis, buses and lorries on the road, during the quarter ending 30th June 1936, was 9,671. They stated that police figures related to vehicles registered rather than to those actually in use. An approximate figure of 10,000 has been allowed.
- (c) The United Provinces Government expressed doubt as to the accuracy of their figures relating to accidents owing to the divergencies in the replies submitted by the different districts.
- (d) It is doubtful whether all provinces have included motor cycles in their totals.

We, therefore, cannot be reasonably sure that the figures supplied are correct in every particular.

29. Some time prior to our commencing our enquiries the Government of India asked all local Governments to furnish information as to the various classes of vehicles in their respective jurisdictions. It will be sufficient for our purpose if we quote the figures given for the year 1935-36.

TABLE B.

	Motor Buses (Passen- ger).	Motor Lorries (Goods).	Motor Taxis.	Motor Cars (Private).	Motor Cycles.	Total.
(a) Assam . . .	512	1,179	278	2,241	128	4,338
(b) Bengal . . .	4,765	..	..	18,646	1,139	24,550
(c) Bihar . . .	1,099	322	..	4,739	411	6,571
Bombay . . .	4,500	3,260	1,020	13,460	760	23,000
(d) Central Provinces	1,518	130	325	2,912	655	5,540
Madras . . .	3,621	964	319	13,254	1,364	19,522
(b) North-West Fron- tier Province.	3,530	..	..	4,783	1,637	9,950
Orissa . . .	157	16	92	508	35	808
Punjab . . .	1,349	5,774	604	7,259	1,573	16,559
Sind . . .	541	414	346	2,424	492	4,217
(a) United Provinces	4,132	273	746	11,148	1,354	17,653

NOTES—

(a) The figures are for the calendar year 1935.

(b) Goods lorries are included with passenger buses and taxis with private cars.

(c) Taxis are included with motor buses.

(d) The figures are up to August 1935.

30. Similarly we have been able to extract from Police Annual Administration Reports certain information which helps to throw some light on the volume of motor accidents in the country and the number of persons killed and injured in those accidents. Assam, the North-West Frontier Province, and Bengal Presidency proper make no reference in their reports, but a tabular summary of the remainder is indicative of the increasing extent of the loss of life and of other human injury arising out of the growth of motor traffic.

TABLE C.

	1933.			1934.			1935.		
	Total Acci- dents.	Kill- ed.	In- jured.	Total Acci- dents.	Kill- ed.	In- jured.	Total Acci- dents.	Kill- ed.	In- jured.
Bihar and Orissa . . .	356	48	Not stated.	329	83	Not stated.	461	91	Not stated.
Bombay City	3,500	70	1,739	4,052	85	2,001	4,720	86	2,278
Bombay Presidency (excluding City).	1,047	124	1,427	1,223	112	1,383	1,450	141	1,399
Calcutta	Not stated.	99	1,676	Not stated.	80	1,864	Not stated.	98	2,173
Central Provinces . . .	599	61	Not stated.	691	58	Not stated.	867	68	463
(a) Madras	677	154	Not stated.	830	169	Not stated.	920	207	Not stated.
Punjab	410	139	272	579	191	371	805	204	777
(b) Sind	Not stated.	13	196	Not stated.	13	301	Not stated.	13	299
United Provinces . . .	Not stated.	143	832	Not stated.	152	800	Not stated.	167	877
		851	6,142		943	6,725		1,075	8,265

NOTES—

(a) The figures given show the number of fatal accidents only, not the number of lives lost.

(b) Karachi City only.

Deaths, it will be seen from these figures, have increased by over 25 per cent. and reported injuries to human beings by nearly 85 per cent. in two years. The corresponding increase in vehicles is only about 12½ per cent.

81. If we take the highest figure for vehicles, and the number of accidents instead of persons where the number of killed or injured is not given, we arrive at the following result:—

TABLE D.

Statistics for 1935.

(The letters in brackets indicate the table from which the figures are taken.)

	Maximum number of vehicles.	Persons killed.	Persons injured.
Assam	(B) 4,338	(A) 50	(A) 122
Bengal	(B) 24,550	A) 206	(A) 2,371
Bihar	(B) 6,767	(A) 92	(A) 253
Bombay City	} (A) 26,561	{ (C) 86	(C) 2,278
Bombay Presidency		{ (C) 141	(C) 1,399
Central Provinces	(A) 6,278	(A) 68	(A) 463
Madras	(A) 19,552	(A) 214	(A) 1,000
North-West Frontier Province	(B) 9,950	(A) 49	(A) 135
Orissa	(A) 992	(A) 9	(A) 38
Punjab	(B) 16,559	(C) 204	(C) 777
Sind	(B) 4,217	(A) 21	(C) 299
United Provinces	(B) 17,633	(C) 167	(A) 934
Ajmer-Merwara	(A) 916	(A) 10	(A) 47
Baluchistan	(A) 2,149	(A) 3	(A) 35
Coorg	(A) 338	(A) 4	(A) 7
Delhi	(A) 2,704	(A) 10	(A) 149
	1,43,515	1,334	10,305

32. In 1935, therefore, taking the most liberal estimate, 1,43,515 motor vehicles were concerned in at least 1,334 deaths and in injuries to at least 10,305 other persons. This represents on an average 93 deaths and 718 persons injured per 10,000 vehicles. It is, however, safe to say that the number of vehicles actually in use was far less *cf.* note (c) to Table A, and it is also probable that, owing to defective reporting, more people were killed and the number of killed and injured, particularly the latter, is understated. It is a reasonable assumption that the actual ratio of automobile deaths per 10,000 vehicles in India in 1935 was over 100.




















33. We reproduce below a chart of the incidence of automobile deaths in other countries which we have extracted from "Automobile Facts and Figures" 1936 Edition, published by the Automobile Manufacturers Association, Inc., New York. This chart is based on figures collected by the National Safety Council and refers to the year 1935.

The same booklet estimates the number of motor vehicles in British India including Burma in 1935 at 104,852 which is a useful check on the figures given by us in Table A.

WORLD MOTOR VEHICLE ACCIDENTS

(FIGURES FROM NATIONAL SAFETY COUNCIL.)

Automobile deaths per 10,000 motor vehicles.

NEW ZEALAND	7.4	
UNION OF S. AFRICA	8.9	
CANADA	9.9	
DENMARK	12.5	
UNITED STATES	13.6	
AUSTRALIA	13.9	
NORWAY	14.0	
IRISH FREE STATE	22.1	
SWEDEN	26.0	
ENGLAND AND WALES	30.6	
BELGIUM	36.5	
CHILI	40.0	
NETHERLANDS	44.0	
SCOTLAND	44.8	
CEYLON	46.5	
GERMANY	46.6	
SWITZERLAND	50.0	
ITALY	59.4	
INDIA (at least)	93.0	

The portion relating to India we have added ourselves. Its position in the chart states in graphic form the most important argument for the introduction of compulsory insurance. A similar chart illustrating the incidence of fatal accidents in the various provinces is given below. It is based, except for the cities of Bombay, Madras and Calcutta, on statistics furnished by local Governments in Table A. In the case of the Punjab we have accepted the local Government's opinion that the number of vehicles in use is about 10,000 *vide* note (c) to Table A.

Automobile deaths per 10,000 vehicles, in 1935, according to Provinces..

Population
Per Vehicle.

	BALUCHISTAN	13.9	190
	MADRAS CITY	35.0	114
	DELHI	36.9	230
	CALCUTTA	55.5	84
	SIND	60.2	1115
	BOMBAY CITY	68.8	72
(a)	BOMBAY PRESIDENCY	62.1	717
(b)	BENGOAL	88.3	2510
	ORISSA	90.6	
	UNITED PROVINCES	103.8	3060
	CENTRAL PROVINCES	108.4	2220
(c)	MADRAS PRESIDENCY	109.6	2170
	BIHAR	135.1	5570
	ASSAM	163.8	2820
	PUNJAB	191.0	2060
	N.W.F. PROVINCE	223.3	1030

- (a) Including Bombay City.
 (b) Including Calcutta.
 (c) Including Madras City.

It will be seen that there is almost as much variation in Indian provinces as there is in the different countries of the world. There is no formula as far as we can see to explain this variation. It depends neither on the number of vehicles per road mile, nor on the road mileage per square mile of area. The only conclusion that possibly can be drawn is that the incidence of mortality from motor accidents tends to increase with the density of population per motor vehicle. But as the figures show, there are exceptions to this rule.

34. One reason that has been suggested is the low standard of roads, their narrowness and poor surfacing. But this does not explain why the Punjab, which has probably a much better surfaced road system than any other province, has so much higher an incidence of fatal accidents. Some witnesses from that province, however, lay the blame on the dusty portions which lie on either side of the carriage way, and the poor visibility when one vehicle passes another. The obvious answer to this is that speed should conform to visibility.

35. Lack of road sense on the part of pedestrians is another argument put forward. "Road sense" is a term of recent origin, but it should not be allowed to develop into a catchword. There is possibly a tendency amongst the motoring community to regard it as that sense which impels pedestrians to get out of the way of motorists. At the same time it must not be forgotten that the motoring community is probably less than one per cent. of the total population of India, so that there must be road sense on both sides, and the standard of driving must be such as will meet circumstances that normally arise from other users of the road in their present mentality. Evidence has been freely given that the standard of road sense among drivers is low.

The Punjab Government states—"Among the drivers of public motor vehicles, the standard of competence is fairly high, so far as ability to control the vehicle is concerned, but there is much ignorance regarding the refinements of driving and road manners, and a good deal of carelessness."

The United Provinces Government states—"As to the standard of driving, while there is no doubt that there is much room for improvement, it is suggested that this is not due so much to the lack of ability required to pass a driving test as to lack of imagination, lack of road sense and courtesy, and ignorance and forgetfulness of the rules of the road".

36. The extent to which the mechanical unfitness of vehicles contributes to accidents is uncertain owing to the fact that statistics on this point have not, as a rule, been kept. Some provinces have stated that no figures are available. Those given by others show great variations. The United Provinces and Bengal for example were only able to report three known cases apiece in four years. The Central Provinces reported 13 from public vehicles in 1934, and 11 from private and 24 from public in 1935. Bombay City on the other hand gave a four years total of 209 from private cars, 80 from taxis, 21 from buses, and 130 from goods lorries. From the Bombay City Police Administration Report for 1935 we quote the following extract—

"Personal inspections were carried out particularly of Heavy Motor Vehicles, of vehicles running on the roads. As a result 546 vehicles, i.e., 198 cars, 264 trucks, 80 lorries, and 4 motor cycles were found to have serious mechanical defects due to

overloading and faulty maintenance, and registrations of the vehicles were cancelled till defects were rectified. In addition 2,043 heavy motor vehicles, trucks, and omnibuses were inspected at the Head Police Office. On an average each vehicle was inspected twice before certified as fit."

37. Although we have not been able to obtain figures from every province, it is clear that fatal accidents occur to a much greater extent from public than from private vehicles. This accounts for the fact that the incidence is much higher in mofussil than in urban areas. In the Punjab which has less public vehicles than private, there were in 1935, 169 fatal accidents from the former class and 22 from the latter. This may of course be an exceptional case, but we think that similar conditions obtain in other provinces, although perhaps not on the same scale. There is no doubt that this state of affairs is very largely due to the way in which public road transport has been allowed to develop, a subject which will be discussed later.

38. The extent to which negligence on the part of drivers plays a part will be found in the section immediately following.

39. Unfortunately statistics are not complete enough for us to apportion Responsibility of accurately the blame for accidents among the various different classes of classes of motor traffic; but the table below, which vehicles. has been compiled from figures supplied in the main by local Governments gives a sufficiently accurate picture.

ONE ACCIDENT PER

	1933.				1934.				1935.			
	Private Cars.	Taxis.	Buses.	Goods Lorries.	Private Cars.	Taxis.	Buses.	Goods Lorries.	Private Cars.	Taxis.	Buses.	Goods Lorries.
Assam (a).	45	24	14	12	38	18	11	11	24	18	10	10
Bihar	39	15	7	8	39	17	8	13	31	24	9	7
Bengal (including Calcutta) (a)	12	5	4	20	11	6	5	30	9	6	5	24
Calcutta only (c)	13	3	8	..	12	4	10	..	10	4	9	..
Bombay City	11	3	2	4	10	3	2	4	9	2	2	4
Bombay Presidency	18	18	15	5	12	15	10	4	12	12	11	4
Central Provinces	Not known				22	10	10	10	19	7	7	7
Madras Presidency (excluding Madras City)	40	6	17	6	30	25	12	4	25	6	12	7
North-West Frontier Province (d)	29	11	9	9	25	10	9	9	28	13	10	10
Punjab (e)	..	..	..	..	..	..	..	..	24	8	8	8
Karachi City	26	17	8	2	19	11	11	1	24	13	9	2
United Provinces (b)	..	..	..	..	..	..	..	..	68	5	29	2
Baluchistan	65	..	70	40	103	..	57	10	120	..	28	39
Delhi (f)	18	13	13	18	14	10	10	14	15	11	11	15
Compare with Great Britain	..	..	..	..	21	..	10	14	..	..	..	..

NOTES—

(a) Assam can only express an opinion that 30 per cent. of their accidents are caused by private cars, 5 per cent. by taxis, 20 per cent. by buses and 45 per cent. by good lorries. Calculations are based on this opinion.

(b) The United Provinces only give totals for four years combined. An average has been given based on the total numbers of the different classes of vehicles on the road.

(c) In Calcutta accidents from lorries and private cars are shown together.

(d) In the North-West Frontier Province lorries and buses are shown together.

(e) The Punjab figures are based on the local Government's estimate of vehicles actually on the road in 1936. In addition only figures of accidents caused by the whole class of public motor vehicles are given and they have been taken as applying to taxis, lorries and buses.

(f) In Delhi taxis and buses, and also private cars and lorries are grouped together for accidents.

40. An examination of these figures suggests that the incidence of accidents due to commercial vehicles (taxis, buses and lorries) is, as a rule, greater than that of private cars. But this must, in part, be due to the larger mileage of public vehicles. The next inference is that the increase in reported accidents is proportionately greater than the increase in vehicles on the road, though it is possible that the improvement in reporting is partly responsible for this. It may be that, with the present facilities for the purchase of cheap second-hand vehicles, there is gradually coming into existence a class of car owner possessed of a less degree of responsibility to other users of the road than existed in the car owner of say five years ago. The number of unroadworthy vehicles is probably increasing. The more powerful engines and greater speed of the modern car are factors which also contribute their quota as is remarked in the Punjab Police Annual Administration Report for 1935:—

“The increase (in the number of public vehicles registered) is not sufficient to account for the disquieting rise in accidents. There can be little question that excessive speed, facilitated by the powerful engines of modern vehicles, is largely responsible.”

41. Our general conclusion is that all classes of vehicles are concerned in the increase in accidents of all kinds, but the greater responsibility for fatal accidents rests on public vehicles.

42. We would draw attention to the disparity between the figures for the cities of Calcutta and Bombay and those for mofussil areas, particularly with regard to private cars. More accidents in a congested city area must normally be expected, but there is every reason to believe that accidents are reported to a much greater degree in such areas than they are elsewhere. This belief finds support in the fact that the incidence of fatal accidents in the cities of Calcutta, Bombay, Madras and Delhi is much lower generally than in the mofussil.

43. Many witnesses have stated before us that in their opinion less serious accidents are not reported to any appreciable extent, and that, in such cases, some amount is paid, not as an adequate compensation to the injured person, but to prevent subsequent official enquiries and a possible charge of rash driving. One witness from the Punjab went so far as to state, that in spite of the provisions of the law, he saw no necessity of reporting an accident to the police, as it would only result in his having to make frequent appearances in court. His scruples would be satisfied by paying something in the way of compensation to the dependants of the deceased person. Any comment on such an assertion is unnecessary.

44. We are of opinion, however, that if all were reported, the ratio of non-fatal to fatal accidents, especially in the mofussil, would be much greater than at present appears from Table A.* It may be noted that, whereas on the figures supplied the ratio of reported fatal to non-fatal accidents in British India is one to 8, the corresponding figures in Great Britain are one to 24.

45. It is unfortunate that, on the evidence before us, we have been unable to determine the extent to which negligence on the part of the drivers of any class of motor vehicles has been the cause of accidents, but the following general observations throw some light on this aspect of the question :—

Prosecutions for negligent driving are increasing more rapidly than vehicles. In 1933, with 2,649 vehicles on the road, there were 72 such prosecutions, or roughly speaking, one to every 39 vehicles. The corresponding figures for 1935 are 3,051, 103 and one to 29. The percentage of convictions has increased from 36 per cent. in 1933 to 47 per cent. in 1935.

Prosecutions for negligent driving have varied very little between 1932 to 1935. In 1933, there were 264 prosecutions to 6,118 vehicles, in 1935, 264 to 6,767. The former works out at one prosecution to 23 vehicles, the latter at one to 26. The percentage of convictions is well over 60 per cent. Mr. Hare, the Superintendent of Police, Hazaribagh, stated that in 1935 he had 44 accidents in his district out of which seven resulted in successful criminal prosecutions. There were six people killed and eight injured, who would have had a claim for compensation.

An alarming feature is the fact that fatal accidents have increased from 64 in 1932 to 112 in 1936, in which year 64 were caused by private cars (an increase of 30 over the preceding year) 7 by taxis, 9 by buses and 32 by lorries. Mr. Herapath, Deputy Commissioner of Police, and Mr. Sheehy, Superintendent of Police, Motor Vehicles Department, expressed the opinion that a *prima facie* charge of causing death by a rash or negligent act lay in the cases of 27 drivers of private cars, 2 drivers of taxis, 2 of buses and 9 of lorries. The increase is out of all proportion to the increase in vehicles on the road.

On an average during the three years 1933-35, the driver of one vehicle in 36 were charged under one of the sections of the law relating to rash or negligent driving. Over 65 per cent. of those cases ended in conviction. In the same period, out of the drivers concerned in 240 fatal accidents, 78 were charged under section 304-A, Indian Penal Code. During the same period approximately one goods lorry in 30 was concerned in a fatal accident. The Commissioner of Police stated in his Administration Report for 1934—

“The most noticeable feature is the constant increase in fatalities from commercial vehicles. There is no doubt that this is due very largely to lack of proper maintenance and overloading.
* * * * Compulsory insurance against third party risks for heavy vehicles will probably shortly be introduced and this should help to effect an improvement.”

In his 1935 Report he stated—

“An analysis of fatal accidents * * * shows very little difference from last year. * * * It is to be hoped that

compulsory insurance for heavy motor vehicles and the increased taxation on them will result in a considerable reduction of those semi-decrepit commercial vehicles to which I referred last year."

We note here that although fatal accidents from other classes of vehicles showed a large increase in Bombay City during 1936, those due to goods lorries and trucks fell from 43 to 32.

On an average the driver of one vehicle in 14 has been prosecuted during the period 1933—1935 for negligence in driving a motor vehicle. Out of 2,714 such prosecutions 85 per cent. have ended in conviction.

Bombay Presidency,
excluding Bombay
City.

The Deputy Commissioner of Police, Public Vehicles Department, Calcutta, has reported—

"In 1935, 2,271 accidents concerning motor vehicles, involving deaths or injuries were reported. The statistics show that 343 drivers were prosecuted in 1935 for negligent driving. Working on these figures it appears that in about 15 per cent. of serious accidents the drivers were considered responsible. I regret that no other figures are available for forming a more accurate estimate, but it is probable that the percentage quoted is unduly low."

The figures of vehicles in Calcutta reported by the Commissioner of Police apparently include those in suburban areas outside the City Police jurisdiction. The Deputy Commissioner of Police subsequently reported that there were garaged in Howrah 539 private cars, 36 motor cycles, 113 buses, 9 taxis and 409 lorries. If these are deducted, there would be in the City jurisdiction at least 13,191 private cars, 826 motor cycles, 1,055 taxis, 533 buses and 2,043 lorries in 1935. Private cars, cycles and lorries were responsible for 60 deaths, or one to 268 vehicles. Taxis were responsible for 10 deaths, or one to 106 vehicles. Buses were responsible for 28 deaths, or one to 19 vehicles. Outside Calcutta there appear to be approximately 7,500 vehicles. In 1935 it was found necessary to prosecute 757 drivers for negligent driving, i.e., the driver of one vehicle in 10. Convictions were obtained in 90.5 per cent. of the cases.

During each of the three years 1933 to 1935, prosecutions for negligent driving, etc., have been instituted against the drivers of one vehicle in 26. Convictions have been obtained in 57 per cent. of the cases. The following are extracts dealing with motor vehicle administration from Police Annual Administration Reports:—

1933.—"The number of prosecutions under the Indian Penal Code for causing death or hurt was 120."

1934.—"The total number of prosecutions under the Indian Penal Code for causing death or hurt was 110."

"In 10 (out of 20 fatal accidents in the Nagpur District) the prosecution of the driver was undertaken; convictions were obtained in 5 cases."

1935.—“An attempt has been made to classify accidents with the following results:—

	Private cars.	Public vehicles.
Rash driving	19	62
Negligence or carelessness of drivers	40	105
Fault in mechanism	11	24
Negligence of other vehicles	28	55
Negligence of pedestrians	106	78
Negligence of cattle owners	28	82
Children playing on roads	8	16
Miscellaneous	104	101
	344	523

From this it can be said that culpability undoubtedly lay on the driver in one private vehicle accident out of 6, and in one public vehicle accident out of 3, while there must be a number of other cases in which the driver had a civil, though not a criminal, responsibility.

In Madras City in the four years 1932—1936 it has been found necessary to prosecute 446 drivers for rash or negligent driving. This works out at one prosecution for every 50 vehicles. Convictions were obtained in 72 per cent. of the cases. In the mofussil 1,224 drivers were prosecuted during the same period, or one prosecution to every 44 vehicles. The following extract is quoted from the Madras City Police Administration Report for 1935:—

“The following tabulated statement gives the figures of accidents in which motor vehicles were concerned in the years 1933, 1934 and 1935:—

	1933.	1934.	1935.
Total number of accidents caused by motor vehicles	361	342	329
Number treated as mere accidents	257	231	229
Number dropped for want of evidence	16	11	8
Number ended in convictions	62	74	67
Number acquitted	12	6	8
Number withdrawn	8	11	2
Number pending trial	6	9	15

Of the 20 fatal accidents reported 10 were due to private motor vehicles, 5 to lorries, 4 to buses and one to a motor cycle.

In the private motor vehicle cases, * * * * motorists were considered to be definitely at fault in 4, and the drivers were charged. Two cases ended in discharge, the witnesses being tampered with in one, and the magistrate holding that the occurrence was purely accidental in the other. The remaining two cases are pending trial.

In the lorry cases, the drivers concerned were charged in 3 cases; 2 were convicted and one is still under trial.

Of four bus cases * * * two were charged but the magistrate found that one was a case of accident and discharged the accused. The remaining case is pending trial.”

The fact that a *prima facie* case under Section 304A of the Indian Penal Code existed in 9 out of 20 fatal accidents is significant.

Unfortunately the figures for the whole province of prosecutions for negligent driving are not readily available, but in the Lahore Tahsil alone in the year 1936, 115 cases were instituted under the relevant sections of the Indian Penal Code, and 151 under Section 5 of the Motor Vehicles Act. Out of these 82 and 63 have ended in conviction, and 7 and 79 are still pending. The percentages of convictions to cases tried are 75·9 and 87·5.

There are 2,881 motor vehicles in the Lahore District, so that even if these are all in the one tahsil, which cannot be the case, it will be seen that on an average the driver of one vehicle in 11 has had to be prosecuted. The actual figure must be much lower.

The mortality caused by public vehicles in the Punjab is alarming. In 1934 there were 147 fatal accidents caused by public vehicles as against 32 by private vehicles. For 1935 the figures are 169 and 22. In the latter year, if we accept the Punjab Government's estimate of public vehicles in the province as correct, there must have been one such accident to every 29 public vehicles. In spite of this fact, the Secretary of the Punjab Motor Union has told us in his memorandum: "The supposed horrors and suffering, resulting from the vast number of accidents occurring at tremendous speed in quick succession exist nowhere."

The following extracts from Police Annual Administration Reports throw very valuable light as to the part negligence plays in motor vehicle accidents in the province:—

1933.—"The number of motor accidents reported was 410. These accidents resulted in 139 deaths and less serious injuries to 272 persons. There were 347 prosecutions under the Indian Penal Code."

1934.—"The number of motor accidents reported during the year was 579. These accidents resulted in 191 deaths and less serious injuries to 371 persons. There were 482 prosecutions under the Indian Penal Code. * * * Drivers of public vehicles were responsible for 83 per cent. of the accidents leading to fatalities and 73 per cent. of the total. An indication of the recklessness of some drivers of public vehicles is afforded by the fact that in 14 cases such vehicles collided with level crossing gates, 11 of the drivers concerned being convicted."

1935.—"The number of motor accidents reported during the year was 805. These resulted in 204 deaths and injuries to 777 persons. There were 722 prosecutions under the Indian Penal Code. Drivers of public vehicles were responsible for 88 per cent. of accidents leading to fatalities and 75 per cent. of the total.

The Superintendent of Police, Gujrat, notes that the authorised speed is exceeded by almost every driver on the four organised services plying in that district. The Superintendent of Police, Jhelum, also comments on the excessive speed of public vehicles running on fixed timings and notes

that he has personally in many cases found that such vehicles were travelling at 45 miles per hour. The dangerous overloading of public motor vehicles is another serious offence which contributes to accidents. It occurs largely by night when drivers hope to escape detection and this has been met to some extent by nocturnal holdups. The Superintendent of Police, Ferozepore, reports that on several occasions grossly overloaded lorries were found to be running with no number plate and drove directly at any police officer who attempted to stop them."

The number of drivers prosecuted under the different sections of the law for negligence in driving motor vehicles was 205. This works out at one prosecution per 60 vehicles. Convictions were obtained in 70 per cent. of these cases. Mr. Ray, the District Superintendent of Police, Karachi, has informed us that in connection with 7 out of 18 fatal accidents in 1935-36, prosecutions under Section 304A, Indian Penal Code, had been instituted.

According to a statement supplied by the United Provinces Government, 6,410 drivers were prosecuted in four years for negligence or rashness in driving a motor vehicle. If this statement is correct, the average prosecution is one to every 9 vehicles. Convictions were obtained in 70 per cent. of the cases.

In this province, 306 prosecutions were instituted in four years. or one to every 22 vehicles. Convictions were obtained in 59.8 per cent. of these cases.

There were 120 prosecutions in 1933, 149 in 1934 and 184 in 1935. This represents one prosecution to every 15, 13 and 12 vehicles respectively. Convictions were obtained in over 80 per cent. of the cases.

There were 64 prosecutions in 1934 and 100 in 1935, convictions being obtained in 39 and 38 cases respectively. In the former year there was one prosecution to every 42 vehicles and in the latter one to every 30.

46. We think it is safe to assume that by far the greater proportion of prosecutions of negligence or rashness in driving have been direct *sequelae* of actual accidents. We have little doubt that the inference can be rightly drawn that negligence or rashness in driving is increasing to an alarming extent and in fact is responsible for a very appreciable proportion of the accidents causing loss of life or injury to the person. Our conclusions are, therefore, that:—

- (1) there is an unduly high rate of accidents in proportion to the number of motor vehicles in the country, particularly as regards fatal accidents.
- (2) accidents are increasing to a greater extent than motor vehicles;
- (3) all classes of motor vehicles are responsible for this increase;
- (4) an appreciable portion of blame can be attached to drivers.

47. We have endeavoured in the foregoing to summarise the extent of motor vehicle accidents in India in order to compare the incidence, particularly of those ending fatally, with that existing in other countries, the extent to which different classes of vehicles are involved, and the degree

of liability attached to drivers. It must be remembered however that this summary is based on statistics in some cases inadequate and in others somewhat unreliable. We are strongly of opinion that the time has come when more than a passing attention should be given to this important matter affecting public safety. An attempt has been made in some provincial Police Administration Reports to discuss it. Others merely content themselves with giving bare figures of killed and injured. Others again say nothing. The Safety First Association of India in their memorandum to us state: "The present system of reporting (accidents) cannot be satisfactory since it is made with the object of ascertaining the responsibility and not the cause. Accident reporting is the foundation of accident prevention in determining the most serious hazards in directing prevention work, and in measuring its effectiveness". Professor Gadgil of the Gokhale Institute of Politics and Economics told us that from his own enquiries he found that accident records, as at present maintained, were not of such a character as to warrant any definite statistical conclusions being drawn from them. Other official witnesses whom we have questioned on this point have invariably replied that co-ordination in the system of reporting does not exist. We, therefore, recommend that serious consideration be given to the question of ensuring that accidents are reported in a uniform manner, so that at the end of a year it shall be possible to analyse them in detail. It is only after definite knowledge of the causes underlying their occurrence, that measures can be taken for their prevention. In some countries, we believe that printed forms are provided for the reporting of accidents, thus facilitating the annual compilation of most useful information. We believe that the adoption of this course in India would lead to useful result with no appreciable increase of work. We recommend that this be done.

CHAPTER V.

THE EXTENT TO WHICH THE LEGAL LIABILITY FOR DAMAGES IN ACCIDENTS IS AT PRESENT DISCHARGED.

48. It necessarily must be a matter of considerable difficulty to determine the extent to which the victims of motor accidents succeed in obtaining compensation at present, as no statistics are maintained, nor is it easy to determine whether in particular cases any legal liability lies on the owner or driver. We give below typical opinions regarding the settlement of claims which have not been brought to Court. The Ratnagiri District Co-operative Motor Owners' Association, which insures 194 buses belonging to its members, mentions 12 claims settled for Rs. 1,457 in the last 4 years. The Bengal Bus Syndicate asserts that compensation is paid in practically every case, and the Patna and Dinapore Bus Associations, that compensation was usually paid by owners to settle matters amicably. The evidence of these associations is not supported by other evidence, and must be regarded as biased. The Bombay Electric Supply and Tramway Company gives figures of compensation paid as an act of grace since 1932, and there are doubtless other concerns of standing whose record in this respect is satisfactory. The only positive evidence that claims are made and paid to any extent comes from the Principal Agent at Karachi to the Ocean Accident and Guarantee Corporation, who is of opinion that, where third party claims for compensation lie, they are generally made. His Company had had 75 such claims in the last 12 months. We observe that this evidence and that of the Ratnagiri Co-operative Association relates to areas in which insurance is at present compulsory, and does not affect our conclusions as regards other areas.

49. There is a very great preponderance of opinion, both official and non-official, supporting the contrary view. Compensation generally consisting of small sums is at times paid to avoid criminal liability either by way of inducement to potentially adverse witnesses, or in the more regular procedure of compounding cases under sections 337 and 338 of the Indian Penal Code. Clearly this inducement to pay compensation does not exist in the case of serious accidents where prosecution, if negligence on the part of the driver is established, is almost inevitable. Such local Governments as express an opinion are unanimous on the point, and they are supported by a large body of other evidence of which we select a few examples. The Gokhale Institute of Politics and Economics has studied for many years conditions of public transport in the Bombay Deccan, and has made a special *ad hoc* investigation in view of our enquiry. The Institute gives a table based on enquiries made from 98 bus owners operating 268 buses in 3 districts. According to this Rs. 600 were paid in respect of 29 cases which did not come to Court, an average of a little over Rs. 20 per case. The conclusion of the Institute is that "Victims of accidents are usually ignorant of their rights; hence most potential claims are settled for small sums." Much weight must be attached to this opinion which is based on scientific enquiry. The Proprietor, Gulshan Motor Service, knows of a case in which 3 persons were killed and 9 injured, but were unable to obtain compensation probably owing to absence of insurance. The Punjab Motor Dealers' Association says that cases in which compensation is paid are very few, indeed negligible. A former Licensing Officer, Lahore, says that the public is generally

unaware of their civil rights in the matter of making claims for compensation. The Karachi Indian Merchants' Association considers that cases occur of compensation without recourse to a court but are rare. The Manager, Bombay Garage, Nagpur, thinks that the practice is that when there is a serious accident the bus owner goes to the injured party and promises something—say Rs. 25 or Rs. 30 to persuade them not to file a suit. The President, Motor Owners and Drivers Association, Jubbulpore, observes that, where there are accidents, in most cases the injured party does not get compensation. The South Indian Chamber of Bus Owners, Madras, states that in 90 per cent. of accidents no claims are made through ignorance or fear of losing cases. The Sub-Divisional Officer, Chatra (Bihar), endeavoured to get compensation in 2 cases last year, but failed as owners refused on the ground that the drivers were responsible. (This statement of the law is presumably incorrect.) The Secretary, Taxi Drivers' and Owners' Union, Delhi, says that in small cases a little compensation is paid but not for big accidents as owners cannot then afford to pay. The United Provinces Commissioners report only one case of compensation in which Rs. 25 were paid to a child for the loss of a hand.

50. Our conclusion is that compensation sometimes is paid without recourse to legal action in the case of minor accidents by public vehicles, though it is generally inadequate; but that such payments are rare for serious accidents.

51. Owing to the shortness of the time at our disposal and the consequent impossibility of a systematic examination of the records of civil courts, we have been unable to obtain full information regarding the fortunes of litigants in civil courts. Such information as is available relating to the last 4 years is given below:

In Bengal 54 cases were instituted from 1932 to 1935, in 35 of which compensation was awarded.

Six cases are reported by Government, 8 in 1932 and one each in 1933, 1934 and 1935. No compensation was paid in any. The President, Motor Owners and Drivers Association, Jubbulpore, knows of 4 cases in the last 2 years of which 3 were unsuccessful, partly owing to the inability of the plaintiffs to conduct their cases properly.

In the Court of Small Causes, Madras, 28 suits have been filed since 1932. In 10 decrees have been passed and one suit is pending. Rs. 2,018 was decreed of which only Rs. 732 has been paid into Court. In the High Court, 18 cases were instituted of which 7 were dismissed, 6 of which were settled out of court. Compensation was awarded in 7 cases while 4 are unfinished. One witness alleged that a decree for Rs. 10,000 obtained in the Coimbatore District was defeated by fraudulent bankruptcy.

In the Bombay High Court, 8 cases have been instituted, of which one has been decreed for Rs. 2,000, one dismissed, and 6. 2 of 1935 and 4 of 1936, are pending. Of these one is a claim for over a lakh which we understand has since been settled out of Court for Rs. 15,000. 21 cases were instituted in the Small Causes Court, Bombay, since 1933 of which 2 were dismissed, 3 settled, while in 11 damages amounting to Rs. 4,110 were awarded and

Rs. 3,374 paid. In the mofussil in the last 4 years 42 cases have been instituted in 10 districts of which 7 were settled out of court, 7 were dismissed, 22 are pending, and in 5 damages amounting to Rs. 8,715 were awarded. The United Provinces Government report 18 claims from

<p>United Provinces. Bihar. Assam. Delhi.</p>	<p>5 districts of which sixteen succeeded. The amounts are not stated, but three of the biggest claims for Rs. 2,000, Rs. 750 and Rs. 700 have not yet been realised. In Bihar, 3 suits have been instituted in 4 districts, in one of which only a decree was obtained. Compensation has been awarded in 2 cases in Assam, while in Delhi no claims have been made in the last 4 years.</p>
---	--

52. It must also be remembered that, although the owner of a motor vehicle is, in law, jointly responsible for the wrongful acts of his servant, who is driving, it may not be always possible for an injured party to prove the relationship between the owner and driver. In the case of hired vehicles further difficulties arise. If a car is hired for a particular journey with a driver the responsibility rests with the owner of the vehicle. Where a contract of hire purchase is in operation, the responsibility will sometimes rest on the hirer and sometimes on the seller according to the degree of control retained by the seller over the vehicle. It is thus clear that there are many obstacles to the successful conduct of a suit for injury in a civil court, which would not be present if compulsory insurance were in force.

53. The above account covers only part of the ground, but the figures indicate that only a small portion of the claims come to court, and that success there is problematical. The majority of successful cases relate to fairly substantial sums, and the delays, expense and uncertainty of the law, as several witnesses have asserted, no doubt deter a large number of poor and ignorant claimants from seeking to establish their rights in a civil court. Although adjudication by the civil courts is inevitable in a number of cases, it is probable that competition among insurance companies will lead to more satisfactory results, if compulsory insurance is introduced.

54. In England at the time of the introduction of the Road Traffic Act, 1930, it was estimated that more than 90 per cent. of motor vehicles on the road were already insured. The introduction of compulsion under the provisions of that Act, therefore, did not affect materially the operation of so large a proportion as in India. An accurate estimate cannot be framed for India, but the Calcutta Accident Insurance Association, popularly known as the Tariff Combine, gives the following figures for 1935:—

Proportion of motor vehicles at present insured.	Number Insured against third party risks.	Number insured against passenger risks.
Private cars	23,303	..
Taxis, buses and lorries	5,478	439

These figures relate to all but a small percentage of the vehicles in the books of members of the combine, but do not of course include figures of other companies not in the combine. Probably they represent

at least 90 per cent. of the vehicles in India. Owing to differences in classification between classes in the provincial figures and the incompleteness of figures supplied, it is not possible to give accurate figures of vehicles in British India, but there were not more than 90,000 private cars and motor cycles and 40,000 taxis, buses and lorries in use at that time. It may be estimated therefore that $\frac{1}{4}$ to $\frac{1}{2}$ of private cars and $\frac{1}{2}$ of public vehicles are insured. So far as public vehicles are concerned this is borne out by the evidence of the Manager of the General Motors Acceptance Corporation, Bombay, who considers that 10 to 20 per cent. of passenger vehicles running on the road at any one time are being purchased on the hire-purchase system. Normally such vehicles are insured as long as the contract is in force, though the insurance is not continued after it has expired, but there is a tendency in certain areas owing to competition among sellers not to insist on insurance. In the case of hire-purchase contracts the policy usually includes third party risks. The proportion of vehicles insured against passenger risks is very much smaller. The smallness of the proportion of vehicles in India at present insured against second and third party risks magnifies the effect on the motor industry of the introduction of compulsory insurance, but is in our opinion a strong argument in favour of adopting this course.

CHAPTER VI.

OPINIONS FOR AND AGAINST COMPULSORY INSURANCE.

55. The Governments of Bengal, Madras, Bombay, the Central Provinces, Sind, Orissa, Assam, Coorg and the Delhi Province are in favour of the introduction of compulsory insurance, while those of the Punjab, the United Provinces, Bihar, the North-West Frontier Province and Baluchistan are against it. The opinions of those Governments who favour the measure are based on the large number of accidents in India, the difficulty in obtaining compensation where legally due, and the undesirability of public vehicles using public thoroughfares if they are not financially in a position to discharge their legal liabilities. The Punjab Government bases its opposition on the following grounds:—

- (i) That in order to secure a hypothetical gain to railways it would put a very large sum into the pockets of insurance companies.
- (ii) It would encroach on one of the few sources of expanding taxation which the province possesses.
- (iii) There is no reason to believe that compulsory insurance would reduce the number of accidents.
- (iv) There is reason to doubt whether the ordinary villager would in practice obtain the compensation due without recourse to litigation.
- (v) The objections to insurance of private vehicles are less strong, but many of them perhaps as many as 50 per cent. are already insured.

56. There is nothing in our terms of reference to suggest that our object is to secure a hypothetical advantage to railways, and it will be clear from our report that this is not one of the considerations on which our recommendations are based. Moreover, there is reason to believe that the level of bus fares on routes competing with railways is determined by competition between buses themselves and is generally substantially lower than that of the railway, and, even if it is raised sufficiently to cover the cost of compulsory insurance, there will still remain a difference in favour of the bus fares. We find it difficult to reconcile the view of the Punjab Government that large sums will be put into the pockets of insurance companies with their subsequent observation in answer to question 20, that it is possible that insurance companies may find it necessary to raise their premia to meet the extra cost of compulsory insurance. We agree that the cost of insurance like any other item in the cost of running a motor vehicle encroaches to that extent on its taxable capacity. We also agree that compulsory insurance will not by itself reduce the number of accidents, though we do not attach much weight to the suggestion that the existence of compulsory insurance will make the driver more careless. It must be remembered that we do not propose that first party insurance, or that of property, should be made compulsory. There will, therefore, still remain a substantial inducement to drivers to drive carefully. We recommend, moreover, in this report that steps should at the same time be taken to make motor traffic less dangerous, and, if our suggestions are adopted, an improvement may in due course be expected. The business of motor insurance in India is highly competitive, and companies will be forced by competition to treat genuine claims in a reasonable manner. Many witnesses have stated that the ignorance of the rural populace, and

the difficulty of enforcing claims in the civil courts are among the principal reasons why compensation is paid so rarely at present. There can be little doubt that the existence of compulsory insurance will become rapidly known, and genuine claims will be met with much greater frequency. Finally, as we have shown in paragraph 54 of the report, the estimate by the Punjab Government of the proportion of private cars which are insured appears to be considerably too high.

57. We have already dealt with many of the arguments of the United Provinces Government in our preceding observations. As regards the further points raised, we agree that the number of motor vehicles is much smaller in India than in England where compulsory insurance was introduced in 1930, not in 1934 as stated by the United Provinces Government. The proportion of accidents to vehicles, however, is very much higher than in England or in any other country in the world for which statistics are available. The low incidence in the United Provinces compared to adjoining provinces is probably in part due to the incompleteness of the statistics which are admittedly unreliable. We agree that other forms of traffic are also responsible for accidents, but motor transport is responsible for a much larger number, and requires special treatment owing to the fact that motor vehicles travel at high speed over public thoroughfares. We do not agree that it is premature to introduce a change because the industry is in its infancy. On the contrary, we believe that it causes less hardship to introduce administrative changes before the evils which it is sought to eradicate and the vested interests that are growing up have taken root too deeply. The Bihar Government lays stress on the absence of a popular demand for insurance, and the fact that there is insufficient evidence that victims who deserve compensation are unable to obtain it owing to the inability of owners of vehicles to pay claims. We do not agree that there is no popular demand, though it is undoubtedly true that owing to the ignorance of the rural population it is not very vocal. We believe that the evidence which we have collected establishes that many owners are in fact unable to pay claims.

58. Insurance companies, the Motor Industry, the Motor Transport Industry, and members of the general public have all contributed their evidence.

59. The Calcutta Accident Insurance Association has tendered evidence on behalf of the main body of Insurance Companies operating in India. The Association does not favour compulsory insurance, as it fears that claims will increase and awards by civil courts become unduly inflated. It also suggests that drivers may become less careful—a point which we have already considered. The Association, however, is prepared to co-operate in providing the necessary cover, if Government will take steps to prevent accidents and control the industry, on which matter we are in agreement with the Association. Although the principal insurers in India are not in favour of compulsory insurance, it is clear from their evidence that they will not place obstacles in the way of its operation.

60. We have received representations from a number of associations and individuals interested in the supply of motor vehicles to the public. With the single exception of the Punjab Motor Dealers' Association, who consider the expense prohibitive, this branch of the Motor Industry, appears to be unanimous in advocating compulsory insurance, though at the same time they represent the case

for the reduction of taxation of motor vehicles. We lay considerable stress on the opinion of the sales industry which appears to attach greater importance to the proper development of the industry than to the possibility of a certain number of vehicles being unable to continue in operation.

61. Individuals or bodies representing the interests of owners of one or perhaps two public vehicles are generally opposed to compulsory insurance on the ground of expense, but exceptions are to be found in the Bengal Bus Owners Drivers Association, Calcutta, the Motor Owners Drivers Association, Jubbulpore, in the Central Provinces, and the Belgaum District Motor Association in Bombay; while the Gokhale Institute, which has studied the question in the Southern Maratha country, report that a minority of the better class individuals in this line of business realise the desirability, but fear the cost, of compulsory insurance. Opinion among individuals or companies running regular services is about evenly divided. On the whole, opposition from this section of the industry is less than might have been anticipated.

62. The motoring public as represented by automobile associations, with the exception of the United Provinces Association, which considers such a measure to be premature, is strongly in favour of compulsory insurance. Four Chambers of Commerce, *viz.*, the Upper India Chamber of Commerce, Cawnpore, the Bombay Chamber of Commerce, the Indian Merchants Chamber, Bombay, and the South Indian Chamber of Commerce, Madras, and the Karachi Indian Merchants' Association and the Buyers and Shippers Chamber, Karachi, favour compulsory insurance, while the Indian Chamber of Commerce, Calcutta, is the only body of this class that is opposed to it. Safety-first and allied associations are strongly in favour and so also are the majority of the few members of the general public who tendered evidence. Apart from a section of the transport trade, non-official opinion is overwhelmingly in favour of compulsory insurance.

CHAPTER VII.

THE COST OF INSURANCE AND ITS EFFECTS.

63. The policy at present issued for the voluntary insurance of private cars is generally a comprehensive policy which provides complete indemnity to the assured for any legal liability he may incur in respect of—

Private Cars.

- (a) accidental bodily injury, including loss of life, to any person other than a person in the service of, or a member of the household of, the insured, or a person driving the assured car,
- (b) accidental damage to property, other than property actually belonging to the assured or held in trust by him, or property of any relative or friend driving the car.
- (c) law costs and expenses incurred with the written consent of the company.

The indemnification also extends to cover—

- (a) any duly licensed relative or friend of the assured while driving the insured car with the assured's general knowledge or consent,
- (b) the assured whilst driving a car (used solely for private or professional purposes) not belonging to him, provided that the car described in the schedule of the policy is not in use at the time.

In addition, the following risks are also covered:—

- (a) Damage (excluding that due to mechanical breakdown, wear and tear, depreciation, etc.), caused by accidental external means such as a collision with some other body, or malicious acts.
- (b) Loss of or damage to the car and/or its accessories by fire, lightning, theft, etc., or in transit by rail, road, or inland waterway.
- (c) Medical expenses up to a specified limit incurred by the assured owing to injury arising out of an accident.

Some companies, as an extra attraction to insure with them, offer in addition to pay, up to certain limits, compensation in the event of death of or injury to the assured person or his wife. Usually, however, it is customary for this extra benefit to be covered by payment of an extra premium. It is, however, laid down in the policy that the insurer will not be liable if—

- (a) the car is let on hire or used for any other purpose than that specified in the schedule;
- (b) it is driven by an unlicensed driver or one whose licence is not in force or who is under the influence of intoxicating liquor;
- (c) it is engaged in racing, wagering, or pace-making;
- (d) it is driven in an unsafe or damaged condition either before or after an accident; and
- (e) the statements and answers in the proposal form are untrue.

64. Premium rates for such a policy vary according to the value of the car and its horse power. As a general rule the increase in premium is Rs. 10/- for every Rs. 1,500/- of value over and above the first Rs. 1,500. For example, if there are two 20 horse power cars, one valued at Rs. 8,000 and the other at Rs. 6,000/- the premium quoted for the first will be Rs. 195/- and for the second Rs. 205/-. As regards horse power, the rule is, the higher the horse power, the higher the premium. The increase is roughly Rs. 5/- per horse power unit up to 17, and somewhat less thereafter. For example, the premium quoted on a car valued at Rs. 4,500/- would be Rs. 155/-, 180/- or 200/- according to whether its horse power is 10, 15 or 24.

65. These rates are quoted by members of the Accident Insurance Association for insurance of private cars in Calcutta and Northern India. If there are any variations in other parts of the country they are, we believe, only slight, but an owner known to be a bad risk will, of course, be charged an increased premium.

66. Various rebates are offered in the shape of percentage deductions for no claims, insurance of two or more cars, the assured bearing a proportion of all claims, etc. Membership of an automobile association is frequently a further qualification for a rebate.

It will be noticed that we have referred to "quoted" rates. We have been informed, and we believe it to be true, that in order to secure business high rates of commission are offered to agents who in turn, realising that a small profit is better than none at all, pass a considerable portion of their commission on to owners effecting the insurance. We do not regard this position as at all satisfactory. We note that in the Indian Insurance Bill now referred to a Select Committee, it is proposed to limit agents' commission to 25 per cent. We would go a step further and recommend that the limit be fixed for motor insurance at 10 per cent.; for, if third party insurance is to be made compulsory, the task of the agent will not be to convince an owner that insurance is necessary, but merely to induce him to effect insurance with a particular firm. A statutory limitation of commission will, we trust, result in a modification of the present scale, which, if what we are told is true, in practice rarely remains in force.

67. We understand that policies to cover third party risks only can be obtained at 50 per cent. of the ordinary premium rates, so that the annual cost of compulsory insurance to the private owner of moderate means in possession of an average car would, even according to present quotations, be not more than Rs. 80/- or Rs. 90/-. With the aid of the various rebates and a limitation of commission as suggested by us, to a careful owner it should be far less. It represents no more than a fractional increase in his operating costs and should not affect his capacity for taxation.

68. The terms of the policy at present generally issued in respect of the **Commercial Vehicles** various classes of commercial vehicles do not differ to any great extent from those in policies issued in respect of private cars except that it is customary to limit third party liability to Rs. 15,000. Premium rates, however, vary. For instance they are lower for vehicles garaged in the islands of Bombay and Salsette and Karachi (i.e., urban areas) than they are for vehicles garaged elsewhere in Sind, the rest of the Bombay Presidency, Central India, Hyderabad (Deccan), Rajputana and the Central Provinces. Rates for

Bengal and Northern India are higher again, due, we understand, to risks being greater. This area or district rating scheme is also known in Great Britain, but the converse applies, in that certain densely populated or highly industrialised areas are looked on as greater risks than country districts. Rebates are admissible under certain circumstances, although not to the same extent as in the case of private vehicles. The following are the tariff rates prevailing in the area quoted above under the Bombay Accident Insurance Association:—

A.—Goods Vehicles of the Delivery Van Type.

If garaged in Bombay, Salsette or Karachi: Rs. 145 + $\frac{1}{2}$ per cent. on insured value.

If garaged outside Bombay, Salsette or Karachi: Rs. 170 + $\frac{1}{2}$ per cent. on insured value.

This class, includes generally speaking all light goods vehicles with a carrying capacity not exceeding one ton.

B.—Light Goods Vehicles, i.e., those with a carrying capacity not exceeding two tons.

If garaged in Bombay, Salsette or Karachi: Rs. 165 + $\frac{1}{2}$ per cent. on insured value.

If garaged outside Bombay, Salsette or Karachi: Rs. 200 + $\frac{1}{2}$ per cent. on insured value.

C.—Heavy Goods Vehicles, i.e., those with a carrying capacity exceeding two tons.

If garaged in Bombay, Salsette or Karachi: Rs. 200 + $\frac{1}{2}$ per cent. on insured value.

If garaged outside Bombay, Salsette or Karachi: Rs. 250 + $\frac{1}{2}$ per cent. on insured value.

In the first two classes the rates quoted are dependent on the condition "Warranted not to haul any trailer". In the absence of any such warranty an extra premium of Rs. 25/- to Rs. 35/- is charged. Trailers can be insured for Rs. 25 + $\frac{1}{2}$ per cent. on insured value. The limit of liability can be extended to Rs. 30,000/-, Rs. 50,000/- or unlimited on payment of an extra Rs. 10, 15, or 25. For a lorry with a carrying capacity of about two tons, valued at Rs. 4,000/- the premium for the comprehensive policy would be therefore Rs. 165 + 20, i.e., Rs. 185/- or Rs. 200 + 20, i.e., Rs. 220/- according to the area in which it is garaged. We understand that the cost of third party liability alone would be 40 per cent. of this rate, i.e., Rs. 75 or Rs. 88, if cover up to Rs. 15,000 was required. For a larger vehicle, the cost would be Rs. 88/- or Rs. 108/-.

D.—Passenger carrying vehicles.

If garaged in Bombay, Salsette or Karachi:—

(a) Seating capacity of 16 and under: Rs. 200 + $\frac{1}{2}$ per cent. on insured value.

(b) Seating capacity of over 16: Rs. 225 + $\frac{1}{2}$ per cent. on insured value.

If garaged outside Bombay, Salsette or Karachi: Rs. 225 + $\frac{1}{2}$ per cent. on insured value.

These rates are for single deck vehicles. For double deckers, the rate is Rs. 400 + 1 per cent on insured value.

The rates for Bengal and Northern India are rather different and vary according to seating capacity and weight of vehicle. For a vehicle seating 18 to 24 persons, the rate is Rs. 250 + $\frac{1}{2}$ per cent. on insured value, i.e., Rs. 25 more than the Bombay rate.

There is one important condition for this class of vehicle, *vis.*, that the assured must bear the first Rs. 100 of every claim himself, but the insurer will accept the first Rs. 100 of third party liability only on payment of an extra premium of Rs. 10. For fare carrying vehicles of the private car type, the premium is Rs. 200 + $\frac{1}{2}$ per cent. on insured value. Increased liability can be covered by paying the same extra premium as in the case of goods vehicles. Third party risks only may be insured at 40 per cent. of the above rates. Risks to passengers are, however, not included in the above. Indemnity against an assured owner's legal liability only in respect of passengers has been granted at the following rates:—

Per passenger on total Passenger Carrying Capacity						
Rs. 1,500 any one passenger	Rs. 3,000 any one passenger	Rs. 5,000 any one passenger	Rs. 7,500 any one passenger	Rs. 10,000 any one passenger	Rs. 15,000 any one passenger	Rs. 20,000 any one passenger
Rs. 6,000 any one accident	Rs. 12,000 any one accident	Rs. 20,000 any one accident	Rs. 30,000 any one accident	Rs. 50,000 any one accident	Rs. 75,000 any one accident	Rs. 1,00,000 any one accident
Rs. 3	Rs. 4	Rs. 5	Rs. 7	Rs. 10	Rs. 12	Rs. 15

A 20 passenger bus valued at Rs. 4,000 in Central and Western India would, therefore, have to pay the following for—

(a) Third party insurance limited to a liability of Rs. 15,000	40 per cent. of Rs. 236-4 =	Rs. 94-8
(b) Passenger insurance with risks limited to Rs. 5,000 per passenger, and Rs. 20,000 in any one accident	20 x 5	= Rs. 100-0
		<u>Total = Rs. 194-8</u>

69. We have given in the foregoing some idea of the cost of compulsory third party insurance for commercial vehicles at present rates, and of the additional passenger insurance in the case of motor buses. As regards goods vehicles the effect will be to increase operating costs by about four or five annas a day. We do not consider this an undue burden or one which cannot be passed on to the consumer, representing as it does an increase in cost of goods transport of about two annas per ton per day. Considering the liability of goods vehicles to accidents as has been shown by the experience of Bombay and Karachi, we think that the imposition of this extra burden is justifiable and reasonable at the price. It calls for no reduction in existing rates of taxation. The cumulative third party and passenger premium for passenger vehicles, i.e., motor buses is, however, much higher, but its effect on passenger fares will be almost negligible. It is very doubtful whether the vast majority of bus owners know what their actual operating costs are, unless they have combined into efficient organisations or associations. The Managing Director of the City Motor Service, Limited, Madras, which appears to be a flourishing concern, estimated that in a working year of 320 days, at 120 miles per day, his operating costs worked out at 3 annas 2-7 pies per mile, excluding

insurance. His own concern ran 22 buses, all of which were insured, and according to the profit and loss account (of which he gave us a copy) for the half year ending 30th September 1936, made a profit of over Rs. 10,000. Mr. Mani of the South Indian Chamber of Bus Owners, also of Madras, furnished us with figures to prove that their operating costs on one route were 4-6 annas a mile, and their returns were 5-1 annas. On another route costs were 3-8 annas. Estimates of the mileage covered by buses in the mofussil were equally varied. At a very conservative estimate, however, it can be said that the average bus covers about 20,000 miles a year. If we take the costs of compulsory insurance at Rs. 2/0, this works out at Re. 1 per 100 miles, or in other words an increase in passenger fares of one anna over the same distance. This can be no burden on the owner or the passenger, nor can it affect the former's capacity to pay ordinary provincial taxation. We have quoted cases from Madras where taxation is much higher than in any other province, to show how services can be run at a profit, but success in doing so has depended on organisation, co-operation and efficient management. We would, however, refer to mofussil services operating inter-provincially; the payment of full taxation in each province is a serious burden, and we would stress the importance of local Governments coming to some agreement for modified taxation in each province in order not to hamper the development of rural transport.

70. We close this chapter by referring briefly to a possible accusation that we have not enquired into the equity or otherwise of the rates of insurance furnished to us. Through question 36 of our questionnaire, we tried to ascertain the numbers of third party claims made and paid during the last four years. The insurance representatives whom we examined told us that this information was not obtainable, but assured us that very large third party claims were paid, and that, not infrequently, they compensated injured parties to a considerable extent than incur the heavier cost of litigation. In question 37 we asked for information as to the total amounts of premia paid, and claims settled, and costs of commission and management during the same period. We were told that insurers were not in possession of any statistics which had any bearing on the cost of compulsory insurance, and the witnesses indicated that this was due to the fact that all accident business is combined under one head of account. We were informed, however, that insurers did not anticipate any immediate alteration in rates but the ultimate cost of insurance would depend on the experience gained from the proposed legislation.

We have further been informed by the Calcutta Accident Insurance Association in the following terms:—

“On the assumption that under the new legislation effective control will be exercised in relation to overcrowding of vehicles my Committee would be willing to suggest to the Insurers whom they represent, a rate of Rs. 3 per passenger for cover limited to Rs. 1,500 per passenger without any limit per accident; for a limit of Rs. 3,000 the rate would be Rs. 4 per passenger. This premium would be charged on a maximum licensed carrying capacity of the vehicle and if this were to include standing passengers the premium would be calculated on the total number of seats *plus* the authorised number of standing passengers. My Committee wish to make it clear that their suggestions are based on the understanding that the liability

of insurers per accident will in all cases be limited to the maximum per passenger multiplied by the maximum licensed carrying capacity of the vehicle."

This we regard as a very generous concession indeed, and we commend the genuine spirit of co-operation of the Association which has made it.

71. We are not in favour of any State control of premium rates, as we feel sure that if revenue accounts of compulsory insurance are returned in Form F of the Third Schedule of the new Indian Insurance Bill, there will be sufficient indication as to whether policy-holders are being given a fair deal. We can only express a hope that should insurers find it necessary at any time to increase premium rates, they will take the public into their confidence and furnish reasons for any such increases. We do not think for one moment that rates will remain as they are at present. It is more than probable that they are based on insufficient data acquired from a limited experience of voluntary insurance. Compulsory insurance, we feel, will result in the acquisition of very much clearer data which will necessitate a readjustment of premium rates, though not necessarily for the worse.

CHAPTER VIII.

AREAS UNDER COMPULSORY INSURANCE.

72. Compulsory insurance is in force in parts of Bombay and Sind, discretion being given to the District Superintendent of Police to enforce on it except in the case of heavy motor vehicles. It has therefore been in force in these areas for varying and intermittent periods. The rates are somewhat below those which we are suggesting. Our enquiries have not revealed anything to show that it is unworkable in practice.

CHAPTER IX.

CONCLUSIONS REGARDING COMPULSORY INSURANCE.

73. The volume of road accidents in India due to motor traffic, to which the low standard of care and responsibility exercised by many drivers of motor vehicles has undoubtedly contributed, and the extreme difficulty experienced by the injured party or his legal representatives in obtaining compensation, make out a very strong case for compulsory insurance. The great preponderance of opinion, both official and non-official, is in favour of this course; and in agreement with that opinion we have no hesitation in making a recommendation in favour of compulsion.

74. We now proceed to examine the class of vehicle that should be insured, and the amounts for which we think insurance should be made compulsory. While public service vehicles are undoubtedly responsible for an unduly large proportion of accidents, yet private vehicles have by no means a good record in this respect. We therefore recommend that subject to the exceptions specified elsewhere in the Report, insurance should be made compulsory for all motor vehicles, including motor cycles, that use the roads of British India. Opinion is practically unanimous that, if insurance is made compulsory, it should extend to third party risks to the person, but there is some opposition, on the ground of expense, to the inclusion of second party risks, that is, risks to passengers in public vehicles. We are unable to make any logical distinction between a passenger and a third party, and recommend that insurance against second and third party risks should be made compulsory. We have also considered whether the insurance of drivers and attendants should be made compulsory. They fall within the scope of the Workmen's Compensation Act since July 1934. The experience of the working of this Act in Bombay suggests that there may be some difficulty in obtaining compensation even after an award has been made. But the number of cases is small, and in most cases, if a man can afford to maintain a driver, he can pay compensation. We are anxious to keep the cost of compulsory insurance for public vehicles as low as possible, and recommend that the insurance of drivers and attendants should not be made compulsory. We do not consider that the time has yet come for making insurance of damage to property compulsory.

75. There is some difference of opinion regarding the amount for which insurance should be made compulsory. The note to question 16 of our questionnaire is misleading in that the sums specified in it are minima required in the case of a guarantee to take the place of insurance; and in England there is no limit to the amount for which insurance is compulsory. We consider that the following amounts, while affording adequate protection to second and third parties, will not place an unduly heavy burden on the road transport industry:—

		Rs.
Private cars		Unlimited
Goods Lorries		30,000
Buses	Second parties (fare paying passengers)	3,000
	Third parties	per seat 30,000
Other hired vehicles (including taxis).	Second parties (fare paying passengers).	5,000
	Third parties	per seat 30,000

NOTE.—Cars, which are hired under conditions in which the hirer undertakes the liabilities of the owner are included in private cars.

76. We further recommend that in the case of second and third party claims the full liability should be borne by the insurer, and no portion of the claim, *e.g.*, the first Rs. 100, by the assured. Our object is to secure the investigation and payment of claims which, though in themselves small in amount, are of importance to persons with low earning capacity.

77. Under these proposals the approximate gross cost at present rates will be—

	Rs.
Goods lorries	90—120
Buses { Third party	90—120
{ Passengers	4
	per seat.
Other hired vehicles { Third party	80—100
(including taxis). { Passengers	5.
	per seat.

CHAPTER X.

STATE INSURANCE.

78. It has been suggested to us by several witnesses that Government should undertake the duty of motor insurance. No other Government in the world has undertaken this business and it is clear that the objections to it are overwhelming. The volume of business would be insufficient to justify local Governments engaging the necessary technical staff; moreover, difficulties would arise if some local Governments entered the market while others did not. Any such scheme in our opinion would have to be Central. Advocates of the scheme believe that the cost of motor insurance would be decreased owing to the elimination of commission and overhead charges. It is clear that overhead charges would not disappear as the cost of the technical staff would remain; the agency for the investigation of claims would have to be the local staff of the Provincial Governments who might not always be jealous of the rights of the Central Government; further, although we have no material before us on which to base an estimate of cost, we point out that one factor which at present tends to keep down overhead charges, *viz.*, their division between a number of different forms of insurance, would disappear. The creation of a State monopoly, which would drive existing interests out of the market, is also open to objection on this account. But the main objection, in our opinion, to the proposal is that it would put the State in the position of having to adjudicate on claims against itself.

CHAPTER XI.*

SAFEGUARDS FOR THIRD PARTIES.

79. Second and third parties, in whose interests compulsory insurance is proposed, are in a peculiar position in that they are not parties to the contract by which they are protected. Much time and thought has been devoted in England to secure that they are not deprived of their protection owing to flaws in the contract of insurance, and a committee under the chairmanship of Sir Felix Cassel, Bt., K.C., is at present sitting in England reviewing *inter alia* this aspect of the Motor Insurance laws. It is unfortunate that the report of this Committee is not yet available. We propose to utilise the experience of more than six years of compulsory motor insurance in England, but it is probable that our recommendations will require modification in the light of the report of the Cassel Committee.

80. The English companies which have given evidence before that Committee have laid great stress on the desirability of maintaining the doctrine of *uberrima fides* in relation to Insurance Law. This doctrine has been recognised in section 10(3) of the Road Traffic Act 1934 which allows the insurer to escape liability on the ground of non-disclosure or misrepresentation, if, in an action commenced before or within three months after the commencement of proceedings in which the judgment was given, he obtains a declaration to that effect. This throws the onus of proving non-disclosure or misrepresentation on the insurer, and in practice will lessen the number of cases in which the claim fails on those grounds. This same section gives the right to injured parties to proceed direct against the insurer when a decree has been passed against the assured. This right is clearly of great value in the event of the insured absconding or having no property which can be attached by the Court passing the decree. If the insurer claims that the contract is void by reason of fraud or misrepresentation, he must proceed in the manner indicated above. We recommend that, subject to certain safeguards to the insurer contained in section 10(2) and 10(3) of the Road Traffic Act 1934, similar provisions should be incorporated in the law of India.

81. We have also examined the effect of section 78 (1) (d) of the Irish Road Traffic Act 1933 which gives the injured party the right to sue the insurance company direct if the court so permits. This is an alternative method of giving the injured party the protection of section 10 of the 1934 Road Act, and it is not in our opinion necessary to provide two methods of attaining the same objective. The Road Traffic Acts of 1930 and 1934, further, nullify a number of conditions—where they appear in insurance policies—so far as claims for damages to second and third parties are concerned. Section 38 of the 1930 Act renders of no effect any condition in a policy making it void in the event of the assured failing to do some future act such as giving notice of the accident. This principle is extended by section 12 of the 1934 Act, and conditions in policies of insurance in regard to the following matters are made void:—

- (a) Age, physical or mental condition of the driver.
- (b) Condition of the vehicle.
- (c) Number of persons carried.

*Relevant extracts of the Acts quoted in this Chapter are reproduced in Appendix 2 (pages 63—71).

- (d) The weight or physical characteristic of the goods carried.
- (e) The time or areas within which the vehicle is used.
- (f) The horse power or value of the vehicle.
- (g) The carrying on the vehicle of any particular apparatus, or any particular means of identification.

It is possible that the English Law will now be modified by enumerating the conditions which may be included in an insurance policy instead of those which are void if they are included. We recommend that the English Law should be followed in this respect.

82. The question of unauthorised use of the vehicle is not free from difficulty. Two classes of cases may occur; in the first the use of the car may be entirely unauthorised, *e.g.*, in the case of theft, and secondly the car may be used with the permission of the owner under circumstances which are not covered by insurance, *e.g.*, the policy may be limited to cases in which a particular person drives, and the owner may permit somebody else to drive. Some doubt exists as to the interpretation of the English law in its present form. But it is a matter in which the experience gained in England is very valuable. We recommend that no restriction should be at present placed on insurance policies in this respect, but that the matter should be reconsidered after the Cassel Committee has reported.

83. Section 36(4) of the Road Traffic Act 1930 provides that authorised users specified in the insurance policy should be indemnified by the insurer; that is to say, in the event of an accident for which an authorised user is responsible, he may claim direct from the insurer without making the assured an intermediary. We recommend that this provision of the law in England should be adopted in India.

84. The Third Parties (Rights Against Insurers) Act, 1930, materially affects in England the rights of second and third parties by enacting that upon the insolvency of the assured his rights against his insurers are transferred to and vest in the second and third party. Section 1(8) and Section 2(1) of the same Act provide that any condition in the policy purporting, whether directly or indirectly, to avoid the policy or alter the rights of the parties under the policy in the event of the assured's insolvency, or to preclude third parties from obtaining information as to the existence of the policy is void. Section 1(4) also provides that no settlement of claim between the insurers and the assured can defeat the claims of second and third parties. Section 11 of the Road Traffic Act, 1934, gives further protection in the event of the insolvency of the assured by permitting the injured party to proceed against the insurer direct. Section 13 of the same Act makes disclosure of the existence of insurance, and particulars of the policy contained in the certificate of insurance compulsory. This is necessary to enable the injured party to approach the insurer direct. We recommend that these provisions protecting the rights of second and third parties should be incorporated in the law of India.

85. The Law Reform (Miscellaneous Provisions) Act 1934, section 1(1), provides that subject to certain conditions and exceptions all causes of action shall survive against or as may be for the benefit of the estate of a deceased person. The same object is secured in India by section 1 of Act

No. XII of 1855. But its provisions are limited by section 306 of the Indian Succession Act 1925, which runs as follows:—

“306. All demands whatsoever and all rights to prosecute or defend any action or special proceeding existing in favour of or against a person at the time of his decease, survive to and against his executors or administrators; except causes of action for defamation, assault, as defined in the Indian Penal Code, or other personal injuries not causing the death of the party; and except also cases where, after the death of the party, the relief sought could not be enjoyed or granting it would be nugatory.”

One effect of this limitation is to deprive the estate of a person injured in an accident to a motor vehicle of damages, should the injured person die from some other cause before he has obtained them. Although the English and Indian Law differ in this respect, we do not consider the cases of hardship arising out of this provision would be numerous or important and on the other hand we see no reason why the heirs of injured persons in all cases should receive damages for personal injuries to them. We recommend that no amendment of the existing law be made. It also appears that section 306 of the Indian Succession Act lays down that the injured person loses his remedy at law for personal injuries in the event of the death of the person responsible for such injuries. If this is so, we consider that a case exists for the amendment of the law in this respect.

CHAPTER XII.

ALTERNATIVES TO INSURANCE.*

Section 35(4) of the Road Traffic Act, 1930 exempts any person who has deposited £15,000 with the Accountant General of the Supreme Court from the obligation of compulsory insurance, and section 48 gives injured parties preferential claims against this sum. These provisions enable large corporations to carry their own insurance. We recommend the adoption of similar provisions in India, the amount of deposit being 1 lakh in order to conform to the deposit demanded from insurance companies. The State is in a position to carry its own insurance and we cannot question its ability to meet its obligations, nor is there any need for it to make a deposit with itself. It should be exempted from the liability to insure its own vehicles. Section 35 and section 37 of the English Road Traffic Act 1930 provide that a guarantee of security given by an authorised insurer or other body of persons carrying on that class of business may be substituted for compulsory insurance. We understand that little use is made of these provisions in England, and we do not think it is necessary to find a place for them in the Indian law.

*Relevant extracts of the Acts quoted in this Chapter are reproduced in Appendix 2 (pages 63—71).

CHAPTER XIII.

CO-OPERATIVE INSURANCE.

87. We have considered with great interest the evidence of the, Ratnagiri District Co-operative Motor Owners Association, Limited. This Association operates in the Ratnagiri District of the Bombay Presidency and has a membership of 116 persons owning 194 vehicles. The area is one in which insurance is compulsory at present. The Association owns an insurance fund of Rs. 52,537 at present, and has paid claims amounting to Rs. 1,457 in 12 cases from 1933—1936. The fund has been built up by instalments, each owner subscribing Rs. 400 per one ton car, and Rs. 265 per half ton car, after which payments cease although the liability remains to pay up to Rs. 30 per annum by instalments of Rs. 10 if it is necessary to obtain additional funds. The investment of funds requires the sanction of the Registrar, Co-operative Credit. The District Magistrate and Superintendent of Police are associated with the Committee which adjudicates on claims.

88. It is clearly desirable to encourage associations of this kind, as they are able to operate in local areas with much smaller overhead and commission charges than insurance companies, and have a cheaper agency for investigating claims. Moreover the existence of co-operative liability will act as a binding force to keep together associations of public vehicle owners, which will enable the single owner to take his proper place in the development of the industry. This will result in keeping down the cost of transport in areas where such associations operate. If co-operative societies are to take the place of insurance companies, it is obviously necessary that they must offer the same protection to the general public; and it will be necessary for the Ratnagiri and similar societies to alter its constitution to secure this object. In particular we do not consider that one lumpsum payment can take the place of annual premia. The conditions that should be laid down for such societies in our opinion are—

- (1) That there should be a deposit which should not be available for meeting claims or other expenses except in the event of winding up. This deposit should be Rs. 25,000 if the number of vehicles is fifty or below increasing to Rs. 50,000 or Rs. 1,00,000 if the number of vehicles exceeds 50 or 100. But it may be collected in instalments of not less than one third of the total amount in not more than 3 years. The deposit should be subject to the provisions of the new Insurance Act applicable to deposits by insurance companies.
- (2) The risks covered must be the same as those required to be covered by compulsory insurance; and in order to do this it may be necessary to re-insure against large claims.
- (3) The provisions of the law, which are necessary to protect second and third parties in the event of the contract between the insurer and assured being voidable, must apply.
- (4) Some outside authority must be associated with the society in settling claims.
- (5) The society must be registered as a co-operative society and be subject to the control of the Registrar, Co-operative Credit.

Other details may be left to local Governments and their Registrars, but we consider that while there is no objection to members transferring their rights to new members who are qualified to join the society, they should not be able to resign and take away a portion of its assets with them.

We recommend that local Governments should have power to exempt owners of motor vehicles, who are members of a co-operative insurance society, from compulsory insurance subject to the above conditions.

CHAPTER XIV.

CONTROL OVER COMPANIES.

89. The general question of the control over insurance companies is at present before the Legislative Assembly in the form of the Insurance Act, 1937. We are unable to distinguish in principle between motor insurance and other forms of insurance as regards the bodies which may be allowed to operate in India or the degree of Government control that is desirable. We therefore, have no alterations of principle to suggest. We consider, however, that some alterations in the details are desirable, and hope that it is not too late for them to be made.

90. There will be a considerable increase in the volume of motor car insurance, if compulsory insurance is introduced, and we consider that this form of business should be treated separately. Section 5 of the Act should be amended so as to require a separate deposit for Rs. 1,00,000, which figure may be compared with £15,000 required under the English law for motor vehicles insurance. We also consider that the account forms, which are prescribed, should show motor insurance business separately with sub-heads for that part of it which is compulsory and that which is not. We realise that some extra work will be entailed in separating the accounts, but it should be possible either to separate the premia and costs where a composite policy is issued, or to issue separate policies. It is obviously desirable that information should be available to the public regarding a form of insurance that is compulsory.

91. We have received evidence that the commission paid on motor insurance business is high. It appears to be increasing at present owing to competition among the insurance companies, and sometimes as much as 40 per cent. is given. Under section 33 of the Insurance Act, 1937, a maximum of 25 per cent. is laid down. Commission is a fee paid for the introduction of business, and much of the agent's time is occupied in persuading clients to insure. The work of the agent, therefore, will be diminished by the introduction of compulsion; and, as we have already stated, we consider that the commission for this form of motor insurance should be limited by law to 10 per cent. of the premium.

CHAPTER XV.

THIRD PARTIES AND THEIR RIGHTS.

92. Many witnesses have stated before us that, at present, many claims lapse owing to the ignorance of the injured parties. We have little doubt that the introduction of compulsory insurance will in itself make a great change in this respect in a short time, but we feel that some liaison between the injured, the administration and the insurance companies is desirable. We have considered whether some form of organisation analogous to that administering the Workmen's Compensation Act should be created; but accidents will continue over wide areas in comparatively small numbers per district, and any legal powers found necessary would have to be entrusted to a large number of different officers none of whom would have experience of a great many cases. The Commissioner, under the Workmen's Compensation Act, passes awards against which no appeal lies unless the amount exceeds Rs. 300 and a point of law is involved, and in important industrial centres a whole time officer is appointed. In our opinion it would not be desirable to entrust powers of this kind to a large number of officers, thus ousting the jurisdiction of the civil courts. We consider, however, that in the interests both of the insurance companies as a protection against bogus and inflated claims, and of the victims of accidents, copies of police reports in cases of accidents involving injury to the person should be freely available to insurance companies. Those reports should give particulars of the injuries received, and an opinion as regards the cause of the accident. Further we think that it should be left to local Governments, who have to provide the staff, to decide whether any, and if so what, officers should act as a connecting link between injured parties and insurance companies.

CHAPTER XVI.

THE ENFORCEMENT OF COMPULSORY INSURANCE.

93. The simplest method of preventing the evasion of the obligation to insure is to require that no certificate of registration should be issued, unless evidence is produced that the necessary insurance cover has been obtained from an approved company for the whole period for which the registration certificate is valid. Insurance interests object that this will cause a rush of work at particular periods of the year, and prefer that evidence of cover should be given at the time of registration, and that the insurers should give notice to the registration authorities of the dates on which policies lapse. Under either system it is desirable that the insurers should inform the registering authorities when policies are cancelled. When a policy is cancelled the certificate of insurance should be surrendered, and the insurance companies should inform the registering authority that this has been done. Provision will also have to be made for the replacement, under adequate safeguards, of certificates of insurance which have been lost or destroyed. The evidence of insurance should consist of a certificate of insurance which should be carried on the vehicle. Sections 39 and 40 (1) of the English Road Traffic Act, 1930, contain the English law on the subject. These provisions may with advantage be adopted in India. We do not hold decided views as to which system is preferable, nor do we consider that this is a matter in which uniformity of procedure among the various local Governments is necessary. We recommend that local Governments be empowered to make rules to enforce the law in this respect.

CHAPTER XVII.

THE POSITION OF INDIAN STATES.

94. Under section 101 of the Government of India Act, 1935, the powers of the Federal Legislature, after federation comes into force, with regard to Indian States are to be exercised in accordance with the instrument of accession of each individual to the Federation. It is to be hoped that Indian States before and after Federation will adopt the practice of British India, as regards compulsory insurance. If they do not all do so, it is possible that a few vehicles will enter British India by road from areas in which insurance is not compulsory. We consider that all such vehicles should be required to be insured if they enter British India. Experience will doubtless show whether any special administrative measures are necessary to deal with them; but it is possible that the liability to a penalty for the infringement of the law regarding motor vehicles will suffice.

CHAPTER XVIII.

"SAFETY FIRST" MEASURES.

95. The recommendations which we have made regarding compulsory insurance are not, in our opinion, by themselves sufficient to dispose of the matter. The English law regarding motor insurance is not an entity in itself, but is part and parcel of the general scheme for the protection of the public against a danger created by the changing conditions of modern transport. The incidence of accidents per motor vehicle in India appears to be the highest in the world, and we are in complete agreement with the claim of the insurance companies, that, if they are to provide cover for motor vehicles which are compulsorily insured, Government must take steps to minimize the number of accidents. If this is not done there is a fear that the scheme of compulsory insurance will break down owing to the high premia that will be necessary to cover the cost.

96. We have no doubt that the greatest danger to the proper development of the public road transport industry, and incidentally the cause of the increasing toll of accidents, is the "one man, one vehicle" system. Some local Governments have taken and are taking steps to effect a remedy, but much still remains to be done. The statistics that we have collected show that a very large proportion of public vehicles are so owned. Apart from the inability of these single owners to satisfy claims that are made against them the system in itself is the cause of a large number of accidents. We have ourselves observed on popular routes large numbers of vehicles awaiting their turn to take the road. We have been informed that particular individuals often wait 3 or 4 days before their turn arrives. Owing to competition fares are low, while overhead charges are high owing to the infrequency of journeys. It is in consequence difficult to make both ends meet, unless the vehicle is full or overcrowded. Racing thus occurs in order to be the first on the road, and in a dusty country like India the poor visibility when one vehicle passes another inevitably leads to accidents. At the same time the immediate cost of keeping a vehicle in proper condition is often avoided by a hard pressed owner to the detriment of its serviceability; and the enforced idleness of drivers for days together may conduce to habits which lessen their efficiency. We have stressed the evils of the system, because it is condemned by every responsible witness who has appeared before us, including many representatives of the small bus owner. We do not advocate that the small man should be driven off the road, but he should be made to combine into small associations, which run to regular time-tables and maintain services based on the needs of the areas they serve. We have taken evidence from a number of these associations or pools, and, if properly managed, they are able to give adequate service to the public at a low cost, and at the same time to make reasonable profits. They are apt to be short lived, if the route is free to all comers, and outside vehicles come in to take the cream of the traffic, but where limitation is in force can be worked successfully. We recommend that licensing of routes should be enforced everywhere and the number of vehicles reduced either immediately, or if this is not practicable, gradually to that required for a particular locality.

97. It is not perhaps within our province to suggest the machinery for the licensing of routes, and we should be glad to see the result of the experiment of Transportation Boards in the United Provinces before giving a

definite opinion in the matter. The system of licensing of routes is, however, liable to abuse as in Calcutta and possibly elsewhere, where there is reason to believe that the right to a route is sold for substantial sums together with the vehicle as part of the hire purchase contract. We incline to the view that the licensing of a route is not an integral part of the duties of the police as controllers of traffic, and that this function, as in England, should be placed in the hands of Transportation Boards. The decision in the matter under the new Constitution rests with local Governments, who must be empowered by rule to take the necessary steps.

98. Our observations regarding public vehicles and the licensing of routes do not apply to taxis. There are so far as we know no administrative reasons why these vehicles should not be in the hands of individuals, and their record of accidents compares favourably with that of other classes of commercial motor vehicles in India. We have received complaints, which appear well founded, that private vehicles in certain places engage in the business of taxis. There is no evidence, however, that this is a contributory cause towards accidents. The object of the private car in such cases is to avoid taxation. We anticipate that the necessity for insuring these vehicles under their true colours will strengthen the hands of the authorities in dealing with them.

99. We have also received evidence that overloading of public vehicles, both passenger and goods, is common. We ourselves observed, at a place in Sind, a bus full inside, with a heavy load of luggage on the roof and a further complement of passengers on top. Goods vehicles are frequently loaded beyond the maker's specifications with a dangerous strain on their machinery particularly the brakes. We were informed in Bombay, that accidents had been caused by such vehicles bringing down the ghats loads which were in excess of the limit of safety. In Karachi town the statistics show that on an average every goods lorry plying in the town has an accident involving injury to the person once every 15 months. From the Punjab it is reported that goods vehicles running at night with no identification plates have been known to charge through the police attempting to stop them. Tighter control over overloading may necessitate the employment of more staff, and must be left to the discretion of local Governments, who have many other calls on their purse; but we bring to their notice the necessity for more effective control.

100. Most local Governments appear to have made adequate arrangement for the inspection of public motor vehicles at the more important centres, but at places where traffic is small funds are not always available for the employment of technical staff. We have been informed of cases in which vehicles have failed to pass the test at one place, and have then been successful elsewhere. The quarterly inspection of the mechanical condition of public vehicles is required in some provinces, while in others annual inspection is considered sufficient. We consider that more use might be made of qualified travelling inspectors for the less busy centres. We also think that inspections should be required at not greater intervals than six months.

101. There is little check over the mechanical condition of private vehicles, but we have no reason to believe that this is one of the principal causes of accidents; it is possible that it will be necessary to tighten up control in this respect in due course; but at present we consider that any funds available could with greater advantage be spent on the control of public vehicles.

102. Opinion is fairly unanimous that the standard of skill in driving both public and private vehicles is adequate. Accidents are due not so much to lack of skill, as lack of road sense and irresponsible driving. We consider that the magistracy should make greater use of the power to proceed against negligent drivers, and we think that following the precedent of section 6 of the English Road Traffic Act 1930, section 18 of the Indian Motor Vehicles Act, 1914, should be re-drafted so as to place the onus on the Court of using more frequently their powers to suspend or cancel driving licences.

103. The figures for prosecutions for offences relating to rash or negligent driving indicate that approximately thirty per cent. result in acquittals. These figures include cases under sections 337 and 338 of the Indian Penal Code in which composition of the offence is allowed. In such cases the offender is not only guilty of an offence against the person, but he is a potential source of danger to the public. In cases of this nature an offence must have been committed under section 279 of the Indian Penal Code, which is not compoundable; we understand that in some cases where the parties have agreed to compound, this is permitted with regard to the sections of the law under which composition is legal, and no further action is taken under section 279. This practice appears to us to be of doubtful legality, and should cease.

CHAPTER XIX.

THE VENUE OF LEGISLATION.

104. "Insurance" is included in List I and "Mechanically propelled vehicles" in Part I of List III of the Government of India Act, 1935, that is to say that "Insurance" is a Federal subject and "Mechanically propelled vehicles" a subject in which there is concurrent jurisdiction between the Federal and Provincial Governments. Our proposals regarding motor insurance companies fall under the head "Insurance" and we have already suggested certain amendments to the Insurance Act now before the Central Assembly. We are of opinion that it is necessary, in the interests of uniformity, that the Central Legislature should deal with our main proposals, that is to say, the question of making motor insurance compulsory, the subsidiary legislation necessary for the protection of second and third parties, the class of vehicle to be insured and the amounts for which insurance should be made compulsory, while other matters, such as those which deal with the measures to be adopted for the control of motor traffic and the prevention of accidents, should be left to local administrations which have to defray the cost. This can appropriately be done following the precedent of the English Road Acts by amending the Indian Motor Vehicles Act, 1914, or by substituting a new act for it giving power by rules to local Governments to deal with matters which are their concern. In this respect our proposals conform to the views of the majority of local Governments.

CHAPTER XX.

SUMMARY OF RECOMMENDATIONS.

- (1) Accidents should be reported in a uniform manner (paragraph 47).
- (2) State control of premium rates is undesirable, but insurers' revenue accounts of compulsory insurance should be framed in such a way as to give a clear picture of the business transacted (paragraph 71).
- (3) Insurance against third-party risks should be compulsory (paragraph 73).
- (4) Such insurance should be compulsory for all classes of motor vehicles, and should include risks in respect of fare-paying passengers in vehicles plying for hire (paragraph 74).
- (5) Insurance against third-party risks should be limited to Rs. 30,000 in respect of goods lorries, buses and other vehicles plying for hire, and unlimited in respect of all other classes (paragraph 75).
- (6) Insurance against risks to fare-paying passengers should be limited to Rs. 3,000 per passenger in the case of buses and to Rs. 5,000 per passenger in the case of other hired vehicles (including taxis) (paragraph 75).
- (7) The full liability of third-party claims should be borne by the insurer (paragraph 76).
- (8) The business of compulsory insurance should not be undertaken by the State (paragraph 78).
- (9) Injured parties should be given the right to proceed against the insurer when a decree has been passed against the assured (paragraph 80).
- (10) The English law should be followed in so far as third parties are protected against any repudiation of policies by insurers on certain grounds (paragraph 81).
- (11) An authorised user of a vehicle should be enabled to claim direct from the insurer without making the assured an intermediary party (paragraph 83).
- (12) The provisions of the English law with regard to the safeguard of the rights of third parties in the case of the assured's insolvency should be followed; also that relating to the disclosure of the existence of insurance by the assured (paragraph 84).
- (13) Section 306 of the Indian Succession Act, 1925, should be amended so that an injured person shall retain his remedy at law for personal injuries in the event of the death of the person responsible for those injuries (paragraph 85).
- (14) Under certain conditions a deposit may take the place of compulsory insurance, but no other alternative is necessary (paragraph 86).
- (15) In order to make compulsory insurance as light a burden as possible on those engaged in public transport, co-operative insurance should be fostered amongst those engaged subject to certain conditions (paragraph 88).
- (16) Motor insurance should be separated from other accident insurance business in the returns, etc., to be submitted under the proposed Indian Insurance Act, and should require a separate deposit (paragraph 90).

(17) Insurance agent's commission should be limited to 10 per cent. in the case of compulsory insurance (paragraph 91).

(18) Liaison between injured parties, the administration and insurers should be left to local Governments to arrange, but to prevent bogus or inflated claims, police reports of accidents should be freely available for insurers' use (paragraph 92).

(19) It should be obligatory on insurers to notify cancellation of policies (paragraph 93).

(20) The English law regarding certificates of insurance should be followed (paragraph 93).

(21) Vehicles entering British India from Indian States should be insured against third-party risks (paragraph 95).

(22) In order to reduce the large number of accidents from public vehicles, steps should be taken to put the industry on a sounder basis (paragraph 96).

(23) Steps should also be taken to prevent the serious overloading of goods vehicles (paragraph 99).

(24) The Indian Motor Vehicles Act should be amended in order to deal more rigorously with negligent drivers (paragraph 102).

(25) An offence of rash driving should be dealt with on its merits irrespective of any desire on the part of the parties concerned to compound (paragraph 103).

(26) Legislation in connection with compulsory insurance should be Central (paragraph 104).

In conclusion we wish to acknowledge the readiness of all local Governments to co-operate with us and to furnish, often at very short notice, the material on which our conclusions are based. We also desire to place on record our appreciation of the services of our Secretary, Mr. C. H. Reynolds, I.P., and the staff working under him. Mr. Reynolds has dealt most ably with the mass of material before us, and his intimate knowledge of the practical working of the Indian Motor Vehicles Act, 1914, and the rules framed thereunder, and of the legislation relating to motor transport in other countries has been of the utmost assistance to us in our deliberations.

N. J. BOUGHTON, *Chairman,*

NURMAHOMED M. CHINYOY, *Member,*

RATAN MOHAN CHATTERJEE, *Member.*

C. H. REYNOLDS,

Secretary.

NEW DELHI:

The 9th March 1937.

APPENDICES.

APPENDIX 1.
QUESTIONNAIRE.

PART I.

1. What was the number of motor vehicles—

- (a) private,
- (b) taxis,
- (c) motor buses and lorries,
- (d) goods lorries,

on the road during the last 4 years?

2. Can you give figures as regards (b), (c) and (d) of the number of owners owning:—

- (i) 1 vehicle,
- (ii) 2 vehicles,
- (iii) 3 to 10 vehicles,
- (iv) 11 vehicles and over.

Latest available figures for one year only should be given.

3. What are the reported figures of (a) fatal, (b) non-fatal (but involving injury to human beings) accidents for the last four years in your province? Give separate figures for each year.

4. Can you state how many of these were caused by (a) private cars, (b) taxis, (c) buses, (d) goods lorries?

5. How many prosecutions for negligence in driving motor vehicles have been instituted in the last four years, and what is the percentage of convictions?

6. What is the system of reporting accidents? Are all non-fatal accidents in practice reported?

7. To what extent are passenger vehicles plying for hire purchased on the hire purchase or instalment system? If complete figures are not available, statistics for a few typical routes may be given.

8. Have you any evidence of the extent to which hirers of such vehicles are unable to complete their purchase with the result that the vehicles are taken back or sold up by the owners?

9. Do you know of any cases in which taxi or bus owners have paid compensation as an act of grace to the victims of accidents or relatives of people killed?

10. Can you state how many claims for damages for injuries sustained in motor car accidents have been made in the civil courts during the last four years, and in how many cases compensation has been awarded and paid?

11. Is an agency maintained to ensure that (a) commercial, and (b) private vehicles are maintained in a satisfactory mechanical condition? Does the agency work satisfactorily?

12. Can you give statistics for the past four years of accidents due to mechanical defects in the various classes of motor vehicles?

13. Are drivers of (a) commercial, or (b) private vehicles required to pass any test before they obtain driving licences? Do you consider that the standard of driving is adequate, or that accidents are to any appreciable extent due to lack of competency among drivers?

14. Do you consider that Motor Vehicles Insurance should be made compulsory? If so, in respect of what classes of vehicles?

15. What class of risks should be covered by compulsory insurance?

16. Should any, and if so, what, minimum sum be specified to cover the third party risks against which a motor vehicle should be insured?

Note.—The minimum required under the English law for any one vehicle is £25,000 in the case of a public service vehicle and £5,000 in any other case.

17. In the case of vehicles licensed to carry passengers do you consider that—

(a) compulsory insurance should be complete in respect of risks to each and every passenger, or that

(b) it would be sufficient if risks were limited to a proportion of the total number of passengers carried.

Explanation.—The practice at present in the case of such vehicles is to insure up to X rupees for any one passenger, but limited to 4X rupees in any one accident.

18. Is insurance at present made compulsory in respect of any class of motor vehicle as a condition precedent to granting a registration certificate or owners permit? If so, for what areas?

19. Are there any methods of avoiding those regulations?

20. Is there any difficulty in finding insurance companies willing to do this business?

21. Are there any restrictions on the companies doing this business? If not, does the absence of such restrictions lead to any practical difficulties?

22. Should any conditions be demanded from insurance companies undertaking the business of compulsory motor car insurance, in the way of a fixed deposit, or otherwise? If minima are to be prescribed, what figures do you consider suitable?

Note.—In England, a company which transacts motor vehicles business must deposit £15,000, irrespective of any other deposit which it may have made.

23. Is it necessary or desirable that local Governments should specify the companies with which compulsory motor insurance should be effected?

24. Do you consider that any and if so, what restrictions should be placed on companies undertaking this business?

25. In the case of large corporations who may have their own insurance funds do you consider that such funds may be permitted to continue? If so, do you consider that the same conditions should be applicable in respect of these funds as may be made applicable in the case of insurance companies doing motor insurance business?

26. Do you consider it should be made obligatory on insurance companies transacting this class of business to maintain separate accounts in order to facilitate supervision by Government, or do you consider that if

accounts are published, publicity will provide an adequate check against unsound companies?

27. If compulsory insurance is introduced, do you consider that any measures are necessary to secure that persons to whom compensation is due succeed in obtaining it?

28. Do you consider any, and if so, what, co-operation between insurance companies and motor vehicles registration authorities is necessary in order to secure that vehicles for which insurance is made compulsory do not run on the road unless they have been insured? In particular do you consider that steps should be taken to ensure that policies for compulsory insurance have to be renewed at the same time that registration fees are due for payment?

29. Do you consider that legislation to secure the compulsory insurance of motor cars in British India should be introduced in the Central Legislature, or that it should be left to local Governments to make rules under the powers to be conferred by the proposed amendments to the Indian Motor Vehicles Act, 1914?

30. Do you consider that any special arrangements are necessary for vehicles plying partly in Indian States and partly in British India?

31. What is the average distance that a bus in (a) urban, and (b) rural areas will run in a day and what approximately is the proportion of its seating capacity that will be filled?

32. To what extent would the taxable capacity of passenger motor vehicles be affected by the enforcement of compulsory insurance assuming that the cost of insurance is not more than 1/3rd anna per bus mile? Would any scaling down of the present rates of taxation be necessitated?

33. Are there any other matters which you wish to bring to notice in connection with the proposed introduction of compulsory motor insurance in India?

34. In particular do you consider any legal provisions for the protection of third parties similar to those in force in England are necessary?

Note.—The sections of the English Law referred to are appended* to the questionnaire.

(Road Traffic Act, 1930—Section 38.

Road Traffic Act, 1934—Sections 10 and 12).

PART II.

Specially applicable to Motor Insurance Associations and Companies.

35. Can you furnish any information as to—

(a) how many private owners are insured against third party risks?

(b) how many goods-lorry owners are insured against third party risks?

(c) how many taxi and bus owners are insured against (i) passenger and (ii) third party risks?

36. How many claims for damages on account of death, or injury to the body, have been made during the past 4 years, and of these how many have been accepted in full or in part?

* They are reproduced in Appendix 2 to this Report.

37. What was the total premiums paid, the claims paid, the cost of commission and the overhead charges during the last four years?

38. Are you in a position to continue motor insurance business if compulsory insurance is introduced? Will there be any difficulty as regards local agents or branches?

39. Do you consider that premia will rise or fall as a result?

40. Do you consider that separate insurance policies should be issued for risks the insurance of which is made compulsory?

41. If so, should separate accounts be kept in respect of these risks, and should any deposit by the company that is required to be made in respect of this class of business be earmarked for it?

Note.—Bodies mentioned in the heading of this part of the questionnaire are requested also to answer those questions in Part I with which they are concerned.

Any persons or associations who can give any information or wish to express any opinions in connection with the points raised in the questionnaire are requested to communicate the same to the Secretary, Motor Vehicles Insurance Committee, O/o the Department of Industries and Labour, New Delhi.

C. H. REYNOLDS,

Secretary,
Motor Vehicles Insurance Committee.

NEW DELHI;

The 21st November 1936.

APPENDIX 2.

RELEVANT EXTRACTS OF THE ENGLISH AND IRISH LAWS
REFERRED TO IN CHAPTERS XI, XII AND XVI.

ENGLISH ROAD TRAFFIC ACT, 1930.

* * * * *

35. (1) Subject to the provisions of this Part of this Act, it shall not be lawful for any person to use, or to cause or permit any other person to use, a motor vehicle on a road unless there is in force in relation to the user of the vehicle by that person or that other person, as the case may be, such a policy of insurance or such a security in respect of third-party risks as complies with the requirements of this Part of this Act.

Users of motor vehicles to be insured against third-party risks.

* * * * *

(4) This section shall not apply to a vehicle owned by a local authority, a police authority, or the receiver for the Metropolitan Police District, or by a person who has deposited and keeps deposited with the Accountant-General of the Supreme Court for and on behalf of the Supreme Court the sum of fifteen thousand pounds, at any time when the vehicle is being driven by the owner or by a servant of the owner in the course of his employment, or is otherwise subject to the control of the owner.

* * * * *

36. (1) In order to comply with the requirements of this Part of this Act, a policy of insurance must be a policy which:—

Requirements in respect of policies.

- (a) is issued by a person who is an authorised insurer within the meaning of this Part of this Act; and
- (b) insures such person, persons or classes of persons as may be specified in the policy in respect of any liability which may be incurred by him or them in respect of the death of or bodily injury to any person caused by or arising out of the use of the vehicle on a road:

Provided that such a policy shall not be required to cover—

- (i) liability in respect of the death arising out of and in the course of his employment of a person in the employment of a person insured by the policy or of bodily injury sustained by such a person arising out of and in the course of his employment; or
- (ii) except in the case of a vehicle in which passengers are carried for hire or reward or by reason of or in pursuance of a contract of employment, liability in respect of the death of or bodily injury to persons being carried in or upon or entering or getting on to or alighting from the vehicle at the time of the occurrence of the event out of which the claims arise; or
- (iii) any contractual liability.

* * * * *

(4) Notwithstanding anything in any enactment, a person issuing a policy of insurance under this section shall be liable to indemnify the persons or classes of persons specified in the policy in respect of any liability which the policy purports to cover in the case of those persons or classes of persons.

(5) A policy shall be of no effect for the purposes of this Part of this Act unless and until there is delivered by the insurer to the person by whom the policy is effected a certificate (in this Part of this Act referred to as a "certificate of insurance") in the prescribed form and containing such particulars of any conditions subject to which the policy is issued and of any other matters as may be prescribed, and different forms and different particulars may be prescribed in relation to different cases or circumstances.

* * * * *

Require-
ments in
respect of
securities.

37. (1) In order to comply with the requirements of this Part of this Act a security must—

(a) be given either by an authorised insurer or by some body of persons which carries on in the United Kingdom the business of giving securities of a like kind and which has deposited and keeps deposited with the Accountant-General of the Supreme Court for and on behalf of the Supreme Court the sum of fifteen thousand pounds in respect of that business; and

(b) consist of an undertaking by the giver of the security to make good, subject to any conditions specified therein, and up to the amount, in the case of an undertaking relating to the use of public service vehicles, of not less than twenty-five thousand pounds, and, in any other case, of not less than five thousand pounds, any failure by the owner of the vehicle or such other persons or classes of persons as may be specified in the security duly to discharge any such liability as is required to be covered by a policy of insurance under the last preceding section which may be incurred by him or them.

(2) A security shall be of no effect for the purposes of this Part of this Act unless and until there is issued by the person giving the security to the person to whom it is given a certificate (in this Part of this Act referred to as a "certificate of security") in the prescribed form and containing such particulars of any conditions subject to which the security is issued and of any other matters as may be prescribed, and different forms and different particulars may be prescribed in relation to different cases or circumstances.

Certain
conditions to
policies or
securities to
be of no
effect.

38. Any condition in a policy or security issued or given for the purposes of this Part of this Act, providing that no liability shall arise under the policy or security or that any liability so arising shall cease, in the event of some specified thing being done or omitted to be done after the happening of the event giving rise to a claim under the policy or security, shall be of no effect in connection with such claims as are mentioned in paragraph (b) of subsection (1) of section thirty-six.*

Provided that nothing in this section shall be taken to render void any provision in a policy or security requiring the person insured or secured to repay to the insurer or the giver of the security any sums which the latter may have become liable to pay under the policy or security and which have been applied to the satisfaction of the claims of third parties.

Production
of certificate
of insurance
or certificate
of security on
application
of motor
vehicle
licence.

39. Provision may be made by regulations under section twelve of the Roads Act, 1920, for requiring a person applying for a licence in respect of a motor vehicle under section thirteen of the Finance Act, 1920, as amended by any subsequent enactment, to produce such evidence as may be prescribed that either—

(a) on the date when the licence comes into operation there will be in force the necessary policy of insurance or the necessary

* These claims are third party claims.

security in relation to the user of the vehicle by the applicant or by other persons on his order or with his permission; or

10 and 11
Geo. 6, c. 72.
10 and 11
Geo. 5, c. 18.

(b) the vehicle is a vehicle to which the first section contained in this Part of this Act does not apply at any time when it is being driven by the owner thereof, or by a servant of his in the course of his employment, or is otherwise subject to the control of the owner.

40. (1) Any person driving a motor vehicle on a road shall, on being so required by a police constable give his name and address and the name and address of the owner of the vehicle and produce his certificate, and if he fails so to do he shall be guilty of an offence:

Requirements as to production of certificate of insurance or of security.

Provided that, if the driver of a motor vehicle within five days after the date on which the production of his certificate was so required produces the certificate in person at such police station as may have been specified by him at the time its production was required, he shall not be convicted of an offence under this sub-section by reason only of failure to produce his certificate to the constable.

(2) If in any case where, owing to the presence of a motor vehicle on a road, an accident occurs involving personal injury to another person, the driver of the vehicle does not at the time produce his certificate to a police constable or to some person who, having reasonable grounds for so doing, has required its production, the driver shall as soon as possible, and in any case within twenty-four hours of the occurrence of the accident, report the accident at a police station or to a police constable and thereupon produce his certificate, and if he fails so to do, he shall be guilty of an offence:

Provided that a person shall not be convicted of an offence under this sub-section by reason only of failure to produce his certificate if, within five days after the occurrence of the accident, he produces the certificate in person at such police station as may be specified by him at the time the accident was reported.

(3) It shall be the duty of the owner of a motor vehicle to give such information as he may be required by or on behalf of a chief officer of police to give for the purpose of determining whether the vehicle was or was not being driven in contravention of section thirty-five of this Act on any occasion when the driver was required under this section to produce his certificate, and if the owner fails to do so he shall be guilty of an offence.

(4) In this section the expression "produce his certificate" means produce for examination the relevant certificate of insurance or certificate of security or such other evidence that the vehicle is not or was not being driven in contravention of section thirty-five of this Act as may be prescribed.

* * * * *

49. (1) No part of any sum deposited by any person with the Accountant-General of the Supreme Court under section thirty-five or section thirty-seven of this Act shall, so long as any liabilities, being such liabilities as are required to be covered by a policy of insurance under this Part of this Act, which have been incurred by him have not been discharged or otherwise provided for, be applicable in discharge of any other liabilities incurred by him.

Deposits under Part II.

* * * * *

ENGLISH ROAD TRAFFIC ACT, 1934.

* * * * *

Duty of
insurers to
satisfy
judgments
against
persons
insured in
respect of
third-party
risks.

10. (1) If, after a certificate of insurance has been delivered under sub-section (5) of section thirty-six of the principal Act to the person by whom a policy has been effected, judgment in respect of any such liability as is required to be covered by a policy under paragraph (b) of sub-section (1) of section thirty-six of the principal Act (being a liability covered by the terms of the policy) is obtained against any person insured by the policy, then, notwithstanding that the insurer may be entitled to avoid or cancel, or may have avoided or cancelled, the policy, the insurer shall, subject to the provisions of this section, pay to the persons entitled to the benefit of the judgment any sum payable thereunder in respect of the liability, including any amount payable in respect of costs and any sum payable in respect of interest on that sum by virtue of any enactment relating to interest on judgments.

(2) No sum shall be payable by an insurer under the foregoing provisions of this section—

- (a) in respect of any judgment, unless before or within seven days after the commencement of the proceedings in which the judgment was given, the insurer had notice of the bringing of the proceedings; or
- (b) in respect of any judgment, so long as execution thereon is stayed pending an appeal; or
- (c) in connection with any liability, if before the happening of the event which was the cause of the death or bodily injury giving rise to the liability, the policy was cancelled by mutual consent or by virtue of any provision contained therein, and either—
 - (i) before the happening of the said event the certificate was surrendered to the insurer, or the person to whom the certificate was delivered made a statutory declaration stating that the certificate had been lost or destroyed, or
 - (ii) after the happening of the said event, but before the expiration of a period of fourteen days from the taking effect of the cancellation of the policy, the certificate was surrendered to the insurer, or the person to whom the certificate was delivered made such a statutory declaration as aforesaid, or
 - (iii) either before or after the happening of the said event, but within the said period of fourteen days, the insurer has commenced proceedings under this Part of this Act in respect of the failure to surrender the certificate.

(3) No sum shall be payable by an insurer under the foregoing provisions of this section, if, in an action commenced before, or within three months after, the commencement of the proceedings in which the judgment was given, he has obtained a declaration that, apart from any provision contained in the policy, he is entitled to avoid it on the ground that it was obtained by the non-disclosure of a material fact, or by a representation of fact which was false in some material particular, or, if he has avoided the policy on that ground, that he was entitled so to do apart from any provision contained in it.

Provided that an insurer who has obtained such a declaration as aforesaid in an action shall not thereby become entitled to the benefit of this sub-section as respects any judgment obtained in proceedings commenced before the commencement of that action, unless before or within seven days after the commencement of that action he has given notice thereof to the person who is the plaintiff in the said proceedings, specifying the non-disclosure or false representation on which he proposes to rely, and any person to whom notice of such an action is so given shall be entitled, if he thinks fit, to be made a party thereto.

(4) If the amount which an insurer becomes liable under this section to pay in respect of a liability of a person insured by a policy exceeds the amount for which he would, apart from the provisions of this section, be liable under the policy in respect of that liability, he shall be entitled to recover the excess from that person.

(5) In this section the expression "material" means of such a nature as to influence the judgment of a prudent insurer in determining whether he will take the risk, and if so, at what premium and on what conditions, and the expression "liability covered by the terms of the policy" means a liability which is covered by the policy or which would be so covered but for the fact that the insurer is entitled to avoid or cancel, or has avoided or cancelled, the policy.

* * * * *

11. Where a certificate of insurance has been delivered under subsection (5) of section thirty-six of the principal Act to the person by whom a policy has been effected, the happening in relation to any person insured by the policy of any such event as is mentioned in subsection (1), or subsection (2), of section one of the Third Parties (Rights against Insurers) Act, 1930, shall, notwithstanding anything in that Act, not affect any such liability of that person as is required to be covered by a policy under paragraph (b) of subsection (1) of section thirty-six of the principal Act, but nothing in this section shall affect any rights against the insurer conferred by that Act on the person to whom the liability was incurred.

Bankrupt
etc. of
insured
persons
not to affi
certain
claims by
third
parties.
20 and 21
Geo. 5. c. 1

12. Where a certificate of insurance has been delivered under subsection (5) of section thirty-six of the principal Act to the person by whom a policy has been effected, so much of the policy as purports to restrict the insurance of the persons insured thereby by reference to any of the following matters:—

Avoidance
restriction
on scope o
policies
covering
third-part
riaks.

- (a) the age or physical or mental condition of persons driving the vehicle; or
- (b) the condition of the vehicle; or
- (c) the number of persons that the vehicle carries; or
- (d) the weight or physical characteristics of the goods that the vehicle carries; or
- (e) the times at which or the areas within which the vehicle is used; or
- (f) the horse power or value of the vehicle; or
- (g) the carrying on the vehicle of any particular apparatus; or
- (h) the carrying on the vehicle of any particular means of identification other than any means of identification required to be carried by or under the Roads Act, 1920;

10 and 11
Sec. 5. c. 72.

shall, as respects such liabilities as are required to be covered by a policy* under paragraph (b) of sub-section (1) of section thirty-six of the principal Act be of no effect:

Provided that nothing in this section shall require an insurer to pay any sum in respect of the liability of any person otherwise than in or towards the discharge of that liability, and any sum paid by an insurer in or towards the discharge of any liability of any person which is covered by the policy by virtue only of this section shall be recoverable by the insurer from that person.

Duty of
persons
against
whom
claims are
made to give
information
as to
insurance;

13.—(1) Any person against whom a claim is made in respect of any such liability as is required to be covered by a policy under paragraph (b) of subsection (1) of section thirty-six of the principal Act shall, on demand by or on behalf of the person making the claim, state whether or not he was insured in respect of that liability by any policy having effect for the purposes of Part II of the principal Act, or would have been so insured if the insurer had not avoided or cancelled the policy, and, if he was or would have been so insured, give such particulars with respect to that policy as were specified in the certificate of insurance delivered in respect thereof under subsection (5) of section thirty-six of the principal Act.

(2) If, without reasonable excuse, any person fails to comply with the provisions of this section, or wilfully makes any false statement in reply to any such demand as aforesaid, he shall be guilty of an offence.

Third Parties (Rights against Insurers) Act, 1930.

Rights of
third
parties
against
insurers on
bankruptcy
etc. of the
insured.

1.—(1) Where under any contract of insurance a person (hereinafter referred to as the insured) is insured against liabilities to third parties which he may incur, then—

- (a) in the event of the insured becoming bankrupt or making a composition or arrangement with his creditors; or
- (b) in the case of the insured being a company, in the event of a winding-up order being made, or a resolution for a voluntary winding-up being passed, with respect to the company, or of a receiver or manager of the company's business or undertaking being duly appointed, or of possession being taken, by or on behalf of the holders of any debentures secured by a floating charge, of any property comprised in or subject to the charge;

if, either before or after that event, any such liability as aforesaid is incurred by the insured, his rights against the insurer under the contract in respect of the liability shall, notwithstanding anything in any Act or rule of law to the contrary, be transferred to and vest in the third party to whom the liability was so incurred.

(2) Where an order is made under section one hundred and thirty of the Bankruptcy Act, 1914, for the administration of the estate of a deceased debtor according to the law of bankruptcy, then, if any debt provable in bankruptcy is owing by the deceased in respect of a liability against which

* This is a policy in respect of third-party risks.

he was insured under a contract of insurance as being a liability to a third party, the deceased debtor's rights against the insurer under the contract in respect of that liability shall, notwithstanding anything in the said Act, be transferred to and vest in the person to whom the debt is owing.

(3) In so far as any contract of insurance-made after the commencement of this Act in respect of any liability of the insured to third parties purports, whether directly or indirectly, to avoid the contract or to alter the rights of the parties thereunder upon the happening to the insured of any of the events specified in paragraph (a) or paragraph (b) of subsection (1) of this section or upon the making of an order under section one hundred and thirty of the Bankruptcy Act, 1914, in respect of his estate, the contract shall be of no effect.

(4) Upon a transfer under subsection (1) or subsection (2) of this section, the insurer shall, subject to the provisions of section three of this Act, be under the same liability to the third party as he would have been under to the insured, but—

(a) if the liability of the insurer to the insured exceeds the liability of the insured to the third party, nothing in this Act shall affect the rights of the insured against the insurer in respect of the excess; and

(b) if the liability of the insurer to the insured is less than the liability of the insured to the third party, nothing in this Act shall affect the rights of the third party against the insured in respect of the balance.

(5) For the purposes of this Act, the expression "liabilities to third parties," in relation to a person insured under any contract of insurance, shall not include any liability of that person in the capacity of insurer under some other contract of insurance.

(6) This Act shall not apply—

(a) where a company is wound up voluntarily merely for the purposes of reconstruction or of amalgamation with another company; or

(b) to any case to which subsections (1) and (2) of section seven of the Workmen's Compensation Act, 1925, applies.

* * * * *

2.—(1) In the event of any person becoming bankrupt or making a composition or arrangement with his creditors, or in the event of an order being made under section one hundred and thirty of the Bankruptcy Act, 1914, in respect of the estate of any person, or in the event of a winding-up being passed, with respect to any company or of a receiver or manager of the company's business or undertaking being duly appointed or of possession being taken by or on behalf of the holders of any debentures secured by a floating charge of any property comprised in or subject to the charge it shall be the duty of the bankrupt, debtor, personal representative of the deceased debtor or company, and, as the case may be, of the trustee in bankruptcy, trustee, liquidator, receiver, or manager, or person in possession of the property to give at the request of any person claiming Duty to necessary informat to third parties.

that the bankrupt, debtor, deceased debtor, or company is under a liability to him such information as may reasonably be required by him for the purpose of ascertaining whether any rights have been transferred to and vested in him by this Act and for the purpose of enforcing such rights, if any, and any contract of insurance, in so far as it purports, whether directly or indirectly, to avoid the contract or to alter the rights of the parties thereunder upon the giving of any such information in the events aforesaid or otherwise to prohibit or prevent the giving thereof in the said events shall be of no effect.

Law Reform (Miscellaneous Provisions) Act, 1934.

Effect of
Act on
rights
of
debtors.

* * * * *

1.—(1) Subject to the provisions of this section, on the death of any person after the commencement of this Act all causes of action subsisting against or vested in him shall survive against, or, as the case may be, for the benefit of, his estate. Provided that this subsection shall not apply to causes of action for defamation or seduction or for inducing one spouse to leave or remain apart from the other or to claims under section one hundred and eighty-nine of the Supreme Court of Judicature (Consolidation) Act, 1925, for damages on the ground of adultery.

Saorstát Éireann* Road Traffic Act, 1933.

Section
provisions
in
relation to
recovery of
damages.

* * * * *

78.—(1) Where a person (in this section referred to as the claimant) claims to be entitled to recover from the owner or the driver of a mechanically propelled vehicle or has in any court of justice (in proceedings of which the vehicle insurer or vehicle guarantor hereinafter mentioned had notice) recovered judgment against such owner or driver for a sum (whether liquidated or unliquidated) against the liability for which such owner or driver is insured by an approved policy of insurance or the payment of which by such owner or driver is guaranteed by an approved guarantee or in respect of which such owner or driver is covered by an approved combined policy and guarantee the claimant may serve on (as the case may be) the vehicle insurer by whom such policy or policy and guarantee was issued or the vehicle insurer or the vehicle guarantor by whom such guarantee was issued a notice in writing of the claim or judgment for such sum and upon the service of such notice such of the following provisions as are applicable shall have effect, that is to say:—

- (a) such vehicle insurer shall not after service of such notice pay to such owner or driver in respect of the sum so claimed or recovered by the claimant any greater amount than the amount (if any) which such owner or driver shall have actually paid to the claimant in respect of such sum;
- (b) where the claimant has so recovered judgment for such sum or any part thereof, such vehicle insurer or vehicle guarantor shall pay to the claimant so much of the moneys (whether damages, or costs) for which judgment was or is so recovered as such vehicle insurer or vehicle guarantor has insured or guaranteed and is not otherwise paid to such claimant and such payment shall as against the insurer or principal debtor

be a valid payment under such approved policy of insurance or approved combined policy and guarantee or approved guarantee;

- (c) where the claimant has so recovered judgment for such sum or after service of such notice so recovers judgment for such sum or any part thereof and has not recovered from such owner or driver or such vehicle insurer or vehicle guarantor the whole amount of such judgment, the claimant may apply to the Court in which he recovered such judgment for leave to execute such judgment against such vehicle insurer or vehicle guarantor and thereupon such Court may, if it thinks proper, grant such application either in respect of the whole amount of such judgment or in respect of any specified part of such amount;
- (d) where the claimant has not so recovered judgment for such sum, the claimant may apply to any court of competent jurisdiction in Saorstát Éireann in which he desires to institute proceedings for the recovery of such sum from such owner or driver for leave to institute and prosecute such proceedings against such vehicle insurer or vehicle guarantor (as the case may be) in lieu of such owner or driver, and such court, if satisfied that such owner or driver is not in Saorstát Éireann or cannot be found or cannot be served with the process of such court or that it is for any other reason just and equitable that such application should be granted, may grant such application, and thereupon the claimant shall be entitled to institute and prosecute such proceedings against such vehicle insurer or vehicle guarantor and to recover therein from such vehicle insurer or vehicle guarantor any sum which he would be entitled to recover from such owner or driver and the payment of which such vehicle insurer or vehicle guarantor has insured or guaranteed;
- (e) such vehicle insurer or vehicle guarantor shall not, as a ground for refusing payment of moneys to the claimant or as a defence to proceedings by the claimant or as a defence to proceedings by the claimant, rely on or plead any invalidity of such policy of insurance, guarantee, or combined policy and guarantee (as the case may be) arising from any fraud or any misrepresentation or false statement (whether fraudulent or innocent) to which the claimant was not a party or privy and which, if constituting a misdemeanour under this Part of this Act, was not the subject of a prosecution and conviction under the relevant section of this Part of this Act.

APPENDIX 3.**(i) LIST OF NON-OFFICIAL WITNESSES WHO SUBMITTED EVIDENCE BOTH ORALLY AND IN WRITING.**

Professor A. N. Mallik, Lecturer Post-graduate, Commerce Department, Calcutta University.

Motor Industries Association, Calcutta (Messrs. H. N. Nicholls & W. K. Battey).

Automobile Association of Bengal (Mr. S. K. Sen, Secretary).

Bengal Bus Syndicate (Mr. H. S. Sodhi, Secretary).

Calcutta Accident Insurance Association (Messrs. J. P. Baggs, J. St. J. L. Carson & E. Ross).

Bengal Bus Owners Drivers Association (Messrs. Madan Mohan Barman, President, and Sham Singh, Secretary).

Taxi Owners Association, Calcutta (Mr. R. K. Jaidka, Secretary).

Messrs. The Bombay Garage, Nagpur (Mr. M. Nanjiani, Manager).

Messrs. The Provincial Automobile Company, Nagpur (Mr. P. B. Kale, Managing Partner).

The Red Cross Society, Nagpur (Mr. S. Y. Deshmukh, Hony. Secretary).

Motor Owners' Union, Nagpur (Rao Sahib R. W. Fulay, M.L.C., and V. P. Kolte).

Motor Owners' and Drivers' Association, Jubbulpore (Mr. Durga Prasad, Pleader, President).

The South Indian Chamber of Commerce (S. Venkatachalam Chetti).

Triplicane and Mylapore Bus Amalgamations (Mr. H. C. Fernandez, Secretary).

The Madras Trades Association (Mr. F. G. Luker).

The City Motor Service, Madras (Mr. N. Sundaram Ayyar).

The South Indian Chamber of Bus Owners (Mr. V. S. B. Mani, Secretary).

The Motor Vehicles & Allied Merchants Association, Madras (Mr. P. Reid).

The Safety First Association of India (Mr. A. S. Trollip, Hony. General Secretary).

The Bombay Electric Supply & Tramway Company (Messrs. A. S. Trollip and F. Wright).

The Indian Roads & Transport Development Association (Lt.-Col. H. C. Smith, O.B.E., M.C., General Secretary).

The National Employers Mutual General Insurance Association (Mr. A. Durran, Manager).

The Gokhale Institute of Politics & Economics, Poona (Professor D. R. Gadgil, Director).

The Western India Automobile Association (Mr. A. H. Sykes, Secretary).

- The Gulshan Motor Service, Talegaon, Dabhade, G. I. P. Rly.
(Mr. Gulam Hussein Fazal, Proprietor).
- The Panchgani Motor Service, Poona (Mr. J. N. Satarawala, Sole
Proprietor).
- The Bombay Taxi Drivers' Union (Mr. S. H. Jhabwala, Secretary).
- The Bombay Garage, Ahmedabad (Mr. Heble, Manager).
- The Chamber of Commerce (Messrs. A. K. G. Hogg and D. F.
Gough).
- The Ratnagiri District Co-operative Motors Association (Messrs. W.
G. Shetye, President, and R. B. Shirke, Vice-President).
- The Mahratta Chamber of Commerce and Industries, Poona (Pro-
fessor V. G. Kale, Chairman, and Mr. A. R. Bhat, Hony.
Secretary).
- The Motor Manufacturers and Importers' Association, Bombay
(Messrs. F. E. James and J. W. Milnes).
- The Karachi Indian Merchants' Association (Rao Bahadur Shiv-
rattan Mohatta, President).
- The Ocean Accident and Guarantee Corporation, Karachi (Mr. H. A.
Bhawnani, Principal Agent).
- The Karachi Taxi Motor Drivers' Union (Messrs. Abdul Jabbar &
Shankar M. Menon, Secretaries).
- Sind Motor Dealers' Association, Karachi (Mr. G. M. Khandawala).
- The Buyers & Shippers' Chamber, Karachi (Mr. W. M. Muzumdar
and other representatives).
- Punjab Motor Dealers Association, Lahore (Messrs. H. S. Das,
W. Gopaldas and Dhani Chand).
- Punjab Motor Union, Lahore (Mr. Aziz Ahmad, Secretary).
- Representatives of Rural Transport Companies (Master Sant Singh,
Mian Muhammad Din and Mr. Sham Lal).
- Representatives of Urban Transport Companies (Sardars Manohar
Singh and Dalip Singh).
- The United Provinces Automobile Association, Allahabad (Mr.
Bhagwat Dayal, Bar.-at-Law, Hony. Secretary).
- United Motor Works & Service Company, Ltd., Ranchi (S. N.
Ganguli, Director).
- Mr. K. L. Misser, Patna, representative of Motor Transport interests
in Patna.
- Patna Bus Association (Mr. K. B. Singh, Secretary, with legal
adviser, representing the Dinapore Bus Association also).
- The Gwalior & Northern India Transport Company, New Delhi
(Mr. A. S. deMello, General Manager).

(ii) LIST OF NON-OFFICIAL WITNESSES WHO SUBMITTED ORAL EVIDENCE ONLY.

The Pachmari Motor Service, Pachmari (Mr. H. Brearley).
 *Khan Bahadur Sardar Habib Ullah, M.L.C., Punjab, Lahore.
 *Mr. M. A. Ghani, M.L.C., Punjab, Lahore.
 *Sheikh Mohd. Sadiq, M.L.C., Punjab, Lahore.
 Messrs. Govan Bros., Ltd., New Delhi (Mr. A. F. T. Cambridge).
 The Delhi Taxi Lorry Owners and Drivers Union, Delhi (Mr. Dan Singh, Secretary).
 Captain S. E. C. White, Lloyd's Agent at Bombay.

(iii) LIST OF NON-OFFICIAL WITNESSES WHO SUBMITTED EVIDENCE IN WRITING ONLY.

The Indian Chamber of Commerce, Calcutta.
 City Banking and General Credit Corporation, Calcutta.
 Indian Insurance Institute, Calcutta.
 Mr. B. B. Lahiri, Calcutta.
 The All-India Motor Travellers' Association, Kolhapur.
 The Indian Merchants' Chamber, Bombay.
 The General Motors Acceptance Corporation, Sewri, Bombay.
 The Dharwar District Co-operative Motor Owners' Association.
 The Regal Motor Service, Junnar (District Poona).
 The Belgaum District Motor Owners' Association.
 The Karachi Chamber of Commerce, Karachi.
 The Workmen's Compensation Aid Society, Karachi.
 The Upper India Chamber of Commerce, Cawnpore.
 S. N. Venkatesa Iyer, Advocate, Coimbatore.
 The New India Assurance Company (Bombay), Ajmer.
 The East Indian Railway Administration.†
 A number of individual motor owners and others in Bihar interested in the motor industry.

* Representing the general travelling public.

† Received through the Government of the United Provinces



**Proceedings of the Twelfth Conference
of Registrars of Co-operative Societies
held at New Delhi on Tuesday and
Wednesday, the 8th & 9th December,
1936.**

**PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI.
PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, NEW DELHI.
1937.**

Price Re. 1 As. 8 or 2s. 6d.

List of Agents in India from whom Government of India Publications are available.

(a) PROVINCIAL GOVERNMENT BOOK DEPOTS.

- MADRAS:**—Superintendent, Government Press, Mount Road, Madras.
- BOMBAY:**—Superintendent, Government Printing and Stationery, Queen's Road, Bombay.
- SIND:**—Manager, Sind Government Book Depot and Record Office, Karachi (Sadar).
- UNITED PROVINCES:**—Superintendent, Government Press, Allahabad.
- PUNJAB:**—Superintendent, Government Printing, Punjab, Lahore.
- BURMA:**—Superintendent, Government Printing, Burma, Rangoon.
- CENTRAL PROVINCES:**—Superintendent, Government Printing, Central Provinces, Nagpur.
- ASSAM:**—Superintendent, Assam Secretariat Press, Shillong.
- BIHAR:**—Superintendent, Government Printing, P. O. Guisrabad, Patna.
- NORTH-WEST FRONTIER PROVINCE:**—Manager, Government Printing and Stationery, Peshawar.
- ORISSA:**—Press Officer, Secretariat, Cuttack.

(b) PRIVATE BOOK-SHIPPERS.

- | | |
|---|---|
| <p>Advani Brothers, P. O. Box 109, Cawnpore.</p> <p>Aero Stores, Karachi.</p> <p>Banthyia & Co., Ltd., Station Road, Ajmer.</p> <p>Bengal Flying Club, Dum Dum Cantt.</p> <p>Bhawani & Sons, New Delhi.</p> <p>Book Company, Calcutta.</p> <p>Booklover's Resort, Taikad, Trivandrum, South India.</p> <p>Burma Book Club, Ltd., Rangoon.</p> <p>Butterworth & Co. (India), Ltd., Calcutta.</p> <p>Careers, Mohini Road, Lahore.</p> <p>Chatterjee & Co., 3, Basuaram Chatterjee Lane, Calcutta.</p> <p>Chakraverty, Chatterjee & Co., Ltd., 15, College Square, Calcutta.</p> <p>Das Gupta & Co., 54/3, College Street, Calcutta.</p> <p>Delhi and U. P. Flying Club, Ltd., Delhi.</p> <p>English Book Depot, Ferozepore.</p> <p>English Bookstall, Karachi.</p> <p>Faqr Chand Marwah, Feshawar Cantonment.</p> <p>Fono Book Agency, Simla.</p> <p>Higginbothams, Madras.</p> <p>Hindu Library, 137/E, Baram De Street, Calcutta.</p> <p>Hyderabad Book Depot, Chaderghat, Hyderabad (Deccan).</p> <p>Imperial Book Depot and Press, near Jama Masjid (Machhliwalan), Delhi.</p> <p>Indian Army Book Depot, Dayalbagh, Agra.</p> <p>Indian Book Shop, Benares City.</p> <p>Indian School Supply Depot, Central Avenue South, P. O. Dharamtala, Calcutta.</p> <p>Insurance Publicity Co., Ltd., Lahore.</p> <p>International Book Service, Poona 4.</p> <p>Jacques & Co., Kamptee Road, Nagpur, Messrs. Neston.</p> <p>Jaina & Bros., Mori Gate, Delhi, and Connaught Place, New Delhi, Messrs. J. M.</p> <p>Kanaka Book Depot, 15, College Square, Calcutta.</p> <p>Karnataka Publishing House, Bangalore City.</p> <p>Keas & Co., Karachi.</p> <p>Kitabistan, 17-A, City Road, Allahabad.</p> <p>Krishnaswami & Co., Teppakulam P. O., Trichinopoly Fort, Messrs. S.</p> <p>Lahiri & Co., Calcutta, Messrs. S. K.</p> <p>Local Self-Govt. Institute, Bombay.</p> <p>London Book Co. (India), Arbab Road, Peshawar.</p> <p>Murree, Nowshera, Rawalpindi.</p> <p>Messrs. U. P. Mainwara & Co., Post Box No. 94, Lahore.</p> <p>Minerva Book Shop, Anarkali Street, Lahore.</p> <p>Modern Book Depot, Bazar Road, Sialkot Cantt.</p> | <p>Modern Book Depot, Napier Road, Jullundur Cantt.</p> <p>Monania, Dossabul Shah, Hazrat.</p> <p>Vanditshore & Bros., Obowk, Benares City.</p> <p>New Book Co., "Kitab Mahal", 192, Hornby Road Bombay.</p> <p>Newman & Co., Ltd., Calcutta, Messrs. W.</p> <p>Oxford Book and Stationery Company, Delhi, Lahore, Simla, Meerut and Calcutta.</p> <p>Parikh & Co., Baroda, Messrs. B.</p> <p>Pioneer Book Supply Co., 20, Shih Narayan Das Lane Calcutta and 219, Cloth Market, Delhi.</p> <p>Popular Book Depot, Grant Road, Bombay.</p> <p>Punjab Religious Book Society, Lahore.</p> <p>Raghunath Prasad & Sons, Patna City.</p> <p>Rama Krishna & Sons, Booksellers, Anarkali, Lahore.</p> <p>Ram Krishna Bros., Opposite Bishrambag, Poona City.</p> <p>Ram Narain Lal, Katra, Allahabad.</p> <p>Ramesh Book Depot & Stationery Mart, Kashmir Gate, Delhi.</p> <p>Ray & Sons, 45, K. & L. Edwardes Road, Rawalpind Murree and Peshawar, Messrs. J.</p> <p>Roy Chowdhury & Co., 11, College Square, Calcutta Messrs. N. M.</p> <p>Sarcar & Sons, 15, College Square, Calcutta, Messrs. M. O.</p> <p>Sarkar & Co., Ltd., 18, Shama Charan De Street and 8/2, Hastings Street Calcutta, Messrs. P. O.</p> <p>Standard Bookstall, Karachi.</p> <p>Standard Bookstall, Quetta.</p> <p>Standard Book Depot, Lahore, Dalhousie and Delhi.</p> <p>Standard Law Book Society, 69, Harrison Road, Calcutta.</p> <p>Taraporevala Sons & Co., Bombay, Messrs. D. B.</p> <p>Thacker & Co., Ltd., Bombay.</p> <p>Thacker, Spink & Co., Ltd., Calcutta and Simla.</p> <p>Tripathi & Co., Booksellers, Princes Street, Kalbade Road, Bombay, Messrs. N. M.</p> <p>University Book Agency, Kaserni Road, Lahore.</p> <p>Upper India Publishing House, Ltd., Literature Palace Aamuddasin Park, Lucknow.</p> <p>Varadachary & Co., Madras, Messrs. P.</p> <p>Venkatasubba, A., Law Bookseller, Vellore.</p> <p>Whooier & Co., Allahabad, Calcutta and Bomba Messrs. A. H.</p> <p>Young Man & Co., Ajmer, and Egerton Road, Delhi.</p> |
|---|---|

* Agent for publications on Aviation only.

LIST OF MEMBERS.

Government of India.

Department of Education, Health and Lands—

1. The Hon'ble Kunwar Sir JAGDISH PRASAD, Kt., C.S.I., C.I.E., O.B.E., Member of the Executive Council of the Governor-General—(*Chairman*).
2. Mr. M. S. A. HYDARI, C.I.E., I.C.S., Joint Secretary to the Government of India.

Private Secretary to H. E. the Viceroy—

3. Mr. J. G. LAITHEWAITE, C.I.E.

Imperial Council of Agricultural Research—

4. Mr. A. M. LIVINGSTONE, Agricultural Marketing Adviser to the Government of India.

Reserve Bank of India—

5. Mr. K. G. AMBEGAOKAR, I.C.S.

Madras.

6. Mr. T. AUSTIN, I.C.S., Registrar of Co-operative Societies.
7. M. R. Ry. Rao Bahadur T. M. NARAYANASWAMI PILLAI AVL.
8. M. R. Ry. Diwan Bahadur K. DEIVASIKHAMANI MUDALIAR AVL.

Bombay.

9. Mr. M. D. BHANSALI, I.C.S., Registrar of Co-operative Societies.
10. Mr. C. B. HULI, Assistant Registrar of Co-operative Societies.
11. Mr. V. L. MEHTA, Director, Bombay Provincial Co-operative Bank.

United Provinces.

12. Mr. VISHNU SAHAY, I.C.S., Registrar of Co-operative Societies (*Secretary of the Conference*).
13. Rai Sahib Babu RADHA MOHAN.

Punjab.

14. The Hon'ble Sardar Sir JOGENDEA SINGH, Kt., Minister for Agriculture.
15. Mr. M. L. DARLING, C.I.E., I.C.S., Financial Commissioner, Development.
16. Mr. J. C. W. EUSTACE, I.C.S., Registrar, Co-operative Societies.
17. Khan Bahadur Nawab FAZAL ALI, O.B.E., Vice-Chairman, Punjab Co-operative Union.
18. Lt.-Col. S. B. GURBUKSH SINGH, O.B.E.

Burma.

19. U TIN GYI, A.T.M., Registrar of Co-operative Societies.
20. U BA MAUNG, K.S.M., Manager, Pegu District Central Co-operative Bank.

Bihar.

21. Mr. Y. A. GODBOLE, I.C.S., Registrar of Co-operative Societies.
22. Babu TARAPRASANNA GHOSE.
23. Rai Bahadur BHOLA NATH.

Central Provinces.

24. Mr. G. S. BHALJA, I.C.S., Registrar of Co-operative Societies.
25. Dewan Bahadur K. V. BRAHMA, B.A., LL.B., C.I.E.; M.B.E.
26. Mr. W. B. LAKHE, President, Chhattisgarh Division Co-operative Institute.

Assam.

27. The Hon'ble Khan Bahadur Maulvi ABDUL HAMID, B.L., Education Minister.

North-West Frontier Province.

28. Khan Sahib Malik SULTAN MAHMUD KHAN, Assistant Registrar of Co-operative Societies, Northern Circle.
29. Mr. MUHAMMAD DARWESH KHAN, Honorary Secretary, Mardan Central Co-operative Bank.

Orissa.

30. Babu SATISH CHANDRA ROY, Deputy Registrar of Co-operative Societies.

Ajmer-Merwara.

31. Mr. BHANWAR LAL, Registrar of Co-operative Societies.

Delhi.

32. Ch. NARAIN SINGH, B.A., LL.B., Hony. Secretary, Central Co-operative Bank, Ltd.
33. Rai Sahib LALA RAM PERSHAD, Director, Central Co-operative Bank, Ltd.

Coorg.

34. Mr. K. CHENGAPPA, Registrar of Co-operative Societies.
35. Mr. I. C. SUBBAYYA, M.A., B.L., Representative of the Coorg Co-operative Central Bank.

INDIAN STATES.*Hyderabad.*

36. Mr. FAZLULLAH, Registrar of Co-operative Societies.

Mysore.

37. Mr. M. G. MEHKRI, B.A., LL.B., Registrar of Co-operative Societies.

Baroda.

38. Mr. RAMANLAL DESAI, Registrar of Co-operative Societies.
39. Dr. S. M. PAGAR, Development Commissioner.
40. Mr. M. V. DESAI, B.A., LL.B., President, Baroda Co-operative Land Mortgage Bank.

Kashmir.

41. Sheikh GHULAM MOHD., Registrar of Co-operative Societies.

Travancore.

42. Mr. M. GOVINDA PILLAI, B.A., Registrar of Co-operative Societies.

Gwalior.

43. Mr. RANGLAL, Director of Co-operative Societies.

All-India Co-operative Institutes' Association, Lahore.

44. Khan MOHD. BASHIR AHMAD KHAN, M.A., LL.B., M.R.A.S. (Lond.), Honorary Secretary, All-India Co-operative Institutes' Association.

Indian Provincial Co-operative Banks' Association.

45. Mr. RAMDAS PANTULU, President, Indian Provincial Co-operative Banks' Association.
-

AGENDA.

Finance.

1. How can the present co-operative agencies for agricultural credit be better co-ordinated?
2. What facilities should the Reserve Bank of India give to co-operative banks in respect of remittance of funds?
3. How can co-operative societies take advantage of the credit facilities of the Reserve Bank of India and what should be the relations between the Agricultural Credit Department of the Reserve Bank and the Co-operative Credit movement.

Marketing.

4. To what extent should co-operative banks undertake to advance money on the security of produce stored with them?
5. Consideration of the progress of co-operative marketing of agricultural produce, *e.g.*, cane.
6. Should marketing societies issue crop loans and should supply societies allow credit for purchases made by members?
7. The Government of India, the Provincial Governments and the Governments of Indian States be requested to appoint co-operators on their Marketing Boards.

Land Mortgage Banking.

8. Should co-operative land mortgage banks be established in all provinces where agriculture is the predominating occupation of the rural population?

Development.

9. What part should the co-operative movement play in the village uplift schemes adopted in the provinces?

General.

10. What steps should be taken to enable central banks to employ their surplus resources in view of the fact that the demand from societies has considerably diminished?
11. What is the correct method of arriving at divisible profits in societies with special reference to accrued interest on loans?
12. How far is the co-operative movement affected by the Debt Legislation in different provinces and what attitude should co-operative societies adopt in the matter?
13. There is a great need of spreading the co-operative movement among women and the Governments of various provinces and States in India be requested to appoint lady organisers for taking up this work and also to open classes for training women workers

14. The Universities should give prominence to the study of Co-operation in every practicable manner, for instance by making it a special subject for degree courses, both in Arts and Commerce and also in Agricultural and Technical schools and institutions

Law.

15. Are Civil courts competent to interfere in matters touching the business of a society in provinces which have a provision in their Act or Rules that such disputes shall be referred to the Registrar for decision? If so, does the law require amendments further to safeguard against unnecessary litigation?
16. Whether there is need for incorporating in the Co-operative Societies Acts suitable provisions on the lines of those in explanation 2 under clause (d) of sub-section 48(1) of the Bihar and Orissa Act (which empowers the Registrar to determine in arbitration whether or not a person is or was a member of the society) to enable not only an arbitrator but also the liquidator to decide disputes regarding the question of membership in a registered society?
17. Should the Law of Limitation be made applicable to transactions of co-operative societies? Is it desirable to modify the application of the Law on the lines of the Bihar and Orissa Co-operative Societies Act?
18. Is it not desirable to incorporate a provision similar to that in section 40 of the Bihar and Orissa Act so as to make members and office-bearers liable for any loss caused to the society by acts of omission or commission?
19. How can the legal charge on crops in respect of loans advanced for this purpose be made effective?
-

PROCEEDINGS OF THE 12TH CONFERENCE OF REGISTRARS OF
CO-OPERATIVE SOCIETIES.

The Conference assembled in the Conference Room, Imperial Secretariat South Block, at 11 A.M. on Tuesday, 8th December 1936.

The Hon'ble Kunwar Sir Jagdish Prasad in opening the Conference said:

Gentlemen,

I consider indeed that this is a noteworthy occasion as it gives me an opportunity during my term of office of extending to you a warm welcome and of telling you how greatly we appreciate your labours in a field which has such vast possibilities for doing beneficent service to the vast bulk of the Indian people. I need not emphasize the value of these Conferences and what they have done to prevent stagnation of thought and effort. They are a corrective to a placid contemplation of things as they are. Competent critics have noticed how often one Province is ignorant of the doings of its neighbour, how provincial boundaries are apt to become barriers against the flow of knowledge and experience. This Conference gives opportunities to workers in the same field, officials and non-officials to exchange views, to compare experience, to discuss common problems and to make, what is most important, personal contacts. I am sure that the value of this Conference extends beyond the passing of a number of formal Resolutions. This is, I believe the 12th Conference of the series, but since the Reforms this is the fourth Conference. The first was held in 1926, then we had a conference in 1928. Unfortunately after that, there was a gap of six years and no conference met till 1934. I trust that in future, the intervals between the Conferences will not be so great. I wish I could give this Conference some information as to the action that was taken on the 23 Resolutions that were passed in 1934. Twenty-two of those Resolutions concerned the Local Governments and I am sure that they gave the Resolutions of the Conferences the consideration which they deserved. I shall see, if it is not possible in future to get more up-to-date information as to the action taken on our deliberations because it would be of some satisfaction to know whether our Resolutions have had some practical effect. Only one Resolution concerned the Government of India and it was in regard to legislation for societies operating in more than one provincial field or of an all-India nature; and it was found after consultation with the Local Governments that the disadvantages and the difficulties were greater than the supposed advantages and the matter was allowed to drop. I need not also reiterate that so far as

the Government of India are concerned, we have no desire to impinge on the provincial sphere. We are here to help you, the Provinces and the Indian States, to make this movement one of the most potent in the uplift of the masses.

I think the Conference would like me to thank Mr. Darling for the efficient way in which he has conducted the proceedings of the Registrars' Conference. Mr. Darling has devoted a whole life-time to the study of rural problems. We are familiar with his works which show an insight and sympathy, rare in this country, and there is no doubt, I think I am not exaggerating, that he is one of the greatest living authorities on rural problems in India. I think I may be permitted to add a word of praise for the Secretary Mr. Vishnu Sahay for the efficient manner in which he has discharged his task.

You will remember, gentlemen, that the last conference was presided over by my distinguished predecessor, the late Sir Fazl-i-Hussain. By his death we have lost a courageous statesman and a vigilant and resourceful guardian of rural interests. I should also like to mention the names of two non-officials who rendered signal services to the movement, I mean the late Mr. Devdhar and the late Sir Lalubhai Samal Das. They show once again the deep debt of gratitude which this movement owes to the disinterested labours of non-officials in the co-operative field. I am sure that you would like at a later stage to pass formally a resolution showing your appreciation of their services and of sympathy with their relations.

Gentlemen, I do not propose to make a detailed survey of the history of the co-operative movement before this assembly of experts, but I think it may not be quite irrelevant, if I were to make a few general observations on how certain aspects of the movement strike a man deeply interested in the welfare of the movement and closely connected with the countryside. I do not propose to enter into technical question and I wish to avoid controversial topics. It must be remembered that the co-operative movement in India is only a little over 20 years old. It was introduced on the initiative of Government—it was not the result of any popular demand. Its whole history, a history somewhat chequered, has been dominated by this fact. We have seen time out of number that the premature withdrawal of control has had disastrous results. But I do not wish for a moment to be misunderstood. The object of control is really to hasten the process of freedom. The object is to create conditions that this control may be easily removed because the whole object of the movement is that the societies should stand on their own legs. Therefore when I say that the removal of control has led to unfortunate results, I lay emphasis on the word premature withdrawal. Judged by statistics, the movement has made not unsatisfactory progress. We have in India

over a lakh of societies, mostly agricultural. In Germany, the pioneer of co-operative credit, I believe that in the first thirty years, there were only 30 societies, in Austria during the first ten years, there were only 15 societies. We have a working capital of 97 crores, of which about 29 crores is owned capital. Most of the societies, as is only natural in an agricultural country, are agricultural and I believe their numbers are just a little over 90,000, I think 93,000. But it is not enough to go by these statistics. I think we have to ask ourselves a few searching questions in order to get a true picture of the movement. We have to ask to what extent are the principles of co-operation understood by the officers who are supposed to guide the movement and by the members of societies and to what extent they have been able to inculcate the virtues of punctuality in repayment of loans and interests. We have to find out whether the virtues of thrift have taken effect amongst our members. In short we have to find out by a little searching analysis whether the movement has made progress, whether it is stationary or whether it has gone back. I am afraid that the answers to these questions in a number of provinces are not as satisfactory as one would wish them to be. It has been found that the training of the staff and the education of societies has been very defective in a number of provinces. So greatly were the Government of India impressed with these serious shortcomings that last year they allotted a sum of Rs. 15 lakhs to be devoted for the training of the staff and the members. It has also been found that the arrears of loans and interests have in many provinces been of alarming proportions, partly due to the great slump in prices, partly to over-financing and partly, I am afraid, to lack of control by an adequate staff. The societies had got into such a state that the only solution was to liquidate them and the number of societies which has been liquidated is certainly somewhat alarming. In the eight major provinces, over 25,000 societies have been liquidated which means that since the movement began one primary society out of four has had to be liquidated. The conference can well realise the set-back that liquidation on such a scale is likely to give to the movement. It shakes confidence in the countryside. It also involves so much loss of time, of effort and of money.

Now coming to the question of thrift. A very interesting investigation was made in the Punjab in regard to agricultural societies and it was found that in the case of 100,000 members, only 13 per cent. were free from debt of all kinds. No such enquiry has been made in other provinces, but I think it will be generally recognised that people join societies in order to borrow, that it is rare that a man of means who has no intention of borrowing joins these societies. It has also been found that except

in three provinces the savings in deposits do not exceed more than Rs. 35, that is to say only in three provinces, the average is a little over Rs. 20 and does not exceed Rs. 35. Members of the Conference know that it may be because of the unlimited liability or it may be for other reasons that men of substance have not joined these societies. They have not been able to attract deposits from the villages: they have not been a kind of savings bank for the countryside. They have been more in the nature of distributing agencies for loans taken from the central societies.

I come now to another point. Largely due to depression in prices, members have not been able to repay their debts. Banks have not been able to lend money at a time when it was most urgently needed and the result has been serious stagnation in many provinces whose sole function for some years now has been to collect only the outstanding debts. Governments also, partly or largely through financial embarrassments, have not been able to devote as much money to this movement as it required or as circumstances would have demanded. I believe that except in the Punjab where the net expenditure as compared to the revenue is just a little over one per cent., in most of the provinces it is below half a per cent. In two or three it is just a little above half a per cent., but in most provinces, it is below half a per cent.

Another serious defect has been noticed. Commissions and Committees have laid repeated emphasis on the importance of the post of the Registrar. It has been laid down that on his ability, on his knowledge, on his drive, on his personality and on his initiative depends the progress of the movement. I am not sure whether these wise counsels have always been borne in mind in making these appointments. I should also like to draw the attention of the conference that when all is said and done we have so far only touched the fringe of the movement. Figures show that except in the Punjab where out of every 100 villages, 48 have a society, in other provinces, the percentage rapidly goes down. I believe in Bengal, it is 23 per cent.,—this is the next Province after the Punjab,—and in Madras, it is 22 out of 100. In other provinces, for instance in the U. P., from which I come, I believe that only 5 villages out of 100 have these co-operative societies. It is true that we have nearly 4 million 400 thousand members, but considering the population of India, on a generous estimate only about 15 million including the families of members have so far been touched by this movement.

Well, I have so far perhaps laid too much emphasis on the deficiencies which have come to notice; I should now like to emphasize the good that has already been done. After all, as I said, over 30 crores is now the savings of these members. In societies and in places where the movement is flourishing and strong, the rates of interest have certainly come

down. In some provinces, the movement has really taken hold. I have also perhaps devoted an undue amount of attention to agricultural credit societies, and I should now like to say that non-agricultural societies are rapidly coming to the front. I need only mention the work done by these societies in the consolidation of holdings in the Punjab, the cotton sale societies in Gujerat, the sugar cane supply societies in the U. P. There are many directions in which we can link up these societies either with thrift or with rural reconstruction or with marketing. Some people have even come to the conclusion that for the future it may be advisable to have reconstruction first and credit afterwards because we all realise the great dangers of supplying credit for unproductive purposes. It has been said that the problem of rural credit is not so much the supply of funds as that they should be utilised for productive purposes. Some one has said that borrowing for consumption is the road to poverty and that borrowing for production is the road to well being. Many of us who have had dealings with cultivators know how prone they are to borrow. Real emphasis is to be laid on the proper use of money. That, I think is one of the main problems before you.

I had at the beginning laid emphasis on the importance of training and adequate staff. I should not be regarded as unmindful of the great services which non-officials have rendered to this movement. I see here before me veterans in this noble cause like Mr. Ramdas Pantulu, and there are others. The field is so vast that officials and non-officials can both co-operate in this stupendous task. For what is it that you are aiming at? You are aiming at inculcating the virtues of thrift, of self-help, of willingness to help others, of business methods, of working each for all and not each against each. I think what we are attempting to do is the training on right lines of character and of trying for the growth of a self-reliant, upright educated and prosperous tenantry. I do not think myself that there is any movement which has greater potentialities for good for the rural population than the movement to which you have devoted so much of your time and abilities. In the words of the Royal Commission on Agriculture, if co-operation fails, then surely fails the best hope for rural India. Let us see to it that this does not happen. I do not minimise the difficulties. You have to educate millions of illiterate people. You have to train them in new habits, you have to wean them from old-established customs, but believe me, that in the future the problems of rural India will engage more and more the attention of our legislators and of our rural population, for their masters, 35 million voters mostly rural will demand that practical remedies and not merely rhetoric and academic discussions should be applied to their many ills. No greater contribution could be made for the solution of the present agrarian discontents on

peaceful lines than an efficient co-operative movement. To it let us bend our energies in the hope that our labours will not be in vain. (Applause.)

At the suggestion of the Hon'ble Sardar Sir Jogendra Singh, seconded by U Ba Maung, the Hon'ble Kunwar Sir Jagdish Prasad was elected President of the Conference.

The Hon'ble the President: The procedure this year has been that the preliminary agenda was first considered by the conference of Registrars and after due consideration they have now placed before you the items which they consider require to be discussed by the whole conference. I will now ask Mr. Austin from Madras to open the discussion on the first resolution.

Mr. Austin (Madras): Sir, the first resolution reads as follows:

“The conference considers the linking of credit and marketing wherever possible to be of great importance and suggests that the note submitted by the Registrar, Madras, be examined carefully in each province with a view to the introduction of a similar scheme adapted to local conditions.”

I imagine there will not be much disagreement with regard to the first part of the resolution, and as the note that I have submitted [Appendix I] has been mentioned, I will try to explain as simply as I can the rather complicated scheme which has recently been introduced into one district of Madras.

There are at present three co-operative agencies for dispensing agricultural credit, *viz.*, (1) the rural credit society, (2) the land mortgage bank, and (3) the loan and sale society. The object of the first is chiefly the financing of agricultural operations; the object of the second is chiefly the liquidation of prior debts; and the object of the third is the provision of credit on the security of harvested produce to enable the agriculturist to wait for a better price. The Agriculturists can derive the maximum benefit from these institutions only if they work in close co-operation with one another.

The ideal method of co-ordination would be first for the land mortgage bank to clear the ryot's prior debts with a long term loan of 20 or 30 years. Then, the ryot thus redeemed should be given loans by the rural credit society for agricultural operations as well as for the payment of kist and for domestic expenses during the cultivation season. Later, when the produce is harvested, it should be taken into the sale society's warehouse. If prices prevailing at the time are favourable, the produce should be sold by the sale society at once, and the sale proceeds devoted first towards discharging the loan given in the rural credit society and secondly towards discharging the loan instalment due to the land mortgage bank. The surplus remaining after these payments should be handed over to the ryot. If the prices prevailing at the time the harvest reaches the warehouse are unfavourable, the sale society should advance a loan on the security of the produce kept in its godowns. Out of this produce-pledge loan, the sale society should discharge the rural credit society's loan and the land mortgage bank's loan instalment and give the balance alone to the ryot. The entire produce-pledge loan should be recovered by the sale society when the produce is sold.

The above scheme of co-ordination requires also that of two other co-operative agencies, *viz.*, (1) the Central Bank and (2) the Supervising Union. The former should finance rural credit societies for agricultural

operations at the proper time and look upon the sale society as its collection agency. The latter (Supervising Union) should get its supervising staff to see to the disbursement of the cultivation loans in time to the ryots by the rural credit societies. The Supervising staff should also see that the harvested produce reaches the sale society's warehouse.

To ensure timely disbursement of loans, the financing banks should sanction seasonal cash-credits to rural societies ranging from Rs. 100 to Rs. 2,000 for each season (*e.g.*, cotton season, groundnut season, etc.), on the recommendation of the supervising Union. These cash-credits should be operated on by cheques by the Presidents of rural societies subject to the condition that no member should be given, say, more than Rs. 10 an acre for cotton or Rs. 12 an acre for groundnuts. The Central Banks should honour cheques on seasonal cash-credits only if they are accompanied by an advice slip furnishing name of each borrower, amounts to be given to each and acreage under cotton or groundnut (as the case may be) to be sown by the borrower. These advice-slips should be signed by at least 3 *panchayatdars*, should bear the seal of the society and should be countersigned by the Supervisor in charge of the society. As soon as the Central Bank disburses the cheque amount, it should send a copy of the disbursement statement to the Union and Sale Society, the former for watching the harvest and sending it to the warehouse, the latter for effecting collections from the sale proceeds of the produce.

To ensure that the harvest whose production is financed by the Central Bank is actually raised on the fields and reaches its destination, the Union's supervising staff should inspect the lands proposed to be cultivated once before they countersign the advice-slip and at least once again at the time of the harvest. As the whole scheme depends for its success on an effective supervision over the cultivation that has been financed and on the delivery of the resultant produce at the warehouse, it is important that the supervising staff should not skulk this work. For this purpose, each one of them must maintain pocket diaries separately for cotton cash-credits, groundnut cash-credits, etc. These pocket diaries should furnish full particulars of cash-credits disbursed to each member in each society in his charge, the survey numbers on which the crop is raised and their extent in acres. These pocket books should be checked by the Secretary of the Central Bank once soon after the cash-credits are disbursed and again at the time of harvest by doing field inspection. Departmental Officers also should check these pocket-books and the fields concerned off and on. When the produce raised is sold through the warehouse and the cash-credits are recovered, the supervising staff should then and there post their books with the collections effected.

It is important that the accounts of one season's cash-credits should be finally settled as soon as that season is over and that no carry over should be permitted except for satisfactory reasons. The Central Bank Secretary should then give a final disposal for the overdues in each society in consultation with the Deputy Registrar. In some cases they will have to be recovered out of the next crops, in others, coercive processes may be necessary and in some cases they may even have to be written off. If worked out in all this detail, the Central Bank will be able to say that it advanced so much to so many rural societies for such and such cultivation, that so much of crops arrived at the sale society, that they were sold for so much, that so much of its advance fell overdue, of which so much fell overdue for reasons beyond man's control.

This scheme looks very fine on paper but it depends on several incalculable factors, *e.g.*, supervision, prices, honesty of members, the season and so on. It may seem to be Utopian, but if properly worked by everybody concerned and with average luck, may prove the best way of co-ordinating the present co-operative agencies for agricultural credit for the benefit of the ryot. The scheme tries to deal with every stage and to meet every contingency. The area should be one or two taluks each containing, say, 20 societies.

The resolution was seconded by Dewan Bahadur Deivasikhamani Mudaliar.

The Hon'ble Sardar Sir Jogendra Singh (Punjab): I congratulate Madras on leaving the beaten track and putting up a new scheme which may not be practicable but which is certainly worthy of consideration. The magnitude of the problem of providing rural credit needs realisation. In the Punjab the co-operative movement so far as credit is concerned is healthy. So far as the gospel of co-operation is concerned, that is, awakening the co-operative spirit, we have made little advance. Taking the purely material side and the meeting of demands for rural credit which ought to be met if agriculture is to prosper, may I ask—are we taking measures to meet that demand? Are we content with the slow pace which has marked the progress so far? These are questions which must engage our answer. You, Sir, drew a picture which is both encouraging and discouraging; discouraging because in the last 20 years only two or three provinces could show any progress, and encouraging in the hope that a new spirit is abroad and the voters will wish greater attention to be paid to rural reconstruction. You do not say whether rural reconstruction should begin now or later. Credit is the life-blood of rural reconstruction, and if you provide it, you will start reconstruction on strong foundations.

The real question regarding agricultural credit is whether money can be made available at reasonable rates. Taking the capital cost of an acre of land and the income it earns as from 3 to 4 per cent., it is not possible for a borrower to pay interest at the rate of 12½ per cent. which the societies used to charge. The problem is to make money available at a rate which is within the income of the borrower to pay. The Madras scheme does not seem to me to be workable at present. For its success, as Mr. Austin himself pointed out, you need honesty of purpose and vigilance of control. These things are not ordinarily available. The conference might make it clear and state the fact that if the debt of the agriculturist is in the neighbourhood of a thousand crores and the capital now provided is 99 crores, in no near future can the debt be paid; and this fact should be clearly stated and not ignored. As things stand, we are only touching the fringe of the problem. In the Punjab, for instance, it was found that each member owed at least Rs. 120 and the advance per member was about Rs. 26, which shows that we are not in a position to meet his needs.

The resolution needs careful examination and possibly modification. But the need of providing two kinds of credit is essential: the cash-credit and the long-term credit which is needed for the liquidation of debts. Without these there can be no real progress so far as the credit side of the movement is concerned.

You, Sir, ignored one side of the movement which I think in the Punjab is important. So far as thrift is concerned, we find that women's societies

are the best. If we could secure competent staff for women's societies, thrift can be given a great impetus

U Tin Gyi (Burma): I should like to say something on the marketing aspect of the question. I do not know if the Madras scheme contemplates the existence of a credit society in the village and a marketing society at some business centre. In Burma we have started a scheme for linking co-operative marketing with credit, and I should advocate the formation of a multiple purpose society rather than a single purpose society. We have tried to frame these single purpose societies and we have in each village a credit society, a sales society and a cattle insurance society. When we come to the office bearers we find that the chairman and the other office bearers are all the same. There is less co-ordination and we have great difficulty in exercising proper supervision. Our new scheme links up co-operative marketing with credit and we are now insisting on the payment of all loans in kind, so that the committee of the society carries out all the functions of the marketing society as well as of credit. The crops are collected from the members and then sold by the committee at suitable times and the price realised is debited to the members' loan accounts, any surplus being handed over to the members. We have so far reconstructed on these lines about 370 societies. I do not know what the result will be but this is what Burma has done so far in this respect.

Mr. Fazlullah (Hyderabad): We in Hyderabad have made an effort to bring about co-ordination of credit and marketing. But we have made a start in a district where nearly 80 per cent. of the societies is self-supporting. Each society has a capital of 8 or 10 thousand and they have been able to tackle the question of long-term debt. There are no land mortgage banks but the members of these societies are helped with long-term credit out of the funds of the societies themselves. That they work with their own capital and do not owe anything to the central banks is a guarantee of the fact that members appreciate the value of the co-operative movement. It is in these societies that we have started rural reconstruction work. Like my friend from Burma I am in favour of multiple purpose societies like the all comprehensive rural societies of Bengal. I think the experiment tried by Dr. Tagore will be very helpful. By rural reconstruction I mean better business, better farming and better living; and if that aspect of the question is taken up, the object of the resolution will be realised.

The Hon'ble Khan Bahadur Abdul Hamid (Assam): I think it is desirable to delete the last part of the resolution. We might stop at drawing the attention of the provinces to the importance of the scheme and ask them to examine it. We should not go further, specially as the Punjab Minister has expressed doubts as to the workability of the scheme.

The Hon'ble the President: The resolution has been framed with sufficient safeguards and only asks the provinces to examine the possibility of introducing it. There is no question of giving any direction to them.

Mr. T. P. Ghose (Bihar): The scheme looks all right; but the point is whether it is practicable, especially in our province where one supervisor is in charge of 80 societies. Mr. Austin spoke about the co-operation of supervisors. But is it possible for a supervisor to see that the crops of the members are carried to the warehouse until and unless we know that

all the members are genuine co-operators? If there is a central warehouse. I doubt very much whether even in the village it is possible for the supervisor to see that the crops are carried there. I doubt very much whether the scheme will be workable in our province. The Hon'ble Minister from the Punjab doubted whether agriculture can be a success after paying a high rate of interest, *i.e.*, 9½ per cent. In our province the members pay interest at 18½ per cent., and you cannot expect the co-operative movement to succeed after paying such a high rate of interest. I personally believe that we may regret the mistake in starting the co-operative movement as a credit movement. We should have started the co-operative movement with the Village Welfare and Rural Reconstruction movement. That is the field in which we could have better educated the farmers. Then alone we would have succeeded in making our societies real and genuine co-operative societies. By starting with credit, we have seen that in almost all the provinces the movement is not so successful as the Govt. expected it to be. I think the scheme will not succeed in Bihar, unless some modifications are made in it.

Rao Bahadur T. M. Narayanaswami Pillai (Madras): Mr. Austin has insisted on certain virtues for this Resolution, but those virtues are not the exclusive monopoly of this kind of co-operation. Perhaps for the success of co-operation in every other department the same virtues are necessary. In fact, if this Resolution has been brought forward at all, it is not because the scheme has been tried any where till now. I do not know much about the Punjab, Bihar or Burma, but the chief purpose or the chief claim made out in favour of the scheme in this resolution seems to be doubtful of adoption in Punjab or Bihar. I come from Trichinopoly. It has 3 societies which have worked this kind of co-operation successfully. Agricultural industry may or may not be profitable, but we cannot shut our eyes to the fact that at present there is the slump in prices. How can we get over that slump in prices? The agriculturists do not carry enough in their pockets to pay their kist or assessment, and so what is the other method by which they can fight this trouble? The only way is proper marketing. His attention was not drawn to it till now because agriculture was paying. Now owing to the slump he is hardly able to make both ends meet. That is why this kind of co-operative branch is insisted upon so that he may be able to put into his pocket a little more than what he has been getting till now. In our province there are three or four districts which have worked this plan successfully. There is the paddy marketing society in Trichinopoly, and there are other societies as well in several other places which have worked this kind of thing successfully. The resolution merely says we should examine the question, and therefore I commend this Resolution.

Mr. V. L. Mehta (Bombay): Sir, I welcome this Resolution. because I feel that unless we have this kind of co-operation between these 3 agencies, namely the Land Mortgage Banks, the Co-operative Credit Societies and the Marketing organization, I doubt if it would be possible for us to make any progress at all with our movement and to solve any of the problems with which we are faced today. I say this not in any spirit of false optimism. I myself have had some experience of the kind of co-ordination that is proposed in this resolution, and it is because I appreciate the advantages and also realise the difficulties that I feel that effort along these lines is very necessary. The difficulties are numerous, and Mr. Austin has mentioned some of them. I might also relate a few

more of them. The areas of the Bombay Presidency in which we have attempted to secure co-ordination on these lines,—I must add here that we made this attempt at a time when Land Mortgage Banks were not contemplated,—the areas in which we attempted to secure this co-ordination differed considerably in agricultural and economic conditions; in spite of that, I must say that in all the areas where we tried this, we met with a fair measure of success, and I do feel that had it not been slump for the last few years, we might have been able to show better results which would certainly have satisfied those who think that this Resolution is somewhat premature. The main difficulties which are likely to face us in actually putting into operation a scheme of this kind will be, not of course the general question of keeping a hold over the agriculturist and making him loyal, but in preventing anything like the serious evils of our financing to which you, Sir, referred in your inaugural address. This kind of co-ordination is not likely to be successful unless the finance for the agriculturist is as prompt and as adequate as finance from the sowcar. Sometimes finance from the sowcar is excessive, but usually it is prompt and adequate but our finance is neither prompt nor adequate. But in making an attempt to provide both prompt and adequate finance it is just possible we might make mistakes, and those mistakes are likely to have repercussions in case there is a slump in prices or there are failures of crops. These are contingencies which will have to be provided for, but these are contingencies for which we as co-operators, who wish to secure a solution of some of the problems of our agricultural economy, must face. Though the details of the scheme are sufficiently elaborate, they may not all succeed in practical application. But as a whole the scheme is not open to objection and is one, I think, which deserves to be examined.

Mr. M. V. Desai (Baroda): The Resolution moved by Mr. Austin is certainly a thought-provoking Resolution. This problem has been engaging the attention of the Baroda Government for the last 3 years, and we have not come to any definite conclusion as to what scheme should be evolved to avoid certain difficulties, difficulties which have been more enhanced after the introduction of Land Mortgage Banks in different provinces. These Banks were originally introduced with a very noble purpose; that was to liquidate all the debts of an agriculturist and to give him more encouragement so far as his personal efforts are concerned. Wherever the Land Mortgage Banks have been worked, they have served their purpose, but there was a consequential evil attaching to this very good intention, *vis.*, that, his credit was absolutely crippled. Generally, all his lands and property were under a charge to the Land Mortgage Banks. Even the co-operative credit societies were not willing to advance him money. As many of the agriculturists have mortgaged their lands and properties to the Land Mortgage Banks, this problem assumes a very great importance, when side by side different co-operative movements are working in the same district. Therefore the Baroda Government were trying to evolve a scheme. One gentleman from Bihar had raised certain objections, and those objections, as far as I could understand them, were not to the scheme itself,—the scheme is certainly very good in itself and is absolutely necessary, but the objections were to the working of the scheme. There are 2 agencies at work, the official and the non-official agencies, as the Hon'ble the President said. If that is so, we have to see that we have good supervising official staff. The scheme itself is a very good one, it is one of the possible solu-

tions. It may look Utopian, but it is certainly an excellent scheme. I commend this resolution to the conference.

Mr. Subbaiya (Coorg): I come from a little province where we have 274 villages, out of which 268 are served by co-operative societies. As a non-official, I welcome it, because it places a good deal of burden on the Government to give effect to this Resolution. As non-officials interested in the co-operative movement, who have been making demands upon the Local Governments and also on the Government of India to grant us subsidies or financial assistance for increasing our supervising staff. From that point of view, if this resolution is accepted we could urge upon the Government to provide us with greater funds for enlarging our supervising staff which is the most important element for the successful working of the scheme. In Coorg we have no Land Mortgage Banks so far, but one is under contemplation. We have however a Central Bank working more or less on the lines of Land Mortgage Banks. We are trying to start a Land Mortgage Bank at the earliest possible moment. The Central Bank has been trying to function as a Land Mortgage Bank by advancing loans during the last 2 or 3 years, repayment spread over a period of 10 years, but we are not satisfied with it. I suppose the Resolution also contemplates the Central Co-operative Banks where there are no Land Mortgage Banks functioning. I am not going into details, but I may say that in some rural credit societies, we are trying to recover loans in kind. In a way it is a sort of start which the scheme has in contemplation, and I must say that the scheme has worked successfully. I hope that in giving effect to this scheme the manner in which the adjustment of short term and long term loans would be taken into account and due importance given to the various needs of the members of the societies arising from time to time like the seasonal needs and so forth. By this scheme the Government takes upon its shoulders a good deal of responsibility, and from that point of view I support this Resolution.

The Hon'ble the President: Mr. Austin, would you like to say anything in reply?

Mr. T. Austin: In reply to the Registrar of Burma, I may say that this scheme is an expansion or development of the various schemes which have worked more or less successfully in some of the Madras districts as Mr. Narayanaswami Pillai has said. I do not suggest for a moment that it will suit even every district in Madras. Much less, therefore, will it suit every province in India. It is a tentative scheme as it stands now. It has not had the benefit of even one year's trial, and naturally it is open to modification according to local conditions and according to experience.

The Hon'ble the President: I think the general sense is that the Resolution as worded ought to go to the provinces. It only asks for an examination of the position. May I take it that this Resolution is passed?

The Resolution was adopted unanimously.

The Hon'ble the President: The second Resolution is that the Conference considers that the facilities at present enjoyed by co-operative societies in respect of remittance of funds should continue.

Mr. Bhansali (Bombay): The item on the agenda is, what facilities should the Reserve Bank of India give to co-operative banks in respect of remittances. At present co-operative societies enjoy certain facilities as regards transfer of funds and remittances. With the advent of provincial autonomy, each province will have control over its own finances, and the question in future is likely to arise as regards the continuance of the existing facilities. The Registrars' Conference is merely looking ahead, and in this Resolution it has given its considered opinion that the existing facilities should continue. I should say from the point of view of co-operative workers this Resolution is hardly of a controversial nature.

The Hon'ble Sardar Sir Jogendra Singh: What are the existing facilities?

Mr. Bhansali: Under certain enactments, in the Audit Code in particular, it has been laid down that for *bona fide* co-operative purposes the co-operative societies are permitted to transfer money from one society to another without paying the usual remittance charge.

The Hon'ble the President: Mr. Mehta, there are a number of members asking questions, and we should be very glad if you could enlighten them further.

Mr. V. L. Mehta (Bombay): These arrangements, as far as I am aware, have been in vogue ever since the co-operative movement was introduced in India. The main arrangement is this. When a society, in a tehsil or taluka pays any money to the taluka or tehsil treasury for remitting it to the District or provincial headquarters, it obtains from the taluka or sub-treasury either a cash order on the District Treasury or a remittance transfer receipt on the local branch of the Presidency Bank. In more recent times, the Imperial Bank, and in still more recent times the Reserve Bank has been functioning as our Presidency Bank for this purpose. These drafts are issued at par. These drafts are available if the payment is for Rs. 150 or more; if the payment is for a smaller amount, other arrangements for the transfer of the funds are devised. In some province, the sub-treasury issues a remittance transfer receipt direct on the local branch of the Imperial Bank or the Reserve Bank, but I believe the same arrangement does not obtain in all provinces. The other arrangement I mentioned does obtain in all provinces, namely a cash order can be issued at par on District treasuries and funds are transferred through it into the Reserve Bank which means an interval of a few days. The reverse arrangement also obtains when money is paid at the provincial headquarters or into the Imperial Bank, and that money is passed on directly to the District treasury or sub-treasury without charge, but to the latter through the intermediacy of the District treasury. These are the arrangements now in force, but I must mention that these are recommended by the Central Banking Inquiry Committee for all *bona fide* co-operative transactions.

Mr. Ramdas Pantulu: Sir, I accept the Resolution, but I must refer to the question of giving facilities for transfer of funds for purposes other than strictly co-operative which has come up several times. Several of these central banks have surpluses, and portions of these surpluses could be utilised for merely co-operative purposes; they are doing it as a matter of fact. The Indian Central Banking Inquiry Committee, of which I happened to be a member, recommended that the Reserve Bank and the

Imperial Bank should extend to the Co-operative Banks the same facilities which are extended to joint stock banks in respect of transfer of funds. So if co-operative Banks are at all permitted to do Hundi business without detriment to their legitimate co-operative transactions, the same facilities for the transference of funds for strictly co-operative purposes should be extended. I would ask that the unanimous recommendation of the Banking Inquiry Committee should be given effect to, and if you will permit me, Sir, I will add a rider to this Resolution, that "in regard to transactions other than strictly co-operative, facilities which are given to Joint Stock Banks may also be extended to Co-operative Banks".

Mr. Subbajya (Coorg): I second the amendment.

Rai Sahib Babu Radha Mohan (U. P.): Sir, co-operative societies in U. P. are already enjoying the facilities suggested in this Resolution. In U. P. there is no limit in respect of transfer of remittances to sub-treasuries. There are of course some doubts with regard to *quasi-co-operative* remittances. In one instance the shareholders of the Biswan Sugar factory wanted to remit their share money but a doubt arose with regard to the transfer of those remittances. In one instance I remember an objection was raised. Therefore, it is very necessary that the point should be made clear as to whether this Resolution only covers the cases that are strictly co-operative or also *quasi-co-operative* purposes. In one sense it will be too much to expect that outside business also should be carried on in respect of remittances, and it is a point for consideration whether it will be proper for us to discuss it here. Anyway, it is very important that the point should be made clear. To that extent, I support the observations made by Mr. Pantulu.

The Hon'ble Khan Bahadur Abdul Hamid (Assam): I should like only to introduce the words "The Reserve Bank of India" in the resolution itself.

Mr. K. G. Ambegaokar (Reserve Bank): Speaking personally, and not on behalf of the Reserve Bank, I might say this: the question of allowing remittance facilities at par will have to be decided by the Government. At present co-operative societies are allowed certain facilities in this respect. In future, provincial governments in making a rule like that will have to arrive at some sort of agreement with the Government of India as well as with the Reserve Bank: in actual practice, someone will have to incur the expenditure. In the past the Government of India was incurring the expenditure because all the revenues were central revenues. In future each province will have its own balances and the Reserve Bank will do this work on their behalf. In these transactions which are not strictly on government account, the expenses of the Reserve Bank should be reimbursed to them. I think it will be a question to be decided between the Government of India and the provincial Governments and the Reserve Bank will have really very little to do with it. If the Government of India agree to undertake to bear this expenditure on behalf of the co-operative movement in the various provinces, the Reserve Bank will have nothing to say. I think it will be better not to mention the Reserve Bank in the Resolution.

The second point raised by Mr. Pantulu was about allowing hundi business to be done in the same way, *i.e.*, transfer of funds for purposes which are not considered to be strictly co-operative should also be allowed

through remittance transfer facilities. I think he made it clear him- that they would not ask for these facilities at par—that would not be justifiable—but on the same terms as are allowed to joint stock banks. I feel a little doubtful here also because it might be said this is not strictly the business of the co-operative banks and if you want to do the business of joint stock banks there are the facilities of the commercial banks available and there is keen competition for getting this business among the different commercial banks. Apart from this, if the co-operative banks desire to have the same facilities as are given to the scheduled banks, it is necessary that they should abide by the same conditions as the scheduled banks, that is, keep a certain percentage of their liabilities with the Reserve Bank and submit periodical statements to the Reserve Bank. If these conditions are accepted it might be possible for the co-operative banks to obtain the same terms. As I said, I am merely giving my impression of how this question is likely to be treated in future.

Mr. M. L. Darling (Punjab): I understand the present position is unchanged: the Reserve Bank is doing the business formerly done by the Imperial Bank.

The Hon'ble Sardar Sir Jogendra Singh (Punjab): Therefore I think the addition of the words "Reserve Bank" is necessary to make the change effective as proposed by Mr. Pantulu.

Mr. V. L. Mehta (Bombay): The position does not remain what it was. Till now the position was that whenever a society wanted remittance facilities it could without further reference to the Reserve Bank or the Imperial Bank obtain those facilities. But recently we have heard in Bombay from the Reserve Bank that no more centres will be given these facilities

Mr. K. G. Ambegaokar (Reserve Bank): I do not think that is so exactly: when the Reserve Bank started, a circular was issued that the question whether the same concessions should be extended to new societies would be considered on its merits in each case. It has not been said that no further concessions would be given.

Mr. V. L. Mehta (Bombay): I should have added, without specific reference to the Reserve Bank in each case these concessions will not continue.

Several years ago, the Government of India decided what co-operative purposes are: and they included the transfer of deposits from one place to another, and of surplus funds from one centre to another. That ranked a *bond fide* co-operative purpose. The Reserve Bank now appear to have ruled that *bond fide* co-operative purpose will mean only the movement of funds to be lent to or recovered from societies and not movement of funds for investment purposes. That is the other change.

Mr. Godbole (Bihar): I would like to endorse what Mr. Mehta has said. A case arose in Patna recently. The Bihar and Orissa Co-operative Bank wanted to remit certain funds of its own for investment in government securities: the Agent of the Imperial Bank at Patna raised the question whether it was a *bond fide* co-operative purpose and after some delay it was decided in favour of the co-operative movement. I think we might pass the resolution as it is worded.

The Hon'ble the President: I take it the general sense of the conference is that the resolution should be passed with the amendment of Mr. Pantulu—

“The Conference considers that the facilities at present enjoyed by co-operative societies in respect of remittance of funds should be continued by the Reserve Bank; and in regard to transactions other than strictly co-operative the facilities which are given to joint stock banks might be extended to co-operative banks also.”

The Resolution was adopted unanimously.

ITEM 4 WAS TAKEN UP.

Mr. Vishnu Sahay (U. P.):

“To what extent should co-operative banks undertake to advance money on the security of produce stored with them?”

This question arises out of the problem of linking marketing with agricultural credit. In the case of crops like sugarcane and cotton the problem is not so difficult, but there are considerable risks and difficulties in arranging for the marketing of crops like wheat which have a dispersed market. The preliminary meeting considered whether co-operative banks should advance short period loans against produce to members of primary societies and non-members. Banks are in a better position to market the produce profitably than the primary societies, but the objections against their doing such business are also great. The business is intricate and few banks would be able to engage and pay for really competent staff who could gauge the market properly. There is also the difficulty of supervision in the village itself. It seems therefore undesirable that Central Banks should undertake this risky business. I move the Resolution:

“The Conference considers that it is not the proper function of Central Banks to advance money on the security of produce stored with them.”

Mr. Eustace: I second it.

The Hon'ble Sardar Sir Jogendra Singh: Taking exchange banks, all their business is done on grains stored in their godowns and people get credit to the extent of 75 or 80 per cent. of the value of the grain. In my province the provincial central banks have nearly a crore of rupees waiting investment. On the one side there is the demand for credit and on the other there is the money accumulating in the banks. If the money is to be put into circulation could there be any better security than that of produce?

Mr. Fazlullah (Hyderabad): I think the idea was that Central Banks should finance loans to marketing societies to sell the produce and not to individuals. I think that is the practice throughout India.

Mr. Ramdas Pantulu: I generally agree that Central Banks ought not to advance money to individuals, but the resolution as worded seems to prohibit the central banks from advancing money even to sale societies. I would add the word 'individuals' to the resolution.

The Hon'ble the President: I take it the general sense is to accept the resolution with this amendment.

Mr. Darling: I should like to make it clear that in the preliminary conference there was no division of opinion at all, with possibly one exception, in regard to the question of advancing money to individuals. The conclusion was reached that even to societies affiliated to Central Banks it was not desirable that Central Banks should advance money, the feeling being that it should have regard rather to the general character of the society than to the actual produce stored with it, and that is much more in line with the co-operative principle.

Mr. Ramdas Pantulu: If the resolution is intended to cover cases like those mentioned by Mr. Darling, then I am afraid I cannot support it. Generally, I agree that money should be advanced only to societies, but the societies must be in a position to pledge the documents with the Central Banks.

U Ba Maung (Burma): I would support Mr. Pantulu. In our province this Scheme has worked successfully. There is a called Sittang Colonies Co-operative Banking Union society than to the actual produce stored with it, which has 12 lakhs share capital. This society has been financing on the security of the crops. When the crops are threshed, the price that could be then obtained is generally low: but after a time when it is stored in the godowns, a better price can be fetched. This work has been successfully carried on from 1932. We must have also a provision that the produce stored in the granary must be fully insured. I therefore endorsed what Mr. Pantulu has said.

Rai Sahib Babu Radha Mohan: I fail to see in what way this resolution demands any amendment. If it is meant that the produce is to be placed just like a bond in the custody of the creditor, then I am opposed to the resolution. But if it is merely meant that the title deeds should be deposited, then I do not oppose it.

The Hon'ble Sardar Sir Jogendra Singh: I propose that the word 'individual' may be added in the resolution and at the end the words "except on the part of sale societies" be added. The reason is this: if the agriculturist is forced to sell his produce to pay land revenue, then he does not get a good market. We want to help him to sell his produce at a reasonable price later.

The Hon'ble the President: I think the issue before the Conference is whether the central banks should be allowed to advance to individuals or not: that is the real issue: if that is so, the addition of the words 'to individuals' covers the meaning. I propose that the resolution should read as follows:—

"The Conference considers that it is not the proper function of central banks to advance money to individuals on the security of produce stored with them."

The Hon'ble Sardar Sir Jogendra Singh: I would note my dissent on this.

Mr. V. L. Mehta: I am in agreement with the Hon'ble Sardar Jogendra Singh to a certain extent, although I recognise that the general sense of the Conference is otherwise.

The Conference then adjourned till 2-30 P.M. for Lunch.

The Conference reassembled at 2-30 P.M. after Lunch. The Hon'ble Kunwar Sir Jagdish Prasad was in the Chair.

ITEM No. 5 WAS TAKEN UP, viz.—

Consideration of the progress of co-operative marketing of agricultural produce. *c.g.*, cane.

Mr. Godbole (Bihar): The subject as it has been worded here is a vast one. I would confine my remarks to the co-operative societies and their organisation in Bihar and their difficulties. It is common knowledge that the Government of India passed a special Act, Act XV of 1934, to regulate the price of sugarcane and it was intended that the proceeds of the excise duty should be distributed among the cane growing provinces in order to help the industry and the growers of cane. Before Bihar got a share of this subsidy several experiments had been made in that province in the direction of co-operative marketing. Most of them were failures. Therefore we were chary of making new experiments. When however a portion of the excise duty was made available to the province it was decided to organise a few cane growers' societies more by way of experiment than anything else. Towards the end of 1935 a special staff was appointed. Before proceeding to register the societies, the managers of several sugar manufacturing factories were consulted and it was only when they promised full co-operation that we proceeded to organise and register these societies. These societies can be described more as marketing societies than anything else. The objects are to arrange for the disposal of the sugarcane crop, to enter into contracts with factories, to arrange for the transport of the sugar crop and to act as agents for the purchase of seeds, manures, implements and other requisites, to disseminate knowledge of the latest improvements and take other measures conducive to the interests of the industry. Their attention was to be confined more to the marketing part of it than to improvement of production or their general economic uplift. These societies are on the basis of limited liability. We have organised nearly 150 societies, mostly in North Bihar. Bihar is the second major cane growing province, the first place going to the United Provinces. We have taken a leaf out of the book of the United Provinces in this respect but now some special difficulties are cropping up. The Managers of the sugar factories were definitely consulted as to whether they would recognise these cane growers' societies and it is only after obtaining their consent in a general manner that we proceeded to organise these societies. They are now finding it difficult to obtain recognition, the reason being that the managers of these factories apprehend that these cane growers' societies will in course of time develop into trade unions and that the inevitable result would be that they would ask for higher and higher prices and better terms than they could obtain in the open market. In order to remove these fears, a provision has been made by which the managers or their representatives could be made members of the managing committees of these growers' societies. Yet the fear and the suspicion exist. The whole scheme may come to a standstill and the whole object of the Act of 1934 will be frustrated, because although a minimum price has been fixed, those who know the conditions in the countryside know full well that the unsophisticated cultivator can hardly get the benefit of the

rules and regulations unless and until there is some organisation which would help him. In the Registrars' Conference held two days ago, I raised this question. I suggested that the Conference should recognise that the sugar factories should be obliged by rules to accept the growers' societies as their agents, though not on a monopolistic basis, provided they were recognised by the Registrars as functioning properly. The proposal was supported by the Registrar of Bengal. In Bengal they have not started the organisation for fear that it will be let down by the factories. We fear that our organisation may break down. With some lead from this conference, I think the difficulties will be got over. The Registrars' conference did not adopt my suggestion but at the same time they were of opinion that steps should be taken that there should be no unfair discrimination against any cane growers' co-operative marketing society. That is all that I request you to do.

The proposal was seconded.

The Hon'ble Sardar Sir Jogendra Singh: May I add a word from the point of view of the cane growers? I think a factory should be required to get its supply of cane from the zone which is close to it. I think a mistake has been made in fixing a minimum price of cane irrespective of factory yields. Also, the recommendation of the Sugar Committee which fixed a share of sugar for cane growers has been completely ignored. The Sugar Committee recommended 50 per cent. If that principle were followed, it would mean that the prices would fluctuate but the share to the cane grower would be fixed. The position is that the cane grower does not get a fair deal from the factory. He comes to the factory and if he is turned out, he sells the cane at any price offered because he does not want to take his cart back. Therefore if the cane growers' interests are to be protected, legislation would be necessary to fix the zone for each factory, which would also prevent competition and each factory would get its supply regularly. The cane grower should get a fixed proportion of sugar. If the Government wishes that the co-operative societies should come to the aid of the cane growers, it should legislate on these two points.

The Hon'ble the President: When you fixed the minimum price of sugarcane, presumably you had a meeting of the growers and the manufacturers.

Mr. Godbole: I am not responsible for this work. It is done by the Industries Department.

The Hon'ble the President: Then do you want legislation. Unfortunately, only two provinces are concerned and the others are not interested.

Mr. Godbole: We might propose this in general terms as a recommendation from the conference—that steps should be taken to avoid unfair discrimination against any cane growers' co-operative societies.

The Hon'ble the President: Is that the general sense?

The proposal was agreed to.

ITEM No. 6 WAS THEN TAKEN UP, viz.—

“Should marketing societies issue crop loans and should supply societies allow credit for purchases made by members.”

Mr. Bhansali: I may say that by crop loans are meant loans advanced to the agriculturist for raising crops and to meet other incidental expenses. These loans are liquidated from the proceeds of the crop. In theory it will be admitted that it is the duty of the rural credit societies to advance such loans. One aspect of the question is whether marketing societies should be encouraged to issue crop loans. It would appear that if proper safeguards are adopted there is no objection to sale societies undertaking this, within the limits of safety. Such a system is in operation in Gujerat in the Bombay Presidency and appears to yield satisfactory results. At the Registrars' Conference it was pointed out that in Burma a number of credit societies which have been financed by Government have issued crop loans on condition of repayment in kind, the produce being sold co-operatively by the society. In the United Provinces, sugarcane sale societies make advances against the crop. Now, the co-operative marketing and supply societies have in actual practice to contend against sowkars and dalals who make advances to agriculturists against produce or grant crop loans on the understanding that the produce would be sold through them. The question is to what extent co-operative organisations should follow this practice. In the case of members of the co-operative societies I take it that it should be the aim to prevent duplication and overlapping of finance. This is not always possible. The Registrars' Preliminary Conference accordingly passed a Resolution which I now move that a member of an unlimited liability society should not be allowed to borrow from another society except against material security, such as produce or land; if any loan is given by another society against material security, the credit society should be informed; if the material security in question is land, the credit society should be previously consulted.

Mr. Godbole seconded the Resolution.

Diwan Bahadur Deivasikhamani Mudaliar: About this previous consultation of credit societies, we tried this in Madras for some years. The result was long delay. In some cases the credit societies refused to agree to the loans. We thought that the provision should be deleted. Now, they don't generally consult the local credit societies. There is practical difficulty in carrying out the latter part of the Resolution.

Mr. Austin: I think it should be the duty of the officers to find out.

The Hon'ble the President: Is it the general sense of the conference that the Resolution should be passed?

The proposal was agreed to.

ITEM No. 7 WAS THEN TAKEN INTO CONSIDERATION, viz.—

“The Government of India, the Provincial Governments and the Governments of Indian States be requested to appoint co-operators on their marketing boards.”

Khan Mohd. Bashir Ahmad Khan: I move that in view of the great importance of marketing to co-operators in this country, the marketing organisation of the Government of India and the Local Governments should

maintain the closest possible touch with the co-operative movement on its marketing side. The discussion that has been going on has already shown the importance of co-operative marketing. The Resolution No. 1 in which a scheme was formulated for the better co-ordination of the present co-operative agencies for agricultural credit suggested that credit should be linked up with marketing. The co-operators have come to the conclusion that if these co-operative societies are to be successful they must take up a subsidiary occupation. Attempts have been made in some provinces to improve the marketing of the produce of agriculturists. For example, in the Punjab there are co-operative commission shops. The object of these shops is to sell the produce of the members and also of the non-members on a commission basis and also to supply seed of a good quality. These shops have not been successful in the sense that they have not tried to attempt marketing in the proper sense of the term; they do simply what we call *Kacha Ahrat*. There have been many difficulties in the way of these shops for example, the greatest difficulty is the disloyalty of the members. These shops try to sell the produce of the members but the members have their own dealings with the money-lenders or with the village shop-keeper; therefore they cannot bring their produce to the shops. Many of them get certain apparent advantages from the shop-keepers and village money-lenders which these shops cannot supply as they are not legitimate. Another difficulty of these shops has been the dishonesty of the staff, I mean the managers. There have been very many embezzlements in most of the shops resulting in the ruin of some of these shops. Similarly, certain other provinces have also tried co-operative marketing; for example, cotton sale societies in Bombay, cane-growers societies, as has already been explained, in Bihar, and also in the United Provinces, paddy sales societies in Madras and similar societies in some other provinces. This shows the importance of co-operative marketing and how much the co-operators are interested in the subject. The resolution simply says that the Government of India and the Local Governments should keep themselves in touch with the co-operative movement on its marketing side. The resolution does not suggest how this contact is to be maintained; it simply makes the recommendation that ways and means should be found to maintain this contact. The item on the agenda suggested the definite line that the Government of India, the Provincial Governments and the Government of the Indian States be requested to appoint co-operators on their Marketing Boards. The resolution as it has emerged from the Registrars' Conference does not make any definite recommendation on the subject. It makes a recommendation which is worth the consideration of the House. The resolution reads as follows:—

"In view of the great importance of marketing to co-operators in this country, the marketing organisation of the Government of India and local Governments should maintain the closest possible touch with the co-operative movement on its marketing side."

The Hon'ble the President: Mr. Livingstone, would you like to say something on this Resolution?

Mr. A. M. Livingstone: Sir, I welcome the serious consideration that is being given to this question of co-operative marketing. In regard to this particular resolution the mover has just asked in what way contact might be maintained. I would just like to refer to various forms of our activities and indicate on what points we might maintain contact. The marketing

work at the moment is divided into two sections. The first is the investigation by marketing surveys. There we are surveying various commodities,—the position in regard to the supply, the demand, the system of marketing charges and so on and also incidentally we are dealing with co-operation in so far as it deals with these particular commodities. Apart from that, we have a special inquiry going on regarding co-operative marketing in general, and the provincial marketing officers have been asked to approach the local Registrars and get their assistance in formulating the position regarding co-operative marketing in the province or State. Therefore, I would again ask that the Registrars might help. I would like Registrars to make sure that the provincial marketing officer does know the facts regarding co-operative trading in his province. We would like to know what societies are working, what commodities they are working on, whether they are successful or not; if they are successful, why they are successful, and if they are unsuccessful, also why they are unsuccessful. We would like to have facts regarding societies which have gone into liquidation, because we can learn as much from our failures as from our successes. I hope, that when we have got that information together, you will be able yourselves to see what has been done in regard to co-operative marketing in all the various provinces, and you yourselves might be able to adopt some useful practice which you find in other provinces. That is the first line on which we are engaged. The other is the question of standardization. There we are collecting large numbers of samples of all the different kinds of commodities,—linseed groundnuts, wool. We are having them carefully analysed and examined, and following up the recommendation of the Advisory Board of the Imperial Council of Agricultural Research we are trying to arrive at good commercial standards and if possible to get trade associations formed for maintaining those standards,—something on the lines of the East Indian Cotton Association. We have done that recently in connection with tobacco. We have got a Tobacco Association which incorporates not only merchants but the manufacturers and the growers and they have adopted provisional specifications for a series of grades of Indian tobacco. Then we had also a Grain Conference and we have had a Tanners' Conference which drew up a standard specification for hides and skins. During the last fortnight we have established two hide grading stations, one at Agra and one at Delhi. We have also an egg grading station in the North-West Frontier Province. Now, when it comes to development work, there I think again we can work very much together. My friend on my left, although we had only this station going about a short time, has already started and got these people rounded up to form a good co-operative society in order to get more staff to deal with bigger and bigger quantities more efficiently, so that to-day when the grading station has been officially opened we are doing ten thousand eggs a day. That is quite a good example of maintaining contact between our two branches and I would ask you to keep in close touch with your local marketing officer. There is just one thing about this resolution, that, having regard to the enterprise shown by the Madras scheme and the general anxiety to do something in regard to co-operative marketing, it seems to me that perhaps this puts the Registrars of Co-operative Societies in a rather passive position. I would like to feel that this maintaining of contact is a mutual business and if it could be worded so that the closest possible touch should be maintained between the marketing organization of the Government of India and local marketing officers, that would put the onus on both parties.

The Hon'ble the President: I take it that there is no objection to the resolution being amended as suggested by Mr. Livingstone. He wants this co-operation to be perfectly mutual. I take it that that is the general sense of the House? (Voices: Yes, yes). I shall now pass on to Land Mortgage Banking. The next item is No. 8: Should co-operative Land Mortgage Banks be established in all provinces where agriculture is the predominating occupation of the rural masses?

Mr. T. Austin: The resolution is that the Conference recommends that the further development of Co-operative Land Mortgage Banks should be encouraged. And as this movement has developed more in Madras than in other Provinces, it may be of interest that I should state exactly what the position in Madras is at the moment.

The Madras Central Land Mortgage Bank was registered in 1929 and now finances 80 primary banks which serve nearly 8,000 villages, while loans have been granted to 2,190 villages. There are primary banks in all districts in Madras except South Kanara and Malabar. Owing to the peculiar land tenure and personal laws prevailing in these two latter districts, it has been found inadvisable so far to register land mortgage banks which can only grant loans on the security of unencumbered landed property; but Committees are shortly to examine the possibility of overcoming these difficulties and organising banks in these two districts.

Loans are issued by the Central Bank to the primary banks up to 20 times their share capital plus reserve fund and on their assigning to the Central Bank land mortgages obtained from their members. Generally, the individual maximum borrowing power is five thousand rupees; but this has been raised to Rs. 10,000 in 13 banks, the criteria generally being that the bank is working well, that its transactions have exceeded a lakh and that the land generally is in a delta area. Loans are repayable in 20 instalments either on the equated or equal annual instalment system. On the 30th of June last, overdues of members in the primary banks amounted to 1.04 lakhs mainly due from banks registered before 1929. The percentage of balance to demand is 21 per cent. The primary banks have no overdues to the Central Bank.

The primary banks lend to their members at 5 per cent. and borrow from the Central Bank at 4 per cent. In 1935-36, 47 banks worked at a profit. The remaining banks worked at a loss mainly because they were new banks and had not sufficiently developed their transactions.

The Central Bank floats debentures on the security of mortgages assigned to it by the primary banks. The Madras Government has guaranteed the principal of and interest on the debentures of the Central Bank to the extent of 125 lakhs. The debentures are declared trustee securities and are quoted on the Stock exchange. Central Banks are allowed to invest their reserve funds in these debentures up to one half of the amount to the credit of the reserve fund account. It is the intention of the Government that this movement should, as soon as possible, stand on its own legs. In addition to guaranteeing the principal and interest on these debentures, the Madras Government have granted various concessions also. Upto last year, Government paid for the 2 Deputy Registrars and their staff. From 1935-36 the Central Bank is paying for them. For the Sub-Deputy Registrars and their staff, whose immediate duty is to scrutinise loan applications and otherwise help and supervise the primary banks, Government are now paying the full cost but have ordered that this shall be recovered

from April 1937. Probably or almost certainly, the primary banks will be unable to pay this; for, only 14 have so far a working capital exceeding 2 lakhs. Government have therefore been asked to modify their order in this respect.

The Registrar is the 'Trustee' of the Bank, and debentures are issued only with his permission. Although debentures are quoted on the stock exchange at a premium, they cannot yet be said to be freely available although they are looked upon by the public as a good investment. The present system is that debentures are issued as and when mortgages are received from primary banks, generally for a sum of Rs. 10 lakhs at a time without any regard to the condition of the market. Also, they are redeemable annually from collections. In order to place the system of debentures on a sound basis and to make them more popular, we are considering a change in the system. At the same time, in order that the bank may stand on its own legs in due course, we are considering, with the kind advice of the Reserve Bank, the organisation of a sound and scientific 'Sinking Fund'. These two matters are still awaiting decision.

A minor point is that the Directors of the primary banks in some cases have succeeded by personal influence in scaling down debts; and so far, sums written off have amounted to about half a lakh. This is a small sum and the practice is by no means universal. The movement is expanding in Madras and half a dozen more primary banks are to be organised before the end of this official year. One point which is being emphasised is the importance of a substantial Reserve Fund in every bank. In the Central Bank the Reserve Fund is now Rs. 1,12,000; but we shall not feel really safe till we have reached 5 lakhs.

Before I sit down I should like to refer to one thing and that is the great loss that this movement sustained in Madras by the death of Diwan Bahadur Sir Ramachandra Rao, who practically gave his life to the working of this movement. I think, with your permission, his name might be added to the other two that were mentioned.

The Hon'ble the President: Certainly; I very much regret the omission of the name of Diwan Bahadur Sir Ramachandra Rao.

Mr. Ramdas Pantulu: Sir, the resolution as it is worded is innocuous and non-committal, but I consider it absolutely insufficient to stop there with that exultation. We have been familiar for some years past with the difficulties of starting Land Mortgage Banks in various provinces and the system of land tenures in my own province and elsewhere offers a great impediment. My friends from the Punjab, who were the pioneers in this enterprise as the land mortgage bank was started first there but it would not be wrong to say that they are not working at all. Similar difficulties arise in other provinces as well and even if we begin to start land mortgage banks, it will take a very long time to establish a sufficient number of land mortgage Banks to give relief by way of long credit to agriculturists. In Madras the position has been better than in other provinces, loans up to Rs. 75 to 80 lakhs having been granted as against a total indebtedness of Rs. 250 crores. Then the land mortgage Banks can only deal with particular classes of borrowers. Such banks have to cover preliminary expenses and incidental charges and they cannot grant a large number of small loans. Having regard to all these difficulties and the impossibility of giving effect to the resolution in my own province, I think this Conference must give

some lead as to how long-term credit is to be provided for in the interval, and in provinces where they cannot be started, what is to be done, and how to deal with classes of people who cannot utilize the land mortgage banks. Unless these questions can be dealt with satisfactorily, the co-operative credit movement cannot make a headway and many of these agriculturists cannot repay their old debts and some provision must obviously be made for having a long-term loan. The question was considered very fully at the session of the All-India Co-operative Institutes held at Fyzabad recently. I propose an addition to this resolution. We are accepting the main resolution as it is, but I move the following amendment:

“The Conference is of opinion that where Land Mortgage Banks are not started Central Co-operative Banks, with the aid of the Provincial Co-operative Banks where they exist or independently where there are no Provincial Banks should as far as possible meet the long-term requirements of their member societies in obtaining the requisite long-term capital by the issue of debentures if necessary with or without Government guarantee.”

Where Government guarantee is forthcoming, so much the better. I hope this Conference will not find it difficult to accept this addendum to the Resolution because it would be a great relief to the agriculturists in my own province. There should be secured due co-operation between official and non-official agencies.

Mr. V. L. Mehta: I will confine my remarks to the main resolution. The main resolution is innocuous. This principle we have accepted during the last ten years or so, namely, that a separate machinery should be provided for long-term credit, and, Sir, in re-affirming that principle we are justified because of the hopeful developments that have taken place at least in one province, *viz.*, Madras. At the same time we cannot close our eyes to the difficulties that have been encountered in other provinces. Mr. Pantulu has referred to the unfortunate experiences that have been met with in the extension of the scheme in the Punjab; and although in the province from which I come, *viz.*, Bombay, the experiment is being tried on a very limited scale, we are not quite sure whether the experiment that we have tried has been altogether successful. We would therefore like to have a little more information about the reasons for the success that has been achieved in Madras and for the failure or lack of success that has attended similar efforts in other provinces. It has been suggested that more important than the question of the rate of interest in connection with land mortgage schemes is the question of the number of instalments, and it is just possible that the lack of success that we have experienced to a certain extent in Bombay and also if I may say so, subject to correction, in the Punjab may have been due to the fact that the number of instalments that we have allowed have not been sufficient enough. On the other hand, I should like to observe that it is not possible, taking into account the conditions as they obtain to-day in India, to allow a larger number of instalments. Those who have studied the working of land mortgage systems in other countries know that 50, 60, running up to 80 or 90 instalments are not an uncommon feature of land mortgage Banks in other countries, but in view of the fact that we are a short-lived race I doubt very much whether it would be wise and financially sound for us to go in for a larger number of instalments: and if we do not go in for a larger number of instalments, the

question often arises whether it would be possible for us to make a success of the system of land mortgage Banks. The second point that strikes me in this question is the difficulty of keeping the redeemed agriculturist out of debt once his debts have been paid off by the land mortgage Banks. I can speak of the conditions in the province from which I come and if I may generalize from those conditions I can say that once the agriculturist has been relieved of his debts and he has that debt made repayable in a very large number of instalments going up to about twenty, I doubt very much whether it would be possible for the agriculturist to carry on these agricultural operations in future without having resort to credit from outside. In Madras I may point out, the land mortgage Bank has been established on such a sound basis, that not only has the Bank absolute mortgage of the lands but it has also got crops hypothecated to it. It is possible that for the success of the land mortgage undertaking that kind of hypothecation or lien is absolutely necessary, but if that is to be the condition on which the land mortgage Bank is to provide long-term credit to the agriculturist, then the question arises as to what security he will have available for meeting his short-term credit requirements. That is the problem which is likely to become acute in all provinces where the land mortgage banking has been developed on a fairly large scale. From that point of view I think that our friends from Madras may throw some light based on the experience that they have obtained during these two or three years and that will be very much to the advantage of the other provinces, which are trying so to say to grope in the dark. A further doubt that assails me is this. I was reading an article the other day in the Journal of Indian Economics where the writer has given a very clear analysis of the development of land mortgage banking in the Punjab. He refers there to the fact that where arrears have been observed, the land mortgage banks have taken coercive action and he concludes with this remark that if this coercive action has led to the loss of lands by these agriculturists, then they might wish that they never had any occasion to have any dealings with these land mortgage banks. Now, that is a very curious situation in which we find ourselves. For the success of any system of land mortgage credit we want absolute punctuality, but things being what they are in our country, we find that arrears are bound to arise. I must say here that we should all congratulate our friends from Madras on the success with which they have carried on their operations during the last few years with the result that arrears have not made their appearance but experience elsewhere does not fully justify the hopes that are held out to us by the experience in Madras. If arrears arise, is coercive action to be taken or is coercive action to be postponed and are we, so to say, to deal with the defaulters in what we may call the co-operative spirit? I do not say that the co-operative spirit merely means a sentimental desire to see that no harm comes to the agriculturist, but this is a feature of the working of the land mortgage banks which we shall have to face in the future. If arrears make their appearance on a fairly large scale, it is just possible that we may be confronted with a situation in which land mortgage banks may be compelled, much against their wishes, to take recourse to coercive action and to foreclose the security which they possess. I am sorry that I am not in a position to place before the Conference any of the hopeful aspects of this problem of land mortgage credit. I am personally a very strong supporter of the idea of land mortgage banks but these doubts assail me and I think we may look to this conference to guidance in the solution of these doubts.

The Hon'ble Sardar, Sir Jogendra Singh (Punjab): Mr. Mehta has, in his very lucid exposition, really explained the reasons why mortgage banks in the Punjab have not succeeded, and I need not go over them again. But there is no doubt that we are not able to give long-term loans and the rate of interest was high and also—and this is the most positive condition in the development of land mortgage banking—the nature of the security which a landlord could offer was not satisfactory. In the Punjab we have the Land Alienation Act and legislation has taken place which makes it almost impossible to realise any debt from land. Under these conditions it is difficult to develop any long term credit. After what Mr. Mehta has said—and I share with him the apprehensions—, unless conditions materially improve it is not possible to promote land mortgage banking in India on the same lines as it has been done in Germany, France and even in England. There the rate of interest is very low and in 40 to 60 years the whole of the debt is wiped out. I do not know what the laws of inheritance in Bombay are, but the fact remains that so far as we in the Punjab are concerned, we cannot make any move unless we modify the Alienation of Land Act. And the position in the Punjab is that it is absolutely impossible to amend that Act. There remains the need of giving relief to the agriculturist and the question is how we can do it? I have no scheme to offer for the creation of long-term credit except share with Mr. Pantulu the desire that Central Banks may under certain circumstances finance such long term credit as the security of a debtor offers. In other provinces it may be possible to develop mortgage banks but in the Punjab, unless we can have two or three conditions, it is not possible to do so. One condition is that anyone who wants to have long term credit should be allowed to voluntarily surrender the protection he enjoys under the Alienation of Land Act. Secondly, the rate of interest should not be more than 3 or 4 per cent. and the debt should be repayable in 50 or 60 instalments, otherwise there is no chance of recovery. Mr. Mehta spoke of foreclosure when a mortgage debt could not be realised in his usual sweet manner but the naked fact is that the bank must realise its money and foreclosure is not an agreeable process. Unless these conditions are introduced, I see no great future in the Punjab for the development of mortgage banking. In the United Provinces under the Encumbered Estates Act they have shown a way. It is this that the Government has fixed what they call instalment multiple for each district and according to this instalment multiple you get what you call the instalment value of land and up to the instalment value of the land of the debtor who applies under this Encumbered Estates Act Government has undertaken to issue bonds at 4½ per cent., 1 per cent. of which goes to Government and the remaining 3½ per cent. to the bond holders. Government has gone further and undertaken to collect instalments fixed under this Act. There is some possibility of following this system if the provinces were to legislate on the same lines. That is to say, in the first place, instalment value of the land should be fixed by the Government. In the second place, Government should undertake to realise these instalments as land revenue. If this was done, then cheap money would be available for investment. Without it, I see no great scope by developing land mortgage banks and I might cherish with Mr. Pantulu the hope that till that happy event occurs, Central Banks may finance so far as it is possible such long term credit as they consider safe.

Diwan Bahadur K. Deivasikhamani Mudaliar (Madras): The real solution of this problem seems to me to increase the income of the ryot.

Unless that is done, I am afraid this problem cannot be solved satisfactorily. We tried the experiment of paying off prior debts in one district, *viz.*, the Nilgris. The Central Bank paid off the debts of the members of a society thrice and yet we found that the borrowers contracted further debts. Before we launched the land mortgage scheme in Madras we discussed what was called "the debenture scheme" by which a provincial bank or a Central bank could raise money on the security of the lands mortgaged to it. The question was discussed for a long time but the Government were reluctant to embark on it. Then we found that the system of land mortgage banks was being tried in the Punjab. We studied their system and introduced it in Madras. We proceeded further and established a Central Land Mortgage Bank later on because we found that the Primary societies could not by themselves raise debentures. As regards the proposal of Mr. Pantulu, I may say, I introduced a modified scheme. Under this there would be a separate department for long term credit in central banks. But the scheme was not sanctioned and so we had to drop it. But I see no difficulty even now for that scheme being adopted in any other province. If they cannot start a separate Central Land Mortgage Bank they might try this modified scheme with a provincial Bank. So far as my experience goes, it does not matter very much whether there is a separate mortgage bank for the purpose or whether a central bank undertakes this. Under the central bank the long-term credit system should be a separate department and that department should raise debentures on the security of the land mortgaged. If there is a separate department and if it is not mixed with the short-term credit system I do not see any difficulty for a Central Bank raising money by debentures.

Diwan Bahadur K. V. Brahma (C. P.): I come from a province where this system is being tried and happily for us we have a sympathetic Government in this way that we have got a sum of Rs. 50 lakhs placed at the disposal of the land mortgage banks and 10 mortgage banks have already been started, but the actual difficulties that have been pointed out both by the Minister from the Punjab and by Mr. Mehta face us fully in the face. The difficulties are that when we go over to the country and ask people to become members of these mortgage banks, they ask us two questions. One of the cardinal principles of these mortgage banks that has been laid down for our guidance is that the member must mortgage every acre of land that he possesses: the second principle is that the member will only get up to 60 per cent of the value of his land, the valuation being determined by a Government assessor. The cultivator naturally asks: "I am quite willing to be with you, but please contrast the benefits that you are going to confer on me and the benefits that I am likely to have from the ordinary money-lender of the village or of the locality. The ordinary money-lender does not insist upon my mortgaging every acre of my land. He only wants as much land as is sufficient security for the money that he is going to advance. Apparently you want all my land so that I may not be able to get out of your clutches." Is not that so, I ask? Of course, we have to tell him for the time being that he should not distrust us. But conservative elements have said that it is fair for land mortgage banks to start with the idea of taking everything that the man possesses so that the banks may not find themselves in an awkward financial position. That is the position at present. At any rate, one of the points on which we would like to have a lead from this Conference is this: Is it essential and absolutely necessary either from the point of view of banking or economics or co-

operation that every acre of the land that the man possesses should be mortgaged? If it is not so, then it should be so mentioned clearly. The second point on which we definitely want a lead from the Conference is the number of instalments. As my friend Mr. Mehta has put down, the crux of the matter in all these things is eventually the foreclosure. If the mortgagor does not pay within the first five years or if there is any default, then the land mortgage bank does not show that mercy to him which a private money-lender can show. The bank has to abide by certain essential principles of finance and therefore it has to stand by those financial rules. That being the case, it necessarily follows that our instalments must be such as are within the re-paying capacity of the man. In this connection, I may tell you that I have travelled through two provinces. I went to the Punjab because it is the pioneer province in this respect. I visited there both the canal area and also what I might call 'dry' Punjab a part of which resembles the C. P. and Berar from which I come. Similarly, I travelled through Madras very recently and had an opportunity of meeting and discussing the problem with that great leader of Madras who is no more, Sir Ramachandra Rao. He told us that it is very difficult to tackle this problem because there are real difficulties and unless Government comes to your aid, he could not give us any solution of the difficulty. We told him that in our part of the country the agriculturist can grow one crop only and not two as they do in the delta area of the Madras Presidency. He said that you must find out the re-paying capacity of the agriculturist. I find that in my province the re-paying capacity or the actual yield of the man from the land is in the neighbourhood of about 4 or 5 per cent. at the present market prices. If prices improve, his re-paying capacity will also improve, but in matters of finance we can neither be pessimistic nor optimistic but we have to be guided by the actual conditions of the day. Therefore, if we are not going to be unduly pessimistic we have to calculate our instalment on the basis of the prevailing market prices so that there may be no reasonable fear of default. What I mean to say is that we should be in a position to loan to a member at a rate of interest which is in the neighbourhood of the actual outturn that he gets. The net profit that he gets is only in the neighbourhood of 5 or 5½ per cent and therefore we cannot fix any instalment which is based upon calculation of interest at the rate of 7 per cent. which is our present rate. We find that, though we may not have any difficulty in the first two or three years even if nature is unkind to us as it has been during the last four or five years, there is a fear of default. I put this point to Sir Ramachandra Rao and he said that so far as his affairs went misfortune had not overtaken him. I appreciate this Resolution and my suggestion is that this Conference should give a lead to the provinces by saying that provincial governments and, if necessary, the Government of India will be behind the mortgage banks and will find money for these banks at a lower rate of interest. The Government of India can get back the money with a small surcharge. If that is assured, we can certainly charge to the borrower at the rate of 5 per cent. and I can then visualise to myself a day when these banks will become successful. We can say to the agriculturist that he can pay at the rate of 4 per cent. He works only for six months in the year and the other six months he can usefully employ on subsidiary occupation and thus add something to his income. In that case, we can tell him that he should not make any default otherwise he will be striking at his own lifeblood. If that is done, then I can understand that this recommendation will be fruitful, otherwise,

I am afraid, we are being pressed on both sides. There are agriculturists who are in need of money but they say that if they contract with us they will be sold out if not in the first three years, at least in the fifth year. They therefore prefer to go to the Sahukar upon whose mercy they can depend. You cannot, have the life of Europeans nor can you have in India the same facilities of education and other things by which money is assured and punctuality in its repayment is practised. What we really want for land mortgage banks in this country is this: In the first place, money should be available in the market on cheap terms. Now, it has been suggested by Mr. Pantulu and I had a discussion with him yesterday while utilising our time as we were travelling by the same train. I asked him if it was possible for the provincial banks to raise money on the strength of mortgages that were taken? Of course, I accept your proposition when you say that land has got its value up to a certain multiple. In our province, for instance, there are Government schedules which say that land in a particular area is to be valued at 50 times the land revenue. Accepting all that, if I give you, say, 100 acres of land, will you be able to realise enough money not for purposes of your personal gain but for purposes of passing it on to the cultivator? Persons who are at the helm of affairs of the provincial bank hesitate to do it. They say that they are advised by the financiers, both provincial as well as all-India, not to embark upon this system and they prefer to have some security rather than this 100 acres of land. That aspect of the question which Mr. Pantulu has put before the Conference that we should go to the relief of the agriculturist even if there are no land mortgage banks does not appear to me to be very encouraging because in our province this experiment has already been tried. We have gone over to the relief of the agriculturist and we are actually being blamed for it. We have been told that we have departed away entirely from the co-operative principles. Anyway, we must tell them how to do things. I am one of those who go round in villages. We are trying to find out if it is possible to encourage land mortgage banks and we are even asking the members of the co-operative societies who have been with us for the last 10 years to become members of the land mortgage banks. They say that they would rather be with the co-operative societies than with the land mortgage banks because they cannot possibly bear the strictness of the rules and the laws of these banks. They feel that they would be sold out sooner than would be the case if they are members of a co-operative society. If you really want me or any one else in 'dry' (provinces like our province with no irrigation to get on with land mortgage banks, then you should assure us that you will make a recommendation in whatever position of life you may be placed either at the helm of affairs of the department or of Government, that you will give us money if it is wanted and that you will make these instalments as long as the actuarial calculations will permit you to do. I have no doubt that there is nothing in the inheritance law which does not permit you to have at least 30 instalments but the conservative opinion in India and in our province has been that we should not go beyond 20. 20 instalments would really amount to 25 and therefore the debentures have been floated in our province to the tune of 25 years. But even this is not enough. As I said, the system of 20 instalments does not work out a figure which is within the re-paying capacity of the man. That is the crux of the whole matter. Unless you increase the number of instalments, we will not be able to have larger results than what they have been in the past.

The Hon'ble Khan Bahadur Abdul Hamid (Assam): In Assam we have long-term and short-term credits but we should now consider which is more urgent. It has been suggested by Mr. Pantulu that the Central Banks might be allowed to give long term loans. It is well and good for the Central Bank to do so because they have enough money lying unused. But there is a danger that the central banks originally meant for short-term credits will resolve themselves practically into land mortgage banks and the point is whether you should expose these central banks to this danger of being converted into land mortgage banks. That is a point you should seriously consider before giving over-emphasis to the proposal of starting land mortgage banks. In our province we started land mortgage banks in permanently settled areas. During the times of depression land in some temporarily settled areas depreciated in value to less than the amount advanced on the security of these lands. The land mortgage banks do pay money for the purpose of purchasing lands in revenue sales. They were in serious difficulties. I cannot see how this difficulty will not arise in future. At any moment our calculation may be disturbed by the economic difficulties. All these facts have to be seriously considered before you lay too much emphasis on the problem of starting land mortgage banks.

Mr. Darling: I must express my sympathy with the difficulties so eloquently expressed by Mr. Brahma in regard to land mortgage banks and I should also like to say that I entirely endorse everything which Mr. Mehta said on the subject of these difficulties. I should first of all say a word in partial defence of my own province, the Punjab, which has been criticised, if not pilloried, for its failure to make a success of land mortgage banks. I would ask you to remember that we were the first in the field. We were the first to launch out on this unchartered sea and we suffered the fate of many pioneers, when the great cyclone of the fall in prices came; we suffered ship wreck. One reason is the existence of the Land Alienation Act which made it impossible for any land mortgage bank to foreclose on the land. I agree with the Honourable Sir Jogendra Singh that that is a very vital objection to any extensive development of land mortgage banks in the Punjab. The other difficulty in the Punjab was that we did not pay sufficient attention to the repaying capacity of our borrowers.

Recently I went round India, and examined the development of land mortgage banks. I found, when I went to Madras, that most of the loans made there were to men who had more than one plough and who owned between 5 and 15 acres, because those who owned less than this had very little repaying capacity. Now most of the cultivators in India are one plough men. If therefore land mortgage banks cannot be extended to the one plough men, it is a very severe limitation upon the extension of land mortgage banks.

Another difficulty which we had not allowed for in the Punjab was that, in our enthusiasm for the principles of co-operation, we started these land mortgage banks with very little official control. Experience has shown, notably in Madras, that if land mortgage banks are to have any success at all, they must have official control at the outset or control of a semi-official character, to a much greater extent than in the ordinary village credit society. In the Punjab we did not allow for that. I think now there is general agreement amongst those who have studied this problem that there must be much more control than in the case of credit society. That

imposes another limitation, because if this control is to be given by Government, it cannot be given without incurring a good deal of expenditure, and Mr. Austin has told you that the Government of Madras have been incurring very considerable expenditure in order to maintain sufficient control over the land mortgage bank movement in Madras. But they appear to have reached a stage when the cost of this control will be borne by the central land mortgage bank. That is another limitation upon the extension of land mortgage banks. There is a third limitation which struck me. Where cultivation is dependent upon rainfall, that is, you have dry lands and where you are liable to serious droughts, as you are in the country round Delhi, in that case if you lend for long periods and count upon regular repayment of instalments, you are likely to find your hopes disappointed. I was interested therefore to find in Madras that they had decided to confine their loans for the most part to people who owned met lands. I understand that they are now beginning to experiment with dry lands. It remains to be seen whether they will succeed in that more difficult field. In India as a whole there are more dry lands than wet lands, and that again imposes a certain barrier upon the development of land mortgage banks.

All this would lead us to a very pessimistic conclusion, if fortunately we had not the experience of Madras before us. Had we been discussing this question five or six years ago, it would be difficult to take a very optimistic view of the position. I understand from what Mr. Austin tells me that, though they are still in the experimental stage in Madras, they hope to be able to show that land mortgage banking on co-operative lines can be made a success. But whether it will be made a success in other provinces remains to be seen. It is indeed a matter for satisfaction if not for congratulation that a number of provincial governments are following the Madras Government and have decided to give material assistance to the development of land mortgage banks. In Bombay, in the C. P. in Bengal and in the U. P. they are taking steps in this direction and that is all to the good.

The next question that arises is why in certain areas mortgage banks have not been started. If the answer is that they are not suited to land mortgage banks, then the question follows, are they suited to land mortgage banking done by central banks. Will not the difficulties that operate against the starting of land mortgage banks apply equally to central banks. If on the other hand these difficulties do not exist, why not start land mortgage banks? Ultimately the whole question of land mortgage banking seems to be a question of the character of the people. I remember when I was in Austria in 1929 finding to my surprise that a very extensive system of land mortgage banking was being carried on, not in a particular area but throughout the country on the basis of short-term deposits often taken for not more than 2 or 3 months at a time. This system had succeeded so well that during a period of 40 or 50 years there has been only one or two failures. The reason for this was that the borrower could be trusted to repay punctually. Often he brought the money before the due date of instalment. This illustration brings out a fundamental point of finance in this country, namely, the close connection between character and finance. It seems to me that we require to educate our members so that they will deal more faithfully and repay more punctually within their capacity to repay. For that purpose we must go ahead with the village society. At the same time I suggest that, in provinces

where the conditions are favourable, they should also go ahead with experiments in land mortgage banking. As the matter is still in the experimental stage, at the preliminary conference we felt that it would be unwise to go beyond the very general character of the Resolution before you. It is only in Madras that experiment has been carried any distance, and it would be dangerous to pass a Resolution affecting whole India upon a single experiment, and it is for this reason that the Resolution which I commend to the conference is in general terms.

Mr. V. Ramdas Pantulu: No one minimises the difficulties pointed out by my friend Mr. Mehta. I fully endorse them, but that strengthens my case that provision should be made in provinces where land mortgage banks cannot be started for facilities being offered for long term credits. Mr. Darling has put a puzzle in my way: if land mortgage banks cannot be started, long term credits too could not be given. In other words, either land mortgage banks or no long term credits. I am unable to accept that puzzle. I do not think it really follows. Of course I am alive to the danger of utilising short term money for long term loans. I find Bengal claims that some long term money could be found to meet the requirements of small borrowers through central banks and societies. Rs. 1,000 or Rs. 2,000 may not be necessary or 20 or 30 years may not be necessary. If small sums of Rs. 500 and below are advanced, they may meet the requirements of small borrowers. Therefore you can distinguish between cases to be dealt with by land mortgage banks and cases to be dealt with by central banks. Previously there was complete segregation between long term and short term credits right from the bottom up to provincial banks. I still plead for my amendment that in provinces where it is not possible to start land mortgage banks, where it will take a long time to do so, and where conditions permit, there may be segregation between long and short term credits and some facilities may be found through these banks. There is one difference between land mortgage credit and long term credit of the society. Mr. Darling knows that in rural credit societies there is joint undivided liability of members and when funds are lent to these members there is the joint undivided liability of all other members and therefore there is far greater security in regard to the small loans. Having regard to all these considerations, I press on this conference to adopt my amendment to give relief in provinces where land mortgage banks cannot be started, with suitable safeguards to give facilities for long term credit. The other question of giving as many instalments as possible and even reducing the rate of interest, all that nobody denies. One other question Mr. Brahma raised, whether it is not necessary to secure the security of all the land that a man possesses. We in Madras do not do it. In provinces where Government could sell the entire land of a man for arrears of revenue, it would be necessary to take the entire land as security for mortgage. I urge that the amendment on the lines suggested by me should also be accepted.

Babu T. P. Ghose (Bihar): In Bihar there are some areas where lands are not saleable and in those areas if we cannot organise land mortgage banks, how are you going to advance long term credits to ryots. We must allow central banks to advance long term loans to the primary societies. We must allow also the provincial banks to float debentures for the purpose of securing money to advance long term loans. Otherwise it is not possible for the provincial banks to advance long term loans to central banks and for the central banks to advance to their credit societies and for

these credit societies to their members. I therefore support the amendment of my esteemed friend Mr. Pantulu that in those areas where it is not possible to start land mortgage banks, we should allow provincial banks to raise funds by debentures and thus supply long term credits. If we cannot spread over the loan for 30 years or reduce the rate of interest to 4 or 5 per cent., these long term credits will not be of much help to the ryots. When I appeared as a witness before the Royal Commission on Agriculture, Sir Thomas Middleton asked me how it was possible to have a successful scheme of redemption of lands when we in India allowed only 10 or 15 years for repayment of loan and when we charged 18½ per cent. and sometimes even 12 per cent. He pointed out that in England they allowed 30 or 40 years and the rate of interest was not more than 2 or 3 per cent. So, if we do not allow long terms we will be doing a distinct harm to these ryots. We must advance money through the land mortgage banks or through the provincial banks, the period should be at least 30 years and the rate of interest should not exceed five per cent. I moved a Resolution at the Faizabad conference that even if the provincial banks were not allowed to raise money by debentures, Government should come forward to help the movement. I submit that the credit of the Government of India is now very high, they can borrow at a very low rate of interest, say 2½ per cent. It must therefore be possible for Government to advance money at low rates of interest to Provincial and central banks. I have toured in several villages and I can confidently assert that if we do not advance long term credit, at low rates of interest, we cannot solve the problem of rural indebtedness. I therefore support the amendment of Mr. Pantulu.

U. Ba Maung: I fully endorse the view put forward by Mr. Pantulu. In Burma our primary societies consist of three classes of members the land owner, the tenant and the labourers or the coolies. In the absence of land mortgage banks, the co-operative societies have been advancing money to the members of the primary societies on the security of the land on long term credit in the case of the landowners and in the case of tenants and labourers on the security of their houses or agricultural implements. I therefore think that unless facilities are given to these primary societies to advance money on long term credit, lands will pass from the hands of land owning members of the co-operative society to outside money lenders at exorbitant rates of interest. For these reasons, I support the amendment of Mr. Pantulu.

Mr. Fazlullah: It is generally said that with the advent of land mortgage banks, the indebtedness of all the agriculturists and middle-classes would be wiped out. As Mr. Daring pointed out, we must accept some limitations under which these land mortgage banks ought to work. I had read in Madras Journal sometime ago a report of the principal land mortgage bank and it is said that a survey has been conducted by the provincial bank as to the percentage of members who had been helped through these long term credit agencies. They found that not more than 10 or 15 per cent. of the members could be helped through these agencies. It is not legitimate to expect that cent per cent of the members could be freed from prior indebtedness, in spite of the fact that there is a debt conciliation machinery which has been recently set moving. I believe this system of land mortgage banks was copied from Germany and I take it that in Germany land banks were intended for big landlords and not for

petty tenants or holders. Similarly in India it would be very difficult for a small cultivator whose repaying capacity is very limited to repay these long term credits, borrowed for repayment of old debts, within a limited period of 15 years. I think our petty cultivators should be asked to confine themselves to short term credits for which village societies have been organized. Even the Co-operative Societies Act contemplated that help should be rendered only to cultivators with limited means. The land mortgage banks will be well advised to confine their activities to big landlords who have ample repaying capacity. Mr. Darling referred to his experience in Austria, but it would be interesting to find out as to what class of cultivators the land mortgage banks there gave relief.

Mr. Darling: They were peasants.

Mr. Fazlullah: With regard to the other question of central banks and primary societies taking up the business of long term credits, I beg to differ from Mr. Pantulu. I think we should act up to the canons of co-operative banking that short term credit should be quite separate from long term credit. The bitter experience that the movement has had in the past was primarily due to the fact that short term credit was mixed up with long term credit. I therefore think that small amounts of not more than Rs. 100 or Rs. 200 should be advanced to members, within their capacity to repay and that only in cases where our societies have accumulated their own capital.

Rai Sahib Babu Radha Mohan: The experience of land mortgage banks in U. P. is very recent. We have made a good beginning. I think in provinces where it is possible to undertake this work, the land mortgage banks should be started. Where there are inherent difficulties, such as the inalienability of lands, that is a different matter. With regard to the proposal contained in the amendment of Mr. Pantulu, with due deference to his experience as a co-operator, I beg to differ from him.

My reasons are the same as Mr. Mehta's. One reason is that the land mortgage bank cannot realise the dues unless the land is tied for the advances made. Where there is no land mortgage bank we advance on the personal security of people, and that is one of the reasons which ought to guide us in our policy. In the case of long term loans under the scheme of land mortgage banks, the rate of interest, as said by Mr. Mehta, is expected to be low. And there you make a distinction between two classes of borrowers,—the short-term borrower and the long-term borrower. I do not see any reason for this distinction. If anything, the one who takes a long-term loan for liquidating his debts should pay a higher rate of interest. Upon that ground also I beg to differ from Mr. Pantulu.

Mr. Subbaya (Coorg): In our province we are thinking of starting a land mortgage bank. Our Central Co-operative Bank advances short term loans and we had a committee of inquiry to decide whether this bank should advance long-term loans. They came to the conclusion that the bank should continue as it is and a separate land mortgage bank should be set up for advancing long term loans. One reason was, that the function of a land mortgage bank is quite different from the function of a central co-operative bank. In the first place, to give effect to long term loans we must first know how the capital is raised. Government no doubt is approached for guaranteeing the debentures issued by a separate department of the central co-operative bank or a provincial co-operative bank where land mortgage banks do not exist, but Government

surely cannot take the entire responsibility for the funds needed for advancing long-term loans. We have also to attract long-term deposits from individual co-operators, in addition to the Government guarantee for the debentures issued by land mortgage bank or the central co-operative bank or the provincial bank to be converted into the land mortgage bank. It is impossible for the central co-operative bank to attract long-term deposits for advancing long-term loans. The instalments must be at least 25 or 30 and not 50 or 60, as was suggested.

Then there is the question of management, *i.e.*, whether the present management of the central co-operative bank should control the land mortgage bank. I submit the management should be totally different. The management of a land mortgage bank must be more conservative and less democratic. I do not mean of course that the land mortgage bank should be a substitute for the central co-operative bank. The two should rather act in close co-operation and exchange ideas and see that their functions do not overlap.

I agree of course that we cannot launch on an ambitious programme. We have to confine ourselves to bigger landholders and small peasant proprietors who are not heavily indebted. These two classes can be very well served by a land mortgage bank. It is impossible to deal with persons who are heavily indebted. But the small proprietors and the bigger landholders can be served by the land mortgage bank by the way of long-term credit, and if they have got additional security of course they can take short term loans from the central co-operative banks. To these people the central land mortgage banks can advance long-term loans.

There seems to be no difficulty at all, and if a separate department of the central co-operative bank or a provincial bank can be organised for long-term credit, I do not see any reason why a separate land mortgage bank should not be undertaken instead of one bank taking the responsibility of advancing long-term and short-term loans. I want to make the resolution more specific by saying that proper legislation should be undertaken. But I oppose the amendment for the reasons I have stated.

Mr. Y. A. Godbole (Bihar): I rise to support Mr. Pantulu. We know that a large number of members of our societies have very little repaying capacity. It is also admitted that one of the objects of our primary co-operative societies is to enhance this repaying capacity. I do not see how we can do that if in our primary societies we do not allow some loans to those members for works of improvement, which loans, as I understand it, must be long-term loans. Then again many of the members of primary societies have got some outside debts which may be rather heavy. They cannot be cleared unless we give long-term loans. Then there is another point. In most of the dry districts of Bihar there is a cycle of about 3 years in which we get two fairly good harvests, two indifferent and one positively bad. If the co-operative banks are confined only to crop loans for short terms, how will you recover the loans from areas suffering from this cycle. If you go on extending the kists from year to year when the crops are bad, that is long-term finance of some kind. Then, as Mr. Pantulu said, there are difficulties in the organisation of land mortgage banks. I fully agree that long-term finance is the work of land mortgage banks but for practical considerations I must support the amendment of Mr. Pantulu. I have given some of these considerations. The others are that in a province like Bihar where we are just about to start land

mortgage banks the work is bound to be very slow. And until sufficient progress is made what will happen in those areas where we will not be able to take up work in the beginning or where, owing to difficulties of the revenue laws, we will not be able to take up land mortgage banking until those laws are amended? These are my grounds for supporting Mr. Pantulu.

Mr. Ambegaokar: One cause of the present difficulties of the co-operative movement is that they started trying to liquidate previous indebtedness of their members. This involved them in long term finance and the largest amount of overdues have occurred in those societies which tried to liquidate previous indebtedness. In mixing up this long-term business with the business of central banks there is the danger that the scrutiny of applications may not be as thorough as is necessary in the case of land mortgage bank. One criticism of land mortgage banks is that their process is very slow and they have a complicated system of inquiry as to the paying capacity of the members and the legal title to land, etc. These enquiries are however very important in view of the fact that loans are recovered in small dribbles over a long term of years; and it is here that the Central Banks are likely to go wrong. They have got a different technique. They give short-term loans and their enquiries are confined to that purpose only. They are not qualified to enquire into the legal title to land and a loan given without making sure that the legal title is such as can be enforced might afterwards land them in trouble. Another thing is paying capacity. Here also the view point of a central bank doing short-term business is different from that of a land mortgage bank. I feel that it would not be proper for a central co-operative bank to undertake long-term finance and if they try to do so they may find themselves in difficulties.

Mr. M. L. Darling: I must express my concern to find myself in opposition to such a veteran co-operator as Mr. Pantulu. Mr. Ambegaokar put his finger on the spot when he pointed out that land mortgage banking and the banking done by central banks are different. The question is, can the two be combined. Mr. Pantulu says that central banks have the unlimited liability of the members of primary societies behind them. Unlimited liability is the best security for short-term finance in a country like India, but it is unsuited to long-term finance which involves loans for 10 or 20 years. It is not fair to ask people to pledge their unlimited liability for so long. Another point is that land mortgage banking requires much more official control than short-term banking. This we cannot introduce into central banks which pride themselves on their independent character.

Then there is the question of land as security. I was surprised to find the amendment supported by two provinces where land has proved to be a very questionable security. In one of these provinces, co-operative societies have on their hands many thousand acres which they cannot dispose of. There are other provinces also in the same position. That should make us careful before embarking upon long term finance based upon land as security.

Then about rates. I think it was Mr. Ghosh who compared the high rates charged in this country with the low rates charged in England which he put at 2 or 3 per cent. Actually until recently, under the Agricultural Corporations Act passed in 1929, the ordinary rate of advance for

mortgages in England by that corporation was $5\frac{1}{2}$ per cent. It was then reduced to 5 per cent. and only recently to $4\frac{1}{4}$ per cent. I think the Madras rate of 5 per cent. compares very favourably with this.

Finally, Mr. Godbole asked if it was right that we should withhold from our members an opportunity not only to pay off their old debts but also to borrow for purposes of improvement. This is an argument which must appeal to any one who has the good of the cultivator at heart. But even in Madras where land mortgage banking is so much more developed than anywhere else, nearly all the loans are for repayment of old debts and almost nothing is advanced for the improvement of land. We have to remember that the main object of land mortgage banks at present is to make advances for the repayment of old debts. It is also debatable, in that connection, whether in all provinces that is the best way of repaying old debts, because there are other ways of tackling this question. For example more than one province has established conciliation boards. The C. P. lead in that field and have conciliated 50 lakhs of debts. That is a possible way of dealing with old debts; and in some places it may be a better way, because most of the settlements are based upon a much shorter period than 20 years for repayment. This means that if a person gets his debts settled by conciliation boards, he will probably have his instalments spread over less than 10 years.

Then there is another way of repaying old debts which I have found in the Punjab. Partly as the result of the recent debt legislation there many of the canal colonists are mortgaging a few acres of their land for as short a period as two or three years in order to repay their old debts. They hand over these few acres to the moneylenders concerned on the understanding that at the end of this period the land will be handed back and the debt repaid. Many of these settlements involved great concessions on the part of the moneylenders. This may perhaps be the best way of all, and I mentioned it to show that there are other ways of dealing with old debts besides the agency of land mortgage banks.

I suggest that the conference should adopt the resolution placed before it and reject Mr. Pantulu's amendment.

On a vote being taken, Mr. Pantulu's amendment was lost and the original resolution carried.

The Conference met on Wednesday, the 9th December 1936 at 11 A.M. Mr. M. L. Darling was in the Chair.

Chairman: I propose we resume our deliberations by taking up item 9 on the Agenda. Mr. Eustace will move the resolution.

Mr. Eustace (Punjab): Sir, the resolution which I have the honour to move reads as follows:

“The Conference considers that the movement should be used to the fullest possible extent compatible with its principles in extending the rural reconstruction movement, having regard to the fact that it is the best and in many areas the only means for providing the organization without which the rural reconstruction movement cannot expect to be permanent.”

I am afraid I was not present at the preliminary conference of Registrars but I take it that it was their intention, and it certainly is mine to ask this conference to support the proposition that where possible rural

reconstruction should take a co-operative form, and be on co-operative lines.

I can only speak from experience in the Punjab but it may, Sir, be of interest to members to know what is being done by co-operation for rural reconstruction in that Province. The idea that co-operation can help a villager in other ways besides thrift and credit is an old one, and there have been for many years societies in the Punjab which for want of a better name have been classed as "Better Living". In practice their purpose has been to curtail needless expenditure on ceremonies. Members who joined pledged to abide by certain limits for each ceremony, and during days of depression members have been glad to make their society an excuse for reducing expenditure. With the advent of the recent drive for rural reconstruction however, with its object to improve the economic and moral position of the cultivator, the question was asked why better living societies should stop at ceremonies. This work at the best was intermittent and not enough to occupy an energetic committee, while the objects of reconstruction and co-operation appeared remarkably similar. Societies were therefore started on new lines and old securities altered. A set of model byelaws was drawn up, in consultation with the Commissioner for Rural Reconstruction, to include every form of enterprise possible—pitting manure, using improved seed, sending children to school, reducing drunkenness and litigation, and the formation of village clubs. A society is given a choice as to which subjects are to be chosen as being possible and suitable, and all members on joining have to agree to support these objects. The most popular works have been the brick paving of village lanes, the repairing of wells and roads, the filling in of pits and depressions, and in some areas the planting of trees. In one district some societies have taken over the provision of first aid to animals and sent a member for training, and in several villages the societies have hired sweepers on monthly wages of grain or cash to keep the lanes clean. While local contributions have been everywhere collected in most encouraging amounts. As this movement has progressed one or two principles have been evolved—the first is that the whole village or sub-division of a village should join the society or at least one member from each family. The second is that there should be no distinction of class, caste or creed. Everyone must be persuaded to work for the general good. The third is that it is unnecessary only to start a better living society where some other form of co-operation exists. In several instances as was suggested by at least one speaker yesterday rural reconstruction has prepared the ground for a good credit society whereas the converse is not always true. So much for a brief account of the organization of the societies—and I now hope I can persuade members of the advantage of carrying out rural reconstruction co-operatively. The real advantage is that there is some sort of local organization under regular supervision, with proper rules of procedure, and capable of spontaneous further growth. The society is registered under the Co-operative Societies' Act and has all the advantages of being a recognized body. A wave of enthusiasm for reconstruction has come, and I hope that the speakers were right yesterday in saying that legislatures will in future see to it that their voters are cared for. But it is possible that interest at election time may wane once the electors have made their decision. It is then, Sir, that I maintain that a properly run co-operative

society will see to it that the moral and economic aspects of village life are not neglected, and that the co-operative is the only non-official way of giving permanence to the movement. The lesser advantages, and only lesser because they follow from the fact of co-operative organization, are:—

- (i) the general teaching of members in self-organization,
- (ii) the poor man benefits along with his more prosperous neighbour,
- (iii) officers of beneficent departments are able to attend meetings of the society and be certain of an intelligent audience,
- (iv) there is a managing committee for funds locally raised, or given by Government, for reconstruction purposes. Even if in the latter case actual expenditure lies with a Government officer the committee is a most useful advisory body. In closing I would say that it has been objected that rural reconstruction can only take place where the villager's economic position allows—the starving man can buy no mosquito net. This is true, but only if co-operative rural reconstruction had no message for the very poor. The poorest man can assist his neighbour in filling in a pond and eliminating mosquitoes and fever, the poorest man can reduce his own illness and that of his family and his cattle by observing simple rules of health—a very small owner can afford to plant one fruit tree ordered through his society, or keep the better type of fowl advised. The whole purpose of reconstruction is not to create a model village no one could live in but so to utilize existing resources that all are used for the cultivator's advancement and well being. And it is this movement I urge Sir, Co-operation should consider as its own. I would ask members to support the resolution that co-operation is the best method of rural reconstruction.

Mr. T. Austin: I second it.

Mr. Godbole: I support it.

Mr. Fazlullah (Hyderabad): We gather, Sir, from the last speaker that emphasis is laid on better living. I think the lines laid down by the Irish pioneers in this matter should be followed and it will automatically lead to better living. It is incumbent on all co-operators to see that the agriculturist is provided with all material requisites for leading a good life and better living will follow in its own course. Co-ordination is what is required between the various nation-building departments. And for this there is no better organization than the co-operative society. I also think it is necessary to train staff to carry on this work especially when rural reconstruction is in its primary stages.

Sheikh Ghulam Mohammad (Kashmir): Sir, the co-operative department has included in its programme of work four important items which are most conducive to rural uplift:

- (1) consolidation of fragmented holdings;
- (2) Reduction of the percentage of illiteracy in rural areas;
- (3) provision of subsidiary occupations to the agriculturists; and
- (4) inculcation of habits of thrift self-help, economy, cleanliness and the like.

I must say that even after thirty years of the co-operative movement in India, practically nothing has been done to dispel illiteracy in rural areas. No movement can flourish and thrive where there is illiteracy. This is a point on which advanced countries even in the west have laid emphasis. I learn that in Turkey after the great war, they employed 15,000 teachers in one year for the spread of elementary education and adult education among the agriculturists. This is essential for advancement in rural areas. In addition to providing credit for the poor agriculturist we must think out ways of increasing his income and increasing his production. Half-hearted methods are no good. At present we are financing the needs of the farmer to the extent of 7 or 8 per cent: the rest is being supplied by the local sahukar or money-lender or shop-keeper. We have not also been able to solve the problem of cottage industries and provide people with subsidiary occupation for their times of leisure. Again, I say if the co-operators and the rural reconstructors take up this single item of illiteracy and concentrate their energies on it, the co-operative movement and the rural uplift movement will thrive.

Babu T. P. Ghose: It is not possible to make the rural reconstruction scheme a success without co-operative organisation. I must say that in Bihar the co-operative credit societies of ordinary type have not succeeded in creating a spirit of co-operation in the village and we consider the grant for rural uplift should have been spent not by giving doles to villages but by helping in creating an organisation in the villages for village welfare societies. That can only be done by creating the spirit of co-operation which is wanting in the present type of societies. The present societies are not genuinely co-operative. It has been observed that we have too much of credit and too little of co-operation in our societies and that is why we have not been able to achieve much so far.

Our co-operative movement, therefore, ought to take up this rural reconstruction work, and our aim should be to start rural reconstruction societies as far as possible in all villages in the provinces. We should request the Government of India at least to allow the provinces to utilise the second instalment of the Government of India grant to enable them to maintain a sufficient staff of organizers and supervisors for organizing village rural welfare societies in the respective provinces. With these words, Sir, I support the Resolution.

Mr. Subbaiya (Coorg): Sir, it has been admitted that India is an agricultural country and rural reconstruction is a necessity. The only question with which we are concerned now is the agency through which our rural reconstruction can best be operated. Co-operative societies in a great many parts of India and in the villages have come to stay. Although the societies were primarily started for credit purposes, the ultimate aim of all the societies is to make the villagers' life in every sense a good life and a better life, and in that sense the movement ought to aim at rural reconstruction, and it is not necessary to multiply agencies for every activity that is conducted in a village, as long as it is admitted that co-operative societies follow the best principles. If a village has several organizations or a group of villages have got several organizations concerned with various activities, I fear those organizations would devote their attention and time more to the machinery itself rather than to the object of the organizations, they would rather tend to forget the very object of those organizations for which they were created. The best thing

we could do to further our rural reconstruction work is to utilise the agency of the co-operative movement and make the life of the villager a better life in every sense. With these words I support the Resolution.

Mr. Ramdas Pantulu: Sir, in rising to support this resolution, I wish to raise a practical issue with which we are confronted in some parts of India. I am actively associated with some schemes of rural reconstruction. In some places we are asked to undertake functions which, in my humble opinion, do not really pertain to the co-operative agency. For instance, many rural reconstruction centres are now devoting attention to removal of illiteracy, to which my friend over there referred, to schemes of rural sanitation, medical relief schemes, rural water supply and rural communications. These are activities which are absorbing a great deal of time and energy and money of some of our rural reconstruction centres. My own humble view is that all these functions belong either to Provincial Governments or local bodies. It is not the function of a co-operative organization to supply water or to provide latrines or to make roads or to establish schools. I think it is an undue strain on the co-operative movement, and it is unreasonable to expect co-operators to undertake these functions. However much we may expect them to do it, they really cannot succeed, because nothing but well organized State aid can achieve these objects. So I feel we are wasting our time and energy in trying to accomplish things which are absolutely beyond our capacity, and wherever I had anything to do with such things, I have been telling them to eschew such activities. Without being expensive, my own idea is we must aim through the co-operative agency at bringing about conditions which would give better living and better ideals to the villagers. I think in this matter the Punjab and the United Provinces are the only two provinces which have tackled the co-operative movement rightly. In Madras we have not been able to do much. Therefore, I suggest we should not spend our time and energy in activities which do not directly pertain to the co-operative movement. I feel the lines on which the Punjab Registrar has framed this Resolution are the correct lines, and while I wholeheartedly support this Resolution, I am strongly in favour of ruling out many of the activities which are now vaguely associated with rural reconstruction.

Khan Bahadur Nawab Fazl Ali (Punjab): The only point for consideration is whether the co-operative movement should take up uplift work or not. I think it is a very noble and wise thing, and it should be tackled by the co-operative department. The villagers will then be able to see what uplift is. Of course, the department can decide as to what exactly they should do and what they should not. With these words, I support the Resolution.

Mr. Vishnu Sahay (U. P.): As co-operators, a resolution like this might seem to be platitudinous to some of us, for as Mr. Pantulu has pointed out, there are areas where co-operative societies concern themselves with the task of rural reconstruction. Most of us are familiar with the schemes which have been adopted with the help of the Government of India subsidy recently. The criticism frequently made against those schemes is that they take up a good deal of money in the pay of staff, and secondly that visible results cannot be seen within a short period. It is perfectly true, Sir, that a scheme involving the organization of co-operative societies for better living and better farming will inevitably swallow up a good proportion of the money available in the pay of the staff, but

education cannot be carried on without an adequate staff. That, I consider, is a valid answer to the criticism frequently made that tangible results of such educative schemes are not visible or commensurate with the expenditure involved. The second objection made that results will not be seen brings us to a very real danger, and that is a criticism which is already heard and which will become, I fear, quite vocal, that in proportion to the amount of money spent in a few years the results will not be sufficiently visible. Here again the same answer will apply, that if we are doing things on a co-operative basis, we must reconcile ourselves to wait and wait patiently. The experience of the United Provinces in this respect seems to indicate, such as it is, that given patience and the necessary trained staff, success can be looked forward to. We started this work 8 years ago with the help of a staff provided by the U. P. Co-operative Union. The lines of work were different. In one district education was taken up first; in another sanitation, and in the third it was a more comprehensive programme in which farming played a most important part. Varying degrees of progress were achieved, and it was found that ultimately the development would be not in one single line, but all along the line. Where we started with education first we found that the main difficulty was that sufficient arrangements had not been made for the provision of seed or education in better farming. Co-operative societies have taken that up, and several co-operative societies which only 10 years ago were on the verge of liquidation are now flourishing. The same has been the result elsewhere, and the conclusion one comes to is that if a sufficiently comprehensive attack is made not merely on the credit side of co-operation, but also in other directions, we shall be laying the foundation for sound rural reconstruction.

As regards the criticism made that co-operators should strictly confine themselves to what are legitimate co-operative activities, the point I wish to make is this. There is a certain amount of money available to confer material benefits to the villagers. How are these benefits to be brought to the villages? We can either dole it out or insist in some places on a proportionate contribution from the villagers themselves. I suggest that even where a gift is to be made, it should be insisted that it should be made wherever possible, not to individuals but to organized societies and on a contributory basis. That is necessary, because, by doing that, we shall be developing an organization in the village which would later on, when these grants are not available, be able to look after itself.

Rai Bahadur Bholu Nath (Bihar): Sir, I come from Chota Nagpur which has been excluded partially from the reforms. About 5 years ago when Mr. Godbole was our Deputy Commissioner there, we started village reconstruction work. We formed Thana committees in each of the Thanas and Village Panchayats under the Thana Committees, and we also formed District Associations. We then took up adult education, village sanitation, and we also took up the work of providing seeds, etc. We got help from all the departments of the Government and also from the Co-operative Department. The scheme worked very well, and it is still working successfully. Now, the question is whether the Co-operative Department, which has as its aim the improvement of the general economic condition of the agriculturist, should take up functions which do not directly pertain to the co-operative sphere, and when further grants are received from the Government of India, we should take advantage of them and work the other committees in the district. My own idea is we should take the fullest advantage of the present opportunity when grants are available and

start work, and it should be the duty of the co-operative department to educate the villagers. Unless there is education imparted to the villagers, they will not be able to appreciate the force of the co-operative movement. It has been pointed out that character is the main thing required in the villagers; but how can we form character in them without giving sufficient education. Therefore, I suggest that the co-operative department should have as one of its main objects among the others, the education of the villagers; then alone they will be able to improve their cultivation and improve themselves. With these words, I endorse the resolution.

Chairman (Mr. Darling): I believe there is no difference of opinion on this Resolution, but before I put it formally I should just like to say something in connection with two points. One is, you will notice that the resolution says that the movement should be used to the fullest possible extent compatible with its principles, for extending the rural reconstruction movement, having regard to the fact that it is the best, and in many areas the only means for providing the organization, etc. Why the preliminary conference of Registrars put that in, was because they realised there was the possibility of another organization, that is the village panchayat being used, and it was because our conference recognised the importance of panchayats that it put the resolution in that form; it did not in fact wish to exclude the agency of the panchayat for the purpose of rural reconstruction. The other point is, the conference felt that rural reconstruction could not expect to achieve any permanent results in village life without some organization, that it was not sufficient to have a peripatetic official going about from village to village, and that if permanent results were to be achieved, some official organization was necessary. I take it that the Resolution will meet the approval of all members present here.

The Resolution was adopted unanimously.

The Conference then took up consideration of item No. 10—What steps should be taken to enable central banks to employ their surplus resources in view of the fact that the demand from societies has considerably diminished.

Mr. Bhansali (Bombay): Sir, the Resolution that I wish to move is "After considering Resolution No. 14 of the 11th Conference of Registrars, this Conference considers that funds should only be attracted to the extent to which it is necessary to finance co-operative activities and the balance between the two should be adjusted by raising or reducing the interest rates on deposits according to circumstances." In certain provinces, and especially in Bombay, Central Banks are faced with the problem how best to utilise their surplus funds. In the Bombay Presidency the Central Banks have been permitted to undertake ordinary urban banking business such as advances against agricultural credits, advances against gold and silver, against first mortgage of house property and against industrial projects, etc., with a view to enable them to utilise the surplus funds. In this connection I should point out that item 4 on the agenda of the main conference has already been approved. In Bombay this permission to do the ordinary urban banking business has been given subject to certain safeguards. Permission was first given in 1934, and in actual practice the experience has been found to be very satisfactory. In giving permission, the conference might be interested to know the conditions which are imposed. Limits are fixed as regards maximum and

minimum amounts which can be given to any single member. The reason for fixing a minimum limit is to prevent the interest of the urban banks being infringed against. Such loans are permitted provided there are surplus funds after the reasonable requirements of the primary banks are satisfied by the bank. The rate of interest on such loans is permitted to be fixed by the Board of Directors from time to time to suit the market conditions. When the security given for such loan is agricultural produce or industrial produce, it shall not exceed 66 or 50 per cent. respectively of the market value of the goods in the possession of the Bank. When the security given is gold and silver, the loan shall not exceed 75 per cent. of the market value. The bank is permitted to frame rules with the previous sanction of the general body for the conduct of the business in the by-law and obtain the approval of the Registrar, and there the Registrar also has a general right to withdraw permission from the bank to conduct such business.

I shall now read Resolution No. 14 of the 11th Conference of the Registrars. It reads thus:—

14. (1) The Conference considers that the seasonal needs of the members for finance should be more closely studied and met as far as possible. It would be inadvisable to stop the flow of deposits in the central banks either by reducing rates of interest or by any other means, where such funds can be profitably employed, and each province according to its conditions should find ways of investing surplus capital such as by advances by central banks to members of societies and co-operative institutions against the security of grain, cotton or other produce placed in their godowns, where expert control and conditions permit.

(2) There should be no bar as to making advances against gold deposit by members of a society or central bank, where adequate arrangements for testing, valuation, custody, etc., can be made.

After considering this resolution, the preliminary conference of Registrars arrived at the conclusion which has already been read out. I must say here that in Bombay the rates of interest on deposits in some of the central banks compare favourably or are almost the same as the rates of exchange banks. I therefore place this Resolution for the acceptance of this House.

Mr. Ramdas Pantulu: Sir, if I am in order to oppose this Resolution before it is seconded, I shall oppose it.

Mr. Chairman: We will have the resolution seconded first.

Rai Sahib Radha Mohan (U. P.): I second the resolution.

Mr. Ramdas Pantulu: Sir, the resolution which was passed after eliciting the opinion of the representatives of the various provinces is I think in direct opposition to the present resolution. Though the resolution begins with the preamble that the resolution of the previous conference has been considered, I think the present is really a repeal of the old resolution. I feel very nervous about asking central and provincial banks not to receive deposits except to the extent that they are able to utilise every pie they receive. In the first place, it will be very difficult to estimate our requirements in advance.

Chairman: I may point out that in the resolution the word used is that deposits should be 'attracted', and that suggests a definite attempt should be made. . . .

Mr. Ramdas Pantulu: Attracting means receiving. We are all aware of the fact that we are suffering from a surplus of funds and we are trying to do what we can to prevent the inflow of money except to the extent that we want. At the same time, deposits in a bank are like the clients of a lawyer. Therefore, I feel it is a wrong policy for this conference to lay down that deposits should not be attracted. Of course, if the restricted meaning is given to the word, that they should not offer tempting rates or that they should not be guilty of any banking practice and they could still receive deposits at the old rates, then something may be said of it. But on the whole I find that this resolution is a direct negation of the resolution of the last conference. On the other hand, there were practical suggestions given in the last conference as to how to use this money. There are half a dozen methods indicated there. It will be very unfortunate if the conference passes this resolution because it will cripple the activities of the central bank, because things are improving all round—we have turned the corner. I think more encouragement should be given to improve the societies. We may leave the resolution of the last conference as it is, because we have not grown wiser in the short period. I would therefore ask that this resolution should not be accepted.

The Hon'ble Sardar Sir Jogendra Singh: Bombay yesterday assented to resolution 4, and today when the member was describing the manner in which they were investing money in Bombay, he proved that the practice was entirely contrary to the resolution to which he agreed yesterday. I am dealing with the present circumstances, and it is clear that this practice prevails in Bombay, and it has accepted a policy to which the conference did not agree yesterday. In any case the position is this.

The countryside needs larger financial facilities and if we support this Resolution we support the curtailment of those facilities by refusing to attract money to the central banks. Are we justified in doing so. There is plenty of need for money in the villages and if that is so, I entirely agree with Mr. Pantulu that we should stand by the Resolution which was passed by the last conference and refuse to subscribe to the present Resolution which is going to curtail our financial resources.

Rai Sahib Babu Radha Mohan: I fully agree with what Mr. Pantulu has said. I oppose this Resolution. My reasons are not only those which have been advanced by Mr. Pantulu but I would base them on some higher grounds. When plenty of money is available, there would naturally be a necessity for fresh organisations. This Resolution contemplates a contingency that the funds should be availed of only as an end in itself. I would consider it as a means to an end. I would therefore think that if plenty of money is available, naturally fresh organisations will be undertaken to utilise the funds at the command of the central banks. That is one reason why I oppose this Resolution.

Another reason is, as our President just now remarked, that the word 'attract' in itself signifies that we should not raise the rate of interest in order that plenty of money may become available. Attraction is not only confined to the rate of interest. In the district to which I belong, plenty of depositors are forthcoming not because of the high rate of interest which the Central Bank is prepared to give them but because of the solvent

condition of the banks and the confidence that the people have got in them. Therefore the application of the term 'attraction', if it is confined only to the rate of interest, will not be proper. While we are trying to develop this movement, will it be worth while to reject deposits even at a cheap rate of interest?

There is one more point which I would like to ascertain with regard to the wording of this Resolution? Does it mean to say that we confine only to the attracting of deposits necessary for local needs of the Central Bank or does it also mean that outside co-operative activities should not be financed by funds that are at the disposal of the Central Bank?

Mr. Darling: There is nothing here about local needs.

Rai Sahib Babu Radha Mohan: Now, the question raised here, namely, what steps should be taken to enable central banks to employ their surplus resources in view of the fact that the demand from societies has considerably diminished, seems to imply that the Central Bank ought to accept deposits only to the extent necessary to be utilised by it directly. The Resolution seems to be wider in its scope than the form of the question suggests. For instance, I may mention that we have got a large amount of surplus and we invest that surplus in outside agencies. The Resolution as it is placed before the Conference seems to cover cases of interlending between one central bank and another. But the question on the agenda seems to confine it only to societies and for that reason I would like to make an amendment, that is the addition of the words—to finance and develop co-operative activities, I have got the authority of an expert in my province, Mr. Kharegat who is of opinion that it is not proper for a Central Bank to refuse deposits where there is a chance of a better investment outside the district also. The margin of profit that can be raised between the two rates of interest might be enough to maintain and support the other activities of the central institution. Therefore I oppose this Resolution.

Mr. Bhalja: Some misunderstanding seems to have been created on account of the manner in which this Resolution is worded. I was present at the preliminary conference when this Resolution was passed. It was not the intention to go back on the Resolution passed at the last conference. The problem which was placed before the Registrars was this, that although some of the major central banks had reduced their rates of deposits to the level of joint stock banks they still possessed surplus funds which they did not know how to employ. The Registrar of Bombay pointed out several methods in which the surplus funds were utilised in the Bombay Presidency. Other Registrars did not condemn that method of employing the surplus funds. It was not the intention of this Resolution to prohibit the kinds of business which have been undertaken in Bombay and in other provinces. The first point I wish to make is that this Resolution does not necessarily run counter to the previous Resolution of a similar conference. The Resolution tries to lay down a certain policy and that is this—that co-operative institutions should attract, etc., not receive, as has been pointed out by the Chairman. There is considerable difference between the two phrases. The co-operative institutions should attract funds which are just sufficient for their own needs. Co-operative institutions enjoy certain special concessions and facilities and it has been pointed out from time to time that they have been encroaching upon the legitimate business of joint stock and exchange banks. It was to meet this criticism that the Resolution is worded as

It is. I think the concessions which are specially granted by the Government of India and the Local Governments should be utilised by the co-operative institutions as far as possible to meet their own requirements. My friend from U. P. pointed out that the financing and development of other kinds of activities would be hampered by this Resolution. Nothing of the sort. The Resolution is comprehensive enough to permit of attracting funds to the extent which is necessary for financing all kinds of activities. There need be no apprehension on that account. It was also suggested that we may have to refuse deposits. That does not also follow. It has not been said that the flow of funds should be stopped. What has been said is that after meeting their legitimate demands, if any funds are left over, they might be used in the manner indicated by Resolution No. 4 of the last Conference. If it meets the wishes of Mr. Pantulu, I would suggest an alteration of the wording such as this: That while endorsing Resolution No. 14 of the 11th Conference, etc. (The remaining portion will stand as it is). In that case the intentions of the conference would be made quite clear.

Mr. Ramdas Pantulu: What is the meaning of balance between the two?

Mr. Bhalja: The intention was this. It was pointed out by one Registrar that even though they reduced their rates of interest very low, they were still getting large funds in excess of their requirements. He was then advised that he should regulate the flow of deposits by reducing or increasing the rates as the circumstances of each case justified. That is what is meant by adjusting the balance.

The Hon'ble Sardar Sir Jogendra Singh: If we endorse Resolution No. 14, will it not revoke Resolution No. 4 passed yesterday?

Mr. Darling: We might also have to add 'subject to Resolution No. 4 of this Conference'.

Mr. Bhalja: I do not think it goes counter to the Resolution before the Conference. That Resolution only indicates the general policy which should be followed by the Central Banks, that the Central Banks should confine their activities to financing societies and not go on carrying on business of advancing money to individuals.

Mr. Ramdas Pantulu: What I really could not understand in Mr. Bhalja's explanation is this. What is meant by adjusting the balance? Of course, all banks put their rates up or down according to circumstances.

Mr. Darling (Chairman): I think what is meant is that the rates given for deposits should not go beyond what is necessary to attract the amount required for the financing of the co-operative activities. The fact that the word 'attract' is used means definitely that some effort is made to obtain deposits. It was not intended to rule out deposits which come in automatically.

Mr. Godbole: I supported this Resolution in the preliminary conference of Registrars and I do so even now in the belief that only non-members' deposits are considered. If this Resolution does not apply to members' deposits, that point should be made clear because it is the business of any co-operative central bank to attract members' deposits. I suggest that before the word 'deposits' the words 'non-members' be inserted.

Mr. Vishnu Sahay: I oppose this amendment.

Mr. Godbole: The wording is: Funds other than deposits by societies and their members.

Mr. Bhalja. I think the implication is not realised. The Resolution as it stands does not prohibit the attraction of deposits from members. If what is now proposed be accepted, a time may come when perhaps we would be in the same position as we are in respect of non-members' deposits. Certain societies in my province went on attracting deposits from members at very high rates of interest, as much as 9 to 12 per cent. from urban people. What used to happen was this. When the time came for withdrawal, a loan was taken from the Central Bank. The result was that so long as the societies were running well, these few individuals who were really urban people drew interest at exorbitant rates but the moment they felt that the societies were getting weaker, these people who were also in charge of the central banks, advanced money to the societies and repaid that money. I do sympathise with Mr. Godbole that members' deposits should be encouraged. What I submit is that this Resolution does not prevent that being done. I therefore ask my friend to withdraw his amendment.

Mr. Darling (Chairman): We have got three amendments in addition to the opposition to the Resolution in general. The first amendment was suggested by Mr. Radha Mohan and is that the words 'and develop co-operative activities' should be inserted after the words 'to finance' in line 5. We might accept that.

Then the second amendment has been moved by Mr. Bhalja: That the words 'While endorsing, etc.'

The Hon'ble Sardar Sir Jogendra Singh: We in this conference have met not only to consider how we can develop co-operative activities but also to consider how we can create rural credit and help the rural areas. Have we kept these broad considerations in view in framing this Resolution? Would it be wise to put a check on rural credit. The object of this Conference is to afford guidance to the provinces as to the lines on which they should develop. We are at present being driven to this conclusion that the Central Banks carry surplus funds which they find it difficult to invest. If you cut down the deposits in any way, it will mean stagnation of business. A certain amount of stagnation has already taken place. My point is that if we expand our business, we can register more societies and start more business. This would strengthen central banks and strengthen rural credit, but if we decide on a policy being frightened by the present position of closing down business, we would find it very difficult to revive this business again. I may point out that the attraction in contemplation is not only in the rate of interest we pay but also in the confidence which the Banks enjoy and that confidence in the Banks remains. I would ask whether the time has arrived when we should refuse to attract deposits. Hitherto we have done our best to attract deposits to these central Banks and raised them to their present position in the provinces. Has anything happened that we should go back and now refuse to attract deposits to our banks?

Mr. T. Austin: It seems to me that a great deal has been read into this resolution which is not there. To me it simply means that Central Banks should be discouraged from having in their possession surplus

funds which they are not able to develop for financing co-operative activities. The resolution does not mean in any way that it is desirous of curtailing co-operative activities but to stop unhealthy and indefinite developments.

Mr. V. L. Mehta: Sir, the more I listen to the speeches that have been made, the more confused I feel. At one stage it is suggested that there is no question here of setting at naught the resolution that was adopted after very careful consideration at the last session of this conference. At another stage, however, it is suggested that the kind of business contemplated in that resolution is not the kind of business that should be justifiably encouraged by co-operative institutions inasmuch as conducting that business may be, encroaching on the legitimate interests of joint-stock banks. I therefore feel very doubtful whether we are, or are not endorsing that resolution. Leaving that aspect of the question aside, I feel there are other considerations also which appear to have been lost sight of. We appear to have lost sight of the fact that central Banks and provincial Banks—because it is I understand applicable both to central and provincial Banks and if I may say so to urban Banks as well—are not only central financing agencies but they are the balancing centres for the institutions affiliated to it. A central Bank, although its main function today may be to provide funds for the development of the activities of its societies, has also another function, no less important, namely, not only to receive the surplus deposits of these affiliated institutions but also to see that these deposits as they mature are repaid in time and also when the need arises, that against these deposits some overdraft accommodation is allowed. I think therefore that it is very necessary for central financing agencies both central and provincial to attract or to receive money in excess of the actual requirements of their affiliated institutions. I feel that if we are here to endorse resolution No. 14 of the Conference of 1934 and then add that central Banks and the provincial Banks should so adjust their rates of interest as not to accumulate excess funds, then this resolution becomes more or less redundant. This resolution would definitely have a meaning, if we were opposing the resolution adopted at the last conference and then we went on to say that the proper policy for Banks is to receive or attract funds only to the extent necessitated by the requirements of their societies. If, however, we endorse the resolution and ask banks to attract deposits not in excess of their requirements, the resolution becomes redundant. It may have been necessary ten, fifteen or twenty years ago when most of the persons running our central banks were new to this sort of business but to-day when most of the bankers have been at their jobs for the last fifteen or twenty years, I think it would be presumptuous for us to tell them that they should regulate their terms of deposits in such a way as not to have too quick an inflow of funds. Any person in charge of any bank must know that if at excessive rates of interest he goes on borrowing in excess of his actual requirements, then he is sure to land himself in loss. He may do so for a year, but he is not likely to be allowed to do that for all time to come. That word of caution is not only unnecessary but I do not think that this conference should give this word of caution to persons who have been in their business for years together. I also feel that we are taking a somewhat too gloomy a picture of the future. We ought to be prepared for the development of our moment. As my friend to my right says, funds should be

attracted not only for financing activities but for the development of co-operative activities. If that proposition has won support, it stands to reason that our requirements are likely to expand in course of time and as wise bankers we should be prepared to meet that expansion of business when it is likely to arise. Let us visualize the position of banking organizations other than co-operative both in our country and in other countries. We know that the position in which we are placed is the position in which joint-stock banks both in India and in England are placed, and what do they do? If they get more funds than they can profitably utilize in the shape of advances to their customers, they do not turn down these deposits but the surplus funds that they get for the time being are profitably utilized by way of investment in Government securities and otherwise. The position in Bombay is that if not today, to-morrow better times are in store for us and when these better times come we shall be able to use profitably the money which we have by the development of our own resources been able to attract to the movement up till now. There is no definite campaign undertaken to attract deposits except to the extent that the credit established by these institutions attracts funds to them; but the only line of action that we recently adopted is in pursuance of the suggestion made by Mr. Darling when he went round the Bombay Presidency and that is to increase the volume of long-term deposits. It is only in that direction that recently there has been any increase in the amount of deposits; otherwise there has been absolutely no attempt made to tap deposits from sources other than the sources from which deposits were flowing in in the past, and that being so, I do not think it is necessary for us to receive this word of caution from the Conference, because that is exactly the policy which any sound banker must adopt. I may again repeat what Mr. Bhansali mentioned while moving the resolution that in Bombay the practice has always been that as soon as the rates for deposits in joint-stock banks go down, the rates for deposits in co-operative banks are also lowered.

A delegate: Is that the case in all Central Banks?

Mr. V. L. Mehta: Practically in all central banks and in all urban banks. That, however, is the policy which all wise banks will follow and therefore I think that if we endorse the resolution passed during the last session of this conference; this resolution will become redundant. If, however, we are not to endorse it, I agree with Mr. Pantulu in opposing it.

Mr. Vishnu Sahay: It is not suggested that deposits be refused: all that is suggested is that co-operative banks should not attract money in order to invest it in business which is not co-operative, for the purpose of profit. There would be no objection, we have held, to investing the money in Government securities. For instance, take the case of the provincial Bank of Bombay. Their rate is, I understand, as low as $1\frac{1}{2}$ per cent.—a rate on which they are entitled to congratulations. What the Conference would suggest is that they should not attract deposits even at this low rate for the purpose of doing business with other than co-operative societies whether now existing or to be organized further. Then it is suggested that there will be no objection to investing it in Government securities and making such profit as may come from that source. The other point made was that this resolution is neglecting the problem

of rural finance in financing co-operative societies only. To that the answer seems to be that we are not neglecting or forgetting the interests of rural finance but we merely think that our proper business is through co-operative societies and that if we deal with individuals we are doing un-co-operative business and consequently may land ourselves in trouble. By this insistence we are bringing cheap money into banks and thereby rendering credit cheaper to the agriculturist himself through the co-operative societies.

Mr. I. C. Subbaiya: I entirely agree with the Honourable Mr. Pantulu in opposing this resolution, and I do not propose to reiterate the reasons stated so ably by Mr. Mehta. We know what effect resolution No. 14 has had in utilising surplus funds. If the resolution had actually been given effect to, I have no doubt that to a large extent the surplus funds available in the provincial and central banks would have been utilized. As has already been stated, this resolution is wholly unnecessary, and even the wording of the resolution also has got several complications in it. In the first place, I am unable to understand what exactly is the balance between the two, whether it is intended that the balance is likely to come by receiving more depositors. My humble opinion is that this resolution both in respect of the object aimed at and in respect of its wording is likely to lead us to unnecessary difficulties and I entirely agree with the members who have opposed the resolution and any amendments suggested are not likely to clear up the resolution by giving effect to the object of the resolution.

Mr. Chairman: The amendment is that the words "while endorsing" should be substituted for the words "after considering".

The amendment was lost.

Mr. Chairman: There is a further amendment proposed, *viz.*, that in line three after the words "that funds" the words "other deposits from societies and their members" should be inserted.

The amendment was lost.

The Resolution was carried.

Mr. Chairman: The next item on the agenda is one in regard to which it has been suggested that I should move the resolution. I propose that this should be taken up after lunch when I hope the Honourable Member will be back in the chair and that we may now go on to item No. 12. I propose that we consider "how far is the co-operative movement affected by the Debt Legislation in different provinces and what attitude should co-operative societies adopt in the matter?"

Mr. Vishnu Sahay: The subject falls under two parts.—the first, how far is the co-operative movement affected by the debt legislation in the different provinces, and, secondly, what attitude should co-operative societies adopt in the matter? As regards the first part, after hearing the views of the Registrars it appeared to the preliminary meeting that at present the co-operative movement was not affected by the debt legislation in the provinces. In my own province, the United Provinces, there have been six Acts recently placed on the Statute-Book comprehensively known as the Debt Acts. Of these, the two most important from our point of view are the Agriculturists Relief Act and the Encumbered Estates Act. The former Act regulates the rate of interest both past and future, allows instalments to debtors, makes provision for security and

provides a speedy procedure for the redemption of mortgages. At the request of the leaders of the co-operative movement, loans given by co-operative societies were excluded from the purview of this Act. There may be some difficulties in the legal interpretation in the matter of execution proceedings but on the whole the co-operative societies are not affected by this Act. As regards the other Act, the Encumbered Estates Act, it is intended to help landlords and since most of our members are tenants they are not very much affected. The same I believe applies to the other provinces. The second point was what attitude should co-operative societies adopt in the matter? The Conference felt that apart from measures already taken by many of them for adjusting the debts of their members and for affording them relief for the fall in prices, there was little likelihood for debt conciliation as far as co-operative societies were concerned. It was felt that if any relief was to be given and if any conciliation was to be made, the societies should make it on a consideration of their own financial position. Only one resolution was recorded on this and that is that the Conference consider that there is little scope for debt conciliation so far as co-operative societies are concerned, apart from the measures taken by many of them for adjusting debts and for affording them relief for the fall in prices. I move the Resolution.

Khan Mohd. Bashir Ahmad Khan: I second it.

The Hon'ble Sardar Sir Jogendra Singh: I think the co-operative movement might have taken into consideration the matter of the liquidation of debts as a result of the debt legislation and conciliation of debts, but that has not been done and I should be glad if they would do that.

Mr. G. S. Bhalja: I am not opposing the Resolution but I just want to make a few observations as regards my province. It is not quite correct to say from our point of view that the debt legislation has not affected the co-operative movement. In the Central Provinces, which was I believe the first province in India to put on the Statute-Book a Debt Conciliation Act, the co-operative societies are not excluded from the purview of the Debt Conciliation Boards. The result has been that recoveries of the central Banks have been adversely affected. But, as I say, although it is not strictly true that the co-operative movement is not affected by the debt legislation, I also want to emphasize the point that the co-operative movement should not try to seek special concessions in this respect. The co-operative movement has been initiated for the good of the agriculturist and therefore any relief which is sought to be extended to the agriculturist through the special legislative measures must be extended to the members of co-operative societies also. The view that is being generally taken in the Central Provinces outside the co-operative circles is that the co-operative societies must not demand any special consideration and I wish to stress this point before the Conference. If we try to claim special favours for the co-operative movement, we are likely to alienate the sympathies of the general public. I do not wish to speak at length on this Resolution because the Resolution as it is worded does not necessarily indicate any particular attitude. I only wanted to make clear my own position on this subject.

The Conference then adjourned for Lunch till 2-15 P.M.

The Conference re-assembled after Lunch at Quarter Past Two of the Clock. The Hon'ble Kunwar Sir Jagdish Prasad presiding.

Khan Mohd. Bashir Ahmad Khan: I move:

"The Conference considers that there is great need of spreading the co-operative movement amongst women for the encouragement of thrift and their general welfare, and the necessary steps should be taken to give effect to this."

One great impediment to the success of the co-operative movement in India is that it is confined only to men and that it has not extended its activities to the fair sex. The co-operative movement, which aims at the economic, social and moral emancipation of the masses, if it wants to succeed in the real sense of the term, must bring women into its fold. In some provinces co-operative work has been started among women also. In the Punjab the first co-operative society for women was started in 1926. There are now about 250 societies in the Punjab with a membership of over 4,000 and a working capital of Rs. 2½ lakhs. In U. P. there are 20 societies, with a membership of about 300, and in Bengal there are eight women societies. One of the most successful society in Bombay is the Women's co-operative stores confining itself solely to Indian made goods and it has a membership of over 300 women. In Travancore there are 5 women societies and out of a total of 2 lakhs 30 thousand members, 29 thousand are women. In Cochin out of a total membership of 25,053, there are 1,411 women. In Mysore, there are 20 societies with a membership of 800 women and a paid up share capital of Rs. 11,000 and a total turn over of about Rs. 40,000. In Baroda, there are 23 societies with 668 members. These societies in the Indian States and in British India are mainly thrift societies. Attempts have been made to extend their activities to rural reconstruction. Societies have also been organised in the Punjab for the encouragement of adult and compulsory education. One of the difficulties experienced in the Punjab was the lack of trained and efficient staff. There is the difficulty of providing proper accommodation while they are on tour. They find it difficult to stay in P. W. D. rest houses at night and the result is that they cannot pay proper attention to the work of societies. Women are generally free either at mid-day or after evening meals. These girls return to their homes at night time for want of proper accommodation and therefore they can not hold general body meetings and unless a general body meeting is held, the success of a co-operative society is doubtful. There is also the difficulty of supervision. In the Punjab for 11 districts, there is one Inspectress paid by Govt. 11 sub-inspectresses who are paid by the Punjab Co-operative Union. These 11 sub-inspectresses are working in 10 districts. They cannot attend to the demands from other districts. There is not enough staff for supervision. These women societies are also very costly. Whereas much less money is wanted in the case of men societies, women societies require a great deal of money. The women societies are as a general rule confined to urban areas comprising of school teachers, employees of hospitals and so on. If they are to be of real use, they must be extended to rural parts.

It was felt that it was difficult to confine women societies purely to co-operative work. So women are engaged in girls guide movement, Red cross work, health centres and so on which is all beneficent work. They are also encouraged to take part in women association movements.

such as purdah organizations and so on. As a result of the activities of women in the co-operative sphere, there is a certain awakening among them and they are claiming to have a share in the directorate of the central banks and provincial banks. With these words, I commend the Resolution to the Conference.

Khan Bahadur Nawab Fazl Ali seconded the Resolution.

The Hon'ble Sardar Sir Jogendra Singh: I support the Resolution strongly and in the beginning we will be well advised if we concentrate our attention mainly on thrift societies.

Mr. M. Govinda Pillai (Travancore): I support this Resolution. In Travancore out of a total membership of 2 lakhs, women exceed 30,000. They did not however take part in the deliberations of the societies. It was therefore found that though there have been women members in all kinds of societies, the male members were able to utilise the acquiescence of their devoted wives or loving sisters or affectionate mothers in getting loans and other things. It was therefore thought necessary to enlist women members on the executive committee of these societies. The election of women members to the directorate of some of the societies has had very salutary effect. They were able to check indiscriminate grant of loan. Travancore has now embarked upon separate societies for women. Now there are seven societies for thrift, there are some "better living societies", two societies are engaged in the rearing of cows and supplying milk to adjoining villages. One society is dealing successfully in the necessary requirements for women. Mere membership of women in the organization will not count much. There must be separate organization for the purpose of thrift, better living and other kinds of activity.

Rai Sahib Babu Radha Mohan: In the United Provinces the experiment of mixed societies has been started some time ago and it has proved very successful. There is an instance of women contributing a major portion of money for starting a club and for the construction of a house for rural uplift work in Partabgarh. In another mixed type of society women distribute medicine in a village. It is therefore better if we extend this movement to mixed type of societies also. The mover of the Resolution pointed out the difficulty of finding suitable accommodation for women at nights while they are on tour in connection with co-operative work. The Registrar of U. P. recently thought out a scheme of appointing the wives or the family members of male organizers at particular centres giving them attractive salary. That would be successful because if the organiser is called upon to do missionary work like that of rural uplift, then it will be much better if the energy of both the wife and the organizer is devoted to this purpose. In this way the difficulty pointed out by the mover could be got over.

The Resolution was unanimously adopted by the Conference.

Mr. M. L. Darling: I move:

"The Conference considers that in future all unrealised interest should be carried to an interest suspense account until it is realised."

This Resolution is in part due to the experience I gathered on my tour in connection with co-operative movement about 2 years ago. I found a great variety of practice prevailing in regard to the treatment of

interest. In one province it was taken to profit and appropriated to the reserve fund. In another province it was taken to profit but not appropriated. In a third province it was carried to profit and appropriated only to the bad and doubtful debt reserve, while in another province it was excluded altogether from the profit and loss account. In two provinces it was penalised and even in these two provinces not all banks did this. In one province the amount penalised was covered by a corresponding reserve fund. Under these circumstances, it was very difficult to compare one province with another. In one province I was shown an annual statement under the heading general progress which certainly was very impressive upon paper, profits and reserve totalling 60 lakhs. On enquiry the bulk was found not to have been realised. On the other side, I may quote the instance of Madras where in the case of its agricultural primary societies, a profit of only one lakh was shown, because overdue interest was not included. Had the whole overdue interest been included, there would have been a profit of 74 lakhs. I suggest to the Conference that it would be useful to those who wish to make a comparative study of the movement in the different provinces if a uniform practice could be followed. The uniform practice suggested in the Resolution is that all unrealised interest should be carried to an interest suspense account until it is realised. If this is carried it will follow that no appropriation of any kind will be made from interest until it is realised and no interest that is unrealised will be available for divisible profit.

Mr. Eustace: I second the Resolution.

Diwan Bahadur K. Deivasikhamani Mudaliar: Though I do not oppose the Resolution, I wish to point out certain difficulties. It would be very difficult to apply this Resolution to Madras. Good societies will suffer. In Madras the margin between the borrowing and the lending rate used to be at $1\frac{1}{2}$ per cent. Societies used to borrow at 6 per cent, and lend at $7\frac{1}{2}$ per cent. With the fall in the general Market rate societies borrowed at less rate and charged proportionately less rate leaving always a margin of $1\frac{1}{2}$ per cent. Even out of this margin of $1\frac{1}{2}$ per cent., half a per cent was carried to supervision fund, leaving a real margin of only one per cent. With this margin it would be difficult for good societies to divide any profit for several years if accrued interest is excluded. I will give an example. I will assume that a society borrows Rs. 1,000 in the first year of its existence and goes on borrowing one thousand rupees in each of the subsequent years. I shall assume also that it borrows at 6 per cent. and lends at $7\frac{1}{2}$ per cent. In the first year it has to pay Rs. 60 interest and collects nothing, for according to the rules members pay interest only once a year. If the loan is given even in the first month of the year, interest will fall due only in the second year. I worked out the details and I find:

In the First year :	the Society pays Rs.	60	and collects nothing.	
Second year	„	Ra. 120	„	Ra. 75
Third year	„	Ra. 180	„	Ra. 150

It is only in the sixth year it pays Rs. 360 and collects Rs. 375. If a society becomes dormant after three years it will be in a position to divide profits in the fourth year. If however the margin of profit is higher, say 3 per cent., the society will be able to divide profit in the fourth year. If the margin is higher than 3 per cent. the society can divide profit in

the third year. For these reasons it will be very difficult for good societies to divide profits. As a matter of fact after the publication of the report of the Maclagan committee, the societies in Madras excluded in one year all accrued interest including overdue interest from profits. We found in a very large number of cases that good societies had to show a minus in the balance-sheet. In the case of the central banks there was a minus. The matter was taken notice of by Govt. and they permitted all societies in Madras to add accrued interest, i.e., interest which was not overdue. I think under this Resolution good societies will suffer.

Mr. V. L. Mehta: I have to oppose this Resolution in the form in which it is worded. My opposition is due to the fact that the practice in various provinces differs. In some provinces, the practice is that ample provision is made that no profits out of accrued interest are taken into consideration at the time of distributing the dividends. This question was considered again and again at various conferences and this question was also fully gone into by the Maclagan Committee and they say:

"All that is necessary is to provide fully against interest that is overdue".

That is the position which has been accepted in the Bombay Presidency and when our rules were framed under the new Act of 1925, the Government of Bombay laid down that out of the profits of a year all interest that is overdue for more than six months should be excluded at the time of declaring or distributing dividend. If that interest was recovered later, it would accrue towards the profits of the year in which it was recovered. The phrase originally used was "unauthorisedly overdue", but after consulting co-operative opinion in the presidency the Government of Bombay dropped that word "unauthorisedly", which was a loophole of which some societies and some central banks were taking advantage by granting extensions and thus permitting that overdue interest to be included in the profits. But about a couple of years ago that word was dropped and the position now is that all interest overdue for more than six months is excluded from the profits. Some banks in our presidency go further. In the agricultural credit societies for the purposes of the balance-sheet only the actual realised interest is taken into account. It is only in the banks that accrued interest is taken into account. The question may be asked, why this distinction? To my mind the justification for it is that the balance-sheet of an average primary agricultural credit society is a matter more or less concerning the members and its central financing agency, whereas the balance-sheet of a central or urban bank is the concern not only of its members but also of the depositors. Therefore, although in a primary society it may be possible to keep unrealised interest out of consideration, in an urban or central bank we have to show the exact position as it obtains at the end of the year. And that exact position can be understood from year to year when the whole of the interest that has accrued is shown in the accounts and at the same time ample or full provision is made against the interest that is overdue. I said that some banks in Bombay go further than the rule requires. What they do is this. If on any loan account or cash credit account interest is overdue at the end of any year, all further interest on that account, even though it may not have accrued for payment, is also excluded and treated as overdue. That is as full a provision that we can demand in the interest of financial safety. I agree that all this interest must be excluded.

ed and also that when accounts get frozen and outstanding are overdue from societies for years together and heavy bad debts are expected, the recoveries made from these societies, until the position in respect of bad debts has been cleared up, be credited either to an interest suspense account or towards principal. But the resolution goes too far and is of very wide and general application. It would exclude interest which has accrued on the investments of a bank in Government securities and also on the deposits which a bank may have kept with approved banks. This is interest which is sure to come in and I do not see why it should be excluded. There are also loan accounts where interest may have accrued but may not have become overdue. There are accounts where interest may not have been collected at the end of the co-operative year but might have been collected at a stage when people are in a position to pay up their loans. In our presidency the closing date for accounts is 30th June but in some districts interest is calculated up to the end of December or March and recovered in January or April. In these cases interest will have accrued on these good loan accounts for six months or three months and if the Resolution as worded is accepted, all that accrued interest, though perfectly good, will be excluded.

I may also refer to the practice which prevails in sound banking institutions. When an account becomes frozen and any bad debt is expected or the debt is treated as a doubtful one, the management would be very chary of utilising the interest on such accounts towards the distribution of dividends. Our co-operative banks might follow this wholesome practice and it could even be standardised in the form of a rule or a section of the law which would be more acceptable than the Resolution put forward, though with all the weight of authority due to Mr. Darling.

Rai Sahib Babu Radha Mohan: From the note supplied to us [Appendix II] it is clear that the practice in the spirit of the Resolution is in vogue only in Punjab and Bengal. Madras has given a note of dissent and as for Bombay Mr. Mehta has just expressed his views. The Resolution is no doubt wholesome but it will be difficult to inspire confidence in the public so far as deposit is concerned, because the Resolution not only covers primary societies but also includes central banks. In central banks not only primary societies are shareholders but preference shareholders also play an important part. We cannot ignore their claim in determining the divisible profit. I therefore think that the practice in vogue in the U. P. should be adhered to, which says that all overdue interest should generally be excluded for the purpose of reckoning the profits for distribution among shareholders, but in the case of central societies the Registrars may in special cases permit exemption from this rule in favour of preference shareholders. Here we exclude only overdue interest but Mr. Darling wants all unrealised interest to be excluded, whether overdue or not but accrued. That is going too far. Of course there should be uniformity, but that uniformity should be on the lines of the practice in the majority of the provinces, which is that overdue interest only should be excluded and not unrealised interest.

Rao Bahadur T. M. Narayanaswami Pillai (Madras) also opposed the Resolution.

Mr. M. V. Desai (Baroda): The Resolution looks all right from the financial point of view but we have to see what practical effect it will have on the credit of the central co-operative banks. The same method

was tried in Baroda, but we approached Government and central banks were excluded from the operation of this rule because they would be hard hit so far as their credit is concerned. I think the note submitted by the Madras Registrar solves the difficulty and that is what we have adopted in Baroda. The State ordered that a bad debt reserve fund should be created and the percentage of that reserve should be so high as to cover later on the losses on unaccrued interest. I think this is the best solution. Otherwise the credit of central banks would suffer and there may be a run on the banks after a few years' working. That is a danger which Mr. Austin has pointed out in his note. I therefore suggest that the alternative proposed by the Madras Registrar should be accepted.

Mr. M. L. Darling: My experience has shown me that a number of central banks have been distributing in the form of dividend interest that they had not recovered and to a large extent, as it seemed to me, interest that they might not recover. That is a dangerous position, and from the point of view of financial stability I think a policy of extreme caution is advisable in regard to interest. The acceptance of this Resolution, it seems to me, would protect the central banks against the danger of finding themselves in the position of distributing as dividend money that they might require to meet their losses. I personally would have no objection to the Madras policy being adopted, but the preliminary conference of Registrars felt after discussion that we could hardly be too cautious in this matter and that therefore it would be wise to prohibit the appropriation of unrealised interest under any circumstance; but this was not intended to cover interest in respect of Government securities, and that could be made clear by a slight change in the Resolution. I mention the point because it was raised by Mr. Mehta. The Madras practice does not leave much loophole for abuse. I understand their practice to be that unrealised or accrued interest is appropriated to reserve and dividend, provided it is not due on an account in respect of which interest is already overdue; but all other unrealised interest is excluded from appropriation. That means that all overdue interest is excluded, and also interest which has accrued in respect of an account interest on which is not fully paid up. I have no objection to this being the rule, but what I plead for is firstly, that there should be uniformity of practice, secondly, that we should exercise a policy of great caution in this matter, and thirdly, that in so far as unrealised interest is taken into the profit and loss account, the amount so taken should always be clearly stated. If that be the sense of the Conference I would suggest the following amended Resolution:

"This Conference considers that in future all accrued interest may be appropriated to reserve and dividend, provided it is not due on an account in respect of which interest is already overdue, and further that all other unrealised interest including all overdue interest be excluded from appropriation.

This Resolution applies only to interest due from societies to banks and from members of primary societies to banks other than urban.

Further, the amount of any interest not realised taken into the profit and loss account should be always clearly stated in the account."

The above amended Resolution was unanimously adopted.

Khan Mohd. Bashir Ahmad Khan: Sir, I move—

“That the Universities should give prominence to the study of Co-operation in every practicable manner, for instance by making it a special subject for degree courses, both in Arts and Commerce and also in Agricultural and Technical Schools and institutions.”

I shall not discuss this in detail as it is self-explanatory. There is a great deal of unfair criticism of the co-operative movement due to ignorance; and if Universities give prominence to the study of Co-operation, I believe most of this unfair criticism will disappear, and a study of the subject in Universities will facilitate the work of the movement.

Khan Bahadur Nawab Fazl Ali: I second it.

Diwan Bahadur K. V. Brahma: In the Nagpur University Co-operation is one of the subjects in the degree course, but not a special subject by itself: similarly also for the M.A. I doubt if it could be made a subject by itself for the degree or M.A. course.

Mr. M. L. Darling: I may say we did not discuss this question in the preliminary conference because none of us felt that we had the necessary knowledge to do so.

Khan Mohd. Bashir Ahmad Khan: In the Punjab University Co-operation is a part of Economics in B.A. and also in M.A.

The Hon'ble the President: Have you examined the syllabuses of all the universities?

Khan Mohd. Bashir Ahmad Khan: It is such a vast subject that it can form a subject by itself for the M.A. but for the degree course it could form part of Economics.

Diwan Bahadur K. V. Brahma: I am not quite sure about the M.A. We have got it already for the B.A. but we will follow the lead of the Punjab though I doubt if that university will yield so readily to my friend.

The Hon'ble Sardar Sir Jogendra Singh: I doubt very much if any university will agree that co-operation by itself should form the subject for the degree.

The Hon'ble the President: Has this been done anywhere else in the world?

Khan Mohd. Bashir Ahmad Khan: In the U. S. S. R. (Russia) there is a degree like that.

The Hon'ble the President: I am afraid it is rather a pious sort of resolution.

Diwan Bahadur K. V. Brahma: I suggest that the Resolution should be passed.

The Hon'ble the President: All right. Let the Resolution stand as it is.

Item No. 15.

Mr. T. Austin: The principle underlying this subject is to safeguard co-operative societies as far as possible from unnecessary litigation. Experience has shown that in many provinces the provisions of their Acts do not go far enough. In spite of section 51 of the Madras Act, civil courts have entertained suits. Section 57 of the Bihar and Orissa Act reads as follows:—

57. (1) Save in so far as is expressly provided in this Act, no Civil or Revenue Court shall have any jurisdiction in respect of any matter concerned with the winding up or dissolution of a registered society under this Act, or of any dispute required by section 48 to be referred to the Registrar.

(2) While a society is in liquidation, no suit or other legal proceeding shall be proceeded with or instituted against the liquidator as such or against the society or any member thereof on any matter touching the affairs of the society, except by leave of the Registrar and subject to such terms as he may impose.

(3) No order of the Local Government, District Judge, Registrar, a person appointed to assist the Registrar, liquidator, or an arbitrator or arbitrators purporting to be one which under any provision of this Act is declared to be final, shall be liable to be challenged, set aside, modified, revised, or declared void in any Court, upon merits or upon any ground whatsoever except want of jurisdiction.

I therefore propose that the Conference approves of the provisions in regard to the bar of jurisdiction of courts embodied in section 57 of the Bihar and Orissa Act.

Diwan Bahadur K. Deivasikhamani Mudaliar: I second it.

Rai Bahadur Bhola Nath: In spite of the provisions of section 57 of our Act, we have found that depositors file suits or ask for injunction and attachment of building and I would therefore suggest that we should also have a provision that when steps have been taken by any creditor or the bank for coming to certain arrangements at that state no civil suit should lie or be proceeded with.

Rai Sahib Babu Radha Mohan: I have tried to study this problem from the point of view of various High Courts: there are three directions in which there is a divergence of views. Power has been given to frame rules under section 48 (1) regarding disputes between members and the society. But a dispute between a society and another society is excluded. Also disputes between an office bearer of a society and the society, etc. In certain cases High Courts have taken different views on these matters—sons who were representatives of their fathers have been excluded from the purview of section 43: we have therefore to provide for three contingencies—

- (1) where the determination of the dispute between a member or his representative is concerned;
- (2) where the dispute is between a society and a society;
- (3) where the transaction is between a society or a member and an office-bearer and a stranger,

Otherwise there is scope for litigation on the part of the outside public also. I think it is not enough to have legislation on the lines suggested by the Mover: the amendment should be such as to cover all possible contingencies and not only a limited number of cases.

Rao Bahadur T. M. Narayanaswami Pillai: Mr. Austin has pointed out the loophole in section 51 of the Madras Act. I think it is enough if we make that clear. I agree it does not exhaust all the cases which might arise. But if it is meant to extend the scope of section 51, I am afraid I cannot agree.

Mr. T. Austin: All I intended was to bar the jurisdiction of suits in disputes touching the business of a society where the Act lays down that such disputes should be referred to the Registrar.

The Hon'ble the President: The general sense of the Conference is that the Resolution should be passed in the sense and with the object stated by Mr. Austin.

The Conference agreed.

Item No. 16.

Mr. T. Austin: In cases of arbitration and liquidation it is necessary to determine whether a person is or was a member of a co-operative society. If membership is admitted, then there is no trouble at all. But if a person denies his membership, the arbitrator or liquidator can do nothing to enforce his decision against such a person even if he is convinced that he is a member. Obviously it is out of the question for the arbitrator or liquidator to go to the civil court and get the question decided. In provinces where there is no provision empowering a departmental officer to determine this question, any unscrupulous person can take advantage of the omission, and it has happened in Madras. Hence I move—

“The Conference is of opinion that the Registrars should have power as in Bihar and Orissa Act to decide whether or not a person is or was a member of a registered society.”

[I move the first part only and not the second sentence.] [Provinces can make their own arrangement with regard to the second part.]

Khan Bahadur Nawab Fazl Ali: I second it.

Mr. Ramdas Pantulu: I am in general agreement with the Resolution. I had to argue this point recently before two benches of the Madras High Court and the trend of judicial opinion is that is inadvisable to give final jurisdiction of an exclusive character to registrars or officers of the department to determine whether a man was or is a member of a society at all. That is based on a series of English decisions. There is a subtle distinction in such cases though it is somewhat technical. When a man says he never joined a society he did not submit himself to the jurisdiction of the registrar; and if the registrar still says “I hold you are a member though you have not joined”, it will be a somewhat violent use of an

exclusive jurisdiction. The preliminary decision whether a man is or is not a member should be subject to revision by the civil courts unless the man has submitted himself to the jurisdiction of the registrar. My own impression is that no legislature in India will accept the resolution of the conference that if a man says he never joined the society, the registrar should have power to hold that he was a member of the society and should pay. There is not the slightest chance in my opinion of any reasonable and sensible legislature accepting a decision like that.

The matter was argued by me before a bench of two High Court Judges and I know what the trend of judicial decision will be. I therefore feel that we should pass such a resolution which will commend itself to Legislatures, because I feel that if this matter comes before the Legislative Assembly I do not think there is the slightest chance of its accepting this Resolution though we may pass it here.

The Hon'ble the President: We are now getting into the higher regions of law. Let us deal with the proposition before the House.

Mr. Godbole: I am much obliged to Mr. Ramdas Pantulu for the compliment he has paid to the B. and O. Legislature. He is an authority on the principles and fundamentals of jurisprudence, but I know it as a fact that the B. and O. Legislature did pass this legislation, but it was not at my instance. I am quite free to admit it here. I was most unwilling to have additional powers forced upon me. I feel sure that I am echoing the feelings of my brother Registrars when I say that we do not want more powers but we have been compelled to take upon ourselves certain powers as a matter of necessity, and that is how these violent powers have come to be included in the provincial Acts. I do not know what the reformed legislatures of the various provinces will do, but I might say that this provision in the Provincial Act was passed with the full concurrence of the non-officials also in Bihar, and we did it only as a matter of necessity because frivolous pleas were raised by members and ex-members of societies in civil courts, because it is quite open to a member to go to court and say 'I never was a member or I was a member but am no longer a member'. Therefore, he drags the society into court and compels it to face the uncertainties of litigation.

Mr. M. V. Desai (Baroda): I support what Mr. Godbole has just said. My friend Mr. Pantulu seems to fear that legislatures may not accept the resolution though we pass it here, but I am afraid that there is no ground for my friend's apprehensions. He enunciated one principle that preliminary jurisdiction should be decided by civil courts, but there is another principle of law which my friend should consider and which comes within the scope of the resolution recommended by the preliminary meeting of the Registrars. Apart from that legal question, it is generally the tendency of the human mind that whenever the debtors have to pay they bring forward frivolous arguments. There is another principle, and that is, whenever rights and liabilities created by particular statutes are disputed,—and those very statutes appoint tribunals,—then it is the tribunals alone who have jurisdiction to try such cases. For instance, take the Municipal Acts. Under the Municipal Acts, whenever an election has to be challenged Commissioners have to be appointed, and those Commissioners alone get the power to decide whether an election is valid or not and no suit can lie against their decision

The Hon'ble the President: Really the practical question which I would ask my friend Mr. Pantulu to consider as a practical co-operator, and not as an eminent jurist, is that if the arbitrator goes to a man and says 'Look here, you had better pay Rs. 5,' and the man says 'I am not a member'. Then what is to happen? How shall we deal with it in practice. That is the real problem which is facing Bihar.

Mr. Ramdas Pantulu: There can be no difficulty. The Registrar can always have preliminary jurisdiction to decide, but he should not deprive the man of the right and privilege of proving in a court of law that he was never a member. I may say here that I know of some such cases which took place in my part of the country soon after the floods. All the books and registers were washed away, and therefore there were no registers. Everybody began to say that he ceased to be a member and no record was available. I have drawn a distinction between a man who never joined and a man who joined a society but ceased to be a member. In that case the Registrar should have exclusive jurisdiction. . . .

The Hon'ble the President: But don't you think they could force the society to go to a civil court.

Mr. Ramdas Pantulu: If it is a question of practical convenience, there are many officers and societies who would like to take undue advantage of the powers, and therefore hardship would entail. There are factions and communal spirit and various other things about which I don't want to say anything here. . . .

The Hon'ble the President: Mr. Desai, would you mind concluding your speech?

Mr. M. V. Desai: If we cannot trust officers in the position of Registrars who are practically in the grade of Collectors to whom we entrust big districts, to decide a simple matter like this, namely whether a man joined a society or not, then I say there are bad days for the co-operative movement. We have to put a certain amount of trust in our officers. Mr. Pantulu says there are factions. We expect our Registrars to be honest, and therefore that argument can hold no water. I have nothing more to say, I strongly feel that this Resolution must be supported by the House.

Mr. Ramdas Pantulu: I am supporting the Resolution also. (Laughter).

The Hon'ble the President: I think the general opinion is that this Resolution should be passed.

Diwan Bahadur K. V. Brahma (C. P.): I do not agree, Sir. I feel, as my friend Mr. Pantulu has pointed out, it is certainly very dangerous to give these powers to Registrars to give absolute decisions. Mr. Pantulu has pointed out certain difficulties, but I do not visualise them at all. The present Co-operative Act, II of 1912, is so worded that ordinarily speaking there will be no difficulty. It was mentioned that in one case the registers were washed away or lost, but I do not think that nature will be so unkind as to cause floods everywhere. In the co-operative field we do not want it to be said that co-operation is law unto itself. I do not distrust the impartiality of the Registrars at all, particularly as they are going to be our judges, as they were judges heretofore. But let not the ordinary

man go away with the idea that co-operation is law unto itself. I have not the slightest doubt that when this matter comes to be discussed in any assembly in the provinces hereafter, there is no chance of this being accepted as law, because it is denying the protection of law. I do not think there are any practical difficulties anywhere.

Rai Sahib Babu Radha Mohan (U. P.): So far as the legal aspect is concerned, there is not much difficulty. In the majority of cases when a special law is to be enforced, the question of jurisdiction comes for determination by courts. For instance, in U. P. there is the land revenue and tenancy law. In the case of tenancy law, the jurisdiction of the civil courts is ousted by certain provisions. That jurisdiction is exclusively given to revenue authorities. Let us consider the case in which a tenant comes to a civil court to enforce his right as a tenant against his co-tenant. The Allahabad High Court has held that whether the jurisdiction is ousted or not depends upon the fact whether he is a co-sharer in the tenancy or not. So the court will have to enter into the question whether he is really a co-tenant or not, and after deciding that point alone, it can come to a conclusion whether the court has jurisdiction or not. In a case reported in the year 1926, the Bombay High Court has decided that it is for the arbitrator or liquidator to decide whether a particular person is a representative member or not. Now, so far as the objection of my friend Mr. Brahma is concerned as to why should we ask a civil court to deprive us of the privileges that are given under the law in this particular case, my friend forgets the fact that the machinery of the co-operative department is considered to be autonomous in itself. I don't see much force in the arguments advanced by my friend Mr. Brahma, and I therefore support the Resolution.

Rao Bahadur T. M. Narayanaswamy Pillai (Madras): In view of the question of personal liberty, it was urged by some members that this provision should not be passed. I would say that while it is necessary that the Registrar should be invested with the power to decide whether a man is a member of a society or not, which power at present does not exist in the Madras Act, it should be our aim to see that there is no abuse of the power. After all, we all know of wasteful litigation. There are also a number of instances of abuse of power. I feel it is very unsafe to give arbitrary power to Registrars. I say you can invest them with interim powers, but they should not be the final authority.

Mr. I. C. Subbaiya: Sir, I oppose this Resolution, for the same reasons which Mr. Pantulu has advanced. There are very wide powers entrusted in the hands of Registrars. I do not think that if we pass this Resolution here it will meet with the approval of legislatures in the provinces.

The Hon'ble the President: I am afraid I have to put the Resolution to vote. Those who are against the Resolution will raise their hands.

(Only 3 members raised their hands.)

The Resolution was therefore carried, 3 members dissenting.

Now, we will take up Resolution No. 17.

Mr. T. Austin: As the law stands at present, co-operative societies are not exempt in most provinces from the application of the law of limitation. In practice it is; in theory it is a simple thing to save a loan from limitation, but in actual practice the office bearers of primary societies,—they

may be honorary workers,—are not very highly educated men, they seldom have a knowledge of law. In the interest of the movement therefore it seems that a restricted application of the law is demanded, and here again B. and O. have given the lead. Section 63 of the Bihar and Orissa Act says as follows:—

“63. Notwithstanding any of the provisions of the Indian Limitation Act, 1908, the period of limitation for debt including interest due to a registered society by a member thereof shall be computed from the date on which such member dies or ceases to be a member of the society.”

The Resolution says “The Conference considers it desirable to modify the application of the law of Limitation on the lines of section 63 of the Bihar and Orissa Act”.

Mr. Ghose: I second this Resolution.

Rai Sahib Babu Radha Mohan (U. P.): An eminent jurist, the late Mr. Justice Mahmood once remarked in an important case in the Allahabad High Court that the interpretation of a Statute ought to be liberally construed in favour of its inapplicability with due regard to particular circumstances of the case. As a matter of fact, the law of limitation has been considered to apply to cases all over the world, because the principle is that man is mortal, and it would be unreasonable to make his claims immortal. On that principle the law of limitation has been made applicable to transactions.

As a matter of fact we find that the second section of the Limitation Act in itself makes the provisions of that Act applicable to proceedings in Court. We have not got to have resort to proceedings in court in all the provinces of India. We have got in fact this system of enforcing our claim through our private tribunal and as such this is not a proceeding in court. No doubt a note of dissent has recently been made by the Privy Council in a recent case in which they held that the law of limitation applies even to proceedings before an arbitrator unless it is expressly excluded by a contract between the parties. I think that that dictum of the Privy Council helps us. Where there is a question of contract, the law of limitation can be made not to apply to it and therefore it will not be too much for us to ask our legislature to come to our rescue and to exclude our transactions from the purview of the Limitation Act. There is one more reason which I would like to advance. In the case of a co-operative society a debtor is himself a creditor. Does it look well that the debtor *qua* debtor should advance that plea against himself as a lender because he has got an interest on security also in that capacity? If not legally, he is morally estopped from raising that plea. Because of that consideration also, I think it will not be too much to ask that the law of limitation should not be made applicable to our transactions. With these remarks, I should like to support the Resolution.

Mr. Godbole: The amendment to the Bihar and Orissa Co-operative Societies Act was made only in May 1935 and it has been in operation since then. Section 63 has helped us immensely in getting over the difficulties which were being experienced. The panchayats or managing

committees have been as has been pointed out by Mr. Austin negligent of the interests of the society. If the debtor fails to pay in three years, or if he does not keep the debt alive by making some part-payment, it is barred by limitation and in these days of non-payment of agricultural dues and so on, the debts of societies were getting time barred. Now, all that has been saved by the amendment Act. I do not see why this Resolution should not be supported. There is no question here of giving wider powers to Registrars. It is only a question of safeguarding the interests of the societies.

Mr. Ramdas Pantulu: I cannot support this Resolution. I feel that co-operative societies will cease to command the respect of the people of this country if they required special facilities and exemptions from the law of limitation on the ground that the management is inefficient. This is putting a premium on inefficient management. The law of limitation saves an ordinary debtor from the consequences of an obligation which is hanging upon his head for an indefinite period on well known grounds of public policy. Every one is presumed to know the law of limitation, and ignorance of law is no excuse. That is the fundamental principle of British jurisprudence. I think the principle involved in this amendment is a very serious one. The Bihar Act very seriously infringes the fundamental rights given under the Limitation Act which is in my opinion one of the best pieces of legislation for which British jurisprudence must be given the credit. We should not give the go by to it on the ground of inefficiency of the co-operative organisations. In that case, co-operation will stand self condemned as an utterly inefficient organisation which does not deserve to exist in this country. What the Bihar Act does is to pursue a man even after 20 years, when probably a debt of Rs. 10 accumulates with interest to Rs. 2,000. That is a most outrageous claim for any organisation to make and least of all the co-operative society. I feel strongly on this matter. I have always stood for the application of the ordinary law of limitation. With regard to the law of limitation, it does provide for an acknowledgment or part payment in order to give it life for another three years. The debtor willingly acknowledges or makes this part-payment. If you cannot make arrangements even for this then it means that you do not manage your affairs properly. Sometimes these legal formalities are not observed when a man asks for extension. We give an extension for an year or two. There is no reason why an extension given by a Resolution in writing should not be treated as having the same effect as an acknowledgment or part-payment.

As regards execution proceedings, the Civil Procedure Code allows 12 years for a decree or award to be executed. In all conscience twelve years is a long period. Unless you take an execution for every three years periodically the claim will become time barred. I therefore move that the following be substituted for the original Resolution:

This Conference is of opinion that the provisions of the Indian Limitation Act should apply to transactions of co-operative societies subject to the following two modifications:

1. The extension of the period of re-payment of a loan given to a society or a member by a Resolution in writing of a financing bank or society shall have the same effect as an

acknowledgment or part-payment under the Indian Limitation Act in regard to the period of limitation prescribed for the recovery of the loan.

2. While the 12 years limit for the completion of executed proceedings prescribed by the Code of Civil Procedure is made applicable to execution of decrees, awards and contribution orders made by liquidators it shall not be necessary to take interim steps (?) or periodical execution to keep a claim alive for 12 years.

These two concessions ought to meet the requirements of the case. I earnestly appeal to Mr. Austin not to press this Resolution, because the prestige of co-operation will not be enhanced by making this extraordinary claim as the Bihar Act has done.

The Hon'ble the President: This is a most important matter. Would it not be worth while for us to wait for another year? We can then see how the Bihar Act has been working. We can also consider the amendment that Mr. Pantulu has moved. I have been very much impressed by the remarks made by Mr. Pantulu. In a matter like this we require more consideration. Therefore I think on this matter we should suspend judgment. We can consider this matter at next year's conference. At this stage we cannot pass any Resolution in a light hearted fashion.

The suggestion was agreed to.

Item No. 18.

Mr. Godbole: There is an amendment to this item, suggested by Mr. Austin. It is that the words 'members and' be omitted. As amended it would read thus:

Is it not desirable to incorporate a provision similar to that in section 40 of the Bihar and Orissa Act so as to make office bearers liable for any loss caused to the society by acts of omission or commission.

This question raises the principle of surcharge and that has been accepted in section 40 of the Bihar and Orissa Act following the Act in other provinces. It is needless for me to say that I am of the opinion that this principle should be embodied in our provincial legislation hereafter. I was responsible for introducing this provision in the Bihar and Orissa Act. I may say that the non-officials were all with me. A good many co-operators outside supported this principle. The results have fully justified our action. Small societies and their managing Committees cannot take recourse to courts of law and safeguard their own interests or recoup their losses on account of the action of office bearers. If the matter is taken to court, there are sure to be appeals the expenditure on which the resources of small societies cannot afford. Therefore this principle of surcharge in our Act is entirely justified. I support this Resolution.

Mr. V. L. Mehta (Bombay): I think this is too drastic a provision to be introduced at this stage in the working of the co-operative societies. We have got on without such powers for the last 20 or 30 years. In view of the illiteracy and ignorance prevailing in the countryside, it will be difficult to hold the managing committee responsible. In the Bombay Act we have got certain provisions regarding a class of offences but we find from experience that it is extremely difficult to enforce any penalties

against the office bearers and it is not wise to penalise the entire body of office bearers and to make them personally liable for any acts of commission or omission.

Mr. Ramdas Pantulu: I do not feel very happy over this. There are provisions in the Madras Act which provide for surcharge under certain circumstances. I think they are wide enough. For some reason or other, the Bihar Act is more drastic than other Acts. Since 1912, when the Government of India legislated, the provinces have been vying with each other in making the provisions more stringent. I do not think there is any necessity for this Conference to give a uniform lead in this matter. Conditions in provinces vary. If Mr. Austin thinks that some drastic action is required, he may approach the Madras Government and the Madras Legislature. It is not, I think, necessary for any Registrar to ask this Conference to commit the whole of India. We are on the eve of provincial autonomy and I hope it is not the intention of the Central Government to infringe upon provincial spheres.

The Hon'ble the President: This Bihar Act has come in for a good deal of criticism. I do not know what is going to happen when the new legislature is elected. I do not think that in a matter like this the Conference would like to record a definite Resolution. The views of Mr. Pantulu and Mr. Mehta are there. As no unanimous recommendation can be made, I suggest that we simply record the views and come to no decision. It must be left to each province. This is really a matter of some controversy.

The suggestion was agreed to.

Item No. 19.

Mr. Bhansali: This point has been raised with a view to consider any practical solution that may offer itself. In section 19 of the Co-operative Societies Act of 1912, subject to the claims of Government and the landlord, the co-operative society has a prior claim over other creditors with reference to crop loans. Under section 24 of the Bombay Co-operative Societies Act, this claim against other creditors is converted into a first charge. In actual practice the difficulty still remains that as against a purchaser for value without notice no remedy exists for the society to enforce its charge. The line of approach to the solution of the problem seems to be to provide precautionary measures and penalty against fraudulent disposal of the crop by the debtor member. In England there is a provision against such fraudulent disposal and the question is whether we should have a similar provision here.

I therefore move that the Conference considers that the lien given by section 19 of the All-India Act should be converted into a statutory charge as has been done by Bombay, Bihar and Orissa and that fraudulent breach of the charge should be made a criminal offence punishable with fine. I may state here that the preliminary conference considered that to impose a penal servitude as in the English Act would not be strictly co-operative but that if it is made a criminal offence it could be restricted to being made punishable with fine.

Mr. Ramdas Pantulu: I think this Resolution should be made to fit in with the provisions in the Land Mortgage Banks. Otherwise there may be a conflict. Something must be done to avoid it.

Mr. Fazlullah: I am decidedly against making the non-payment of debt a criminal offence. Already the poor peasants have come to fear the co-operative society and resort to the village money lender. Co-operative societies are intended to inculcate mutual help and self-respect. A provision like this would be humiliating to a self-respecting person. I think the same purpose can be served if in order to make the charge effective legislation was undertaken to make the society competent to attach the produce if default is apprehended. I have great faith in the Co-operative Act of 1912 and the more we deviate from the principles underlying it, the more we deviate from the ideology underlying the co-operative movement.

Mr. V. L. Mehta: I would like the mover of the Resolution kindly to delete the second part of the Resolution. I have no objection to the first part. My objection is to making this a criminal offence. With regard to the first part, I do not think there is much difference of opinion. It is a definite recommendation of the Central Banking Inquiry Committee. In the Bombay Provincial Co-operative Banking Inquiry Committee we had a definite proposal that an agricultural charge should be introduced in the co-operative system. We thought the time had not come and that it might be not only premature but unwise, unsound and impracticable to have a charge of the nature contemplated in the Agricultural Credits Act. That was in 1929-30. Now we have had six or seven years' experience of the working of that Act in England and I have before me a very recent issue of the Journal of the Institute of Bankers in which there is a survey given of the working of the Agricultural Credits Act, particularly in relation to this section and in this survey it has been pointed out that the operation of this charge has rendered that portion of the Agricultural Credits Act absolutely unworkable. I will not go into the detailed reasons why it has become unworkable but apparently it has not been found satisfactory either by the customer or lender and in addition to the difficulties pointed out, there will be difficulties in India in the way of the registration of the charge in the way of the issuing of notices to creditors and in respect of the recovery by Government of their debts. I therefore suggest that this portion may be dropped, but at the same time the general operation of the Agricultural Credits Act might be surveyed by the Reserve Bank of India so that when this Conference meets again, it may have before it the benefit of the recent experience of the working of this Act and of the similar measures in force in the United States of America. I hope therefore Mr. Bhansali will kindly agree to delete this.

The Hon'ble Kunwar Sir Jagdish Prasad: I think that seems to be the general feeling. As regards the suggestion for asking for the opinion of the Reserve Bank with regard to the working of the English Agriculturists Act, we shall consider that point.

Well, gentlemen, a certain number of members have already gone and others are probably very anxious to go and I think we should now conclude the proceedings. I think we shall have to pass over any other resolutions that remain for the next Conference. With your permission I should now like to refer to the deaths of certain eminent men and I should like this Resolution to be passed standing (the members then rose up):

"This Conference expresses its sense of sorrow and loss at the deaths of Mian Sir Fazl-i-Husain, Mr. G. K. Devadhar, Sir Ramachandra Rao, and Sir Lalubhai Samaldas and places

on record its high appreciation of the eminent services rendered by them to the co-operative movement".

The Resolution was passed unanimously, all the members standing.

Mr. Ramdas Pantulu: It is now my pleasant duty to express on behalf of the non-official members and also of the official members if they have no objection to associate with us our appreciation of the able manner in which you have conducted these proceedings. Your opening speech was not only a masterly survey of the movement but bears evidence of your sympathy towards the movement and a promise of whole-hearted support from your place in the Government of India towards the future development of the co-operative movement in this country and we are also grateful for the way in which you have given latitude to us to express our views fully upon the questions that came up. We are also deeply indebted to you for your unfailing courtesy in conducting these proceedings. We are grateful to you for assuring us that provincial autonomy in matters of co-operation will not be handicapped in the centre and that each province will be allowed to develop on its own lines and with due regard to the conditions which prevail in that province. That is a great concession. There was at one time an attempt to start some central bureau to give direct guidance from the centre of course in the form of advice but very often advice mingled with some kind of dictation. We are glad to learn that the Government of India have no such intention and your assurance is very welcome. We thank you for the assurance that the Registrars' Conference will be held more frequently in future and that non-officials will be given an opportunity to participate in them. In this connection I would like to point out that the procedure adopted this year has not been on the whole very satisfactory. Some of us got the agenda after we came and we had not the time to study it. Of course the loss is ours. If they had given us more time and better opportunities to study the problems, probably we would be able to throw better light on the problems and they would have been able to revise their decisions in the light of what we had to say. I hope the procedure will be adopted of having sub-committees or some other form of committees so that we might have fuller opportunities of studying the questions before we come here, and at any rate I hope there will be some change in future with regard to this. It only remains for me to thank all my official colleagues here for the hearty way in which they have co-operated with the non-official section of this Conference and I am sure that if in each province the same kind of co-operation between officials and non-officials is aimed at and secured, then the future development of co-operation is assured. We are all co-operators first and let us carry on our mission; we are especially hopeful that at the helm of the affairs of the Government of India there will be co-operators. (Loud Applause.)

The Hon'ble Kunwar Sir Jagdish Prasad: I wish to thank Mr. Pantulu for the undeserved compliments that he has been so kind enough to pay to me. I can assure him that for my own part and I think I may also speak on behalf of the Registrars that we have derived the greatest benefit from the views expressed by the non-official members of this Conference. We have had the opportunity of listening to the views of men who are in constant touch with the movement and I am sure I am voicing the opinion of the official members when I say that the views

that have been expressed by the non-officials have been of very great advantage indeed. I can also assure Mr. Pantulu and other non-official members of the House that so long as I happen to occupy my present office, they need no assurance from me that the subject of co-operation will always have my constant and sympathetic attention. I have for a long time when I was not here devoted a good deal of attention to this subject; I realize its importance, as I said yesterday, and members may rest assured that anything that I can do to advance the movement on sound lines will be done. I need not assure them that so far as the Government of India are concerned, there is no desire to dictate, as I said yesterday: our desire is to assist and to co-operate, to help you to come here to exchange ideas, to act as a sort of co-ordinating agency, and our experience in a Department like agriculture where we have the Imperial Council of Agricultural Research, shows us that it is possible for non-officials and officials to meet and to act in such a way as without impinging on the jurisdiction of the provinces to help the movement on all-India lines. There is always the risk, as you all know, that with provincial autonomy coming, of provinces working in isolation. I think members have realised that the coming here and discussing things amongst themselves is in itself a great advantage. As regards the procedure, we shall see that if possible in the future the proceedings are so arranged that non-officials get a sufficient opportunity of studying their agenda before they are asked to express their views on the items of the agenda. I should also now like to thank members including officials and non-officials for having taken the trouble to come to Delhi and for the manner in which they have conducted the proceedings. They have come at great personal discomfort, in many cases over long distances and we are very much obliged to them for the trouble they have taken. I should again like to thank Mr. Darling and Mr. Vishnu Sahay for the assistance that they have given us to make this Conference a success. (Loud Applause.)

The Conference then adjourned *sine die*.

APPENDIX I.

Note by the Registrar of Co-operative Societies, Madras, on item No. 1 the Agenda.

How far the present Co-operative agencies for agricultural credit are co-related and how they can be further co-ordinated?

There are at present three co-operative agencies for dispensing agricultural credit, *viz.*, (1) the rural credit society, (2) the land mortgage bank, and (3) the Loan and Sale Society. The object of the first is (or ought to be) chiefly the financing of agricultural operations; the object of the second is chiefly the liquidation of prior debts; and the object of the third is the provision of credit on the security of harvested produce to enable the agriculturist to wait for a better price. The agriculturist can derive the maximum benefit from these three institutions only if they work in close co-operation with one another.

2. The ideal method of co-ordination would be first, for the Land Mortgage Bank to clear the ryot's prior debts with a long-term loan of 20 or 30 years. Then, the ryot thus redeemed should be given loans by the rural credit society for agricultural operations as well as for the payment of kist and for domestic expenses during the cultivation season. Later, when the produce is harvested, it should be taken into the Sale Society's ware-house. If prices prevailing at the time are favourable, the produce should be sold away by the Sale Society at once, and the sale-proceeds should be devoted first towards discharging the loan given in the rural credit society and secondly towards discharging the loan-instalment due to the Land Mortgage Bank. The surplus remaining after these payments should be handed over to the ryot. If the prices prevailing at the time the harvest reaches the ware-house are unfavourable, the Sale Society should advance a loan on the security of the produce kept in its godowns. Out of this produce-pledge-loan, the Sale Society should discharge the rural credit society's loan and the Land Mortgage Bank loan-instalment and give the balance alone to the ryot. The entire produce-pledge-loan should be recovered by the Sale Society when the produce is sold.

3. The above scheme of co-ordination requires also the co-operation of two, other co-operative agencies, *viz.*, (1) the Central Bank, and (2) the Supervising Union. The former should finance rural credit societies for agricultural operations at the proper time and look upon the Sale Society as its collecting agency. The latter (Supervising Union) should get its supervising staff to see to the disbursement of the cultivation loans in time to the ryots by the rural credit societies. The supervising staff should also see that the harvested produce reaches the sale society's ware-house.

4. To ensure timely disbursement of loans for agricultural operations, the old systems of "forecast loans" or "normal credits" based on an estimate of each member's requirements are tardy. The financing Banks, therefore, should sanction seasonal cash credits to rural societies ranging from Rs. 100 to Rs. 2,000 for each season, (*e.g.*, cotton season, groundnut season, etc.), on the recommendation of the supervising union. These cash credits should be operated on by cheques by the Presidents of rural societies subject to the condition that no member should be given more than Rs. 10 an acre for cotton or Rs. 12 an acre for groundnuts. The Central Bank should honour cheques on seasonal cash credits only if they are accompanied by an advice-slip furnishing names of each borrower, amounts to be given to each and acreage under cotton or groundnuts (as the case may be) to be sown by the borrower. These advice-slips should be signed by at least three panchayatdars, should bear the seal of the society and should be countersigned by the Supervisor in charge of the society. As soon as the Central Bank disburses the cheque amount, it should send a copy of the disbursement statement to the Union and Sale Society, the former for watching the harvest and sending it to the ware-house, the latter for effecting collections from the sale-proceeds of the produce.

5. To ensure that the harvest whose production is financed by the Central Bank is actually raised on the fields and reaches its destination, the Union's supervising staff should inspect the lands proposed to be cultivated once before they countersign the advice-slip and at least once again at the time of the harvest. As the whole scheme depends for its success on an effective supervision over the cultivation that has been financed and on the delivery of the resultant produce at the ware-house, it is important that the supervising staff should not skulk this work. For this purpose, each one of them must maintain pocket-diaries separately for cotton cash-credits, for groundnut cash-credits, etc. These pocket-books should furnish full particulars of cash-credits disbursed to each member in each society in his charge, the survey nos. on which the

crop is raised, and their extent in acres. These pocket-books should be checked by the Secretary of the Central Bank once soon after the cash credits are disbursed and again at the time of harvest by doing field-inspection. Departmental officers also should check these pocket-books and the fields concerned off and on. When the produce raised is sold through the Ware-house and the cash-credits are recovered, the supervising staff should then and there post their pocket-books with the collections effected.

6. It will be observed that under this scheme, the cultivation cash-credits disbursed in coin in the rural credit society are collected in *kind* at the Ware-house of the Sale Society, and the sale-proceeds are remitted by the Sale Society to the Central Bank on behalf of the rural society. To do this properly, the Sale Society should maintain cash-credit Loan Ledgers separately for cotton cash-credits, for groundnut cash-credits, etc. These ledgers should be posted as soon as the Central Bank sends it a copy of the advice-slips accompanying cheques drawn by rural society Presidents. When a ryot brings a cart-load of produce to the ware-house and disposes of it, his account with his rural credit society should be picked out by the ware-house officer and the principal and interest due by him according to that account should be recovered from the sale-proceeds and remitted to the Central Bank to the credit of the Cash-credit account of the society concerned. The ware-house officer should also give the ryot a statement of accounts showing the quantity of produce brought by him, the price for which it was sold, the commission taken by the ware-house, the cash-credit dues (principal and 7-1/2 per cent. interest) deducted and the balance delivered to him in cash. The ryot will produce this statement to his rural society's secretary, who will file it in his society's receipt book and issue a receipt for the sums deducted by the ware-house. The same procedure should apply *mutatis mutandis* in regard to the instalment dues of the Land Mortgage Bank collected and paid to the Central Land Mortgage Bank by the ware-house officer.

7. It is important that the accounts of one season's cash-credits should be finally settled as soon as that season is over and that no carry over should be permitted except for satisfactory reasons. At the end of the cotton season, for instance, the supervising staff should check the postings of collections entered by them in their cotton cash-credit pocket-books with the cotton cash-credit ledger maintained by the ware-house-officer, strike out the D. C. B. for each society in their charge and submit them to the Central Bank Secretary, with the reasons for the overdues in the case of each member in each society. The Central Bank Secretary should then give a final disposal for the overdues in each society in consultation with the Deputy Registrar. In some cases they will have to be recovered out of the next crops, in others coercive processes may be necessary and in some cases they may even have to be written off. If worked out in all this detail, the Central Bank will be able to say that it advanced so much to so many rural societies for such and such cultivation, that so much of crops arrived at the Sale Society, that they were sold for so much, that so much of its advances fell overdue, of which so much fell overdue for reasons beyond man's control.

APPENDIX II.

Notes by Madras Registrar on item No. 11 of the Agenda.

What is the correct method of arriving at divisible profits in societies with special reference to accrued interest on loans?

According to the present system in the Madras Presidency two classes of profits are arrived at in audit (1) Net Profit or Divisible Profit, (2) Book Profit. The former is exhibited in the Profit and Loss statement, while the latter is exhibited in the Balance Sheet.

Net Profit includes (1) interest realised and (2) interest accrued but not overdue on loans in respect of which an item of interest has not fallen overdue at the end of the co-operative year. Book Profit includes, besides the items included in the net profit, (1) overdue interest and (2) interest that has accrued after an item of interest has become overdue.

There has been a difference of opinion on the question whether the Net or Divisible Profit should include interest that has accrued. Mr. Darling after his examination of the co-operative movement in this Presidency suggested that no unrealised interest of any kind should be included in the net profit. It appears that this is the practice in the Punjab and Bengal. The Registrar of Co-operative Societies, Madras, who was asked to offer his remarks on this suggestion, reported to Government the difficulties in following the method suggested by Mr. Darling. In the first place, societies which worked with a borrowed capital will be hit hard by this method, as the interest paid and accrued on their loans will go towards loss items in the Profit and Loss statement, whereas the interest accrued on the loans due to the societies will be excluded from profits. Secondly, the danger of paying off dividends out of the net profits was effectively safeguarded by the practice of retrenching from profits a suitable amount towards a Bad Debts Reserve. The local Government accepted the Registrar's view and has ordered that the present method which has been in vogue from 1918 might stand.

It is a point for consideration at the conference whether a uniform method may not be adopted in all the Provinces with due regard to the requirements of correct audit and the financial condition of the societies.

NOTE.—The term 'Accrued interest' connotes interest that has not been actually realised in cash by the end of the year, but for which the society has a claim. Thus if the yearly interest on a loan is due on the 31st of March and if that has been realised, the subsequent interest up to the 30th June is called "Accrued interest" which is not overdue. This is taken as an item of profit, because it is an item that can be legitimately realised and for which the society has a claim. If on the other hand the interest up to the 31st March has not been paid, according to the practice adopted in this Presidency not only is the interest up to the 31st of March which is overdue 'accrued interest' excluded from the profits, but also subsequent accrued interest up to the 30th of June. It will be seen that this subsequent interest, which is 'accrued interest after an item of interest has fallen overdue, cannot be considered as realisable as long as even the interest up to the 31st of March has not been paid. Mr. Darling's suggestion was to exclude from profits all interest that has not been realised, i.e., even accrued and not overdue interest. But as noted above the Madras method takes due caution not to inflate profits by excluding all unrealisable interest.

APPENDIX III.

Resolutions passed at the Conference.

(The numbers at the end of the resolutions refer to the numbers of the items on the agenda.)

1. This Conference considers the linking of credit and marketing wherever possible to be of great importance and suggests that the note submitted by the Registrar, Madras, be examined carefully in each province with a view to the possibility of introducing a similar scheme adapted to local conditions. (1).

2. The Conference considers that the facilities at present enjoyed by co-operative societies in respect of remittance of funds should be continued by the Reserve Bank and in regard to transactions other than those that are strictly co-operative, the facilities which are given to joint stock banks might be extended to co-operative banks also. (2 & 3).

3. The Conference considers that it is not the proper function of Central Banks to advance money to individuals on the security of produce stored with them. (4).

4. The Conference recommends that steps should be taken to avoid unfair discrimination against any cane growers' co-operative marketing societies. (5).

5. The Conference considers that a member of an unlimited liability society should not be allowed to borrow from another society except against material security, such as produce or land. If any loan is given by another society against material security the credit society should be informed and if the material security in question is land, the credit society should be previously consulted. (6).

6. This Conference considers that the closest possible touch should be maintained between the marketing staff of the Government of India and the Local Governments and the co-operative movement. (7).

7. The Conference recommends that the further development of co-operative land mortgage banks should be encouraged. (8).

8. The Conference considers that the movement should be used for extending the rural reconstruction movement to the fullest possible extent, compatible with its principles, having regard to the fact that it is the best and in many areas the only means of providing the organisation without which the movement cannot expect to be permanent. (9).

9. After considering resolution No. 14, of the Eleventh Conference of Registrars, this Conference considers that funds should only be attracted to the extent to which it is necessary to finance and develop co-operative activities and the balance between the two should be adjusted by raising or reducing the interest rates and deposits according to circumstances. (10).

10. The Conference considers that there is a great need of spreading the co-operative movement amongst women for the encouragement of thrift and their general welfare, and the necessary steps should be taken to give effect to this. (13).

11. This Conference considers that in future all accrued interest may be appropriated to reserve and dividend, provided it is not due on an account in respect of which interest is already overdue, and further that all other unrealised interest (including all overdue interest) be excluded from appropriation.

Further, the amount of any interest not realised taken into the profit and loss account be always clearly stated in the account.

This resolution applies only to interest due from societies to banks and from members of primary societies to banks other than urban. (11).

12. The Conference considers that Universities should give prominence to the study of Co-operation in every practicable manner; for instance by making it a special subject for degree courses, both in Arts and Commerce and also in Agricultural and Technical schools and institutions. (14).

13. The Conference approves of the provisions in regard to the bar to the jurisdiction of courts embodied in section 57 of the Bihar and Orissa Act. (15).
14. The Conference is of opinion that the Registrars should have power as in Bihar and Orissa Act to decide whether or not a person is or was a member of a registered society. (16).
15. The Conference considers that the lien given by section 19 of the All-India Act should be converted into a statutory charge as has been done by Bombay, Bihar and Orissa. (19).



REPORT
OF
THE ORISSA
ADMINISTRATION
COMMITTEE

PUBLISHED BY MANAGER OF PUBLICATIONS, DELHI.
PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, NEW DELHI
1933.

V254, 8. N336
G3

CONTENTS.

	PAGES.
CHAPTER I.—INTRODUCTORY	1—3
CHAPTER II.—LOCATION OF HEADQUARTERS	4—7
CHAPTER III.—SITE, EXTENT, AND COST OF NEW ACCOMMODATION	8—17
CHAPTER IV.—AFFILIATION QUESTIONS	18—26
CHAPTER V.—TERRITORIAL CHARGES AND THEIR HEADQUARTERS	27—31
CHAPTER VI.—CADRES OF SERVICES	32—34
MINUTE OF DISSENT	35—36

APPENDICES.

APPENDIX I.—PRELIMINARY EXAMINATION OF A SITE FOR A NEW CAPITAL AT CUTTACK (WITH PLAN)	37—38
APPENDIX II.—APPROXIMATE COST OF ADDITIONS AND ALTERATIONS TO GOVERNMENT HOUSE, PURI	39—41
APPENDIX III.—FINANCIAL ASPECTS OF THE ALTERNATIVE SCHEMES FOR A HIGHER JUDICIARY IN ORISSA	42—45

CHAPTER I.

INTRODUCTORY.

1. The Committee was appointed by order of the Government of India in Resolution No. F. 47/33-R., dated the 24th June, 1933, which is here quoted :—“At the close of the third session of the Round Table Conference, the Secretary of State announced the intention of His Majesty's Government that Orissa should enter the future federation of India as a distinct province. Accordingly the proposals for constitutional reform embodied in the White Paper treat Orissa as a ‘Governor's Province’ in the Federation of India with the boundaries indicated in the footnote to proposal 61.

Preliminary administrative preparation is a necessary condition in the establishment of a new province particularly when, as for the future Orissa province, territories would be taken from three existing provinces. Without in any way prejudging the final decision of Parliament on the future treatment of Orissa as a Governor's province, the Government of India consider it an advantage that administrative problems incidental to the creation of the new province should be brought under early examination. They have, therefore, decided, with the approval of the Secretary of State, to set up a Committee of enquiry for the purpose. The Committee will conduct its investigation on the basis of the boundaries proposed in the White Paper. Considerations of the selection of boundaries will lie wholly outside the Committee's purview”.

2. The Committee was finally constituted as follows :—

Chairman.

(1) Mr. J. A. HUBBACK, C.S.I., I.C.S.

Members.

(2) Rai Bahadur LAKSHMIDHAR MAHANTI, M.L.C.

(3) Rai Bahadur LOKNATH MISRA, M.L.C.

(4) Babu BIRABAR NARAYAN CHANDRA DEHR NARENDRA,
M.L.C.

(5) Mr. MADHUSUDAN DAS, C.I.E.

(6) Rao Sahib N. RAMAMURTI NAIDU.

(7) Mr. W. O. NEWSAM, I.C.S.

(8) Mr. N. SENAPATI, I.C.S.

(9) Sri Sri G. C. DEBQ Mahasayo, Zemindar of Chikati,
with Mr. V. RAMASWAMI, I.C.S., as Secretary.

3. The terms of reference were to consider and make recommendations as regards—

- (1) The location of the headquarters of the province.
- (2) The site, the extent and the approximate cost of new accommodation required at the headquarters or in the districts, including the Government House, Secretariat, Council Chamber and residences for the senior officials posted at headquarters and of any provisional accommodation that may be necessary before permanent buildings are ready;
- (3) The affiliation of Orissa with one or more of the adjoining provinces in the matter of the High Court; University with its constituent Colleges, Medical, Science, Veterinary, Engineering, etc., and any other institutions;
- (4) Territorial charges and their headquarters; in particular the question whether the Khondmals should be amalgamated with the Khond areas in Ganjam and whether Angul should be made a Sub-division of the Cuttack district;
- (5) Whether the new province would provide sufficient scope for a cadre of its own in any of the all-India Services, or whether officers from outside should be deputed for limited periods and entitled to exchange;
- (6) Whether as a consequence of affiliation in the matter of institutions set forth in item (3) an arrangement of the kind indicated in item (5) will be necessary for a service other than the all-India Service.

4. We held our first meetings at Cuttack on the 2nd and 3rd July when we discussed the procedure to be followed in the course of our enquiry. For reasons of economy we decided that no verbatim record of evidence was to be taken. We prepared a general questionnaire and despatched copies to selected officials and non-officials and to public bodies inviting them to send memoranda. A special questionnaire was also framed and issued to heads of departments and other special officers in Bihar. In response to our questionnaires, we received a large number of written memoranda. We reassembled at Ranchi from August 21st to August 26th and discussed with the Secretaries to the Government of Bihar and Orissa and the heads of departments various points arising from their memoranda. We met again on October 6th at Berhampur to take oral evidence from authors of memoranda, and took the opportunity of visiting a part of the Ganjam Agency. Evidence was then taken at Puri, Cuttack, Angul and Sambalpur. In all 69 witnesses were examined in the course of our tour which was completed on the 20th October.

5. We cordially acknowledge the great assistance we have received from the public, the Governments concerned and their officers. We are greatly indebted to the authors of the memoranda and to those who were able to give us their views personally. We also acknowledge the valuable advice we have received from the Secretaries and heads of departments of the Bihar and Orissa Government. Our thanks are specially due to Mr. Gubbay, Chief Engineer and to his assistants for their examination of the possibilities of the Cuttack site and of the cost of placing thereon the headquarters of the new province. In every place we visited we were received by the people with the utmost hospitality and goodwill.

6. Lastly we desire to place on record our appreciation of the services of the office Establishment and to thank our Secretary Mr. V. Ramaswami, I.C.S., for his great assistance in our work and for the efficient organisation of our office.

CHAPTER II.

LOCATION OF HEADQUARTERS.

7. The O'Donnell Committee assumed that Cuttack would be the Capital. The other places, whose claims have been urged before us, are Berhampur, with Gopalpur as a summer resort, Puri and Angul. We have considered this problem in the light of popular sentiment, historical associations, geographical position and administrative convenience.

8. Berhampur and Gopalpur have no doubt certain advantages. They have an equable climate and possibilities of town development. Their vicinity to the sea might obviate the need of a summer headquarters. They are not liable to be inundated by flood or ravaged by epidemics. Labour is said to be cheap, and the cost of buildings might be lower than elsewhere. But neither Berhampur nor Gopalpur possesses any historical associations. Popular sentiment does not view their claim with favour.

9. The advocates of Angul lay emphasis on the facts that Angul occupies a central geographical position and that it lies on high ground and lends itself to a good drainage. Since all the land belongs to Government, no acquisition of land would be necessary for laying out a new capital. These advantages are more than counterbalanced by many disadvantages. Angul is geographically separated from the coastal districts and Sambalpur by a belt of Feudatory States. Its communications are in consequence dependent on the roads maintained by the States. Angul is fourteen miles from the nearest Railway Station, which is also situated on a branch and not a main line. There is no prospect of early improvement of railway communications.

10. Puri is the closest rival to Cuttack. It is enshrined in the affections of all pious Hindus. It was the capital of Orissa under the rule of the Ganga dynasty at any rate during the 14th Century A.D. It has on the whole an equable climate and is a reputed health resort. During the months of March to June, Puri is the coolest place in the Bihar and Orissa Province. There is a small Government House at Puri, while the land on the sea front on either side belongs to Government and the houses erected on it might be taken over at comparatively small cost. The water-works designed to supply the town with good drinking water will be completed in a year or so. It is no longer, as it used to be, a focus of cholera infection; indeed for the last twelve years, in spite of the pilgrim traffic to it, the mortality statistics compare most favourably with the other towns of the Bihar and Orissa province.

11. These advantages are however set off by the fact that Puri is not on the main railway line and that it has no colleges or technical institutions. There are objections to making an all-India centre of pilgrimage the seat of a provincial Government. It may further be urged that the Puri climate, though not unpleasant for the greater part of the year, is, in the experience of most officers, enervating if the stay is prolonged. The period of the rains is usually very trying, since the sea breeze, on which comfort at Puri depends, is replaced by a land breeze for long spells.

12. The balance of public opinion undoubtedly favours the location of the capital at Cuttack. Historically it has a much stronger claim to preeminence than any other town in the new province. Popular tradition says that Cuttack was founded by the Prince Markata Kesari in the tenth century A.D. and was the seat of the royal court of the Kesari dynasty. However that may be, it was certainly the capital at the opening of the 16th century under the Gajapati dynasty, and it was also the capital of Mukund Deva, the last Hindu King of Orissa, to whom the building of the great fort of Barabati on the southern bank of the Mahanadi is ascribed. Cuttack was also the headquarters of the Moghal Subedars in the 16th and 17th centuries. It was here that the first Englishmen to visit Orissa, Ralph Cartwright and his companions, were received in 1663 by the representative of Shah Jahan, and granted leave to trade freely and to establish a factory. From its mint coins were issued from the time of Akbar to the time of Aurangzeb. It was the seat of Government of the Maratha Deputies till they were ousted by the British in 1806, and has been the centre of local administration not only for the British districts of the Orissa Division but also for the Feudatory States for well over a hundred years. Unless historical associations are to be ignored or are found to be greatly outweighed by other considerations, the claim of Cuttack is paramount. The selection of Cuttack as the capital of the new province would be a graceful tribute to past history and popular sentiment.

13. Cuttack is easily the most populous town in Orissa. According to the census of 1931 its population is 65,263 compared with Berhampur 37,750 and Puri 37,568. Cuttack is well served in the matter of railway communications. Situated on the main East Coast line of the Bengal Nagpur Railway, it is easily accessible from the Ganjam, Puri and Balasore districts. Angul is within three hours' journey by rail and road and Sambalpur can be reached from Cuttack during most of the year within 12 hours. It is the market for the surplus produce of the Orissa States and is the principal commercial and industrial town of the new province. It is the centre of modern Orissa thought and public life and has been the focus of the movement for the creation of the province. It enjoys great educational facilities in the Ravenshaw College and five high schools. Its main drawback is its climate,

which is marked by dry heat during March, April and May, and unpleasant moist heat at the end of the rains. The rains themselves are more tolerable here than at Puri, and the climate is, taking it all round, much less relaxing. It has been urged that Cuttack is exposed to the threat of flooding by the Mahanadi. But the strong stone embankments have kept the town safe for centuries, and it has only suffered, as it did this year, from the direct effects of exceptional local rainfall. The position of Cuttack at the head of the Mahanadi delta makes it eminently fitted as the centre of operations against the periodic floods, whose prevention and relief will certainly form one of the principal preoccupations of the new Government.

We therefore unanimously recommend that Cuttack be selected as the Provincial Capital.

Summer Headquarters.

14. If Cuttack is accepted as the capital, the existing Government House at Puri should be maintained and Puri treated as summer headquarters for the months of April, May and June when the climate of Cuttack is at its worst. The Governor and his staff may move to Puri, but it will not be necessary to transfer the whole Secretariat. Rail communication between Cuttack and Puri is good, while the road can be used from the beginning of January till the rains break in June. We are informed that a telephone service between Cuttack and Puri will involve a capital cost of Rs. 48,000 and a recurring cost of Rs. 11,500 less receipts from the Puri exchange and the trunk line. With the aid of the telephone, which we consider is essential, it is not anticipated that the isolation of the Governor from the Secretariat will present any serious difficulties. Headquarters officers might be allowed to visit Puri for short spells during this period, when work is not ordinarily very heavy.

15. The Committee however consider that since there is no real cold weather either at Cuttack or Puri, it would be very desirable to establish a small summer camp for the Governor and his staff, available also for senior officials, for a few weeks in the year at some suitable hill resort. There appears to be no place within the confines of the province which would provide the full advantages of a change from the Cuttack climate. The Committee are informed that it would be possible to locate the summer camp at Mahendragiri in Mandasa estate, an unoccupied hill nearly 5,000 feet high less than 20 miles from the sea, and within a distance of 5 or 6 miles from the proposed southern boundary of the province. It is roughly estimated that a sum of Rs. 75,000 would be necessary for providing such a summer camp. We propose that the Madras Government be asked whether, provided the proprietor of the hill has no objection, the new Orissa Government might lease a part of it for the erection of the necessary buildings and for the provision of water.

16. The Committee is also impressed with the difficulty that will be presented in getting into touch with the people of Ganjam district as long as there is no accommodation for the Governor, the Ministers or heads of departments in the neighbourhood of Berhampur. It is scarcely reasonable to expect local officers or the gentry of Berhampur to offer hospitality, when visits are likely to be far more frequent than they have been in the past. We propose, therefore, that a sum of Rs. 50,000 be allotted for a Circuit house to be built at Gopalpur.

CHAPTER III.

SITE FOR GOVERNMENT HOUSE, SECRETARIAT AND COUNCIL CHAMBER.

17. Having selected Cuttack as the capital, we have considered the possible places for locating the Government House, the Secretariat, the Council Chamber and other buildings. The following sites have been suggested. They are :—

- (1) The fort area and the surrounding open spaces.
- (2) Chaudwar, near the Nirgundi Station.
- (3) Chauhiaganj on the east of the town.
- (4) The low hills two miles west of Barang about six miles south of Cuttack.
- (5) A site in the neighbourhood of Chauhatta ghat on the west of the town, enclosed by the embankment which protects Cuttack from the Mahanadi and the Katjuri floods.

18. In our view the fort is not suitable. The area is too small to accommodate all the buildings required and the attempt to do so would destroy entirely the interest of the fort as a historical relic, as well as the amenities which the public derive from the open space. The area to the east of the fort on the bank of the Mahanadi could not be utilised without closing and diverting a public road. The ground is used for an annual fair in November and there is a temple on the bank which with the ghat alongside is used for daily worship and bathing. It would further be most undesirable to deprive the town of its very few open spaces by building on them.

19. The Chaudwar site has no climatic advantages over Cuttack town itself and it is separated from the town by the Mahanadi. To make the site a possibility a road bridge over the Mahanadi, costing far more than the whole capital would otherwise cost, is essential. A ferry service would be irregular and at some seasons of the year dangerous. Similar objections apply to the proposed Barang site.

We were not greatly impressed by Chauhiaganj as a possible site. It is the only direction in which the College can develop, if it is to grow into a large University. Much of the site moreover is low lying and drainage would be exceedingly difficult.

20. We finally select the Chauhatta ghat site. The Committee had the advantage of having first-hand reports on the state of the ground after the altogether unprecedented rainfall in August last of 14 inches in 24 hours. These reports were decidedly favourable, since the local flooding was less than in many residential parts of the town. On the south side there is some high ground from

which a fine view of the circle of hills to the north is obtained. There is a small basti to the east of the area which can be removed. In the north there is the rifle range which we understand the Army Department is anxious to surrender. It will make a suitable site for the Secretariat and Council Chamber. The entire site is securely protected against river floods by the centuries-old embankment and with the improvement of the drainage, the feasibility of which has been examined, would remain dry in all but quite abnormal conditions. We recommend that in addition to the Government House, Secretariat and Council Chamber residences for the headquarters officers detailed in paragraph 36 below should be built on the proposed site.

21. The site has been closely examined by P. W. D. officers with a view to advising us (i) whether it is suitable for multiple storied buildings, (ii) whether there are any objections to it from the public health and sanitary point of view, and (iii) whether the supply of water and electricity would be unduly expensive. They unanimously reported that the site is suitable for the proposed capital and that the public utility services including electricity will not be costly to instal and maintain. (Their opinion is reproduced in Appendix I).

New Permanent Accommodation.

22. It is necessary to discuss at some length the administrative arrangements for the new Province in order to reach a decision as regards the extent of accommodation required at the headquarters. The O'Donnell Committee based their proposals in this respect on the assumption that the Orissa Feudatory States would be under the supervision of the Governor of Orissa and that the new province would include the Vizagapatam Agency tracts. We have borne in mind that the Governor of the new Province will have no concern with the Feudatory States and that the boundary envisaged in the White Paper excludes the Vizagapatam Agency and Parlakimedi in Ganjam. But while our proposals aim at providing an economical headquarters staff, they must secure that the advice of a reasonably strong and competent Secretariat will be available to the Governor and the Ministers in the future constitution.

23. There must evidently be a Chief Secretary, of Commissioner's standing, firstly to advise the Government as a whole in the departments entrusted to him and to ensure that the orders passed are duly carried out, secondly to assist the Governor in the discharge of the heavy special responsibilities which he will have under the new constitution, and lastly to ensure that the official machine runs smoothly. He should certainly be in charge of the Political and Appointment Departments and it would be best to give him the Finance Department as well, since all these will presumably be in the portfolio of the Chief Minister. It would be inconvenient to give him any of the Departments in which expenditure is not fairly well stereotyped, since to do so would mean weakening the force of his financial criticism. But he might well take

Judicial, Jails and Commerce as well as some other subjects of minor importance. There is likewise an obvious need for a Revenue Commissioner, who as Member of the Board of Revenue will perform the duties of the present Divisional Commissioner on the revenue side, as well as those of the Excise Commissioner, the Inspector General of Registration and the Director of Land Records and Surveys. He will also, we propose, be Secretary to Government in these matters, and will be the Chief Inspecting Officer responsible for keeping the standard of district offices up to the mark. Although as we explain below, we would not make him the technical head of the Forest Department, he would deal with cases from that Department as Secretary to Government. A third I. C. S. officer will be required for the Secretarial duties in respect of the other subjects, Education, Medical, Public Health and Local Self-Government, as well as Agriculture, Veterinary, Industries and Co-operative Credit. He would be the departmental head in the four last named subjects. It might be convenient both to secure closer touch with district administration and to minimise the objections to the head of a spending department being also Secretary to Government, if this officer were ranked as a Deputy Secretary and important cases were examined either by the Chief Secretary or the Revenue Secretary.

24. For legal work we propose, following the O'Donnell Committee, that a lawyer should be employed for a term of years. He would be both Legal Remembrancer and Government Advocate. We also propose that a specially trained Munsif should be employed as Secretary to the Legislature and as Law Drafter. When his duties permit, he could help with the disposal of judicial work.

25. There will certainly be required one Under Secretary to relieve the Chief Secretary of the routine work of the Political and Appointment Departments. On the Political side the work will be scarcely less heavy than it is in a much larger province, while, though the number of officers to be fitted into posts will be much smaller, the existence of a joint cadre with one or more other provinces will add an unusual complication to the work of the Appointment Department. The Under Secretary could be employed in writing up the annual record of the work of the province, a task which requires a special officer for some months in Bihar and Orissa every year.

26. The preparation of the budget for a small province will not be much less onerous than it is for a large one, while the work of keeping the technical codes up to date and of dealing with financial points of a technical nature will not be appreciably diminished. The Chief Secretary will not necessarily have had previous experience of the work of the Finance Department. For these reasons we think an Assistant Secretary in the Finance Department is essential. The Revenue Commissioner will require one Personal Assistant (of the rank of Superintendent of Excise) and another drawn from among the Sub Registrars. Temporary assistance will

probably be required for inspection in both departments, which can be provided by taking a senior district excise or registration officer and replacing him by a more junior man. For land revenue work proper, the services of the Under Secretary or the Assistant Secretary should be available to the Revenue Commissioner. The Deputy Secretary will have the help of the Assistant Director of Agriculture, the Deputy Director of Veterinary Services and the Deputy Registrar of Co-operative Societies. All these officers are already housed in or near Cuttack. The Secretariat will require a Registrar who should be housed in the new capital site.

27. The O'Donnell Committee considered that the Divisional Forest Officers should be placed under the general control of the Revenue Commissioner who should be entitled to ask the Direction Division of some other province (probably Bihar) to furnish him with the necessary expert advice, with or without local inspection. We consider that the proposal is not workable. Technical advice in forestry is not a thing which can be given as from a book nor is it safe to assume that a layman will know when and why to require it. The best technical advice can only be given as a result of practical knowledge of the area concerned, and that can only be gained by constant contact. Advice given as a result of a few days' visit cannot be authoritative and would merely be an opinion without responsibility attached. Further it is essential that there should be a senior officer of standing for conducting research and watching the actual working of the Working Plans, if not revising them himself. The O'Donnell Committee's estimate of annual contribution to Bihar was only Rs. 4,000. This, we are advised, is an under-estimate and the true figure would be about Rs. 25,000. The Committee consider that Orissa should have a separate head of the department, the post being filled by an I. F. S. officer of the rank of Divisional Forest Officer with a special allowance. It will not, however, be necessary to house him at Cuttack. Angul, which is in the centre of one of the forest divisions and within fairly easy reach of three of the other four divisions, is evidently more suitable than Cuttack for the headquarters of the forest department, and buildings will be available there if Angul loses its district status.

28. As regards the Police we support the O'Donnell Committee's proposal to create a post of Inspector General and abolish the post of Deputy Inspector General. The Inspector General will, however, require one Superintendent of Police as Personal Assistant, who will also be in charge of the C. I. D. When the Governor is in residence much additional work will be thrown on the Superintendent of Police at Cuttack, whose work will also, according to our recommendations, be increased by the addition of the present Sadr Sub-division of Angul. One Assistant Superintendent of Police should therefore be attached to Cuttack district to assist the Superintendent of Police in office routine and inspection. There should be a Sergeant Major at headquarters in charge of the Government House guard as well as the guards required

from time to time for the Secretariat and the Council Chamber. Extra accommodation will thus be required either on the new capital site or elsewhere in Cuttack for one Superintendent of Police, one Assistant Superintendent of Police and a Sergeant Major, as well as for a platoon of military police. There is already accommodation for half a platoon in the police lines. The cost of building additional barracks may be put at Rs. 16,000.

We accept the proposal of the O'Donnell Committee that there should be one combined head of the departments of Civil Hospitals, Prisons and Public Health. An I. M. S. officer with practical experience of Jails and Public Health would be the most suitable man for the post. It is presumed that appointments to the post will be made by the Government of India and that its tenure would be for a period of about four years. We think that he should have two Personal Assistants, one for Public Health and Hospitals and the other for Jails. The former will be of the rank of Assistant Director of Public Health, or, if he is an Assistant Surgeon, he should possess the Calcutta Diploma of Public Health. He will have to respond to emergency calls in connection with epidemics and will be employed on the inspection of municipalities and on looking after the arrangements for the Rath Jatra (Jagannath) festival at Puri. He will thus be on tour for much of the year. While he is on tour, his routine work at headquarters may be performed by the other Personal Assistant in charge of Jails.

29. The proposals of the O'Donnell Committee regarding the Education Department were based on the idea that the Feudatory States would be administered from Cuttack. We consider that the staff required for the new province will be a Director from the I.E.S. or from Class I of the Provincial Educational Service assisted by a Deputy Director in Class II, (who will in addition be Registrar of Examinations) and a Divisional Inspector of Schools. Of these there is at present accommodation for one officer only.

30. We are convinced that in addition to the Chief Engineer, who will be Secretary to Government in his department, a Deputy Chief Engineer will also be necessary at Cuttack on a scale of pay of Rs. 1,750 to Rs. 2,150 until the new capital is built. The supervision of the erection of the capital buildings will be a whole-time job for an experienced Engineer, if the work is to be put through with expedition and economy. The Chief Engineer and his Deputy will have a combined establishment. Orissa will have to rely for the present on the advice of the Electrical Inspector and the Electrical Engineer of Bihar. The charge of the Bihar Superintending Engineer, Public Health, should continue to cover Orissa.

31. Thus the officials named below will have to be housed in Cuttack either by using existing residences or by building or acquiring new ones, or by calling on them to find their own accommodation. The last alternative should in our opinion be ruled out. House-rents would undoubtedly be forced up, since there are

few suitable houses in Cuttack, and it is unfair to burden officers, required to work in a trying climate, with expensive and inconvenient dwellings. To acquire houses will be at least as dilatory and costly as to build them. We are decidedly of opinion that broadly speaking the proper course is to build for all officers who are not already provided for, or who cannot be provided for from the stock of existing Government residences. Our estimate of needs and costs for residences is :—

	T. Rs.
1. Government House	7,00
2. Chief Justice	50
3. Chief Secretary	45
4. Revenue Commissioner ... ..	...
5. Chief Engineer ... ..	...
6. Deputy Secretary	35
7. Inspector-General of Medical Service and Jails	35
8. Inspector-General of Police ... ..	...
9. Director of Public Instruction	35
10. Under Secretary	25
11. Assistant Secretary	20
12. Registrar of Secretariat	15
13. Assistant to the Inspector-General of Police ...	...
14. Assistant Superintendent of Police	20
15. Deputy Director of Public Instruction	25
16. Government Advocate ... ..	...
17. Secretary to the Legislative Council ... ..	...
18. Personal Assistant (Excise)	20
19. Personal Assistant (Registration) ... ..	...
20. Personal Assistant (Public Health) ... ..	...
21. Personal Assistant (Jails)	20
22. Sergeant Major	10
23. Police Barracks	16
	10,71

32. It will be observed that no provision has been made for numbers 4, 5, 8, 13, 16, 17, 19 and 20. The Revenue Commissioner will continue to occupy the present Commissioner's house and the Chief Engineer will take that of the Superintending Engineer. The Inspector-General of Police will take the Deputy Inspector-General's house. There is a house built for the Settlement Officer which can be given to the Assistant to the Inspector-General of Police. The Commissioner has now got a Personal Assistant, who finds his own house, while there is a house for the

local Public Health Officer. Thus only two out of the four Personal Assistants will need new houses. The provision of a house for the Chief Justice is dependent on whether the scheme for a High Court for Orissa is adopted. The Government Advocate will be or become a member of the Cuttack bar, and may be expected to find his own house. The Munsifs posted to Cuttack are not provided with Government residences, and we therefore do not see any strong reason for doing so for the Secretary to the Council. We think that the President of the Council can hire a house during his term of office. Since we propose that the temporary headquarters of the province should be at Puri, the Deputy Chief Engineer will be able to get a house in Cuttack, while the new capital is being built.

33. It is more difficult to forecast what accommodation is required for the Ministers in the new Government and for temporarily housing Members of the Legislature during sessions. The number of Ministers is uncertain and it is at least likely that one of them will be a permanent resident of Cuttack. Nor is it likely that the pay suggested by the O'Donnell Committee for two Ministers, Rs. 3,500 a month, will be ultimately adopted. The figures mentioned to us during our tour by a number of gentlemen whose views command respect have ranged between Rs. 2,500 and Rs. 1,500. There is a general consensus of opinion that there should be three Ministers. In the absence of any clearer guidance we put down Rs. 70,000 for house accommodation for Ministers.

34. With a Legislature of 60 drawn from all parts of the new province, many members will find great difficulty in securing suitable accommodation during the sessions or when same are called in for committees or conferences. We propose that Rs. 1,00,000 should be provided for building quarters capable of housing 20 members. If more quarters are required it will be for the Orissa Government to provide them.

35. We estimate that the following clerical staff will be required for the Secretariat at Cuttack in addition to clerks already employed in the divisional offices :—

Political and Appointment Department	...	...	...	10
Finance Department	...	...	...	6
Judicial Department	...	...	...	4
Revenue Secretariat	...	...	...	2
Excise	...	...	...	4
Registration	...	...	...	3
Inspector-General of Police	...	...	...	3
Director of Public Instruction	...	...	...	4
Medical, Jails, Public Health	...	...	...	9
Public Works Department	...	...	...	5

36. The capital cost for the buildings, furniture and lay out should be kept within the following figures:—

	T. Rs.
1. Land acquisition	3,50
2. Government House	7,00
3. Residence for officials	3,71
4. Secretariat and Council Chamber	7,60
5. Furniture for Government House	1,00
6. Furniture for Secretariat and Council Chamber	1,00
7. Two houses for Ministers	70
8. Quarters for members of the Legislature	1,00
9. Quarters for 40 ministerial officers	1,70
10. Water supply for the capital site	1,26
11. Electric installation connected with Cuttack Electric Supply	40
12. General lay out, including filling up hollows, improving surface drainage and improving existing roads and constructing new roads	3,00
	31,87

Provisional accommodation.

37. The Committee are agreed as regards the location of the temporary residence of the Governor of the province before the construction of the new capital is complete. It is obvious that the present Government House at Puri should be utilised for the purpose, though it is placed so close to the sea that it is quite impossible to convert it into a permanent residence suitable for the Head of the Province. Structural additions and alterations, replacement of the electric plant, provision of a better water supply, furniture and creation of a garden are necessary in order to make it even tolerable for a period of three years while the capital is being built and as a residence for a period of some three months every year thereafter. It will also be necessary to provide electric fittings and a better water supply to the adjoining Circuit House,

since it will be in constant use for the first three years and in frequent use thereafter. The details are as follows:—

Government House—

			Rs.
Additional accommodation	...	...	35,000
Additional verandah	...	...	16,000
Electrical fittings	...	...	7,000
New generating sets	...	...	38,000
Water supply	...	...	4,000
Furniture	...	...	25,000
Garden	...	...	25,000

Circuit House—

Electrical fittings	..	...	4,000
Water supply	...	...	4,000
			1,58,000

Accommodation and Verandah.

38. It is proposed to add a billiard room, a card room, two bed rooms and three dressing rooms, a boudoir, and offices for the staff. The house is at present only suited for a very brief stay. The verandah, which looks southwards over the sea, is only 8 feet wide and the glare must be mitigated by doubling the width.

Electricity.

39. At present there is only one engine and dynamo and it is of pre-war design and totally unsuitable for continuous running. Two suitable sets are available from the Cuttack General Hospital, which is now on the town supply. The existing wiring as well as most of the outside fittings and fans have been irretrievably damaged by saline action and should be replaced wholesale.

Water Supply.

40. The existing supply is from two wells and is of doubtful bacteriological quality. All water is carried up by hand. It is proposed to install pipes for carrying cold water into each bathroom and to install in each bathroom one tap and one shower where required. Provision should also be made for pipes and taps to the kitchen and standposts for clerks' and servants' quarters. When the Puri water-works supply installation is completed in about two years' time, the residual head will not be sufficient to carry water to the upper floors, so electrically driven house service pumps and a storage reservoir will be necessary.

Garden and furniture.

41. The land surrounding the house is a sandy waste. The furniture has suffered severely by exposure to the sea air.

42. In Puri, we found suitable buildings for temporary accommodation of the Secretariat, and a number of houses for those officers who may be required to live there continuously until the new capital is built. There is a commodious Circuit House and an excellent hotel. If the future Government should decide to hold the Council sessions there during the temporary location of the capital at Puri, the Zila School has a fine hall, which could be used without serious inconvenience, while the members of the Legislature could without difficulty find accommodation at the time that the Legislature would be in session. We have considered the alternative of placing the seat of the Government at Cuttack during the waiting period, and are convinced that the available accommodation is greatly inferior to that which Puri offers. An arrangement of a similar kind was adopted at the inception of the province of Bihar and Orissa, when Government headquarters were placed at Ranchi for nearly six years. The decision did not in any way prejudice the adoption of Patna as the capital, and there is no reason to expect that a similar decision will postpone the adoption of Cuttack as the Capital of Orissa.

43. We are advised that after the completion of the proposed structural additions and alterations to the Puri Government House it will take at least ten clear months for the walls and plaster to dry. We therefore press strongly that a decision on this part of our report should be reached as early as possible, so that the Governor of the province may have somewhere to live, when he assumes charge.

CHAPTER IV.

AFFILIATION QUESTIONS.

HIGH COURT.

44. We are asked "to make proposals for the affiliation of Orissa with one or more of the adjoining provinces in the matter of a High Court". It was assumed by the O'Donnell Committee that there would not be sufficient work for a separate High Court for Orissa and indeed the same assumption appears in our terms of reference. We consulted the High Courts at Madras and Calcutta on this matter. The Madras High Court is definitely against the proposed affiliation with any part of the new province of Orissa. The Calcutta High Court was willing to assume jurisdiction over Orissa but only on the terms that Orissa should pay the salaries of two Judges of the High Court and the salary of a Registrar of the grade of District and Sessions Judge. They added that it seemed to be uncertain whether there was any need for Judges of the Calcutta High Court to come to Orissa on circuit.

45. It would appear from these answers that affiliation to Calcutta and Madras in the matter of the High Court is definitely out of the question. We also consulted the Judges of the Patna High Court. On the whole they saw no objection to affiliation. We are bound, however, to say that we heard much evidence to the effect that the present circuit system, whereby two Judges of the Patna High Court come on circuit three or four times a year to Cuttack, is unsatisfactory. We have reason to believe that this dissatisfaction is equally shared by the Judges and by the Bar. Non-official witnesses were definitely opposed to a continuance of the present circuit system and strongly urged the claims of Orissa to have a High Court of her own. It would also be possible to develop a constitutional argument that provincial autonomy is impossible without a High Court. Indeed it seems to us that a province cannot be completely autonomous nor can it be a separate unit fit for federation unless it possesses in addition to a responsible Government an independent High Court responsible for the administration of justice.

46. We do not forget that even institutions which may fairly be described as constitutional necessities cannot escape the overmastering considerations of financial stringency. In a word we think that Orissa must be prepared to accept expedients suggested by its special circumstances and dictated by its limited resources. The special features of the new province which distinguish it from nearly all other existing provinces of India are that it cannot function at all without financial help from the Central Government; that the poverty of its people and their racial unity combine to produce litigation small in quantity and of a simple nature; that the Oriyas in general are tractable and inspired by intense local

patriotism. Nevertheless we deprecate the assumption that affiliation with some other province in the matter of a High Court is the only possible plan.

47. The following suggestions have been made to us for a Chief Court for Orissa :—

- (a) A Court presided over by a single Judicial Commissioner ;
- (b) a Chief Court with two Judicial Commissioners ; and
- (c) a High Court of three Judges.

48. The objection to a single Judicial Commissioner is that his court cannot be a High Court nor will the province have judicial autonomy. Moreover, we are advised that there will not be appellate work sufficient to occupy the whole time of a Judicial Commissioner. Nor are we able to say that two Judicial Commissioners will be better than one. In the event of a difference of opinion between them, either the opinion of the senior Judicial Commissioner must prevail or the right of appeal must be waived or the matter must be referred to the High Court of another province. With a High Court of three Judges, it is clear that the administration of justice would be grossly top-heavy, since the High Court Judges would certainly equal and might exceed in number the District and Sessions Judges in the province.

49. At an early stage of our deliberations a proposal for a High Court for Orissa was placed before us which seemed to be especially adapted to the needs of the province. We devoted much of our time to examining this proposal, and we have tested it by subjecting it to the criticisms of members of the bar at Berhampur, Puri, Cuttack and Sambalpur. We may say generally that at first there was considerable prejudice against the scheme on account of its novelty. Numerous criticisms were also advanced and met by us to the best of our ability. After considerable discussion and debate we feel justified in stating that the scheme about to be explained was in the end favourably received at all the centres where we took evidence, except at Cuttack where the scheme evoked an exceptional amount of criticism. But nearly all the witnesses who appeared before us at Cuttack as well as some other members of the Cuttack bar have subsequently sent us a written memorandum urging the adoption of a *similar* scheme of a more expensive nature. Every one seems now to be agreed that Orissa should have a separate High Court of her own. Our Committee as a whole is strongly in favour of the scheme and regards it as a solution of the difficulty of equipping the new province with an essential of autonomy. The financial aspects of the scheme and of the possible alternatives are discussed in an appendix to this report.

Scheme for a High Court for Orissa.

50. The High Court would consist of a Chief Justice and three Puisne Judges. The Chief Justice would be paid Rs. 3,500 a month and the Puisne Judges Rs. 3,000 (in addition to overseas pay

in the case of a Judge of European domicile). We would recommend that, to begin with at least, the Chief Justice and one Puisne Judge should be members of the Indian Civil Service and that the remaining two Puisne Judges should be recruited from the bar. If a suitable member of the provincial Judicial Service could be found, he would be eligible for promotion to the High Court Bench.

The Chief Justice and one Puisne Judge would be stationed at Cuttack, the provincial capital; a third Puisne Judge would be stationed at Berhampur in Ganjam and the fourth at Sambalpur.

Each of the three Puisne Judges would be invested with defined territorial jurisdiction to try original civil and criminal cases, in fact to do the work that District and Sessions Judges do in the major provinces on the original side. The Chief Justice, however, will have original civil and criminal jurisdiction throughout the province. Thus, as in other provinces the great bulk of original civil suits will be tried by District Munsifs and Subordinate Judges; but where, as in Sambalpur district for example, there would be no Subordinate Judge, civil suits beyond the pecuniary jurisdiction of a Munsif will be heard by the Puisne Judge. The pecuniary jurisdiction of one or more of the Munsifs might be increased to Rs. 4,000. Similarly sessions for the trial of offenders presided over by a Puisne Judge will be held at Cuttack, Berhampur and Sambalpur and one of the Judges will go to Puri and Balasore to hear the cases of those sessions divisions.

Appellate Jurisdiction (Civil).

51. The highest court of appeal in both civil and criminal matters would be a bench of the High Court consisting of two or more Judges of the Court. Appellate benches will have jurisdiction throughout the province. It would be left to the Chief Justice to decide where appeals should be heard. Appeals from the decrees of Munsifs and Subordinate Judges would be instituted in the court of the Puisne Judge resident in the district. Likewise, appeals from first class magistrates and District Magistrate would be instituted in the court of the Puisne Judge resident in the district. In districts where no Puisne Judge is resident, appeals would be instituted before the Registrar of the High Court at Cuttack. All appeals from the decisions of a Puisne Judge, whether in a civil or criminal case, would be instituted at Cuttack before the Registrar of the High Court.

First appeals from decrees of Munsifs and Subordinate Judges would be heard by the Puisne Judge resident in the district, and if there is no Judge resident in the district, by the Chief Justice or by any Puisne Judge to whom he may transfer the appeal. Second appeals from decrees of Munsifs and Subordinate Judges would be heard by a bench of two Judges and it would not be lawful for the Judge who heard the first appeal to be a member of the second appellate bench. In the event of a difference of opinion between the Judges constituting the second appellate bench, the

opinion of the senior Judge would prevail, or the matter might be referred to a third Judge under rules of the High Court to be framed.

There would be only one appeal from the decree of a Puisne Judge, and it would lie to a bench of two or three other Judges of the Court.

Appellate Jurisdiction (Criminal).

52. Appeals from the judgments of first class Magistrates and District Magistrates would be heard by the Puisne Judge resident in the district, and if there is no Judge resident in the district by the Chief Justice or any Puisne Judge to whom he might transfer such appeals.

A bench of two Judges of the High Court would be competent to revise the appellate decision of any single Judge.

An appeal against the judgment of a single Puisne Judge in a sessions case would lie to a bench of two or more Judges of the High Court.

53. To sum up, the scheme proposes to abolish District and Sessions Judges in Orissa and to constitute a High Court of four Judges. Single Judges of the High Court would do the work now performed by District and Sessions Judges, while a bench of two or more Judges would exercise the appellate jurisdiction of a High Court. This, in effect, is a reversion to the English model as exemplified in the judicial administration of the Presidency towns in India.

54. We think it necessary briefly to mention the important criticisms which were directed against the above scheme and to endeavour shortly to answer those criticisms:—

Under Section 267 of the Criminal Procedure Code all trials before a High Court shall be by jury. It was pointed out to us that trials by jury would be unsafe in mufassil stations. We would recommend that at first, at any rate, trials by jury should be restricted. This could only be done by an Act of the Central Legislature.

55. Another criticism frequently made was that the prestige and dignity of Judges of a High Court would suffer if they were called upon to try sessions cases and to do the miscellaneous work now performed by District and Sessions Judges. It was suggested that a High Court, the Judges of which are scattered in different stations, commands less public confidence than a High Court, the Judges of which are concentrated at the provincial capital. On the other hand, we strongly feel that the prestige of Judges and public confidence in their integrity and independence should be earned rather than borrowed or inherited. We also feel sure that judicial dignity is derived not from the nature of the problems presented, but from the manner in which they are solved.

56. A more tangible criticism is that it would be found difficult to recruit the Judges of the High Court. The salary proposed, it was said, would fail to attract the best I.C.S. Judges from other provinces, while the gap between a Subordinate Judge and a Judge of the High Court is considerable. We are unable to agree that it would be impossible to secure from other provinces Indian Civil Service Judges of the highest qualifications. We do anticipate some difficulty in finding a Subordinate Judge sufficiently equipped by experience and training to be promoted to the High Court Bench. It is probable that for some time to come the two Judges not recruited from the Indian Civil Service would have to be drawn from the bar. We would suggest that Subordinate Judges might be given training in sessions work by being made Assistant Sessions Judges wherever possible. The post of the Registrar of the High Court might be made a stepping stone for a selected Subordinate Judge to the High Court bench.

57. It was objected that it would in practice be difficult for the Chief Justice to arrange for appellate benches. At present the appellate work from Orissa occupies two Judges of the Patna High Court between 30 to 40 working days in a year. The amount of appellate work from the Oriya portion of Ganjam received in the Madras High Court is not considerable. It seems safe, therefore, allowing for expansion in the number of appeals and for the addition of appeals from Ganjam, to estimate the number of days likely to be spent on hearing appeals at 80. A considerable number of appeals could and would be heard at Cuttack by the bench of two Judges permanently stationed there. We do not therefore consider that any considerable difficulty would be felt.

58. Some witnesses suggested the possibility of friction between the Judges of the Court if any two Judges of the Court were competent to hear appeals from a single Judge of equal status. But there seems to us to be no special reason why there should be greater friction between Judges of the Orissa High Court than there is between the Judges of the Chartered High Courts of India whose decrees are subject under Letters Patent to an appeal to a bench of their colleagues.

59. We can see no reason therefore why a High Court constituted as above should not function successfully. We think that such a tribunal is admirably adapted to the needs of a small province like Orissa and that it would lead to cheaper litigation as well as to speedier disposal of cases. We have been impressed by the fact that members of the bar became more and more reconciled to the scheme the more accustomed they grew to the novel idea of High Court Judges doing the work of District and Sessions Judges.

60. It is perhaps hardly within the province of this Committee to recommend a definite scheme for a High Court for Orissa or to suggest by what means such a scheme might be introduced, but we think that it would be appropriate to constitute a High Court for this province simultaneously with or as soon as possible after the

inauguration of the new province. Should it be found impossible to do this, it seems to us that the only practical alternative is to take steps to have the existing Letters Patent of the Patna High Court amended so as to extend the jurisdiction of that Court to the portions of the new province taken over from Madras and the Central Provinces. In that event, the Judges of the Patna High Court should continue to come to Cuttack on circuit, for, on the whole, the people value the advantages they now enjoy. There would probably be sufficient work for three District Judges.

61. The District and Sessions Judge for the Khond area will be the Agent to the Governor at Chatrapur. Appeals from his judgments should lie to the High Court of Orissa, if such a Court is constituted or to the Patna High Court to the same extent as they now lie to the Madras High Court, until other arrangements are deemed to be desirable. In the event of a High Court being established, the most convenient arrangement for the extra accommodation will be to hand over the Revenue Commissioner's office and residence, which are close to the present Civil Courts, the Revenue Commissioner taking over the house in the new Capital to be built for the Chief Justice, and moving his office to the new Secretariat.

UNIVERSITY.

62. We have been deeply impressed by the strength of the popular demand for a separate University. All witnesses voiced that demand and some went so far as to say that in the last resort they would prefer a separate University to a separate province. They pointed out that the demand for a separate University was made long before a separate province was even contemplated. It was made clear to us that the people of Orissa would be gravely disappointed were they to discover that they have won provincial autonomy and achieved racial unity only to be denied a University for their own.

63. The Director of Public Instruction, Bihar and Orissa, has advised us that the simplest type of University, capable of satisfying the immediate needs of Orissa, would involve a capital expenditure of two and a half lakhs and a recurring expenditure of Rs. 70,000. Other schemes somewhat but not greatly less expensive have been placed before us, which on close examination might perhaps prove to be sufficient to enable the proposed institution to claim University status. There is, however, a considerable amount of spade work to be done before it can be decided what form the University should take, and we think that the task of reconciling or selecting from divergent views should be left to a committee to be appointed hereafter. To such a Committee the determination of the cost would naturally fall.

64. The scheme of the Director of Public Instruction would require something like Rs. 20,00,000 to cover capital cost and to provide by way of interest for the recurring charges. If the demand for a University is as widespread as the evidence we have received indicates, it should not be impossible to raise an endowment fund

of something like that sum in the course of a few years, especially if the Ruling Chiefs continue to show the interest they have displayed in the past in higher education for the Oriyas as a whole. If the new Orissa Government could place before the Federal Government a considered scheme, which commanded general assent throughout Orissa, and also show that an endowment fund sufficient to cover most of the cost of it had already been collected, there would be strong case for a special subvention to complete the necessary sum. We trust that the authorities of the Federal Government will be able, consistently with their responsibilities to the general tax-payer, to assist in such a way the Oriyas to attain their long cherished ambition.

65. Until a separate University can be formed for Orissa we recommend that existing arrangements should continue, namely, that the Ganjam district should continue to be affiliated to the Andhra University and the rest of Orissa to the Patna University. As a permanent arrangement there are grave objections to dual affiliation. The graduates of different universities tend to differ from each other in educational attainments, in their ideals and most important of all in their loyalties. It is possible therefore that the affiliation of a small province for many years with two different Universities may have a disruptive influence in provincial affairs and politics. On the other hand, there are obvious advantages to be gained by interfering as little as possible during the period of transition with the students who are now in the colleges. It would, for example, involve a serious dislocation in the work of students of the Khalikota College in Ganjam, if that college was suddenly to be divorced from the Andhra and wedded to the Patna University. Further the local representation on the controlling bodies of the Universities is fixed by statutes, and there is no assurance that a new affiliation will secure results as favourable in that respect as the existing statutes provide.

66. Apart from inconveniences arising from the necessity of sending Oriya members of University bodies to attend meetings at Patna or elsewhere, there is one more general objection to affiliation with an extra provincial University which has been urged, *viz.*, that the Education Minister of the new province would be unable effectively to control the policy of secondary education, since secondary education as a rule is controlled by the University. It was urged that educational policy in Orissa would in practice be controlled by the Education Ministers of two other provinces, if our present recommendation is accepted. We are of opinion that this difficulty can be partially avoided by constituting a Provincial Board for Secondary Schools whose function would be to advise the Minister in charge of Education, to settle the school curricula, to conduct examinations and otherwise to control the secondary schools of the province.

67. On the whole, therefore, we prefer to recommend maintenance of the *status quo* rather than the immediate affiliation of the entire province with either Calcutta, Patna or Andhra Universities.

The proposal to make no change at present may be regarded as a token of our belief and hope that Oriyas will leave no stone unturned in their search for funds wherewith a University of their own may be inaugurated with the least possible delay.

OTHER INSTITUTIONS.

68. We recommend that Orissa should continue for the present to use the facility offered by the Bihar Medical Engineering and Veterinary Colleges.

Orissa will also for the present find it convenient to enter into an agreement with the Bihar Government for the training of candidates for the Police and Excise departments at the Police Training College at Hazaribagh and the Constables' school at Nathnagar.

69. At present the Bengal Nagpur Railway Police in Bengal, Bihar and Orissa are under the administrative control of the Bihar and Orissa Government. Apart from the administrative advantage of keeping the Railway police under one and the same authority, the Orissa Railway Police would be too few to constitute a separate charge for a Superintendent of Police. The following figures are instructive :—

	Railway mileage.	Average number of cognizable crimes taken over 3 years.
Bihar ..	631	375
Bengal ..	240	497
Orissa and Ganjam	644	349

Bihar at present bears the full cost of a Superintendent and Deputy Superintendent of Police whose combined pay amounts to Rs. 28,563 per annum. If Orissa takes control, she will have to pay for the Superintendent and the Deputy Superintendent of Police. We are advised that if Bihar retains control, the cost would be as follows :—

Bengal	...	...	...	Rs. 52,169
Bihar	...	...	...	„ 72,827
Orissa and Ganjam	...	...	...	„ 39,563

If Orissa takes control the cost will be as follows :—

Bengal	...	...	...	Rs. 52,169
Bihar	...	...	...	„ 44,264
Orissa	...	...	...	„ 68,216

Thus Orissa with approximately the same length of line as Bihar will pay about Rs. 30,000 a year more for the privilege of assuming control of a few Railway Police Thanas. We are further informed that railway police cases in Bengal and Bihar together are three times as numerous as similar cases in Orissa. We propose therefore

that Orissa should leave its railway police under the Bihar Government, as Bengal does, and should pay a proportionate contribution to Bihar.

70. Though the O'Donnell Committee suggested that Orissa should send her long-term prisoners to Bihar jails, we believe that the arrangement will prove unsatisfactory in practice to both the provinces. The prisoners while in a Bihar jail will cease to be under the control of the Orissa Government. We anticipate difficulties, if Bihar finds it inconvenient to accept prisoners from Orissa owing to want of accommodation. Past experience indicates that this is not an improbable contingency. We consider it desirable that Orissa should have jail accommodation for all her own prisoners. It is estimated that 300 prisoners from the new Orissa province will be accommodated in Bihar Central Jails if the proposal of the O'Donnell Committee is accepted. That is about the figure of prisoners now accommodated at the Berhampur Jail. This jail was visited by the Inspector-General of Prisons, Bihar and Orissa, as well as by the Committee and we are fully satisfied that the jail can be expanded economically and without inconvenience to provide for 600 prisoners. We are not in a position to give the capital cost accurately but have been told it will be in the neighbourhood of Rs. 3,00,000. It will be necessary to have a whole-time I.M.S. officer in charge of the enlarged jail, and this, together with the cost of maintaining the additional prisoners, will probably double the present cost of the jail, which the O'Donnell Committee put at Rs. 48,000. Against this the province will save Rs. 29,000 put down as the cost of separation, *i.e.*, the charge that Bihar would make if the present arrangement were to continue. We suggest that the province should find this recurring cost of Rs. 19,000, but that the Central Government should provide the cost of building the enlarged jail.

71. We are agreed that Orissa should share the following institutions with Bihar after separation :—

- (1) Reformatory School at Hazaribagh.
- (2) Indian Mental Hospital.
- (3) Ranchi Mental Hospital for Europeans.
- (4) Bacteriological Laboratory
- (5) Public Health Laboratory.
- (6) Pasteur Institute.
- (7) Gulzarbagh Survey office and traverse establishment.

72. In respect of audit of accounts, we think the best arrangement will be to entrust this to the Accountant-General of Bengal, since that officer will be nearer to Cuttack and has a larger office than the Accountant-General of Bihar and Orissa, whose headquarters is Ranchi. No accommodation either temporary or permanent will be required for this purpose, except the use of a circuit house and some rooms in the Secretariat during the preparation of the budget.

CHAPTER V.

TERRITORIAL CHARGES AND THEIR HEADQUARTERS.

73. The tract known as the Khondmals has a long common boundary with the northern portion of the Ganjam Agency Tract. Though with slight differences of detail, the two Khond areas are administered on the same general principles. The Khonds of the Khondmals are of the same race as the Khonds of the Madras Agency and have no affinity with the Oriyas of the Sadr Sub-division of Angul. Angul is 85 miles from the Khond country and cut off from it by the Mahanadi, which cannot be crossed by wheeled traffic for four months during the rains.

74. The present administration of the Khond country is as follows:—

Khondmals is under an officer of the Bihar and Orissa Provincial Civil Service, ordinarily of about 15 years' standing, who is subordinate to the Deputy Commissioner of Angul. For twelve years the Deputy Commissioner of Angul was subordinate to the Political Agent for the Feudatory States, but he is now once more under the Commissioner of the Orissa Division. The Ganjam Agency is administered by three "Deputy Tahsildars" corresponding in rank to somewhat junior Sub-Deputy Collectors in the Bihar and Orissa subordinate civil service. They have their headquarters at Ghumsur Udayagiri, Balliguda and Ramagiri Udayagiri and an office staff of 5 or 6 clerks. Their immediate superior is the Special Assistant Agent to the Governor of Madras. This post is usually held by an I.C.S. officer of two to seven years' standing. Such an officer in Bihar would ordinarily be in charge of one of the more important sub-divisions. The Special Assistant Agent is subordinate to the Collector of Ganjam who is *ex-officio* Agent to the Governor. The Special Assistant Agent's headquarters is Russellkonda, which is about 10 miles outside his charge. His office is there but in practice he is on tour in the Agency for about 9 months in the year and has a second residence at Balliguda in the extreme north-west of the Agency. His office used to be at Balliguda but it was shown by experience that clerks from the plains succumbed to malaria and blackwater fever. The Collector of Ganjam in addition to the Agency tracts has at present under him four sub-divisions, or as Madras calls them 'divisions', namely Chatrapur, the Headquarters Division, Berhampur, adjacent to it, Ghumsar which is based on Russellkonda, and Chicacole in the south of the district. Chicacole will remain in Madras and some portion of Berhampur too. Consequently after the creation of the new province the Collector of Ganjam will retain four Sub-divisional Officers under him, of whom one will have a considerably reduced charge. Seeing that the Deputy Commissioner of the Santal

Parganas has six sub-divisions and a considerably larger population we see no difficulty in retaining Ganjam as a single district enlarged by the addition of Khondmals sub-division and reduced by the loss of Chicacole and a portion of the Berhampur sub-division. It should be clearly understood that Khondmals, which will form the fifth sub-division, will be independent of the Ganjam Agency in the sense that the Deputy Collector in charge will be in no way subordinate to the Special Assistant Agent. Both parts of the Khond country, however, will be under the Agent to the Governor at Chatrapur. We think that for some time to come it would be dangerous to attempt to assimilate the administration in the two Khond tracts. Since the Governor of Orissa will have a special degree of responsibility in regard to these two tracts, it is very desirable that he should have the advantage of a senior officer of up-to-date district experience such as we expect the Collector of Ganjam ordinarily to be. Hitherto the Governor of Bihar and Orissa has relied for administration of the Khondmals on the advice of an officer of this standing either as Political Agent or as Commissioner of Orissa. It must be remembered that the Revenue Commissioner of Orissa will have numerous other functions and will not necessarily be conversant with the administration of a tribal area.

75. We recommend therefore that Khondmals be added to the Ganjam district and administered by a Deputy Collector, whose immediate superior will be the Collector and Agent of the Governor in Ganjam.

76. If our proposals regarding the administration of the Khondmals be accepted, there is no case for retaining Angul as a separate district. The people of Angul wish to keep Angul a separate district. They are afraid of losing certain privileges which they have long enjoyed. Successive Governments have allotted large sums for the uplift of tenants and backward classes. The depressed classes enjoy certain concessions in the assessment of land revenue. The Pans enjoy a uniform reduction of 25 per cent. in the rent payable by them; the Khonds, Gandas and Dodras enjoy a remission of 12½ per cent. of rent on all lands leased out to them. About one-quarter of the population belongs to the depressed classes whose rights must be safeguarded. The people fear that if Angul is reduced to the status of a sub-division, the Government grant for the uplift of the backward classes may be reduced and the special concessions in assessment of land revenue may be withdrawn.

77. These arguments are of a conservative nature and such as one would expect but cannot be the only consideration. An area of 881 square miles with a population of 148,459 cannot economically be administered as a separate district. There is really no reason to fear that with the abolition of the district, the Government will not display the same solicitude for the uplift of the depressed classes as at present. Angul is only 60 miles by direct

road from Cuttack and only three hours' journey by road and rail. It is accessible from Cuttack all the year round by rail and road and by the direct road for about nine months in the year.

78. We are agreed that Angul Sadr should be made a sub-division of Cuttack district. The people would much prefer this to being made a sub-division of Sambalpur and it would indeed be most inconvenient to administer Angul from Sambalpur. We do not consider it part of our task to advise on the question of modification of the special laws and regulations governing Angul, but would leave the question to the future Orissa Government. We desire nevertheless to record our opinion that a specially competent member of the Provincial Civil Service should be placed in charge of Angul Sadr sub-division. If invested with powers under Section 30 of the Criminal Procedure Code and given most of the powers of a Deputy Commissioner in revenue matters under the Angul Regulations, almost all judicial work arising in Angul Sadr could be disposed of locally. An Assistant Superintendent or a Circle Inspector of Police could deal conveniently with the police work of the sub-division. We are advised that an Assistant Surgeon could conveniently and adequately supervise the five dispensaries in Angul Sadr sub-division.

79. It has been suggested that Banki should be transferred to Puri district in order to lighten the charge of the district officer of Cuttack. The suggestion does not meet with our approval. Public opinion is decidedly against the transfer. Banki has long been associated with Cuttack and a severance of this association will be unpopular. Banki town is 56 miles from Puri but only 27 miles from Cuttack. Banki boundary begins at a distance of 6 miles from Cuttack town. There is a good all-weather road to Barang station which is within 20 minutes by rail from Cuttack. A motor service runs all through the year from Banki to Mundmahan whence the Katjuri can be crossed on foot in the dry weather or by country ferry boat in the rains. We are also advised that there are no strong administrative reasons for transferring Banki to Puri district. With the addition of the Sadr sub-division of Angul, Cuttack will no doubt be a heavy charge. But it will still be lighter than some of the existing districts of Bihar. The personal work of the Collector can easily be reduced by ordinary expedients, *e.g.*, the appellate work, criminal and revenue, might be delegated to a senior Deputy Magistrate. We recommend therefore that Banki be retained as part of the Cuttack district.

KHARIAR.

80. The Khariar tract is a Zemindari with an area of 1,489 square miles and a population of 160,892. It is thus considerably large and slightly more populous than the Sadr sub-division of Angul. It has been estimated that the revenue from all heads is approximately Rs. 80,000. If a new sub-division is created, the

revenue will cover the expenditure and will leave a balance of a few thousand rupees. The new Raipur-Vizianagram Railway line runs across the northern portion of the area. Two railway stations, Jonk and Khariar Road, are situated inside the Zemindari itself. Jonk is 292 miles by rail from Sambalpur *via* Jharsuguda and Raipur. Lakhna which is a village close to Khariar Road station is 110 miles by road from Sambalpur *via* Paikmal but the road from Paikmal to Lakhna is a very rough cart tract unfit for motor traffic. In the south of the Zemindari, Khariar is the nearest village to Sambalpur—a distance of nearly 140 miles *via* Bolangir and Titagarh. It is clear then, that Khariar is accessible from Sambalpur by road and rail routes which are not only circuitous but for most of their length lie outside the district. It is obvious from this that Khariar cannot be conveniently administered directly either from Sambalpur or Bargarh. We consider that Khariar should be made a separate sub-division of Sambalpur.

81. Assuming that Khariar is made a sub-division of Sambalpur district, the choice of headquarters lies between Khariar and Nawapara. Khariar is at present the headquarters of the Zemindari. The Inspector of Police lives there. There is a Middle English school, a dispensary and a Women's hospital. But Khariar is over 20 miles as the crow flies from the railway line. The Zemindar's own view is that if the Sub-divisional headquarters is located at Khariar his prestige will suffer. From the point of view of Government the objection may perhaps be restated by saying that the relations between the Zemindar and the Sub-Divisional Officer will tend to be either too greatly strained or too cordial. This argument, together with that of isolation from the railway, contraindicates the selection of Khariar as headquarters. There remains Nawapara. It is situated near the railway line, and is only 6 miles by road from Jonk Railway station. We understand it is proposed to locate a new railway station at Nawapara. There is at present a police station, an excise warehouse and the office of a Public Works Department sub-overseer at Nawapara, and it is accessible by road from Khariar. The road is motorable and a bus service runs throughout the year. We propose that Nawapara should be the headquarters of the sub-division.

82. During the last three years, Khariar contributed on an average 170 criminal cases, 575 revenue cases and 85 civil suits including rent suits annually to the Courts at Raipur. One officer will be able to deal with all these cases. He should be vested with first class powers for the trial of criminal cases, and with the powers of a Munsif for trial of civil suits. He will also be in charge of the Sub-Treasury and Sub-Registry office. No second officer is necessary at present.

Buildings will be necessary for the office and accommodation of the Sub-divisional Officer and his staff whenever the headquarters are located. After considering the costs of sub-divisional

31.

buildings erected in recent years in the Bihar and Orissa province, we give below our estimates of capital expenditure:—

	Rs.
Sub-divisional Office	20,000
Sub-divisional Officer's house	12,000
Two married clerks' quarters	3,000
Inspection bungalow	6,000
Treasury Guards' quarters	1,000
Peons' and orderlies' quarters	1,000
Sub-Jail	14,000
Total ...	57,000

CHAPTER VI.

CADRES FOR THE ALL-INDIA SERVICES.

83. The number of duty posts as worked out on the basis of the proposals of the O'Donnell Committee is 25 for the I.C.S. and 15 for the Indian Police Service. Our proposals, if accepted, will result in a slight reduction in the I.C.S. cadre and a slight increase in the cadre of the Police.

84. A self-contained cadre is impossible. The selection of officers for special posts would be automatic. Government would often be compelled to place an unsuitable officer in a particular post, simply because no other officer was available at the time. There is the further difficulty that service in Orissa is unpopular with officers of all ranks and races, largely on account of the climate. In the absence of a contented civil service, administrative efficiency is impossible. It is probable that Orissa would obtain better work from its officers if some system were adopted by which they did not remain in Orissa for the whole of their service. By such an arrangement something would no doubt be sacrificed in the matter of local knowledge and familiarity with the language, but on the whole the advantages to be gained would outweigh the disadvantages.

85. Moreover, with a small self-contained cadre it is impossible to secure an even flow of promotion. A very small decrease below the normal scale of casualties, such as would hardly affect a large service, will result in a small cadre in a complete block of promotion. On the other hand, a slight increase in the casualty rate will mean that a junior officer will be promoted to a senior post before he has the necessary experience to fill it efficiently. Moreover these effects are complementary; a block in promotion almost invariably entails accelerated promotion as soon as the block clears and *vice-versa*. Since its formation in 1901, the North-Western Frontier Province has had no self-contained cadre for the posts of district officers, but have drawn on the Political Department of the Government of India. We understand that the reasons urged above have operated to perpetuate this system for the long period of 32 years. It has been suggested that in future I. C. S. and Indian Police Officers might be assigned to Orissa from the beginning and a separate cadre for the new province built up from the new recruits. We very much doubt if Orissa will attract the same class of recruits as the bigger provinces. Nor will the difficulties already stated be met by such an arrangement. On the whole, the weight of evidence is strongly in favour of a joint cadre with Bihar and we are in complete agreement with that view. The arrangement will, of course, have to be reconsidered, if and when All-India Service are replaced by Provincial Service, or other methods of recruitment are adopted.

86. A completely joint cadre with Bihar would be difficult to work as it would involve negotiations between the two Governments regarding the posting of particular officers, at least twice a year, for the hot weather and cold weather. The most feasible arrangement would be that Orissa should be assigned a number of officers out of the present cadres corresponding to the strength which relevant cadre calculations indicate, *i.e.*, in addition to the officers required for duty posts, Orissa will be assigned a proportion of the leave and deputation reserves. The Orissa Government would make its own arrangements for the posting of these officers, but if an officer was required for a short time for some special purpose, his services would have to be obtained on ordinary foreign service terms. The officers for the Orissa cadre should, we suggest, be selected and deputed for a period of years, after which they might be at liberty to return to Bihar or to remain permanently or for a second term in Orissa. The officers selected would have to be of varying seniority and in order to avoid wholesale changes at recurring intervals the period of deputation should be varied for the first few years of this arrangement.

87. The period of deputation should be sufficiently long to enable the officer to become familiar with the province but not so long as to interfere with his suitability for further service in Bihar. We are of opinion that the period of deputation should ordinarily be four years (including leave). This period will cover the average spell of duty between leave plus six to eight months for leave.

88. The source from which the officers should be obtained should be primarily the Bihar cadres, since many officers of those cadres have often served in Orissa. If Orissa borrows officers from any other province, it is likely that there will be an excessive number of officers in Bihar and the surplus would have to be distributed among other provinces. But, for the administration of the Ganjam district, we think it will be necessary for some years to borrow two officers of the I. C. S. with experience of the District and of Madras land tenures. A Police officer with local experience might also be an asset, while there is a case for taking temporarily an officer of the Indian Forest Service from the Madras cadre. These officers would come to Orissa on deputation for four years or on foreign service terms. The whole question is one which should in our opinion engage the attention of the Governments of Madras and Bihar and Orissa.

89. We see no reason why all provincial services should not be self-contained. The cadres will be large enough to avoid the difficulties already described, which are not so acute in services where the nature of the work and the responsibility it entails does not greatly vary as an officer advances in seniority. Officers of the Provincial Services will under the new constitution be under the final disciplinary control of the local Government and consequently a joint cadre would be extremely inconvenient. The only doubtful case is that of the Provincial Judicial Service. This cadre for

Orissa will only be about 20 officers. On the whole, however, we think that it would be better to have all the Provincial Service cadres self-contained. Since the pay and prospects of the Provincial Services as well as the non-gazetted establishments differ between the two provinces, Madras and Bihar and Orissa, we recommend that the two Governments should now examine the point, in order to secure that officers to be transferred from Madras do not suffer.

CONCLUSION.

90. In conclusion it will be convenient to bring together the capital cost of our various recommendations involving expenditure of that nature. It is as follows :—

	Rs.
Cuttack	31,87,000
Puri	1,58,000
Gopalpur	50,000
Mahendragiri	75,000
Khariar (sub-divisional buildings) ...	57,000
Berhampur (Central Jail)	3,00,000
Cuttack-Puri telephone	48,000
	38,75,000

The expenditure incurred by the Committee will be approximately Rs. 16,000.

J. A. HUBBACK.

LAKSHMIDHAR MAHANTI.

LOKNATH MISRA.

BIRABAR NARAYAN CHANDRA DHIB NABENDRA,

M. S. DAS.

RAO SAHIB N. RAMAMURTI NAIDU.*

W. O. NEWSAM.

N. SENAPATI.

G. C. DEBO.

V. RAMASWAMI,
Secretary.

* Subject to the appended note of dissent.

MINUTE OF DISSENT.

I respectfully beg to record my dissent from the proposal made in paragraph 15 of the report.

2. As a member of the Orissa Committee, I loyally accepted the southern boundary of the proposed Orissa Province and cordially agreed with my colleagues that a Circuit house should be built at Gopalpur, though the Andhras not only of the Ganjam District but also of the whole Madras Presidency feel that grave injustice was done to them by the inclusion of the overwhelmingly Andhra populated tracts of Berhampur, Gopalpur, Chatrapur and the coastal tract in the new Province and view such inclusion as a great calamity.

3. In the terms of the reference the Committee were asked to consider and make recommendations as regards "the site, the extent and the approximate cost of new accommodation required at the headquarters or in the districts". Mahendragiri being outside the boundaries of the proposed province, it is beyond the terms of reference to propose a summer camp on the Mahendragiri hill. The foot of the hill may be 5 or 6 miles distant from the southern boundary of the province over hills and forests, but is really about 40 miles by any practicable route, as one has to go from Berhampur by rail or on the grand trunk road up to Mandasa and thence to the hill by an earthen road.

4. As the contemplated Orissa Province will be very small in size, limited in population, and lacking in finances, the zamindars and the educated Oriyas have been trying their level best to secure as much territory as possible from out of the admittedly Telugu tracts. One of the reasons given by them for the inclusion of Mandasa and Parlakimedi estates within the new Province is that the Mahendragiri hill would be a suitable place for building a summer headquarters for the new Government. The construction of a summer camp on this hill will encourage the Oriyas to agitate further for the inclusion of more Andhra area in the new Province, and will prove the thin end of the wedge for penetrating into the Andhra country still further. By making such a suggestion the Committee would unwittingly be lending their authority for the fomentation of such an agitation, and transgressing in spirit the instructions in the terms of reference which lay down that "considerations of the selection of boundaries will lie wholly outside the Committee's purview".

5. The Committee have already recommended in paragraph 14 that Puri should be treated as summer headquarters of the Government. In paragraph 16 they have suggested the construction of a circuit house at Gopalpur. In paragraph 8 they say:—"Berhampur and Gopalpur have no doubt certain advantages. They have an equable climate and possibilities of town-development. Their vicinity to the sea might obviate the need of a summer headquarters. They are not liable to be inundated by flood or ravaged by epidemic". In these circumstances it is not necessary to seek another summer camp.

6. On page 40 of the Ganjam District Manual it is stated that Mahendragiri "was once proposed as a sanatorium for Calcutta". I understand that, after the necessary investigation, this hill was considered to be unsuitable for residence even for a short time, and the idea was abandoned. I feel it is most undesirable that the Orissa Province, with its limited resources, should incur any expense such as that recommended by the Committee.

7. Finally, I submit that the Andhras, who are dissatisfied with the southern boundary already announced, will not only strongly resent the suggestion but also start a fresh agitation for a reconsideration of the southern boundary of the province, while it will encourage the Oriyas to start a further agitation for the inclusion of more Andhra area in the Orissa Province. The already strained feelings between the two communities will be further embittered and the new Province will start with a sullen and provoked discontent on the part of the Andhras, which it is highly desirable to avoid.

RAO SAHIB N. RAMAMURTI NAIDU,

The 29th October 1933.

APPENDIX I.

PRELIMINARY EXAMINATION OF SITE FOR A NEW CAPITAL AT CUTTACK.

- Reference* :—(1) Orissa Committee's letter No. 1, dated the 5th/7th July 1933, to the Chief Secretary.
- (2) Orissa Committee's letter No. 2-Con., dated the 20th July 1933, to the Chief Secretary.

(1) Messrs. E. R. Smith, Sims and Gubbay inspected the Chauliaganj site, which gave the impression of space. This site was considered after careful examination to be unsuitable. The few bits of high ground in the area had already been built over and the remainder was low ground, wet and in most cases paddy fields—totally unsuitable for the purposes of a new Capital.

(2) So we proceeded to examine the northern or Chauhatta Ghat site with a view to advising Government whether it was suitable for (a) the erection of multiple storied buildings, (b) from the sanitation and public health point of view, (c) whether the supply of water and electricity would be unduly expensive.

(3) In the 2nd letter referenced above the requirements of the new Capital as provisionally contemplated are stated to be—

- (a) Government House.
- (b) Secretariat and Council Chamber.
- (c) Residences for 4 principal and 6 subordinate Secretariat officers,
- (d) Accommodation for perhaps 50 clerks.
- (e) Provision of a market.

The area suggested was the land enclosed within the Mahanadi and Katjuri embankment, the eastern limit of which just excluded the ' Shelter ' and the late Mr. J. N. Bose's house.

(4) Although there had been heavy rain as well as a high flood in both rivers in the previous week and it was still raining we were very favourably impressed with the Chauhatta Ghat site as compared with the featureless Chauliaganj site. It is impossible at this stage to attempt to locate the site of each building but the group layout which suggested itself to us is marked on the map.

Proceeding west from the " Shelter " is the suggested site for the quarters for 50 clerks and the market. Government House would be on the highest ground south of the road just before it climbs on to the Katjuri embankment and it would lie northeast and southwest, facing the Dhankanal hills and so catch the prevailing evening sea breezes in the hot weather.

The combined Secretariat and Council Chamber would be best located on the high ground at the north and near the rifle butts. The 10 residences, allowing 1 acre per compound could be located on the high bits of ground to the east of the Council Chamber and on high ground west of the late Mr. Bose's estate. We are satisfied that the site can hold the accommodation required as well as a few more houses. If more accommodation were required, low land to the west of the rifle range could be raised with sand from the river bed.

(5) *Soil*.—The surface soil is generally sandy overlying clay. There are pockets of made ground. Owing to the rain the trial pits were flooded out. Chief Engineer is of opinion that while it was safe to allow foundation pressures of $\frac{1}{2}$ to $\frac{3}{4}$ ton per square foot, it would be necessary in some cases to pile or raft the foundations. There was no bar to 3 or 4 storied buildings.

Storm water drainage.—The subsoil water was high but not unduly so. Storm drainage is carried off by a central depression flowing due East and West continuing through paddy fields through the Kanika estate and eventually discharging into the municipal central drain and was at the time of inspection working satisfactorily. We have no reason to suspect that this drainage would not be satisfactory after heavy rainfall but it must not be expected with say rainfall amounting to 15" in 3 consecutive days combined with a high flood in the rivers that the site will be quite dry.

(6) *Water Supply.*—There are already 5 satisfactory tube wells in Cuttack. We do not anticipate any difficulty in obtaining the required amount of water from 9" tube well which ought according to precedent supply about 12,000 gallons per hour without difficulty.

Sewage Disposal.—With an ample supply of water, a water borne sewage disposal works provides convenient alternative to a hand carriage system which involves trenching after being carried in carts some 4 miles through the length of Cuttack town. With the group layout as suggested previously we would suggest one septic tank for Government House, its out-offices and clerks' quarters with filters in the space between the retired and original lines of the Katjuri embankment. During floods the effluent would be pumped into the river. The immense dilution would render this harmless. For the 10 residences and Secretariat and Council Chamber there would be one or more septic tanks connected to the disposal works mentioned above. In both cases the effluent would have to be pumped.

(7) We saw the Commissioner and advised him as to the area to be notified as a preliminary. We suggested the inclusion therein of paddy fields between the Kanika estate and the estate of the late Mr. Bose. This was done with a view to malaria control.

(8) In conclusion, we unanimously consider with the material information before us that the Chauhatta Ghat is suitable for the site of the new Capital and that the public utility services including electricity will not be too costly to instal and maintain.

H. A. GUBBAY,

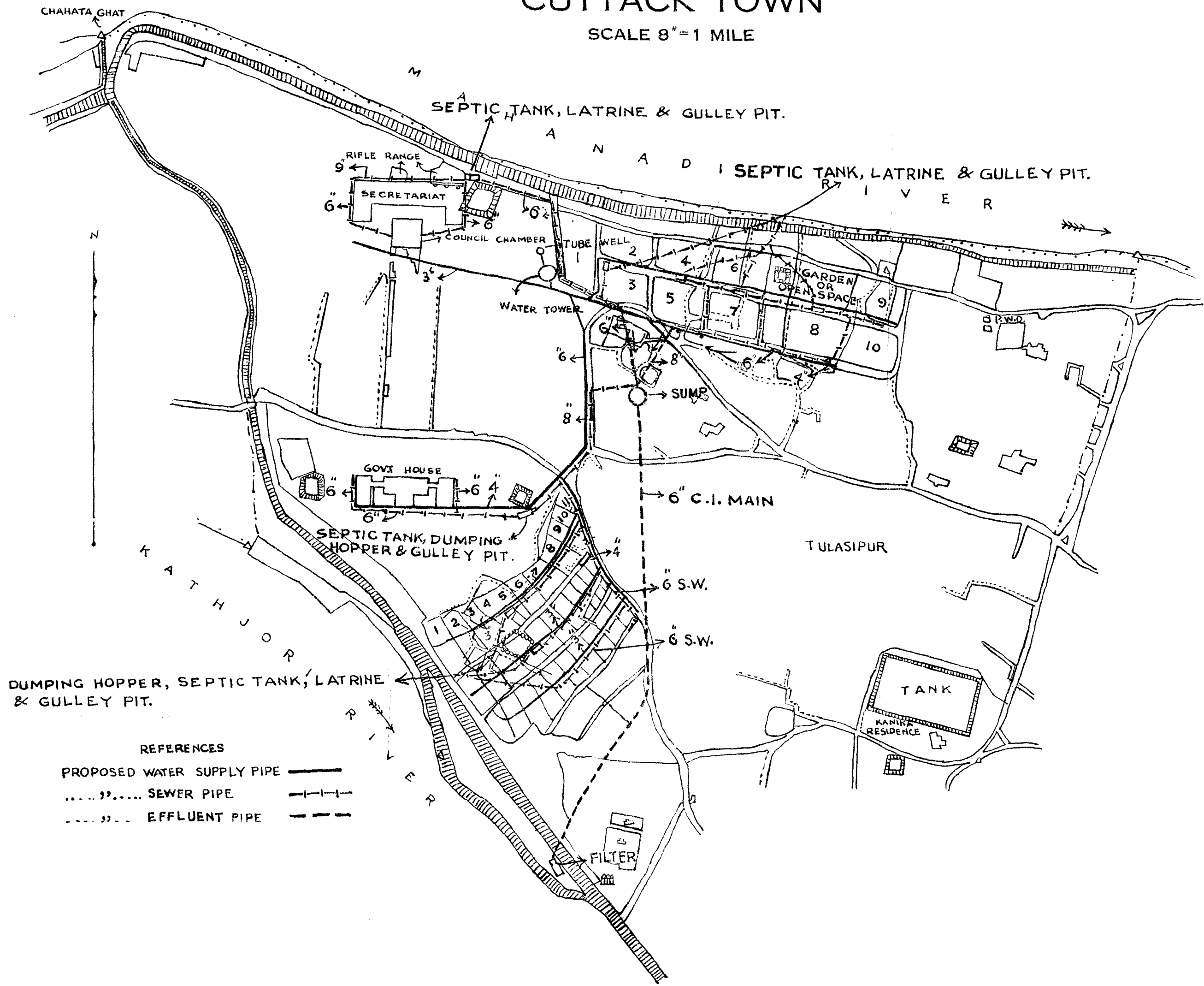
Chief Engineer, Bihar and Orissa
(Roads and Buildings).

H. A. GUBBAY,

Chief Engineer, Buildings and Roads for and on
behalf of S. E., Public Health Circle, and
Electrical Engineer, Bihar and Orissa.

PART PLAN OF CUTTACK TOWN

SCALE 8" = 1 MILE



- REFERENCES**
- PROPOSED WATER SUPPLY PIPE ———
 - SEWER PIPE ———
 - EFFLUENT PIPE ———

APPENDIX II.

APPROXIMATE COST OF ADDITIONS AND ALTERATIONS TO GOVERNMENT HOUSE, PURI.

We were asked by the Chairman, Orissa Committee, to inspect Government House, Puri, and report the cost of additions and alterations required in view of its being occupied consecutively for 3 years and thence for a period of two months per year.

(1) *Increased accommodation necessary.*

Existing	..	Ground floor	..	Living Hall	..	..	..	35' x 20'
				Dining room	..	..	..	30' x 16'
				Waiting room	..	..	..	9' 3" x 16'
				H. E.'s office room	..			16' x 18' 9"
		1st floor	..	2 single bed and bath room, 2 double bed dressing bath room.				
		Top floor	..	2 single bed dressing and bath room.				

The accommodation now provided is a bare minimum for a short period and, if it is desired to house the Private Secretary or A. D. C. in Government House proper instead of in the thatch roofed staff house, increased bed room and living room accommodation is necessary.

Proposed increase in accommodation.

Ground floor.—Billiard room 36' x 20' with lavatory and protecting verandah.

Waiting room, Private Secretary's office and H. E.'s office.

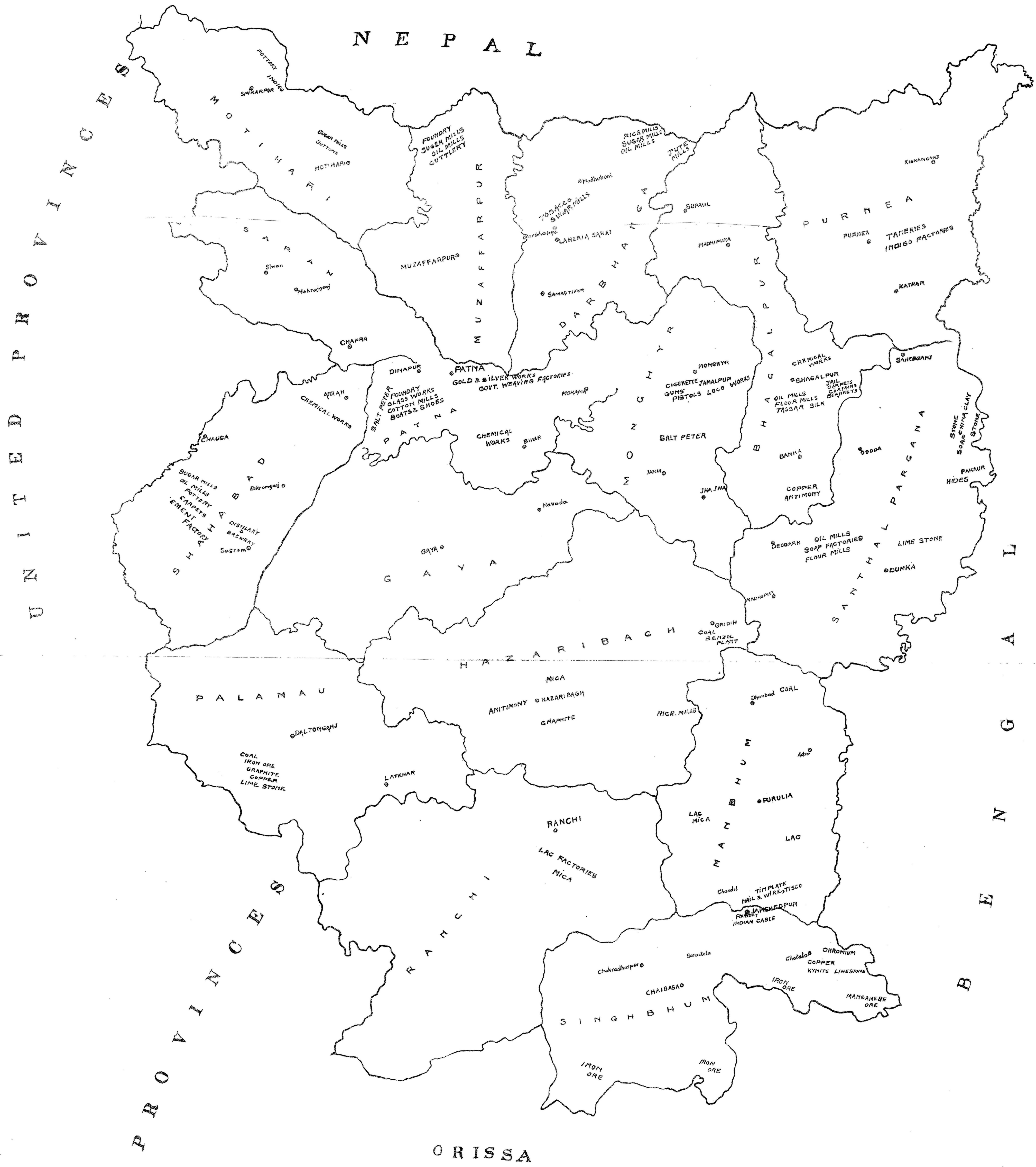
(The existing waiting room 9' 3" x 16' is too small for a card room and is converted into A. D. C.'s office and H. E.'s existing office room into a card room 19' 9" x 16').

1st floor.—The double bed room on the E. wing is to be converted into Her Excellency's boudoir and the dressing room connected to the single bed room.

An additional double bed room dressing room and 2 bath rooms are provided over the new billiard room.

Similarly, on the E. wing a double bed room with dressing room and 2 bath rooms have been provided with the existing dressing and bath room connected to the single bed room.

INDUSTRIAL MAP OF BIHAR



UNITED PROVINCES

CENTRAL PROVINCES

BENGAL

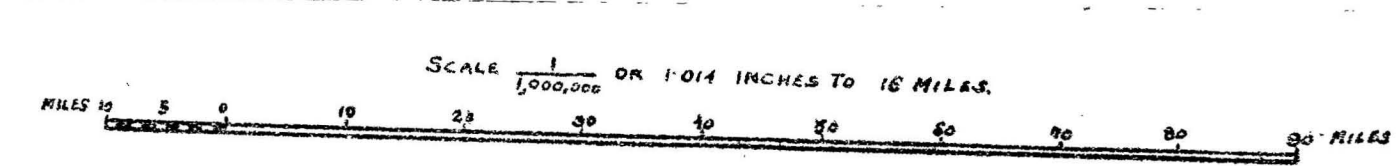
NEPAL

ORISSA

BIHAR

DESTINED TO BE THE CHIEF CENTRE OF
MECHANICAL INDUSTRIES IN INDIA

1. RAW MATERIALS
2. CHEAP & ABUNDANCE OF LOW GRADE COAL.
3. BIHAR ELECTRICAL SCHEME.
4. WATER SUPPLY.
5. TRAINED LABOUR.
6. TRANSPORTATION FACILITIES.
7. AVAILABILITY OF PIG IRON & SEMI-FINISHED STEEL PRODUCTS.
8. PROXIMITY TO THE BIGGEST DISTRIBUTING CENTRE (CALCUTTA).



MECHANICAL INDUSTRIES
COMMITTEE.

Top floor.—No additions have been given here. It is not possible without heavy structural alterations. Some roof protecting is necessary.

Abstract of accommodation.

	Existing.	Additional.	Total.
Ground floor	.. Living room.	Billiard room.	
	Dining room.	Card room.	
	Waiting room.	Private Secretary's office.	
	H. E.'s office.	A. D. C.'s office.	
1st floor	.. .. 2 single bed rooms.	2 double bed rooms	4 double bed rooms.
	2 double bed rooms.	3 dressing rooms 1 boudoir.	5 dressing rooms. 1 boudoir.
Top floor	.. .. 2 single bed and dressing room.	Nil.	

(2) *Electrical.*

There is only one engine and dynamo of suitable voltage (110) but it is of pre-war design and totally unsuitable design for continuous running as it will be called upon to do. It is suggested that the two 14 K. W. sets available from the Cuttack General Hospital (in good condition) be installed here, the cost to be charged to Government House being depreciated book value. We are aware that the output of each set is more than Government House would require but this surplus could conveniently be utilized in the Circuit House, Inspection bungalow, Collector's, Superintendent of Police's, Civil Surgeon's and, other Government residences and offices in close proximity. The existing wiring as well as most of the (outside) fittings and fans have been irretrievably damaged by saline action and should be replaced wholesale. This would be a fair charge on repairs and maintenance. The cost of wiring and the fittings in the new rooms would be chargeable to original works.

(3) *Water Supply.*

The existing supply is from 2 wells which give an ample supply but it is of doubtful bacteriological quality at present. Both hot and cold water is carried up the sweeper's staircase by hand. It is proposed to instal pipes for carrying cold water into each bath room and servery and to instal in each bath room one tap and one shower where required. Provision has also been made for pipes and taps to kitchens and standposts for clerks' and servants' quarters. The contract time for the completion of the Puri water supply installation is 18 months from starting. The contracts are about to be let out. Water is not expected to be available for 2 years from now. When it is available the residual head will not be sufficient to carry water to the upper floors, so electrically driven house service pumps and storage reservoir (as provided in the Hon'ble Revenue Member's house, Ranchi) will be necessary.

(4) *Time for putting in additions and alterations.*

As Government House, Puri, is likely to become continuously occupied from December 1935 and as municipal water will be available about the same

time, it is essential that at least 10 months clear should be allowed for the additions and alterations and for the walls and plaster to dry.

Mr. Sims, Electrical Engineer, and Chief Engineer consider that if continuous running of the electrical plant is required the changes proposed in paragraph (2) above should be taken in hand without delay. The generating sets are available at once.

Approximate costs of additions and alterations to Government House, Puri.

	Original.	Repairs.
	Rs.	Rs.
Increased accommodation 3,500 sq. ft. at Rs. 10 ..	35,000	..
Electrical—		
(a) Wiring and fittings	4,000	2,500
(b) New generating sets and housing and overhead	38,000	..
Water Supply	4,000	..
Total	81,000	2,500

CIRCUIT HOUSE.

Electrical	3,500	..
Water Supply	3,000	..
Grand Total	90,000	say Rs. 1 lakh.

N. B.—In no case have we estimated the cost of furniture. It is understood that a billiard table with accessories will cost approximately Rs. 2,000.

H. A. GUBBAY,

Chief Engineer, Bihar and Orissa
(Roads and Buildings).

H. A. GUBBAY,

Chief Engineer, Bihar and Orissa,
for and on behalf of S. E., P. H. Circle,
and Electrical Engineer, Bihar and Orissa.

APPENDIX III.

FINANCIAL ASPECTS OF THE ALTERNATIVE SCHEMES FOR THE HIGHER JUDICIARY IN ORISSA.

1. The schemes to be examined are :—

- A. Affiliation with the Patna High Court, along with the necessary provision of District and Sessions Judges, Subordinate Judges and Munsifs.
- B. The establishment of an Orissa High Court, which will take over the work of District and Sessions Judges, along with the necessary provision of Subordinate Judges and Munsifs.
- C. The establishment of an Orissa High Court of two or three Judges, confined to appellate work, along with the necessary provision of District and Sessions Judges, Subordinate Judges and Munsifs.

2. It is proposed first to compare the costs of A and B, and then the costs of A and C. In each case costs which do not vary between the two schemes compared are omitted on both sides.

3. *Comparison of A and B.*—The same number of Munsifs will be required in either scheme and the cost of these Courts may be omitted. The Committee were assured that the work falling on District and Sessions Judges and on Subordinate Judges, arising in the portion of Ganjam to be transferred to the new province, is just sufficient for the full employment of one District and Sessions Judge. The work from the whole of the present district is heavy for the existing staff of one District and Sessions Judge and one Subordinate Judge.

4. In the rest of the new province there are at present one District and Sessions Judge for Cuttack, Puri and Balasore, with two Subordinate Judges, and another Subordinate Judge at Sambalpur, besides the District and Sessions Judge of Manbhum-Singhbhum-Sambalpur, who spends about one-third of his time on Sambalpur work.

5. Scheme A would thus involve the employment of two I. C. S. District and Sessions Judges, and four Subordinate Judges, some of the latter doing sessions work and hearing appeals from Munsifs. It is probable that the work would be done somewhat less well than it is at present under this arrangement.

6. Scheme B contemplates a Chief Justice and three Puisne Judges, who would dispose of the work of the District and Sessions Courts, and would require two Subordinate Judges, whose work would mainly be confined to important original civil suits, and one Subordinate Judge as Registrar of the High Court. The Chief Justice and one Puisne Judge would be stationed at Cuttack, one Puisne Judge at Berhampur and one at Sambalpur.

7. The probable cost of the two schemes will be —

<i>Scheme A.</i>		<i>Scheme B.</i>	
	Rs.		Rs.
1. Contribution to Bihar for the Patna High Court	80,000	(i) Pay of Chief Justice (3,500 p.m.)	42,000
2. Pay of two I.C.S. District Judges	55,600	(ii) Pay of three Puisne Judges (3,000 p.m.)	1,08,000
3. Pay of four Subordinate Judges	37,400	(iii) Overseas pay of one Puisne Judge	2,133
4. Establishment of two District Judges	40,000	(iv) Pay of three Subordinate Judges (one as Registrar)	28,050
5. Establishment of four Subordinate Judges	16,000	(v) Establishment of Chief Justice	30,600
		(vi) Establishment of three Puisne Judges	48,000
		(vii) Establishment of two Subordinate Judges	8,000
		(viii) Travelling allowances for forming High Court Benches	4,000
		(ix) Contingencies for the High Court	12,500
		(x) Additional leave and pension charges	21,614
Total ..	2,29,000		3,04,897

NOTES—

1. This is the figure given by the O'Donnell Committee.
 2. This includes ordinary pay, taken as one-fifth of the total non-voted budget provision Rs. 2,21,000 for ten District and Sessions Judges in Bihar and Orissa, 1932-33, together with Rs. 9,600 for overseas pay for both Judges, and Rs. 1,800 for special judicial pay for one Judge.
 3. This is one-seventh of the total budget provision for 28 Subordinate Judges in Bihar and Orissa, 1932-33.
 4. Establishment of a District Judge's court costs about Rs. 20,000 in Bihar and Orissa.
 5. Establishment of a Subordinate Judge's Court costs Rs. 8,000 in Bihar and Orissa.
- (i) and (ii) No remarks.
- (iii) Only one of the Puisne Judges would be an I. C. S. officer.
- (iv) See the note on 3.
- (v) and (vi) One-eighth of the cost of the establishment of the Patna High Court has been taken under (v) and for (vi) the cost of three District Judges' establishments.
- (vii) See note on 5. The Registrar-Subordinate Judge's establishment is included under (v).

(viii) For Appellate Benches of two Judges it is reckoned that about 96 days, or half a working year, will suffice. Of the six possible Benches one can be constituted by the two Judges stationed at Cuttack, and so involves no travelling. Thus for 80 days travelling for one Judge is involved. A High Court Judge is entitled under existing rules to Rs. 15 a day when halting, one rupee a mile when travelling by road, and free transport of a car by rail. Provision of Rs. 50 for each day is taken.

(ix) One-eighth of the provision for Patna High Court contingencies is taken. Contingencies would probably be about the same under either scheme for other courts and so are omitted from both sides.

(x) It is assumed that the leave and pension charges under Scheme B will exceed those under Scheme A at least by the charges required for two District Judges less the charges required for one Subordinate Judge. The calculation is a difficult one but points to a figure of Rs. 17,574. There will be a similar excess on charges for the extra establishment, which may be put at Rs. 4,040.

8. *Comparison of Schemes A and C.*—Scheme C would leave the judiciary other than the High Court as it would be in Scheme A. It is therefore only necessary to consider the cost of the High Court and compare it with the sum of Rs. 80,000 adopted by the O'Donnell Committee as the contribution to Bihar. The alternatives of two or three High Court Judges are considered.

<i>Scheme C (i).</i>		<i>Scheme C (ii).</i>	
	Rs.		Rs.
Pay of Chief Justice ..	42,000	Pay of Chief Justice ..	42,000
Pay of one Puisne Judge..	36,000	Pay of two Puisne Judges	72,000
Overseas pay of one Puisne Judge	2,133	Overseas pay of one Puisne Judge	2,133
Pay of one Registrar-Subordinate Judge ..	9,350	Pay of one Registrar-Subordinate Judge ..	9,350
Establishment of Chief Justice	30,600	Establishment of Chief Justice	30,600
Establishment of one Puisne Judge	20,000	Establishment of two Puisne Judges ..	40,000
Contingencies for the High Court	25,000	Contingencies for the High Court	25,000
Additional leave and pension charges	27,446	Additional leave and pension charges	39,046
Travelling allowances ..	1,000	Travelling allowances ..	1,000
Total ..	1,93,529	Total ..	2,61,129

The first item requiring explanation is contingencies for the High Court where double the figure put in Scheme B has been adopted. Under Scheme B the contingencies for the two existing District Judges' courts would be available in addition to the provision of Rs. 12,500 for the High Court. Under Scheme C they would not be so available.

The second item to be explained is additional leave and pension charges. These are required for the Chief Justice, one Puisne Judge, and one Subordinate Judge under Scheme C (i) and further for one more Puisne Judge under Scheme C (ii). These come to Rs. 23,406 and Rs. 33,606 respectively. For establishments the charges will be Rs. 4,040 and Rs. 5,440 respectively.

For travelling allowances Rs. 1,000 has been put in to provide for a High Court Judge inspecting subordinate courts.

9. Assuming that the contribution to the Patna High Court will be what the O'Donnell Committee put down, and that it fully covers all charges including those for leave and pension, it would seem that, as compared with Scheme A, Scheme B will involve an extra recurring cost of about Rs. 76,000, Scheme C (i) of about Rs. 1,12,000 and Scheme C (ii) of about Rs. 1,81,000.

10. Schemes B, C (i) and C (ii) will probably be less expensive than Scheme A in charges for law officers, since Government will require no representation at Patna, while probably the posts of High Court Government Advocate and of Legal Remembrancer could be combined. It is further anticipated that the creation of a separate Orissa High Court will materially increase the High Court work. Indeed, if it did not, there would be little justification for Scheme C. If this anticipation is fulfilled there will be a marked increase in court-fees, which will be set off against the increases in the recurring costs indicated above.

11. For capital costs Scheme B involves Rs. 50,000 for a residence for the Chief Justice. The Cuttack Civil Courts along with the Divisional Commissioner's office will accommodate the courts and offices of the two Judges it is proposed to place at Cuttack, the Divisional Commissioner moving into the new Secretariat. The District Judge's residence and Court at Berhampur will be quite suitable for the Puisne Judge whom it is proposed to station there. There is a good court at Sambalpur recently built for the Sessions Judge when he comes on circuit. This will suffice for the Puisne Judge, who can hire a house there without difficulty. Scheme C (i) will require an extra cost for the Second Judge as well as a residence for him in addition to that, which under Scheme B will be required for the Chief Justice. Scheme C (ii) will require two extra courts and two extra residences.

J. A. HUBBACK,

Chairman.

NRC—ROC

REPORT

OF

THE ORISSA CAPITAL SITE SELECTION COMMITTEE

1936



PUBLISHED BY THE MANAGER OF PUBLICATIONS, DELHI.

PRINTED BY THE MANAGER, GOVERNMENT OF INDIA PRESS, SIMLA.

1936.

Price: Annas 3 or 4d.

List of Agents from whom Government of India Publications are available.

ENGLAND.

**THE HIGH COMMISSIONER FOR INDIA, INDIA HOUSE, ALDWYCH, LONDON, W. 1. & 2.
PALESTINE.**

Steinshsky, Jerusalem.

INDIA.

(a) PROVINCIAL GOVERNMENT BOOK DEPOSITS.

MADRAS—Superintendent, Government Press, Mount Road, Madras.

BOMBAY—Superintendent, Government Printing and Stationery, Queen's Road, Bombay.

SIND—Manager, Sind Government Book Depot and Record Office, Karachi (Sadar).

UNITED PROVINCES OF AGRA AND OUDH—Superintendent of Government Press, United Provinces of Agra and Oudh, Allahabad.

PUNJAB—Superintendent, Government Printing, Punjab, Lahore.

BURMA—Superintendent, Government Printing, Burma, Rangoon.

CENTRAL PROVINCES AND BIHAR—Superintendent, Government Printing, Central Provinces, Nagpur.

ASSAM—Superintendent, Assam Secretariat Press, Shillong.

BIHAR AND ORISSA—Superintendent, Government Printing, Bihar and Orissa, P. O. Gulzarbagh, Patna.

NORTH-WEST FRONTIER PROVINCE—Manager, Government Printing and Stationery, Peshawar.

(b) PRIVATE BOOKSELLERS.

- Advani Bros., Cawnpore.
Asro Stores, Karachi City.
Albert Library, Dacca.
Banerjee & Bros., Ranchi, Messrs. G.
Banthiya & Co., Ltd., Station Road, Ajmer.
Bengal Flying Club, Dum Dum Cantt.
Bhawani & Sons, New Delhi.
Book Company, Calcutta.
Booklover's Resort, Taluk, Trivandrum, South India.
Burna Book Club, Ltd., Rangoon.
Butterworth & Co. (India), Ltd., Calcutta.
Calcutta Book Agency, 18-1, Shama Charan Dey Street, Calcutta.
Chatterjee & Co., 3, Bacharam Chatterjee Lane, Calcutta.
Chatterverty, Chatterjee & Co., Ltd., 15, College Square, Calcutta.
City Book Co., Madras.
City Book House, Maston Road, Cawnpore.
Commercial Book Co., Lahore.
Das Gupta & Co., 51/3, College Street, Calcutta.
Deccan Book Stall, Poona 4.
Delhi and U. P. Flying Club, Ltd., Delhi.
English Book Depot, Seropore.
English Book Depot, Taj Road, Agra, and Salar Bazar, Jhansi.
English Book Depot, Bank Road, Ambala Cantt., Kasauli.
English Bookstall, Karachi.
Fakir Chand Marwah, Peshawar Cantt.
Fono Book Agency, Simla.
Gays Prasad & Sons, Agra.
Gnantha Malir, Cuttack.
Hijabinthana, Madras.
Hindu Library, 137/8, Balasa D Street, Calcutta.
Hyderabad Book Depot, Chattrghat, Hyderabad (Deccan).
Imperial Book Depot and Press, near Jama Masjid (Machhillwala), Delhi.
Indian Army Book Depot, Dayalbagh, Agra.
Indian Army Book Depot, Jullundur City and Daryaganj, Delhi.
Indian Book Shop, Banars City.
Indian School Supply Depot, Central Avenue, 3rd, P. O. Dacca, Calcutta.
Insurance Publicity Co., Ltd., Lahore.
International Book Service, Poona 4.
Jain & Bros., Muz Gata, Delhi, and Connaught Place, New Delhi, Messrs. J. M.
James Murray & Co., 12, Govt. Place, Calcutta (for Meteorological publications only).
Kali Chandra & Co., Marolli Market, Calcutta.
Kamala Book Depot, 15, College Square, Calcutta.
Karnala Book Store, Bangalore, Patna.
Karnataka Publishing House, Bangalore City.
Keale & Co., Karachi.
Krishnaswami & Co., Teppakkulam P. O., Erishikooty Fort, Messrs. S.
Lahiri & Co., Calcutta, Messrs. S. K.
Law Printing House, 11, Mount Road, Madras.
Law Publishing Co., Mysore, Madras.
Lawrence and Mayo, Ltd., Bombay (for Meteorological publications only).
Local Self-Govt. Institute, Bombay.
London Book Co. (India), Arbab Road, Peshawar, Marwar, Nowshera and Rawalpindi.
London Book Depot, B. L. Bazar, Barisal, U. P.
Malhotra & Co., Post Box No. 94, Lahore, Messrs. U. P.
Madras Book Depot, Bazar Road, Shaikot Cantonment.
Mohabbal Dossabhai Shah, Rajkot.
Motilal Banarsi Das, Oriental Bookellers, Salimitha Street, Lahore.
Nandlalchore & Bros., Chowk, Benares, City.
Nelson & Co., Publishers, George Town, Madras, Messrs. G. A.
New Book Co., "Kittab Mahal", 192, Hornby Road, Bombay.
Newman & Co., Ltd., Calcutta, Messrs. W.
North India Christian Tract and Book Society, 18, Olive Road, Allahabad.
Oriental Book Supplying Agency, 13, Shukrawar, Poona City.
Oxford Book and Stationery Company, Delhi, Lahore, Simla, Meerat and Calcutta.
Patil & Co., Baroda, Messrs. B.
Pioneer Book Supply Co., 20, Shih Narayan Das Lane, Calcutta and 213, Chit Market, Delhi.
Popular Book Depot, Grant Road, Bombay.
Punjab Religious Book Society, Lahore.
Raghunath Prasad & Sons, Patna City.
Rama Krishna & Sons, Borkedera, Anarkali, Lahore.
Rama Krishna Bros., Opposite Bikanerbag, Poona City.
Ravi Narain Lal, Kara, Allahabad.
Ramesh Book Depot, Stationery Mart, Keshavnagar, Delhi.
Ray & Sons, 43, K. & L. Edwards Road, Rawalpindi, Marwar and Peshawar, Messrs. J.
Ray Chowdhury & Co., 119, Ashutosh Mukherjee Road, Bhawalpur, Calcutta.
Rohit & Sons, Madras.
Roy Chowdhury & Co., 11, College Square, Calcutta, Messrs. J. M.
Sampoor William & Co., 127-B, Foe Mill, Cawnpore.
Sarker & Sons, 15, College Square, Calcutta, Messrs. M. C.
Sarker & Co., Ltd., 13, Shama Charan Dey Street, and 8/2, Hastings Street, Calcutta, Messrs. P. O.
Scientific Publishing Co., 2, Park Lane, Calcutta.
Seshachalam & Co., Mysalipatan, Messrs. M.
Sivji & Co., P. O. Cavalliganj, Cuttack.
Sri Shankar Karantaka Postals Bookers, Malabar & Dharwar.
S. P. BROTHERS, 21, Balthazar, Poona.
Standard Bookstall, Karachi.
Standard Book Depot, Lahore, Dacca and Delhi.
Standard Law Book Society, 3, Hastings Street, Calcutta.
Standard Literature Co., 17/17, Ltd., Calcutta.
Stationer's Popular Depot, Karachi E. I., Lahore.
Sural and District Trading Society, Surat.
Taraoprasanna Sons & Co., Bombay, Messrs. D. R.
Taswar & Co., Ltd., Bombay.
Fraser, Satak & Co., Ltd., Calcutta.
Tripatal & Co., Borkedera, Prince Street, Kathodoli Road, Bombay, Messrs. J. M.
Union Stores, Lahore City.
University Book Agency, Kachhi Road, Lahore.
Upper India Publishing House, Ltd., Literature Park, Amritsar, Park, Lucknow.
Vardacharya & Co., Madras, Messrs. P.
Venkateswara, A., Law Bookstall, Vellore.
Wheeler & Co., Allahabad, Calcutta and Bombay, Messrs. A. H.
Young Man & Co., Ajmer and Egerton Road, Delhi.

*Agent for publications on Aviation only.

Report of the Orissa Capital Site Selection Committee, 1936.

PART I

The scope of the present report.—In accordance with the orders of the Government of India, approved of by the Secretary of State for India, this Committee proceeded to Orissa to examine sites at Cuttack and elsewhere in the new Province, and to report on their relative suitability for the location of the Capital of the Province in respect of extent of land available, water supply, drainage, climate, health, subsoil water levels, liability to flood, communications, and cost of land and buildings.

2. This report accordingly contains no recommendations on the subject of town planning, a matter which will doubtlessly be taken up by the experts of the Central Public Works Department, when the site is finally selected and approved of by the Government of India.

3. *Considerations governing the choice of site.*—Apart from the question of locality in dealing with the various matters that concern the suitability of a site, the Committee has felt that the following considerations were paramount and these have received the closest and most continued attention :—

- (a) Health and sanitation.
- (b) Water supply.
- (c) Provision for ample room for expansion.
- (d) Cost of land and building.
- (e) Facility for external and internal communications.

Other points arose and received due consideration, and are explained in this report.

4. *Proceedings.*—The Committee met in Cuttack on the 10th July 1936, and proceeded to examine the various sites that were notified by the Orissa Government in their letters Nos. 288-H., dated the 28th April and 262-H.P., dated the 20th May 1936 (Annexure* A).

5. *General description of Cuttack.*—Cuttack Town is roughly a tongue of land enclosed on two sides by high embankments to protect it from the floods of the Mahanadi and the Katjori rivers, and on the third side by a narrow neck connecting it to low lying ground beyond, which is composed entirely of irrigated paddy fields completely waterlogged in the rains, and through which a road runs to Jagatsingpur. Thus this area may be considered, for practical building purposes, an island; and beyond these natural limits the Town can never expand. This enclosed area constitutes Cuttack Town and Chauliaganj, the portion west of the Railway line lying within Municipal limits. A reference to Map* No. 1 will explain the location.

* Not printed.

6. *Liability to flood.*—The main physical features of this area are the high and strongly armoured embankments, constructed many years ago to protect the Town from flooding, a danger that will always exist to a greater or lesser degree. After an examination as detailed in Appendix* (A) the Committee agree that the river beds opposite Cuttack do not show signs of any permanent rise in level and provided that proper precautions to maintain the embankments are taken, the risk of inundation is no greater now than it ever has been. All that is likely is a threat similar to that which occurred in 1933, when the Katjori embankment was seriously endangered and was only saved by night and day work. Another important point is that during each flood season, seepage occurs through the embankments and large areas within the Town, most of which is below ordinary flood level, are submerged. This actually occurred in 1933 and to a lesser degree occurs annually owing to (a) the high level of the subsoil water and (b) the absence of any efficient methods of drainage.

7. *Communications.*—The Town has a population of 65,000 and congestion is at its maximum. Good internal communications are scarce and generally narrow, in some parts so narrow that it is impossible to pass two vehicles in the width of the road. The only real open spaces exist in what is called the Fort Area and its Maidan. Owing to the Mahanadi and Katjori rivers not being bridged for road traffic, external communications are cut off from the 15th June to the 15th November each year, except for the one road to Jagatsingpur. During the dry season months, a temporary bridge and road are made across the Katjori, while the Mahanadi remains impassable for vehicular traffic. There is, however, continual railway communication between Calcutta and Madras through Cuttack.

8. *Water supply and drainage.*—Owing to the physical features of Cuttack, the subsoil water naturally lies near the surface. Indeed, except in the immediate vicinity of the embankments, where the levels vary in accordance with the rise and fall in the two rivers, the subsoil water remains comparatively high throughout the Town, even in the dry season.

There are no Municipal water supply or drainage systems. Drinking water is normally obtained from shallow wells, or from the river. The wells are scattered throughout the town and make good mosquito breeding grounds. In certain localities, *e.g.*, the Ravenshaw College and the General Hospital, deep tube well supplies have been installed at the expense of Government.

9. Projects both for a Municipal water supply and a drainage scheme were prepared some years ago, but these have never materialised. The Municipal Committee has been superseded by Government and there is, at present, very little likelihood of these schemes being brought into execution, unless financial assistance is afforded by Government. The drainage problem is acute. The Town has no efficient drainage, surface or underground, and owing to the submerged areas of the Town during the rains, the conditions as existing constitute a serious menace to the public health of the Town. The position with regard to the water supply and drainage has been more fully dealt with in Appendix* (B) with the contents of which this Committee is in full agreement.

10. *Climate*.—The climate of Cuttack is extremely oppressive and enervating in the hot weather, when temperatures of 110° have been frequently recorded, and this high temperature is coupled with a high degree of humidity. The climate is tempered to some extent by a south or south-westerly breeze during the dry months of the year, while December and January are the only relatively cool months.

11. *Health*.—It is reported that birth and death rates are low, which is rather surprising. Mosquito breeding grounds abound throughout the Town. Due to the insanitary conditions that prevail, outbreaks of cholera, dysentery and typhoid are common. The culex mosquito swarms throughout the year. The anopheles mosquito is also present, but malaria is not so prevalent as might have been expected. Health and climatic conditions are dealt with in greater detail in Appendix* (C) with which the Committee is in agreement.

12. *Sites*.—The Committee inspected all possible sites in and around Cuttack, and these are shown in the accompanying plan* No. 2, and are dealt with in the following paragraphs.

13. *Tulsipur site*.—This site was provisionally selected by the Hubback Committee and was the subject of an examination by two technical officers of the Central Public Works Department, specially appointed by the Government of India. Their report Appendix* (D) was available and the Committee inspected the site again and unanimously supported their findings. The Committee was of opinion that the site was totally unfit for any building of importance, public or residential. Until a great deal of reclamation is effected, the area will remain unfit for the natural expansion of the Town in this direction. Indeed, it is obviously plain to see the reason why in a congested town like Cuttack, this area has not hitherto been utilised for habitation, even by the poorer classes.

stj

14. *Baharbisinabar site*.—This is a block of land lying in the extreme south-east corner of Cuttack adjoining the northern head of the Railway Bridge over the Katjori river. It is composed of low lying intensely cultivated land, sparsely populated, with huts occupied by the poorest classes. When the Committee inspected this area, it was found to be completely waterlogged, and as bad as the Tulsipur site. We accordingly dropped any further examination and ruled it out.

15. *Khannagar site*.—This site was inspected by the Committee, and found unsuitable. It is a small isolated piece of land, too small in area for the layout of any one of the larger buildings of a Capital, too far and inaccessible for isolated buildings of lesser importance, low lying and liable to flooding, and, owing to its proximity to the Katjori, is subject to sand being blown across it. We agreed that there was no advantage in further considering this site, and we accordingly do not recommend it for any portion of the layout of the Capital.

16. *Chauliaganj*.—This site was very carefully examined from all points of view. It was considered too small to hold a complete layout of all the buildings constituting a Capital. It lies outside municipal limits and directly east of the Railway. The contour map* (Plan No. 3) showed that

although the site appeared wide and open, much of it was liable to inundation by seepage. The subsoil water is very high, and consequently only a small portion of the area could be utilised, viz., that adjacent to and including the Mayurbhanj House and the existing barracks now in temporary occupation by the Police. Two wells, from which the local inhabitants draw water for their domestic purposes exist on the site and they showed the high level of the subsoil water. The southerly breeze, so desirably essential in the hot weather months, is considerably obstructed,—if not entirely cut off—by heavy groves from this site, which lies midway between the two rivers. The removal of these groves would entail considerable expenditure.

17. The area in the vicinity of Mayurbhanj House could be made available for the lesser important offices, and for a small colony for the accommodation of non-gazetted officers, but the Committee considers this area unfit for any important building and we have no hesitation in condemning it as a site for Government House or the Secretariat buildings. We recommend that if it is decided to make use of this site, all buildings should be provided with particularly high plinths.

18. *Jobra*.—This site, like those of the Fort and Cantonment bungalow sites, is located in the immediate proximity of the Mahanadi embankment as shown in Plan* No. 4. It is at present occupied by the P. W. D. workshops and launch repair yard. As this area alone is too small in acreage to be considered for any of the larger buildings, it is suggested, in proposals put forward later, to include it along with neighbouring areas for the location of all the main buildings and quarters for most of the gazetted officers.

19. *Provision for Expansion*.—From what has been said in the foregoing paragraphs, it will be seen that there is no single site in Cuttack for a complete layout of the new Capital—none to accommodate it as a whole, and if accommodated on separate sites, all available land will be utilised and expansion will not be possible. Further, the congestion of the Town areas cannot be relieved, and they will not admit of improvement without the installation of water supply and drainage systems. Untold difficulties are foreseen for the future, when development is sure to follow in the footsteps of a newly located Capital.

20. *Conclusions*.—All these difficulties influence the Committee towards the view that Cuttack would not be a desirable location for the new Capital. We realise that very influential and local public opinion is in favour of Cuttack being the Capital, and that this opinion will be maintained whether these difficulties are insuperable or not. It is argued, because the Town has been the seat of various governments in the past, and is today still the largest and most important town in Orissa, because certain buildings are available and accommodation is sufficient for present needs, and because there are scattered sites which can be put to some purpose, the Capital of the new Province must be located in Cuttack. But these arguments ignore all technical considerations including public health and future expansion, which, after all, are the basic factors in the construction of a modern capital. We must emphasise again that Cuttack is confined by nature to rigorous limits.

21. The Committee, therefore, feels that the location of a Capital in Cuttack would be a short-sighted policy, but we are fully alive to the political and traditional sentiments attached to this old seat of the various governments of Orissa in the past, and, if political pressure and sentiment are allowed to override all other considerations, the Committee suggests that the only solution would be to locate the major portion of the Capital buildings along the Mahanadi frontage, between Jobra and the Christian cemeteries, with additional acquired areas as shown in Plans* Nos. 5, 6, 7 and 8. This acquisition would obviously entail considerable expense. On enquiry, it was ascertained that the cost of land required to secure a suitable acreage, keeping in view the necessity for future expansion, would amount to not less than three lakhs of rupees, excluding cost of compensation for existing buildings. Consideration has also to be given to the inhabitants who would be ejected from these acquired areas. Provision would have to be made for them, and this could only be done at the expense of greater congestion in the Town, or by compelling them to leave the neighbourhood. We wish to bring to notice that these proposals would entail the removal of the P. W. D. workshops and launch repair yard, and also of the Orissa School of Engineering, adding further to the cost of this project.

22. Within this area Government House, the Secretariat, Council House, and residences for officials could be located. With regard to Government House, the Committee is emphatically of opinion that no ideal site for it exists in this area, and that the Fort is the only available site in Cuttack suitable for it. If, however, for the reasons mentioned by the Orissa Government in their letter† No. 288-H., dated 28th April 1936, the Fort area is ruled out, then a less suitable site could be found in the above mentioned area. Certain private houses are available in the Town as residences, but it must always be remembered that the situation would take a radical change, when the demand for houses exceeded the supply. Rents and costs would rise rapidly and Government would be faced with the serious problem of acquiring further property at a prohibitive cost.

23. In order to provide additional space for the less important offices and residences for non-gazetted officers and menials, an area in Chauliaganj is available. Expansion in this area will be limited, but it may be possible to provide to a small extent for any additional requirements further down the Jagatsingpur Road.

24. In the absence of a Municipal water supply and drainage scheme, it will be necessary to provide for both these services in this official 'enclave'. The water supply would entail a scheme for a deep tube well installation similar to those which have proved satisfactory in certain institutions in the immediate vicinity. An irrigation supply would entail a pumping installation from the Mahanadi river, as shallow wells are not desirable from a public health point of view. Both these services are practicable and would present no difficulties. This, however, would not apply to the surface and underground drainage systems, which would have to be undertaken. It is practically certain that pumping would have to be resorted to, and in the rains, when the rivers are in flood, it would not only be a difficult problem but would be accompanied with a great deal of risk.

* Not printed.

† Annexure (A)—not printed.

25. The Committee wishes to make it quite clear that these suggested proposals for the location of the Capital buildings in Cuttack are conditional on the understanding that water supply and drainage schemes are simultaneously installed in the adjoining Municipal areas. It is obvious that the advantages in installing all these essential services in a modern capital would be lost, if the neighbourhood were allowed to continue in its present insanitary condition. The menace to public health would remain and the Government 'enclave' would assuredly be unfavourably affected.

(11)

PART II.

KHURDA:

1. *General.*—The Committee visited the Khurda site which lies to the north of the Barunai hills on a plateau varying from 350 to 150 feet above sea level—as indicated in Plan* No. 9.

It is a fine, open site, with a magnificent view across the valley, natural drainage, with a varying soil of laterite and loamy clay, the former predominating, and where the latter is in evidence cultivation was in progress.

2. This site lies in the proximity of Khurda Town and about five miles from Khurda Road Railway Station. It is well served with road communications to all parts of the Province south of Cuttack, from which place it is cut off in the rains, owing to there being no road bridge over the Katjori river. The cost of constructing this bridge has been estimated at Rs. 30 lakhs.

3. The site is free from habitation and consequently from a health and sanitary point of view it would be suitable. Khurda Town in the vicinity is said to be a healthy place, but vital statistics are not available. The subsoil water of Khurda Town varies from 10' depth in the rains to 50' below ground level in the dry season, and in consequence there is no water logging in the Town. The site itself is provided with natural drainage and, owing to the slope of the country, no standing water is possible. There would be no practical difficulties in installing either surface or underground drainage systems.

4. *Climate.*—The records show that Khurda is cooler than Cuttack by several degrees, and a prevailing breeze comes from the south west. Climate and health statistics are detailed in *Appendix (E).

5. *Land.*—There would be no difficulty in obtaining land, most of it already being in the possession of Government, and any acquisition would be cheap. The whole requirements of the Capital could be accommodated in a self-contained layout with room for expansion readily available towards the Railway Station. From this point of view the claims of the Khurda site were considered to be superior to those of Cuttack. On the other hand the greater proportion of the land on the site appeared to be unsuitable for gardens, being composed mostly of laterite.

6. *Water supply and drainage.*—The "run off" for surface drainage would be considerable, but the greatest difficulty and the most insuperable one, except at a prohibitive cost, is the question of water supply. This problem, as will be seen later on, definitely rules out the site as a Capital, unless further investigations extending over a year were made to determine whether water in sufficient quantity would be available.

7. Evidence is available that tube well borings were attempted in Khurda Town and its vicinity. They proved abortive after going down to a depth of 160 feet, where operations ceased owing to the presence of rock. On the site itself no borings had been made, but owing to its height, and other physical features, the likelihood of finding water from tube wells was extremely doubtful. The Committee satisfied itself that

the existing spring just above the site, was totally inadequate, indeed, absolutely negligible.

8. As an alternative, water might be available in sufficient quantities from the river Daya, but the river has not been gauged and no information is, therefore, available to indicate whether or not an adequate supply could be drawn from this source, particularly during the hot weather months. The Bengal Nagpur Railway Company have a pumping* station on this river, from which water is pumped into the railway colony at Khurda, a distance of about 3 miles. This pumping station is situated about $4\frac{1}{2}$ miles upstream of the place where the Government pumping station would be located. This source must, on the evidence available, be ruled out as a supply for the Capital, which has been estimated to exceed the figure of 250,000 gallons a day. Apart from this, the expenditure involved in laying down the installation would be very large. The length of the rising main, the cost of a pumping station, with its recurring charges of pumping against a total head of nearly 500 feet, and cost of large service reservoirs on the site to provide for an adequate reserve, are factors which would prove an expensive project, both in its initial cost, and in maintenance charges. Further details are available in †Appendices (F) and (G), which the Committee accepts.

9. We therefore regret that this essential service of water supply, owing to its doubtfulness and great expense, rules out any recommendations for the consideration of this site for the Capital of Orissa.

* See Appendix (G).

† Not printed.

9

PART III

BERHAMPUR.—(RANGAILUNDA).

1. The Committee proceeded to Berhampur and inspected the site proposed by the Orissa Government, and examined in detail the problems connected with it.

2. *Location.*—This site, locally known as Rangailunda, is situated about six miles from Berhampur, a Municipal town with a population of about 40,000, and $1\frac{1}{2}$ miles south of the Madras-Calcutta main trunk road, as indicated on *Plans 10, 10-A, and 10-B. Gopalpur, a seaport, lies about 3 miles distant by road, and Chatrapur (the headquarters of the Ganjam District) about $9\frac{1}{2}$ miles away. The main Calcutta-Madras Railway follows the line of the trunk road and there is a railway station, Jagannadhapuram, about $2\frac{1}{2}$ miles from the site. As will be seen from *Map No. 11 of the newly constituted province of Orissa, this site occupies a centrally geographical position.

3. *Land.*—The site itself is fine and open, with a commanding view of the sea towards Gopalpur, and a magnificent outlook on to the hills behind Berhampur, and in the direction of Chatrapur. The land available admits of expansion in all directions and an area of approximately 1,250 acres could easily be obtained for the Capital layout and future developments. Of this acreage, approximately 550 acres are already in the possession of Government.

4. The soil is composed of a hard sandy loam with a substratum of gravel. A canal system feeds the lower lying parts of the area, where cultivation was in progress. There would be no difficulty in laying out gardens or parks; a certain number of large trees, with plantations of casurina, are already in existence on the site.

5. *Climate.*—The proposed site has all the advantages of a coastal situation, with a full view of the sea, and is yet not too near it. No records of climatic conditions were available for the site itself, but the following statistics were obtained from its immediate vicinity. The maximum temperature recorded at Gopalpur in 1935 was 94°F . which was reached in September and October. In May and June the maximum did not exceed 93°F . The lowest temperature recorded at Gopalpur in 1935 was 52°F . at the end of December, while the average minimum temperatures from March to October lay between 75° and 80°F . A prevailing breeze blows from the sea throughout the hot weather, while the worst months of the year are said to be July to September. The normal annual rainfall at Gopalpur is 45 inches, as compared with 59 inches at Cuttack.

6. *Drainage.*—The site allows for natural drainage. It varies in level from 100 to 150 feet above sea level, with gentle slopes in all directions. There would be no difficulty in installing surface and underground drainage systems with outfalls which would naturally gravitate into the neighbouring creek of the sea. The level of the subsoil water is low compared with that in other parts of the country. Trial pits dug on the site under our personal direction, to a depth of 10 to 12 feet, did not disclose any trace of subsoil water.

7. *Water supply.*—The area is served by the Rushikulya canal system controlled and maintained by the Public Works Department. A large impounding tank exists on the site, and this could act as a collecting reservoir to serve the whole area, for both domestic and irrigation purposes. This tank is filled by a distributary of the above canal system, which is normally running for 9 months of the year. For the remaining three months of the year there is very little demand for water for irrigation, and advantage is taken during this period to undertake canal repairs. The Committee was informed that this closure could be much reduced, if necessity arose. A purification system, and service reservoirs for the distribution of water for domestic purposes would be necessary and could be installed without difficulty. This same canal serves the Berhampur Municipal area. The Committee inspected the water-works at Berhampur and considered them suitably installed and well maintained for their purpose. Water was plentiful and of a good quality. Enquiries made led the Committee to the conclusion that a suitable water supply scheme, on the same lines, could easily be installed for the new site. A more detailed note on water supply is added in Appendix* (H), with which we agree. No information regarding deep tube wells in the vicinity was available.

8. *Public Health.*—Information with regard to the statistics of health in Berhampur and Gopalpur showed that malaria was not very prevalent in this part of the country. Hospitals which the Committee inspected in Berhampur were well maintained. If this site were selected for the Capital, a hospital with dispensary, a market, and primary schools, would have to be included in the general layout. A note dealing with this sub-head is attached in Appendix* I.

9. *Electrical Supply.*—It will be necessary to consider an electrical supply for this site. It is understood that the Berhampur Electric Supply Company would be willing to undertake this service.

10. *Conclusions.*—The site admits of expansion as ample land is available. Nearly half of it is already in the possession of Government and the cost of acquiring the remaining areas would be reasonably low. This locality occupies a central position in the geographical map of the newly constituted Province of Orissa.

It is in close proximity, both in the matter of road and rail communications, with the main routes between Calcutta and Madras.

The scenery is varied, and fine views of the hills and the sea are obtainable.

The climate is good and reasonably cool, as compared with other places in the Province.

The water supply presents no difficulty, water both for domestic and irrigation purposes being available in ample quantities.

The soil is good and suitable both for building purposes and for gardens. The site could be attractively laid out.

Systems for both surface and underground drainage including disposal works could be easily installed.

Building materials in the form of bricks, stone and timber are available locally, while unskilled labour is cheap and plentiful. Rail and seaport communications would facilitate the import of other building requirements.

There is every reason to believe that the public health of this locality would be better than anywhere else in the Province, because, owing to its climate, natural drainage, and open surroundings, public health conditions should be decidedly superior to those in urban and congested areas.

In conclusion, we consider that this site fulfils all the necessary conditions required for a satisfactory and complete layout of a modern Capital, and consider it more suitable than any other site which we inspected.

PART IV.

NARAJ SITE.

At the instance of His Excellency the Governor of Orissa, as expressed in his note which forms Annexure* B, the Committee visited Naraj and examined the site with a view to considering it as a likely location for the new Capital.

2. *Location.*—It is located on the right bank of the Mahanadi about seven miles upstream of the Chauhatta Ghat and, by launch, it took us about 2 hours to reach the site. A reference to Map* No. 1 will show its relation with Cuttack, from which Town it is completely cut off in the rains, and in the dry weather it can only be reached by a circuitous route over a temporary crossing of the Katjori.

3. *Communications.*—The main disadvantage and the greatest difficulty is its general inaccessibility and isolation. Without a preliminary expenditure of about Rs. 20 lakhs, as a minimum, on the construction of a bridge over the Katjori, (at its junction with the Mahanadi) and a considerable sum to provide a high level road to connect the bridge with Cuttack, the site could not possibly be considered for the location of the Capital. Further, apart from the additional—and may we say prohibitive—expenditure on one single item of communication, the Committee felt that the physical features of the site and its surroundings were not conducive to considering its suitability for the location of Capital buildings.

4. It may be pointed out that the feasibility of utilising the existing anicut at Naraj as foundations for a bridge is not considered practicable, and we accept the note in Appendix* J which shows this.

5. In view of what we have stated, the Committee decided not to give this site any further consideration and is unable to recommend it.

* Not printed.

PART V.**BARANG.**

This site was suggested as a likely location for the new Capital layout, and also as a likely extension of Cuttack Town in this direction. It is described in Annexure* C, and as will be seen, it was so unfavourable, and further, as it would mean an initial expenditure of approximately Rs. 30 lakhs on bridging the Katjori and its branch, the Committee decided that no useful purpose would be served by an inspection and further deliberations ; particularly in view of the fact that two members of this Committee had previously visited the locality and were most unfavourably impressed with it.

* Not printed.

PART VI

OF BUILDING AND LAND.

In view of the site at Khurda being ruled out for consideration, it is only necessary to compare the relative costs of building the Capital in Cuttack and Berhampur (Rangailunda).

2. *Buildings*.—It is difficult at this stage to arrive at any detailed figures of costs for the whole project on each site, but generally speaking, the building rates would be about the same, and we think that there would probably be a balance in favour of Berhampur, owing to the possibility of obtaining cheaper unskilled labour, and owing to the expensive foundation work which would be necessary in Cuttack.

There are certain buildings, such as schools, hospitals, and markets, available in Cuttack, but these would necessarily have to be constructed at Berhampur. Further, there are residential buildings already existing in Cuttack, and these could be used for accommodating Government officials. Although undesirable, some of the clerks could find accommodation in Cuttack Town, as they do at present, whereas at Berhampur, quarters would have to be built for everybody. On the other hand, the Orissa School of Engineering, and the Public Works Department workshops and repair yard at Jobra, would have to be entirely removed and provided for elsewhere.

3. *Communications*.—In Cuttack, internal communications already exist, but would require considerable widening and general improvement, involving expensive acquisition, whereas in Berhampur, a complete new layout of internal roads would be necessary. On the whole, there would not appear to be much difference in cost under this head owing to road material being available at the site in Berhampur, as against the expensive land acquisition, and the higher price of road material delivered in Cuttack. External communications exist for both Cuttack and Berhampur, but in the case of the former, the town is practically cut off from outside communication by road during the flood season, covering a period of nearly five months of each year.

4. *Parks and Gardens*.—Owing to the limited area that could be secured for the Capital in Cuttack, expenditure on public gardens and parks would be small. In Berhampur, these could be provided for in the general layout, for which ample space is available, but they would certainly mean additional expense.

5. *Electrical supply*.—There are Electric Supply Companies in existence at both places and they would, undoubtedly, be prepared to supply the necessary power at site.

6. *Irrigation*.—Owing to the desirability of providing this service for all gardens and parks, it would be necessary to instal pumping plants at each place. While the unit cost of pumping would remain the same, it is not possible to compare the costs of installation and recurring charges until the layout and its requirements are known.

7. *Water supply*.—Assuming, for purposes of comparison, that there would be individual water supply installations for the New Capital area, either at Cuttack or Berhampur, the essential difference between them

is that at Cuttack, the supply would be drawn from deep tube wells and would not require purification, whereas at Berhampur, there would be a raw water supply from the canal system, and purification works would have to be installed. The cost of supplying water for domestic purposes would probably be higher in the case of Berhampur on account of the necessity of purifying the water, but this extra cost would be small. Owing to the advantageous conditions at Berhampur, the unfiltered water could be made to gravitate to the purification works, thereby economising in pumping.

If the New Capital were to be located at Cuttack, and its domestic water requirements were to be drawn from a public supply, the cost of the latter (as estimated in the year 1925), would be about Rs. 10 lakhs.

8. *Drainage and Sewerage.*—In Berhampur, owing to its natural and physical features, schemes for drainage and sewerage would be simple matters, whereas in Cuttack they would be very difficult and costly, both in initial outlay and maintenance, as the pumping of sullage would be involved. Further, in the case of Cuttack, an additional expenditure would have to be incurred in providing for the drainage systems to be installed in the Town, and this, it is understood, has been estimated to cost about Rs. 8 lakhs.

9. *Land.*—The cost of acquiring the site at Berhampur would undoubtedly be cheaper than any acquisition of land and property in Cuttack. The difference in cost, based on information obtained locally, is likely to approximate to a sum of Rs. 3 lakhs.

10. Summarising the above comparisons, the Committee considers that there is not likely to be much difference in cost between locating the Capital at either place, whereas the advantages accruing from Berhampur have already been explained in our report.

PART VII

SUMMARY.

To summarise our findings with regard to the various places and sites inspected, we are of opinion :

1. *Cuttack*.—That in Cuttack there is no single available site large enough to accommodate the Capital in a comprehensive and self-contained layout.

2. That certain scattered sites are available for the purpose of a single or a small group of buildings, but they are liable to flooding due to seepage and the high level of the subsoil water.

3. That room for expansion in Cuttack is not practicable, owing to its rigorous and natural barriers.

4. That for the reasons explained in the body of the report, it would be a difficult and expensive problem to instal satisfactory drainage systems in Cuttack.

5. That the cost of building would be excessive owing to special treatment required in the construction of foundations and plinths of buildings, and in all underground work, in order to resist the effects of high subsoil water and damp.

6. That the climate of, and the congestion in, Cuttack are not conducive to good health, and sanitation would be difficult.

7. That if political and sentimental pressure were allowed to override all other considerations, the only possible layout could be obtained by the costly acquisition of a portion of the Town. Even then, the area available would be less than 200 acres, which would be totally inadequate for a well laid out Capital, and in addition, the installation of water and drainage systems throughout Cuttack Town would be essential.

8. *Khurda*.—That Khurda cannot be recommended for consideration as a site for the Capital owing to the uncertainty of an adequate water supply, which in any case would be prohibitive in cost to instal and maintain.

9. *Berhampur (Rangailunda)*.—That the Rangailunda site is suitably located and fulfils all the conditions necessary for a well laid out, modern, and attractive Capital.

In the circumstances, we unhesitatingly and unanimously recommend that this site be selected for the location of the Capital of Orissa.

F. T. JONES, *Chairman*.

E. ROSKILLY SMITH.

J. A. S. PHILLIPS.

C. E. JEFFERIS.

} *Members.*

SMMLA,

Dated the 19th August, 1936.

REPORT
ON
FOUR SELECTED SITES
FOR
A NEW CAPITAL FOR ORISSA.

V25A:(Y37).N31C

97

REPORT ON FOUR SELECTED SITES FOR A NEW CAPITAL FOR ORISSA.

The terms of reference to this committee are contained in a communique of the Government of Orissa, dated the 25th of May 1937, and are as follows:—

COMMUNIQUE.

Dated the 25th May 1937.

The Government of Orissa have been considering the question of the location of the Capital of the Province. The Committee of technical experts, which met last July (consisting of the Director of Public Health, Bihar, the Superintending Engineer, Public Health, Bihar and Orissa, and the Superintending Engineer, Orissa Circle, under the Chairmanship of Mr. F. T. Jones, C.I.E., M.V.O., Chief Engineer to the Government of India), examined in detail certain sites which had been considered by the Government of Orissa as being possible sites for the capital. The Committee had simply to examine and report on the sites in respect of extent of land available, water-supply, drainage, climate, health, subsoil water level, liability to floods, communications, and cost of land and buildings, and they summarised their report in the following manner:—

“To summarise our findings with regard to the various places and sites inspected, we are of opinion:—

1. *Cuttack*.—That in Cuttack there is no single available site large enough to accommodate the Capital in a comprehensive and self-contained layout.
2. That certain scattered sites are available for the purpose of a single or a small group of buildings, but they are liable to flooding due to seepage and the high level of the subsoil water.
3. That room for expansion in Cuttack is not practicable, owing to its rigorous and natural barriers.
4. That for the reasons explained in the body of the report, it would be a difficult and expensive problem to instal satisfactory drainage systems in Cuttack.
5. That the cost of building would be excessive owing to special treatment required in the construction of foundations and plinths of buildings, and in all underground work, in order to resist the effects of high subsoil water and damp.
6. That the climate of, and the congestion in, Cuttack are not conducive to good health, and sanitation would be difficult.

7. That if political and sentimental pressure were allowed to override all other considerations, the only possible layout could be obtained by the costly acquisition of a portion of the Town. Even then, the area available would be less than 200 acres, which would be totally inadequate for a well laid-out Capital, and in addition, the installation of water and drainage systems throughout Cuttack Town would be essential.

8. *Khurda*.—That Khurda cannot be recommended for consideration as a site for the Capital owing to the uncertainty of an adequate water-supply, which in any case would be prohibitive in cost to instal and maintain.

9. *Berhampur (Rangailunda)*.—That the Rangailunda site is suitably located and fulfils all the conditions necessary for a well laid-out, modern and attractive Capital.

In the circumstances, we unhesitatingly and unanimously recommend that this site be selected for the location of the Capital of Orissa."

The Orissa Advisory Council discussed the report in October, and in view of the fact that that Council voted by a majority of 14 to 4 against Rangailunda, and that the Khurda site received practically no support in the debate, the present Government do not propose to examine those sites further. They consider, however, in view of the weighty reasons given by the Jones Committee against Cuttack, that it is necessary to consider alternatives to Cuttack, and to prepare for the Assembly, who will have the final say in the matter, a considered statement of other possible sites, so that the Assembly may make its choice with a full knowledge of all the facts.

They have therefore had further reports prepared regarding Cuttack, and regarding a site at Chauduar (on the north bank of the Mahanadi at Cuttack), and a site near the 8th-9th mile of the Cuttack-Khurda road, and a site between the Railway and the corner of the Government casuarina plantation at Puri.

They have now appointed a committee consisting of the Revenue Commissioner, the Chief Engineer, and the Director of Health Services, to examine those sites and the reports regarding them, to report which of those sites are suitable for the capital, and to place the possible sites in order of preference. For the purposes of its report the Committee will assume that a drainage and water-supply scheme, to be financed partly by Government, and partly by the Municipality, will be required in Cuttack whether the capital is there or not. It will call for such further reports as it may consider necessary to enable it to arrive at a decision and will take such statements as it considers necessary; it will deal only with those factors which were dealt with by the Jones Committee, including general administrative convenience; but will not deal with popular opinion or sentimental considerations. After the Committee has reported, it will be for the Government and for the Assembly to determine the site, taking all these factors into consideration as well.

These terms of reference are strictly limited in their scope. The question has been discussed in its wider aspect for some years now. It is not necessary to include a history of these discussions in this report, but as Annexure I to this Report we have printed an extract from the speech of Mr. P. T. Mansfield in introducing the resolution in the Orissa Advisory Council on the 5th October 1936, as it gives a brief and uncontroversial account of the history of the case up to that date. The documents to which reference is made, the report of the Orissa Administration Committee and the report of the Committee of experts appointed by Government of India are available to the public. All the other material before the committee is available to Government. For convenience we refer to the two committees as the administration committee and the expert committee. The terms of reference draw particular attention to the expert committee's report, the discussions in the Orissa Advisory Council and a later report on the Cuttack, Chauduar Barang and Puri sites which had been specially prepared. This later report is printed as an annexure to this Report.

The committee have carried out their instructions to examine the sites proposed, but beyond that have proceeded for the more part on the ample material already collected, much of which, as already noted, is available to the public. The sites before this committee had already been previously considered, with the exception of that loosely described as Barang. The Barang site considered by the expert committee is in the same neighbourhood but is not the same site as that now under consideration. A considerable amount of investigation of these sites had already been done and to have pursued these investigations into further detail at the present stage would have served no useful purpose and entailed considerable expenditure. The committee understand that their principal function is to collate and reconsider the existing material and to place their conclusions before those who have to make the final decision. The only new work done involving any expenditure is a contour survey of an area near Puri and a further enquiry into the health conditions of Barang and this has cost little. Considerable assistance has been received from officials and all the information required has been supplied to us. The restricted character of the reference has precluded us from seeking non-official aid to any great extent, though public opinion is sufficiently apparent from the proceedings in the Advisory Council and other sources.

It has been observed that the reference to the committee like the reference to the expert committee last year is limited in scope. It is confined to the relative merits from a restricted standpoint of certain selected sites. It is impossible, however, to make a choice between these selected sites without taking cognizance of some of the more general reasons which have led to their selection. Sentimental and political considerations have been ruled out for this as for the expert committee, but unless it is recognized that the selection of the sites now placed before the committee has been largely conditioned by such considerations, the discussion of their relative merits becomes artificial. Two of the sites proposed have clearly been proposed not on their own independent merits as sites for a capital but because they can be regarded as Cuttack without the disadvantages to which the expert committee drew attention and thus satisfy at once a sentimental claim and practical needs. This committee have to consider and to give weight to this in spite of the strict terms of reference to them.

2. *The position of the capital site in relation to the general communications of the province.*—The province is a collection of irregularly shaped geographical masses intermingled with the territory of the Orissa States. It has no natural geographical centre but in respect of existing communications falls into three parts:—

- (i) the main mass consisting of the districts of Cuttack (with its satellite Angul), Balasore, Puri and Ganjam.
- (ii) Sambalpur district.
- (iii) Koraput district.

The main mass is a long strip of deltaic country, largely rivers and lagoons, with a hilly hinterland. In the deltaic country the only communications open without interruption throughout the year are the railways. The main artery is the East Coast line of the Bengal-Nagpur Railway with a branch to Puri and another branch providing a rail-head for Angul. The Orissa trunk road follows the main line but is not completely bridged. The minor roads from the hills and the coast tend to run towards this main artery and the railway thus gives a certain unity to what is described as the main mass.

Sambalpur is on different railway system. Its outlet is on the Calcutta-Bombay line at Jharsuguda or in the case

of the Nawapara subdivision to Raipur in the Central Provinces. From either place the route to Cuttack is by Kharagpur in Bengal. It is possible and more convenient in the dry season to travel by road to Angul or one of the railway stations on the Talcher branch, but in the rainy season the only connection between Sambalpur and the main part of the province is by a circuitous route through other provinces and the Orissa States.

The third part of the province Koraput is even more isolated. Its outlet by rail is to Vizianagram in Madras which is on the East Coast line, or to Raipur in the Central Provinces. The railway passes through the narrower portion of the district; one subdivisional headquarters is on it, but considerable road development is required before the rest of the district can benefit by it.

As far as railway communications (at present the only communications in the province reliable at all seasons of the year) are concerned the province falls into these three distinct divisions. It remains to be seen how far road development, which we are justified in considering as probable at an early date will modify this.

One of the contemplated trunk roads included in the skeleton road system for all-India as accepted by the Central and Provincial Governments is from the Madras border by way of Cuttack to Sambalpur in order to link South India with the east and west road system in the north. This road will some day be maintained at a high standard throughout. This with the addition of a road maintained at a similar standard between Nawapara and Sambalpur will bring the whole of the Sambalpur area within the province, in spite of its position on another railway system. The case of Koraput is not quite the same. The roads contemplated by the Board of Communications open up the interior of the district and give the outlying part of it access to the railway. They will also afford an outlet to Sambalpur on the north, and will enable the journey from Koraput to Berhampur to be made within the province instead of being made as now by way of the Madras roads. Beyond that, they affect the present position little. Koraput with its vast undeveloped area and its new problems is a most important part of the province and it is desirable that it should have easy access to Government. But it is difficult to provide for this without

putting the capital in Koraput itself, which is impracticable. Apart from that it seems that a capital site chosen with reference to the rest of the province will be equally convenient or inconvenient to Koraput, and the addition of these ten thousand square miles to the province have not changed the problem of finding a suitable location for the capital beyond adding to the reasons for preferring in certain circumstances a southern to a northern site among those from which we have to select.

There remain communications by water, which in the past have been the main highways of the country. Cuttack owes its importance largely to its position at a junction of large rivers and is now also at the head of many of the canals, by which a lot of merchandise is still moved. As a meeting point of rail, rivers and canals Cuttack is likely to remain the chief business centre of the province in spite of its isolation from the road system.

If a broad view of the relation of the capital to the general communications of the province be taken, it would seem that the best location for all purposes is somewhere on the East Coast line of Bengal-Nagpur Railway, and somewhere about the middle of it. This suggests the Railway junctions of Cuttack and Khurda Road as the rough limits. These limits include a tract which is for the most part well-watered and well-wooded country with fairly high ground and gravel soil, and much of it is unimpeachable building land. This, however, is not so towards the north of the tract where the country is cut up by the Mahanadi, which divides the province in two and the advantages of a central location are entirely neutralised by the isolation for a large part of the year due to the flooded rivers. For this reason and also because the greater part of the province and its main extension is towards the south, the site of the capital might well be sought in the south of this central tract. Of the four sites offered for the consideration of the committee, three are situated within this central tract, but unfortunately in the north or the isolated part of it, while the fourth is outside this central tract altogether. The committee is limited to its terms of reference, and one broad issue is whether to recommend a central site in the hope that its local drawbacks may some day be overcome, or to go further afield and select a place which is less suitably situated, but not so completely isolated during the rains.

3. *Local communications of the three Cuttack sites.*— These sites consist of Cuttack itself, Chauduar to the north

bank of the river Mahanadi and Barang about five miles from the south bank of the Katjuri. It has already been noted that the sites of Chauduar and Barang, however suitable they may appear as building sites and attractive in other respects, have not been selected on their own merits, but because, though outside the mediaeval island fortress of Cuttack, they could still be regarded as part of the town and bear its name. From this standpoint the administration committee looked at them. After selecting Cuttack as the capital they considered, in addition to sites within the embankments, Chauduar and an area near Barang as possible sites on which the new buildings could be erected. Both the exterior sites were rejected on the ground that to render them suitable a road bridge costing more than the contemplated expenditure on the new capital would be essential. These sites have again been offered for our consideration as a result of the view expressed by the expert committee that the areas selected within Cuttack itself were not suitable for the purpose. We feel that the reasons given by the administration committee for the rejection of these exterior sites have lost little of their force as a result of the advice of the expert committee. The three sites now under consideration are all accessible from the main line of the Bengal-Nagpur Railway and to that extent are connected. Beyond that, there is no connection between them. For some months of the year the broad rivers are full of water, often in rapid flood. From December till June the Katjuri or the south of Cuttack can be crossed by a temporary road and bridge. In the Mahanadi to the north there is always water though in the hot weather it is fordable in places. The changing levels of the water and the fluid sand banks make a regular steam ferry service or a pontoon bridge impracticable. The only form of connection which would be satisfactory would be a permanent road bridge. Without this bridge Chauduar and Barang would not be part of Cuttack either in sentiment or practice. With the bridge, it would no longer be a case of choice between sites, since at least Cuttack and Chauduar would be one. Any particular building could be placed in the town or the suburb as convenience dictated, while the large area available would also afford a much needed outlet for the ever-growing population of Cuttack. The case of Barang is somewhat similar though, as we shall endeavour to show later, as a suburb of Cuttack it is inferior to Chauduar. The point to be made at this stage is that without the road bridge, neither of the exterior sites would be suitable as an extension of Cuttack. The building of a road

bridge merely to provide a suburb for Cuttack, desirable as this is from every point of view, would be so great a financial commitment for the province, that we hesitate to suggest it.

The three sites considered as independent sites have also to be examined in relation to the rivers. Cuttack is cut off from the road system of the province for a great part of the year and for this reason alone would be highly inconvenient as a capital. Chauduar lies to the north of the Mahanadi river system and is thus cut off by road from the south of the province, a very serious drawback. To the north and east of it lie the rivers Brahmini, Baitarani and Subarnarekha. The bridging of all these rivers is improbable particularly as a trunk road is not contemplated in that direction, and the coastal area to the north-east will gain nothing from the location of the capital on the north of the Mahanadi river system. Chauduar will have access by road to Sambalpur and thence, if the proposals of the Board of Communications materialise, by a long and circuitous route through Kalahandi State and Naurangapur to Koraput. But this advantage will not compensate for the great disadvantage of its dissociation from the south of the province. While Chauduar is the better of the exterior sites considered as an extension of Cuttack, when considered as an independent site for the capital in its relation to the communications of the province, a strong case cannot be made out for it. If the rivers are to remain unbridged for an indefinite period of time, the site for the capital should be sought to the south of the Mahanadi river system since it is in this direction that the largest extension of the province has taken place, the possibilities of development are greater and the administrative needs more insistent. This limits the choice before us to Barang or Puri. Of these two sites for reasons to be given later, in the event of the rivers remaining indefinitely unbridged, we prefer Puri.

But the question still remains whether we are justified in assuming that these rivers can remain unbridged for an indefinite period of time. The trunk road already mentioned is coming from the Madras border by way of Cuttack to Sambalpur. This forms not merely part of the provincial communications but part of the road system of India. It must take in Cuttack, as the most populous and important centre on the route between Madras and Sambalpur. In course of time this road, as one of the main arteries of India, must cross the rivers. It is not possible at this stage to foresee exactly how this can be done, but if the bridge which is to connect Cuttack with its

suburb also supplements or forms part of a complete river crossing, we can modify our attitude to it as a financial proposition. It will of course mean two bridges instead of one, but in view of the wider interests served, the province can expect greater assistance in the undertaking, while the advantage to the province will be such that Government can contemplate with less misgiving the heavy burden which will inevitably be imposed on the provincial finances for many years. The new capital will have room to expand and will be connected all the year round by road with most parts of the province.

We suggest that this problem of the bridges should be considered and an authoritative forecast of what is practicable and probable in this respect made, before the location of the new capital is considered. The decision could then be taken in the light of this forecast. If bridges could confidently be expected, even some years hence, the province could build as if the bridges were there, and could tolerate a great deal of inconvenience during the intervening period. But if a confident forecast cannot be made, it would be more prudent to assume that the rivers will remain unbridged, and to make the decision in the light of this assumption. The view that the province can place its capital where it will and bridges must necessarily follow is fraught with risk.

The committee hoped that they would be able to help forward this difficult problem of selecting a capital site by making a definite recommendation. But there is no material before us on which any opinion about the issue of these bridges can be found, and we feel bound to make our recommendation in a conditional form, both on the assumption that the bridges will come, and on the assumption that they will not.

4. *The four sites.*—We next proceed to examine the four sites separately. In the case of three of the places it will only be necessary to do this on broad general lines. Whatever their merits or demerits may be the areas under consideration are fresh and open sites. The lay-out of the administrative block will be a matter of discretion and not dictated by circumstances. The case of Cuttack is different. The new administrative buildings are to be placed within the limits of an existing town. Other new capitals have been built, not in a town, but adjacent to it. To build on this scale in an existing town is a new experiment, to be approached with caution. It will be necessary to consider available building sites in more detail in

order to ascertain whether this is possible at all, and if it is possible, what it implies and how it can most conveniently be done.

5. *Cuttack*.—The site is very nearly an island and from a practical standpoint is an island in the rivers. In the rainy season, that is for about five months in the year, it is completely surrounded by broad rivers except for one exit to the east where a road runs over a narrow neck of land protected by embankments. This road merely runs out into the delta country between the rivers and gives no outlet to any part of the province. The site itself is a bank of alluvial soil and sand protected by heavily armoured embankments which bear witness to the energy and enterprise of Oriyas of a former day. East and west the ground falls away. On the north margin there are fairly wide stretches of high and solid ground which are at present occupied by the Fort, the cantonment area and Jobra workshops. On the south side there is a smaller area of similar ground occupied by Government offices, the Commissioner's house and other buildings. For the rest a great part of the area within the embankments is below the level of the rivers and a depression runs through the length of the island from the low ground at one end to the low ground at the other which is followed by the main outfall drain.

The question has often been asked whether this island with its magnificent protective embankments is immune from danger of destruction by the rivers. The town has existed for centuries. Engineers have declared that it is safe, and we feel we bound by this authoritative opinion in the matter which indeed is not within the scope of the reference to us. At the same time we cannot conceal from ourselves that for a few weeks every year a code of emergency measures is in force, and that on occasions dangerous breaches and disastrous flooding have only been prevented by constant vigilance and prompt action. A higher flood than the highest yet recorded is not inconceivable or even improbable and the margin of safety is small. The danger may be remote but we doubt whether any private person or firm proposing to invest some thirty or forty lakhs of rupees of trust money in buildings would feel themselves justified in taking the risk.

It is inevitable that these conditions must have their effect on the physical health of the town and cause continual anxiety to those living in it. The first impression created in the

mind of a visitor to Cuttack is one of open green spaces and comfortable dwellings. The large town within this confined area is not obtrusive, and it is only on closer acquaintance that one discovers that the open spaces are open largely because owing to water-logging they are not fit for habitation and that the inhabited portion except for the old cantonment area and some of the larger residences and public institutions, is terribly congested with narrow tortuous streets. There is at present no piped water-supply and practically no drainage, surface or underground. When the rivers are high, they are above the level of the outfall drain, and the water cannot get away. Conservancy is done by hand, but the service cannot be adequate for a town of this size. There are seven thousand sullage pits in the town and many of them are breeding the species of mosquito responsible for the spread of filariasis. The contents of these pits are partly removed to a dumping ground but part of it runs into the burrow pits and kutchra roadside drains. In the flood season part of it runs into the tanks. These numerous tanks are a menace to the health of the town, but in their absence surface flooding would be worse than it is at present. The soil which has been inhabited for centuries must be sewage-sick, in spite of the great curative power of the Indian sun, and it is hardly surprising that outbreaks of cholera are not infrequent while typhoid and dysentery occur annually. It has been argued from vital statistics that Cuttack is a healthy place, but these statistics are believed to be very unreliable, and a check recently carried out confirms this view. There seems reason to believe that Cuttack was once a healthy town, but the standard of health has deteriorated seriously as the population has grown towards saturation point and the more simple dwellings of a former day have been replaced by brick houses leading to greater concentration on land capable of bearing such buildings.

6. *Cuttack water-supply and drainage.*—In the terms of reference it is stated the committee may assume that water-works and drainage will be required for Cuttack whether the capital is there or not. This undertaking is to be financed partly by Government and partly by the municipality, though the share of each either in original or recurring expenditure is not indicated. It seems therefore that this particular problem might be ignored. We have, however, found that we are unable to do so entirely for two reasons. In the first place it seemed desirable that we ourselves should realize exactly what we are assuming. Secondly, it is essential to emphasize that

this is a problem which must be understood before the location of the capital in Cuttack can be profitably discussed. We have therefore studied the previous discussions on the subject with the assistance of the Superintending Engineer of the Public Health Department and the Special Officer of the Municipality. In view of the terms of reference, it would be out of place to discuss this question in detail but its main outlines may be usefully indicated. It is incontestable that both drainage and waterworks are required for Cuttack. Waterworks without drainage is unthinkable, since it is not possible to pump a large quantity of water everyday into a town without some arrangement to remove it. Professional opinion deprecates drainage without waterworks as drains must be flushed. Popular opinion inclines to the view that drainage alone would at least make people more comfortable without making the hygienic conditions of the town any worse than they are at present, and that of the two needs the drainage is the greater, and might be risked without the waterworks. On the financial side there are no fully detailed estimates. The estimate of ten lakhs for waterworks may be accepted as approximately correct. It would be susceptible of some reduction owing to the fall in the price of materials since it was made, but on the other hand it will now be necessary to provide for a somewhat larger population and the figure may stand. The scheme does not provide a sufficient supply for general house connections, and it is uncertain whether it would be acceptable if this were realized. The great difficulty would be the cost of maintenance and the service of the necessary loan, and while this cannot be examined in detail, it may be said that it would mean raising taxation to a level much in excess of any which the municipal commissioners have hitherto agreed to consider. For drainage there is no reliable estimate at all, although there has been a drainage survey. The figure of eight lakhs comes from Appendix B of the expert committee's report and is admittedly a guess. If, as appears, it is intended to cover the cost of dealing with the accumulation of storm water and the stagnation of sullage, it is certainly an under-estimate. What is required is a system of surface drains, supplemented by sewers to carry off the sullage during the flood season when it does not run away but pollutes the soil and tanks. The effluent from the sewers would have to be purified and pumped over the embankments. After examining the evidence, we have decided to accept provisionally an estimate of eight lakhs for this with a warning that it has no secure basis and could not supply a complete drainage scheme for the whole

town. It is not possible to prevent temporary flooding by storm water in the town, but a certain amount of relief could be given by powerful pumps which might be installed at a cost of about two lakhs. The drainage system would have to be maintained, and the maintenance of the storm water and sullage pumps would be disproportionately heavy, because they would have to be maintained throughout the year although working only for part of it. The net result is that waterworks and drainage mean an initial cost of not less than twenty lakhs and a big recurring bill, a large part of which will have to be met by local taxation. While therefore the committee can ignore the cost of these installations at Cuttack when comparing the cost of building at various places, it seems impossible to ignore the risk that the local authorities may refuse to incur their share of this great expenditure, and the capital city of the province, if Cuttack be chosen, may remain in its present insanitary condition for a long period of years. A more important point for the consideration of this committee is whether waterworks and drainage are a complete solution of the present problem. Undoubtedly they will confer a great boon on the people and must improve the standard of health. But the conditions described are the result of congestion, and cannot wholly be removed by spending money on the congested area. Town improvement in these circumstances is only feasible if the population can be redistributed. Ultimately the problem of the municipality is the same as the problem of the new capital committee, the need of room for expansion.

7. Cuttack.—Space for the new capital.—Its isolation from the rest of the province during the monsoon and the unhealthy conditions of life in a congested and undrained depression between the waters are two strong reasons against the selection of Cuttack as a capital site and there is at present no assurance that these conditions can be remedied. The conclusive reason, however, is the lack of room for building inside the embankments. Outside them the land is submerged annually, even in ordinary floods. This was the reason which led the expert committee after examining a number of sites to advise that the capital should be built elsewhere. Their conclusions are summarized in the terms of reference to this committee. They could find no area large enough for an administrative enclave, and even for scattered buildings the available sites were unsatisfactory and could only be obtained by expensive acquisition. This dispersal of buildings could be accepted, as it would cause little

practical inconvenience, but after re-examining all the sites suggested by the expert committee and other sites as well, we are driven to the conclusion that there really is not room even for dispersed buildings in the town. In all town improvement schemes, which involve acquisition of land, it is customary and essential to acquire other land also which can be offered for sale to the persons evicted or given instead of money compensation for the land taken. The dishoused persons must go somewhere, but as we are acquiring land because there is no building land without acquisition, it is clearly difficult to acquire other sites on which they can build. Even if we can find land now on which to place the buildings that are immediately necessary, there remains no room for the expansion which must inevitably take place at the headquarters of the Government of a new province. The opinion has been expressed that we cannot find room in Cuttack because our ideas of what is needed now and will be needed in the future are extravagant. It is pointed out that the administration is even now being carried on in borrowed or rented buildings and as we have begun so we can continue. It is true that the administration is being carried on somehow, but under conditions that are neither seemly nor conducive to good work. It seems convenient to consider briefly what is now required, and what may be required in the future before proceeding to examine possible building sites in detail.

The immediate requirements are a Government House, a Secretariat, a Council Chamber and office and residences for the Comptroller and his staff. To this we would add at a very early date quarters for clerks. The conditions under which clerks, who have newly arrived in Cuttack, have to live are not satisfactory and it is understood that this is one of the reasons why the Comptroller has remained in Ranchi. It will be possible to fit these buildings into Cuttack though without great satisfaction either aesthetic or practical. But the new capital cannot end at this stage. We have to look ahead. This provincial Government is even now paying Bihar for a number of services which they could more suitably and perhaps more economically perform for themselves. Instances are the High Court, Co-operative Credit work, factory and boiler inspection, electrical inspection, public health engineering and bacteriological work. These services require office accommodation and a resident staff. The University must not be forgotten. This will be an examining and co-ordinating body rather than a residential institution, and

can come into existence without any great extension of buildings, but it would be imprudent to put a limit to its possible developments and to confine the present Ravenshaw College by surrounding it with other buildings. In the conditions existing in Orissa we must hope for and expect considerable expansion in medical relief, research and teaching and it would similarly be short sighted to build in such a way as to prevent extension of the medical school. And it is necessary to consider also a more remote future. With the development of civil aviation a provincial capital cannot remain permanently without an airport, and though the development of that science may reduce the space required for the purpose, it will always be necessary to retain a fairly large area of open and level ground. A wireless station is desirable, and as it is extremely unlikely that other stations in India will broadcast in the Oriya language Orissa will one day want her own broadcasting station. Again Orissa is at present the only province in India without a garrison, and some day it may be necessary to find a place for a cantonment adjacent to the capital. Apart from the needs of Government, it must not be forgotten that private enterprise may be attracted to start places of business or entertainment or to build houses as investment at a provincial headquarters and it will be loss to the province if such enterprise is discouraged by lack of space. When we say that Cuttack is unsuitable as a capital site for lack of space it is not so much the needs and convenience of the immediate present as the possible developments of a long future to which we refer.

We can now consider the sites on which building on the scale required is possible, taking them from west to east.

(a) *Tulsipur*.—This was at first selected by the administration committee because it offered an area that could contain Government House and the main administrative buildings in a single group. The expert committee found the ground to be water-logged and unsuitable for building in the manner proposed. Sites may be found there for one or two buildings, but even if it is decided to put the capital in Cuttack, the larger and heavier buildings must be placed elsewhere. We have reconsidered this and think that this conclusion cannot be avoided. If the main offices are at the other end of Cuttack, there is little advantage in placing a few residences or smaller offices out at Tulsipur. The land in the area is expensive but the acquisition of some parts of it might be considered for accommodating people evicted by acquisition elsewhere.

(b) *The Fort*.—We consider that this must be reserved for Government House, both on the ground that it is the least unsuitable site for the purpose and also because all the other building sites will sooner or later be required for other purposes. The Governor could not with propriety share this enclosure with offices and residences, though some part of it might be earmarked for a wireless station at a future date. The provincial Government had deprecated the use of the Fort for any purpose. The expert committee though aware of this, nevertheless expressed their opinion that the Fort is the only site in Cuttack suitable for Government House. With this we agree. It is quite certain that the area will be used for building under the pressure of the demand for any land fit to carry a building, and it is more in consonance with historic tradition and less likely to obscure the interest of the Fort as an ancient monument to use it for the residence of the head of the province, than to leave it to be gradually partitioned among smaller offices and less important residences.

(c) *The maidan*.—This is a large open space of good building land, but used now by the people of Cuttack for recreation. It is only necessary to visit the maidan any evening to realize how great would be the hardship of depriving the people of this area. It has not been suggested by any committee, and may be put aside as out of the question.

(d) *The cantonment*.—This area is occupied by residences, mostly official, and will continue to be so occupied. If any building is done there, it will be the replacement of existing buildings on land already owned by Government, which need not at present be discussed.

(e) *Jobra*.—This is the most important site, since it is here that the chief administrative buildings must go, if the capital is located in Cuttack. The area is bounded by the Mahanadi on the north, and the Taldanda canal on the east; the boundary then runs north-west from the Ranihat bridge up to the Telegraph Office Road. The area contains the Medical School and hospital, the Jobra workshops, the Engineering School, the houses of the District Magistrate and District Judge and a considerable amount of private property. If the hospital compound be excluded the extent is about 120 acres. The questions raised by the selection of this area are interesting as they illustrate in a small compass all the problems which confront the committee. The Jobra workshops would have to go.

This in itself is not to be regretted as they have outlived their usefulness and the plant is obsolete and uneconomic. But a certain amount of necessary work is done here. It has been suggested that the boat-repair work might go to Chandbali while the work for the anicut might be done at the Engineering School. On its merits it is a sound suggestion but it is in conflict with the obvious fact that if room is to be found for the buildings immediately required here, the Engineering School will have to be moved. A site will have to be found for it and the new buildings must be ready for occupation before the existing buildings could be taken over and pulled down or modified to serve other purposes. This in itself is difficult enough but there is also an objection from another source. We have already suggested that some day there may be need for further extension of the Medical School and Hospital. At present it has ample room, but the existing buildings are somewhat extravagantly spaced, and there is much to be said for the contention that if the Engineering School is to be moved at all, it should be moved if and when its neighbour the Medical School feels the need of absorbing its buildings. In the event of this institution becoming a Medical College, the area required for its expansion would be considerable. A further objection is that this piece of river frontage has been used for centuries by country craft for the purpose of their trade, while within the area there is a large timber yard. It is not clear where all this business could conveniently go. Lastly the area would have to be rounded off by the acquisition of a considerable amount of private property which would be very expensive and cause, as already explained, no little disturbance and distress. And if in spite of the disadvantages and expense, it is decided to take this area, it will be found that while parts of it are high, much of it is low and liable to water-logging. But if the capital is to be in Cuttack, we consider it to be the only possible site for the administrative buildings.

(f) *Jobra, east of the canal.*—This land was examined at the instance of Government in November 1936. Even at that season the report was so discouraging that we have not considered it again.

(g) *Chauliaganj.*—In the dry weather this is a wide open area, but it is a place where a very few inches in level make a very great difference and little of it could be used. There is room for clerks' quarters on fairly good ground. As regards Chauliaganj we agree entirely with the expert committee, except

that we think that no reliance can be placed on the possibility of ribbon development down the Jagatsingpur road. Some part of this area may perhaps be needed at a future date by the University, and this should be considered when buildings are placed on it. There is a project to remodel Cuttack Station but it is understood that not much additional land will be needed for this purpose.

(h) We would call attention also to the remarks of the expert committee on what they describe as the *Baharbisinabar* and *Khannagar* sites. We have again examined these sites and agree with the opinion expressed, but consider that in the neighbourhood of Rajabagicha it might be possible to find limited areas not unsuitable for rehousing some of those evicted by land acquisition.

This seems to exhaust the possibilities of Cuttack within the embankments. We have, however, considered whether it would be possible to make more room by taking over the Ravenshaw College as the Secretariat and Council Chamber and moving the College and also the headquarters of the district elsewhere. We have not pursued the idea. There are strong objections to it on many grounds, not the least of which is the fact that this method of securing our ends would be extravagant and dilatory. It would solve the most pressing problem for the moment, but would go little way towards providing the space required for future needs.

We are satisfied that Cuttack as a self-contained site is unsuitable for a capital for want of space, if for no other reason. There is another aspect of the case which perhaps has not previously been considered. We doubt whether it is fair to the people of Cuttack to attempt to put the capital within the embankments. A few will doubtless benefit by the enhanced land values. The greater number will suffer discomfort and even distress. The health of the town has deteriorated owing to congestion, and the addition of more population and buildings must aggravate these conditions. There must inevitably be considerable disturbance of the population, not merely now and once for all, but continuously as the expanding activities of Government demand more land. There is nowhere for the dishoused people to go except to areas which we ourselves have rejected as unsuitable for the purpose. At the best the cost of living will go up. The location of the capital in Cuttack will not bring to the common people any satisfaction

which will compensate them for the discomfort and loss. And even at this cost the new capital, so situated, can hardly grow into a capital worthy of the province and fit to take its proper place among the provincial capitals of India. Cuttack would do well to rest content with its acknowledged position as the centre of culture and business in the province, and not to court disappointment and regret by attempting to include the political and administrative headquarters within its embankments.

It need hardly be added at this stage that this conclusion is reached on the assumption that the rivers will remain unbridged, and each site is to be treated as self-contained on its own merits.

8. *Barang*.—It has already been noted that the site to which we are now referring is not the same as the site examined and rejected by the expert committee. The site now described is situated to the east of the Ganjam Trunk Road between the 8th and 10th mile-stones. It is roughly limited by this road on the west and the hillock near Darutheng village on the south, while north and east are low-lying fields and swamps. The soil is laterite and is covered with medium forest. The site is fairly high and dry and is suitable for building. A compact area of about one thousand acres could be found which would give room for administrative requirements, particularly as it is assumed that many heads of departments, whose duties did not require them to be close to Government, would remain in Cuttack. Other areas fit for building can be found nearby. The site has a gentle slope from west to east and drainage would be easy. The Koyakhai river would supply the drinking water though the distance is rather long. As for communications the site is on the Ganjam Trunk road and Barang station on the Bengal-Nagpur Railway main line is quite close though a deep cultivated depression intervenes between the site and the railway.

The administrative headquarters could quite well be located here but for two reasons we hesitate to advise it. The result of our enquiries was not encouraging as regards the health of the site and the Malarialogist of the Bengal-Nagpur Railway has warned us that conditions in the area are such that we may find ourselves committed to very heavy expenditure on anti-malarial measures to make the place habitable at all. (His report is printed as an annexure). Further the situation has, in our opinion, certain drawbacks. There is much low land between

the site chosen and the river bank, and if the new capital site expanded it would have to do so to the south and not to the north. Its claim to be new Cuttack would be tenuous and on this and other grounds we consider that as an extended Cuttack the Chauduar site is to be preferred. If the rivers are to remain unbridged, the site considered as a separate and self-contained site has little to commend it. It is true that it offers room to build, but a few miles further along the road there are sites which offer this more generously and are superior in other respects. However we are limited to the terms of our reference and of the three central sites separately considered we feel bound to prefer Barang to Cuttack, because there is room to build in Barang. As a separate self-contained site we also feel bound to prefer Barang to Chauduar, in spite of the malarious conditions, because as long as the Mahanadi divides the province into two parts, it is administratively more important that the capital should be accessible from the south than from the north.

If the river is bridged and Barang is treated as a suburb of Cuttack, it will not be necessary to consider what buildings are required there, since buildings can be placed in the old town or in the suburb at discretion. The same would be the case if a bridge, though not built, could be confidently anticipated, since the temporary inconvenience could be partly relieved by arrangement with the railway and for the rest could be tolerated. But if Barang is to be regarded as an independent site, the point has to be considered. It is presumed that Government House and the Secretariat would be at Barang and that provision would be made either separately or in the Secretariat building for the Inspector-General of Police and the Comptroller. The former must be close to the Chief Secretary and the latter requires a new office any way. It would also be necessary to build residences for the Secretariat officers and clerks and for those of the other departments located there. It has always been contemplated that the High Court should remain in Cuttack. There is no particular reason why the Revenue Commissioner should be close to Government and like the High Court he should be at a place where the bar has convenient access to him. The Director of Health and Prisons Services and the Director of Public Instruction, whose duties rarely demand urgent reference to Government might well remain in Cuttack, while the Director of Industries would probably be better there than elsewhere. It is not known where the Conservator of Forests will at last find a home, but it is believed

that no administrative inconvenience has arisen by the location of his office at Angul and the Conservator of Forests, Bihar, remains at Ranchi while Government are in Patna. New offices as required could be started at either Barang or Cuttack; the greater space at Barang would probably lead to new offices being placed there. The provincial police reserves would doubtless remain in Cuttack, where they have some accommodation, even if not altogether satisfactory accommodation, at present and are probably in more healthy surrounding than they would be at Barang.

9. *Chauduar*.—The area examined is on the north side of the Mahanadi river and is the site of an ancient capital of Orissa. It lies between the Talcher branch of the Bengal-Nagpur Railway on the north, and the Orissa trunk road on the south and has access to Charbatia station on the branch line or Nergundi station on the main line. There is an extensive and fairly high plateau of laterite soil, which affords ample space for everything required now and plenty of room for future expansion whether by public or private enterprise. Drainage would be quite a simple matter; while water, which would be obtained from the Birupa river, is nearer than it would be at Barang. The site at present is a stony waste, which is reported to be very hot during the day in the summer months, though cooler than the surrounding country at night. But it has been examined by the Divisional Forest Officer of the Puri Division, who has special experience of these laterite soils, and he is of opinion that the present barren condition of the plateau is due to interference by man and over-grazing by cattle and he is satisfied that over about 60 per cent of the area the tree-growth could be restored at a small cost in irrigation and the introduction of some Mahanadi silt. The setting is attractive, with open views of the hills to the north and west and the rivers to the south and east. The soil will afford good foundations and the building materials are on the spot. The report on the health of the locality is encouraging and was confirmed by the robust appearance of the villagers whom we saw there as compared with those whom we saw round about Barang and in other places round Cuttack and Puri.

We have been favourably impressed with this site and consider that it is the most promising area in the neighbourhood for the extension of Cuttack. This, of course, means a bridge over the Mahanadi, a matter which has been fully discussed already. It may be mentioned here that we have discussed with

the railway authorities the possibility of suspending a road bridge from the railway bridges over the Mahanadi and Birupa, but understand that, even if feasible, it would cost in the long run little less than an independent bridge. If a bridge were coming in the near future, connection could be maintained by arrangement with the railway, during the intervening period.

If, however, the rivers are to remain unbridged we feel that this site, in spite of its great advantages, will have to take a lower place. It is on the north of the rivers and it is of great importance that the capital should be easily accessible from the south. For this reason as a separate self-contained site, it must come second to Barang which is to the south of the rivers. It must, however, be preferred to Cuttack as it is a site on which a satisfying and suitable capital could develop and expand.

As regards the buildings which would be required in Chauduar, the position is exactly the same as in Barang.

10. *Puri*.—Puri is not well situated in the province for a provincial headquarters. It is connected by rail with the main line at Khurda road, and will at no very distant date be approached by a road open throughout the year. It is thus conveniently accessible through the Cuttack-Khurda area which may be regarded as the natural centre of the province, but it is a long way from that centre. The chief argument in favour of Puri is that it is a place of all-India significance and the only town in the province which can make this claim. It is true that the visitors who flock to it are either religious devotees or persons in search of health and recreation. But among these thousands it must be possible for the provincial Government and the provincial officials to make some contacts which might be helpful to themselves and to the province. The case of Cuttack is different; for the most part its visitors come for business only and stay so long only as their business detains them. This "partial" isolation cannot be good for the province or helpful towards its advancement. At one time the Ruling Chiefs of Orissa used to maintain houses at Cuttack, but since the political connection between the local Government and the States has been severed these houses remain unoccupied. The Ruling Chiefs however still visit Puri and at Puri there would be more contact between Government and the natural Orissa than there will be at Cuttack. These considerations weigh heavily in favour of Puri. Unfortunately the conditions

which in one aspect give Puri a great advantage, in another render it unsuitable. It is on the whole not desirable to place the headquarters of Government at a pilgrim centre. In spite of all the work which has been done and proved successful in combating epidemics and adding to the comfort of the large crowds which visit Puri annually, it is not possible to exercise that standard of control over health and sanitary conditions which should be exercised at the capital of a province. Puri is also beginning to establish a reputation as a sanatorium for invalids and experience has shown that when this happens there is considerable risk of local health deteriorating. While a short spell at Puri may be found reinvigorating to the convalescent or tired worker from inland, the general health of the permanent population is not of a high standard. Many officers who have been stationed there complain that the effect of the climate is depressing and inimical to sustained hardwork. In many cases the effect is temporary and passes as men become habituated to the conditions; it may also be due in part to the fact that many officers live and work right on the sea-shore. But in some cases the depressing effects last and even if only a small part of the large Government staff were so affected, the result would be a serious handicap to work, and one that should be avoided instead of being deliberately risked.

The site that has been examined is the area along the coast roughly from the waterworks to the Sar cut but including also blocks of land west of the railway, and north of the Balighai Road. This extends rather further than the site mentioned in the communique. These areas afford ample space, even though some parts are affected by water-logging, and allowance has to be made for the need of putting the buildings well back from the sea. The soil is fit for building. The area is adjacent to the town and not within the town and the necessary buildings can be built without disturbing any of the population and without much expensive acquisition. But when all is said and done the area is just an undulating sand bank between the lagoons and the sea, with a mean height of about fifteen feet above mean sea level. It is a sand bar built and still in building by the eastwards littoral drift. We are very doubtful whether this sand bank is the right place to choose for the

provincial headquarters out of the whole of the province, and even within the limited choice of sites before us, it does not on its own merits occupy a high place.

Puri has certain outstanding advantages, the chief of which has already been mentioned. It is an attractive and to some people a bracing place. It has a splendid waterworks of the most modern design. The natural water-supply in the reserved area is great, and the plant is so arranged as to be easily capable of expansion, and the expansion required for the new area would not be great. Drainage in Puri presents no difficulties.

The disadvantages are more striking. It is away from the centre of the province, as far as the province has a centre. The site examined as a site for a new town or a new suburb is not impressive. If a site could have been found two or three miles back it would have been a different matter.

However we are limited to the terms of our reference, and if the Mahanadi river system is to remain unbridged, we consider that the Puri site should be selected. We do not think that in the first instance it would be necessary to build any more buildings here than we have suggested in the case of Chauduar and Barang, except perhaps one for the Government Press. Up till now the administration has been carried on between Cuttack and Puri, and when the Governor and the Secretariat are near to each other, the worst drawback of that arrangement will have been overcome. Some additional residences for the Honourable Ministers and Secretaries would be required and also for clerks as it will not be possible for anything like the whole of the staff to find suitable accommodation in the town. We anticipate that as time goes on there will be a tendency for officers and offices to move from Cuttack to Puri because the distance is great enough to cause some administrative inconvenience, but these cases could be considered at leisure and on their own merits as they arose.

11. *Comparative cost.*—The terms of reference require the committee to compare the cost of building at the various sites. Some attempt has been made to do this in the special reports referred to us for consideration. We have found ourselves unable to reach any satisfactory conclusions. The figures supplied are just lump sum estimates. The actual cost depends on the views of Government as to the requirements of a capital

and the type of building suitable. As between the sites, building will be more expensive at Cuttack on account of the bad foundations and the cost of land acquisition and less expensive at a place like Chauduar where land is cheap, foundations are sound, and building materials are on the spot. The buildings which will be required at any particular site depend on administrative questions, to some of which we have endeavoured to suggest answers, but a number of varying estimates could be made in accordance with the answers which were found acceptable. There will be a saving by building at Cuttack itself, because fewer buildings will be required immediately than would be required elsewhere. But the saving is mostly in residences. The building of residences, and money spent on residences should be regarded as an investment rather than as expenditure if these are designed of a type for which the rent will bring a fair return on the money. It is anticipated that in future Government may be employing a less highly paid staff than is now employed, and any new houses required can be designed on this assumption and with the view that the rents to be ordinarily expected on them may cover the cost of maintenance and the interest on the capital with a safe margin or a small profit. Quarters for ministerial officers cannot usually be made to yield such a return, but we have already indicated our view that quarters for ministerial officers must be built in Cuttack if the capital is placed there, and that there is no difference between Cuttack and other sites in this respect. If the cost of water-works and drainage is excluded from the Cuttack estimate and something for land acquisition which appears to have been excluded added to it, the difference in cost between the various sites does not appear to be very great. For reasons noted, we place no great reliance on these figures, but we are not in a position to produce anything better. Any estimates which we could make at this stage would be purely speculative, almost certainly unreliable, and perhaps seriously misleading. No estimate yet produced has taken into account the cost of the bridges and perhaps rightly so, since it may be argued that a populous and busy centre like Cuttack ought to have bridges whether it is the capital or not. The issues raised by the choice of a capital site are many and complex. We feel justified in suggesting that these issues need not be made more

complex by attempts to forecast the comparative cost, since this cost cannot be estimated with any pretence to accuracy until the site is chosen, and then it will be necessary to limit the expenditure within the money available. We cannot find sufficient reasons for supposing that, apart from the advantage of building the capital at the most suitable site, the province will get better value for its money at one place than at another.

12. *Summary.*—Our conclusions are as follows:—

- (1) As far as there is a centre of communications in this irregularly shaped province, it is found on the east coast branch of the railway somewhere about Cuttack or Khurda Road. In the matter of central location, the three Cuttack sites have the advantage over Puri, and are to be preferred.
- (2) In the case of the three Cuttack sites the advantage of a central location is neutralised by the fact that the sites are situated among rivers and largely isolated by floods during four or five months of the year. Chauduar is cut off from the south of the province, Barang is cut off from the north of the province, and Cuttack in the middle of the rivers is cut off in both directions. Puri does not suffer from this disadvantage, and on this ground is to be preferred to the Cuttack sites.
- (3) Much therefore depends on the possibility of bridging the rivers, a very expensive undertaking. Without bridges none of the three Cuttack sites is suitable. Cuttack though the most important centre of population in the province is isolated and cramped within rigorous natural barriers, which allow no room for present needs or future expansion. Chauduar and Barang have been selected not on their own merits but because they can claim to be regarded as an extension of Cuttack. Without bridges they cannot be regarded as an extension of Cuttack either in sentiment or practice, and apart from this claim there is no positive reason for the choice of either. If bridges can be built, the problem assumes a different

character. There remains no longer a choice between four sites, but only a choice between Cuttack extended on the one hand and Puri on the other. In this event the balance is heavily in favour of the extended Cuttack. If bridges are not to be built, the only prudent course is to select Puri.

- (4) If bridges can be built, it remains to choose between extension of Cuttack to the north or to the south. For reasons which appear in the body of the report the committee feel bound to prefer Chauduar to Barang.
- (5) The committee feel strongly that an authoritative forecast about the bridging of the rivers should be made before any decision is reached as to the site of the capital and that the decision should be made in the light of the forecast. If the rivers are to be bridged, the capital can be built as if the bridges were there, in spite of the temporary inconvenience. If the capital begins and matures in uncertain conditions harm may be done which the costly construction of bridges at a future time will not remedy.
- (6) The committee are unable to frame estimates of any value as regards the comparative cost of locating the capital at each of the sites but suggest that it is not a factor which need be allowed to affect the solution.
- (7) If the rivers can be bridged the committee place the sites in the following order :—
 - (i) Cuttack-Chauduar site.
 - (ii) Cuttack-Barang site.
 - (iii) Puri.

If the rivers are not to be bridged the committee place the sites in the following order :—

- (i) Puri.
- (ii) Barang.
- (iii) Chauduar.
- (iv) Cuttack.

These recommendations are made within the restricted terms of the choice before us. Those who have to make the final decision are not confined to this limited choice and we cannot but believe that a site better than any of these could be found which would satisfy at once practical needs and those other considerations which are outside the terms of our reference.

J. R. DAIN.

A. VIPAN.

G. VERGHESE.

ANNEXURE I.

Extract from speech of Mr. P. T. Mansfield, C.I.E., I.C.S., at a meeting of the Orissa Advisory Council on the 5th October 1936.

I should explain to the Council that nothing will be said in this debate as to the views of Government. Even if at a later stage of the debate I make any statement of my own views on certain points, they will be purely personal, and not intended to Commit Government in any way. I will begin with a brief outline of the history of the matter.

As soon as it became clear in the summer of 1933 that it was extremely likely that the new province of Orissa would be created before long the Government of India took such preliminary action as was possible to ensure that the province should have a good start, and for that purpose appointed the Orissa Administration Committee and directed that Committee to examine among other matters the location of the headquarters of the province, and the site, extent and approximate cost of the new accommodation required at the headquarters, including the Government House, Secretariat, Council Chamber and residences for the senior officials posted at headquarters.

The Orissa Administration Committee was concerned with the province as proposed in the White Paper, viz., the present province excluding those portions of the Parlakimedi Estate and Malliahs and the Vizagapatam Agency, which were subsequently added to the province; that is, the Orissa Administration Committee were considering a province with an area only about two-thirds of the area of the province actually formed. They recommended the location of the capital at Outtack on the understanding that the principal buildings required could conveniently and at a reasonable cost be placed in the Tulsiipur or as it is called in the Report the Chauhatta Ghat site. This site was declared by the then Chief Engineer, Bihar and Orissa, to be suitable for building. The Sanitary Engineer advised that water-supply and disposal of storm water and sewage presented no serious difficulty while the Electrical Inspector advised that electricity would be not too costly to instal and maintain.

Acting on that advice the Orissa Administration Committee recommended the site and in due course the Government of Bihar and Orissa took up the question of detailed lay-out. At this stage at the end of 1934, a new development took place which very materially altered the situation, viz., that the Joint Parliamentary Committee recommended and Parliament eventually accepted, the addition of 10,000 square miles or more of new territory, thereby making the province half as big again as that contemplated by the Orissa Administration Committee and completely altering the geographical centre of the province. Moreover, as examination of the problems of separation proceeded, it became clear that even the original estimates of the size of Secretariat and other

buildings required had been under-estimated. Those estimates had been prepared somewhat in a hurry for the Orissa Administration Committee and it was not until the matter was examined in detail that it was realized that the headquarters work is not merely one quarter as much in a small province, as in a province four times its size; but there is a great deal of overhead work which is common to all provinces, irrespective of their size. I need not labour the point, but I may say that the Orissa budget eventually provided for a staff of 40 per cent of the size of the Bihar and Orissa staff (and experience is showing that this was not an over-estimate). Before the Orissa Administration Committee sat it had been estimated that the size would be only 10 or 15 per cent of the size of the Bihar and Orissa headquarters. Thus a material difference had arisen, and it became clear that the requirements in area and housing accommodation would be very much more than those estimated in 1933.

In the meantime another development took place. The Government of India intimated that they proposed to build what was necessary for the new province through the Central Public Works Department, instead of placing the money at the disposal of the local Government and leaving them to complete the work through their own Public Works Department. On this decision the Government of Bihar and Orissa suggested that the lay-out at Tulsipur should be considered on the spot by senior officers of the Central Public Works Department. Mr. Jones, then the senior Superintending Engineer to the Government of India and Mr. Russell, the Consulting Government Architect, accordingly visited Cuttack in September 1935. They found themselves unable to accept the favourable report of the Chief Engineer, Bihar and Orissa, and stated that Tulsipur site would be not only too cramped, but would be unsuitable for the class of buildings required except at prohibitive cost and after expensive reconditioning; still less would it allow room for the development which experience shows invariably follows the building of a new capital.

This report necessarily made the Government of Bihar and Orissa reconsider the whole position, and it was felt that other possibilities must be re-examined. The Government of India agreed and decided to appoint a technical committee to examine these possibilities from a purely technical point of view, leaving aside any questions other than those on which they were qualified to advise.

Before the Committee met the possibilities of (1) other sites in and in the neighbourhood of Cuttack (2) near Khurda and (3) near Berhampur were examined and information collected for the use of the Committee, and it was finally decided to ask them to examine (1) Cuttack and its neighbourhood as a whole, (2) the Barunai hill site between Khurda and Khurda Road station and (3) the Rangailunda site between Berhampur and Gopalpur. Sites in and near Cuttack were exhaustively examined before the Committee met so as to make sure that no possibilities were overlooked; even the site at Barang was examined but was considered unsuitable and, in any case, it had very little support from local opinion—it was in fact

described by one public man as a jungle inhabited only by pigmies—but the Committee were asked to see a site a few miles west of Cuttack not far from Naraj, which appeared to have possibilities.

I would again emphasize that the Committee's function was simply to examine the problem from a technical point of view. It is only natural that the Government of India who are making a grant towards the cost of the capital and whose officers are to build it, should wish to satisfy themselves that the money is to be well spent on a suitable site. The object of its appointment was that a decision on this question, which is of first class importance not only to present but also to future Oriyas, should only be taken after weighing the pros and cons as fully as possible.

ANNEXURE II.

Report on suggested site for New Capital—Government of Orissa—Near Barang.

In accordance with the request of the Government of Orissa that I should make a reconnaissance of the above suggested site between miles 7 and 9 on the Puri Road from Cuttack, I visited the area with the Director of Health and Prisons Services and District Health Officer, Puri, on 4th August 1937.

The site suggested consists of a number of low hills of laterite, arising from paddy land, which, now mostly deep flooded, infiltrates the higher ground like the arms of a lake. The hills are covered with rather dense scrub jungle with wide spaced big trees, which, on the north side of the road, is contiguous with Government Reserved forest. At the east end of this length of road is the village of Barang, near the Railway station of that name. On the west of the length a short side road leads to the very large village of Darutheng (6,000—7,000 people), which appears to stretch around the site, occupying the land between the forest and the paddy, south of the site itself. Much of the paddy of Darutheng is a considerable way from the village, and it is significant that this village is concentrated into almost a small town, and not broken up into scattered hamlets, convenient to the paddy areas between the forested hills. Thus the site of the proposed capital is uninhabited.

The spleen rate of Darutheng was taken by the Director of Health and Prisons Services in the past dry season and was found to be 30—40 per cent (Director of Health and Prisons Services D. O. no. 10666, dated 25th May 1937). On the present occasion I found as under:—

No. examined.	Nil.	1 f. b.	2 f. b.	3 f. b.	Per cent
106	97	3	2	4	6.6

This figure is well within the accepted limits of 'healthy' as regards malaria, though the general physical condition of the inhabitants as regards other diseases can only be described as far lower than in any village I have yet examined anywhere in this province.

The spleen rate of Barang was found to be as under:—

No. examined.	Nil.	1 f. b.	2 f. b.	3 f. b.	4 f. b.	Per Cent.
81	75	4	1	0	1	7.4

There is a greater difference between this figure and that found by my Assistant in the dry weather of 1932 (59 per cent), than between the Director of Health and Prisons Services and my own figures for Darutheng in the present year. The inference is that both villages are subject to autumnal epidemics of malaria, possibly annually, possibly periodically, but that there is little or no continuous endemic malaria.

Thus whatever the source, quite undetermined, from which these epidemics arise, it may be accepted that such epidemics will periodically sweep the new capital site, the houses of which, I understand, will be built right down to the edge of the high land adjacent to the paddy and swamps.

Seven species of Anophelines were taken as adults in Darutheng village during my visit, of which two, *A. annularis* and *A. ramsayi*, are local carriers. Paddy, on the seepage line below the tank near the school, was breeding harmless species only, as was also a well in the village. It is therefore apparent that Darutheng, some way from the actual forest, has its own complement of carriers to account for its local malaria, but it is very doubtful if conclusions can be drawn from this village applicable to conditions within the forested high land behind it. Barang is too far from the forest possibly to be affected by it, and has at the moment an identical spleen rate, which is contributory evidence to the same effect, viz. that conditions at Darutheng are not the same as within the forest on the laterite.

But within the forested high land, where the capital is proposed to be built, conditions are very different. Walking round the hill foot about the paddy, seepage outbreaks, as usual at the foot of a laterite cap, were found, breeding now only *A. culicifacies*, but almost certain to change to the vectors of the *funestus* group later in the season. Other seepage out-crops (now buried in flood water) probably occur within the paddy at the edge, and will render it equally dangerous, and much less amenable to treatment (in the absence of adequate public health legislation) later in the year.

But within the forest itself I encountered near mile 8 several ravine streams crossing the road (e.g. at culvert 20) that are even now breeding *A. funestus*, the carrier of the Jeypore Hills in some numbers.

How long these streams run is not known, they dry up in summer, I am informed, but the presence of this species renders the forested tract definitely potentially endemically malarious, and probably accounts for the concentration of population in Darutheng village away from the forest and its streams and seepage out-crops, even though the inhabitants have far to go to some of their fields. Deforestation, for building, would not improve conditions, and, as the streams rise in Reserved forest, they would run almost as long each year as at present.

How many of these streams and out-crops occur is not known. No detailed survey exists, nor can such be made until the forest is cleared, as much of the bush is impenetrable.

A capital built on such a site will be a mild repetition of Kuala Lumpur, the capital of the Federated Malay States. This is protected by 200 miles of sub-soil drains, 48 miles of open concrete drains and 200 miles of open, earth, oiled, drains, for an area of 16½ square miles*, and

* The figures for 7½ square miles at Kuala Lumpur, the area protected in 1917, were 65, 8½ and 12 miles respectively. This would be about the original area of the new Capital, showing that as a town grows, the anti-malaria works increase at a higher rate than the area itself.

while I do not suggest that the site under discussion will be as expensive to protect as that of the Federal Capital of Malay, yet it is obvious that if such a site is utilized for habitation by an imported non-immune population, Government must be prepared to face considerable expenditure both on permanent, Capital account, anti-malaria works and also on recurring revenue expenditure on treating seepage within the paddy, etc.

On this brief reconnaissance, I cannot, therefore, either pass the proposed site as naturally healthy, or recommend its adoption for building without very detailed surveys and estimates for anti-malaria protective works, which will certainly add considerably to the cost of both construction and upkeep.

R. SENIOR WHITE, F. R. S. (E).
Malariologist, B.-N. Railway.

ANNEXURE III.

Notes by Mr. A. Vipan and Lt.-Col. G. Verghese, I.M.S., regarding the location of the Capital for the Orissa Province.

BARANG.

There is sufficient space available for the Capital buildings required. The site is situated between the 8th and 10th mile-stones to the left of the Cuttack-Ganjam Trunk Road. Without any detailed survey having been made it is estimated that there are 1.5 square miles of land in compact block available for the construction of the Capital buildings.

It will be necessary to establish quick and easy means of transport to and from Cuttack. This can best be done by constructing a bridge across the Kathjuri, which has been roughly estimated to cost something in the neighbourhood of between 25 to 30 lakhs of rupees. Failing the bridge, communication could be established by the Railway Company running a frequent service of motor coaches between Cuttack and Barang stations during the "rush" hours.

The site is eminently suitable from an engineering point of view, as the soil and sub-soil are good for carrying foundations, it is easily drained and building materials are close at hand. Water is available within a distance of about 3 miles from the site, and would have to be pumped after treatment.

As the surface soil consists chiefly of gravel or laterite, the question of the provision of parks and gardens would be a matter of some considerable difficulty.

An electric supply scheme would have to be installed and it would have to be done at the cost of Government as it is most unlikely that any private company would be prepared to come forward and take out a licence for the area in question. The Cuttack Electric Supply Company might agree to run a transmission line across the bridge and up to the site and supply current; but whether the rates would work out more favourably than the cost of supply from a local installation would have to be ascertained.

The Director of Health and Prisons Services, Orissa, has reported as follows on the site in question :--

"Accompanied by Dr. S. Misra, M.B., D.P.H., Health Officer, Cuttack Municipality, I visited the place lying between the 8th and 9th mile stone and to the left of the Cuttack-Khurda Road on the 14th April 1937.

It is a spacious plot of flat land measuring about 3 or 3½ square miles studded with thickets of varying dimensions, which ultimately merge into

the dense reserve forest on the north and north-east. There are open cultivated fields over this land intersected at places by bushes and jungles. It is apparently made up of mostly soft laterite.

It is bounded on the west by the Cuttack-Khurda Road, on the south by a fairly long range of small hills, on the north by reserve forests and on the east and south-east by an extensive jheel and low-lying land. The general slope of the place is towards this jheel and towards the low-lying land in the north. Not much beyond the Cuttack-Khurda Road on the west there is an extensive thick forest. Practically this whole area is surrounded by forests, jheels and hills.

With a view to get an idea of what the state of public health would likely be in this area I visited the two neighbouring villages, viz., Nuagad and Daruthang situated about 2 miles east from the 9th mile.

Both these two villages are adjacent to each other and very thickly populated—Nuagad being very much smaller than Daruthang. The population of Daruthang will probably be not less than 6,000 or 7,000. Both the villages being contiguous no separate reports are necessary.

The general health of the villages is not satisfactory and the sanitary condition is still worse. Water-supply is from wells, some of which dry up in summer and scarcity of water is felt to some extent. The villagers are practically all cultivators and day labourers.

There is great deal of mosquito pest as was reported by the villagers. The fact is further supported by the considerable incidence of malaria in these two villages. Filaria is no doubt also present there. We saw only three cases of elephantiasis of leg, although it was reported there were more such cases in these villages. 14 children out of 50 in Nuagad and 6 out of 54 in Daruthang exhibited enlarged spleen. A search for mosquito larvae was made but no living larvae could be detected. Some dead insects which looked like larvae were found in a tank south of Daruthang and on close examination a few of them appeared like culicine larvae.

A great incidence of deficiency diseases was noticed both amongst the adult and children. Their general diet seemed very much deficient and ill balanced.

There is one lower primary school in Daruthang, and incidentally I may mention that no sanitary arrangements exist there. The attention of the Health Officer, Puri District Board, is being drawn to it. From the information collected locally, it is no wonder that two years ago there was a very severe outbreak of cholera and the toll of human life was very heavy.

The villagers reported about the existence of some ravines near about where water remains standing even during summer. But we did not come across any such ravine.

The place may not perhaps be cool enough during hot months when the land is cleared of jungles. Possibly southern or south-western breeze is likely to be obstructed by the hills.

The land is dry and sub-soil water is low and from this point of view alone this is no doubt a suitable site for buildings, and its natural slope towards the east will, I think, facilitate the construction of drains with an outfall into the jheel or preferably into a sewage farm installed for the purpose in the neighbourhood of this jheel, this too subject to conditions being observed during the rainy season. As regards water-supply the only possible solution will, I think, be to sink tube-wells or by a dam across the Barang river which of course is for the Engineers to advise.

But in view of the facts that—

- (1) it is practically surrounded by thick forest on all sides,
- (2) there is a very big swampy jheel closeby,
- (3) the mosquito pest is already in evidence there,
- (4) that malaria is considerably prevalent in the neighbouring villages,
- (5) the question whether the mosquitoes will enormously increase in numbers if the thickets and jungles are removed cannot definitely be decided as it would rather be risky to hazard a definite opinion on this point at present.

I am of the opinion that this area is not by preference a very suitable site for residential purposes.

It has been not infrequently observed that when jungles are removed the mosquito nuisance increases to an enormous degree in the neighbouring human habitations. The risk of heavy malarial infection is the chief draw-back in regard to the suitability of this site. A close study of the habits of the mosquitoes that are prevalent in this area, both in the neighbouring villages and in the forests, by elaborate observations carried through all the season of at least one year will alone enable a very definite and decided opinion being formed in regard to the question of mosquitoes and malaria in relation to this site."

CHAUDUAR.

This site is situated immediately opposite Cuttack just beyond the north bank of the Mahanadi river. It is estimated that there are at least 3 square miles of land available for the construction of the Capital buildings, and with possibilities of considerable scope for expansion.

Here again, as in the case of the Barang site, it will be necessary to establish quick and easy means of transport to and from Cuttack and this can best be done by the construction of a bridge across the

7 per cent phosphoric acid of which 60—70 per cent is soluble in citric acid. On account of the low percentage of phosphoric acid it cannot be directly used as manure. The Agricultural Chemist to the Government of Bihar is of opinion that if this slag is used for mixing with ammonium nitrate the cost of manufacture will be lowered and the manure will be better because of the presence of phosphoric acid. He has already started experiment with ammonium nitrate and a sample of slag obtained from Tatas and will be in a position to report the affectiveness of the mixture as compared to nitro-chalk within a short time. We are of the opinion that this is a very promising line and his experiments should be watched with interest. If the results are satisfactory steps should be taken to utilize the basic slag with synthetic nitrogenous fertilizers.

SUPERPHOSPHATE INDUSTRY.

In 1931 as the result of an exhaustive enquiry by the Director of Industries, Bihar, it was revealed that the total quantity of bones exported from the districts of Bihar, came up to 300,000 maunds at a price of Rs. 47 to Rs. 50 per ton at Calcutta. In a memorandum which has been submitted by the Senior Marketing Officer, Government of Bihar, the quantity of bones available in the province is stated to be as follows:—

			Mds.
(1) From dead animals ..	...	...	1,331,374
(2) From slaughtered animals ..	...	..	67,859
			<hr/>
Total ..			1,399,233
			<hr/>
Export .. ..	..	..	303,068
Net available supply ..	..	..	1,096,165

It thus appears that there is a large quantity of bones available in the province which has no value at present and which could be utilised either as bone meal or as bone superphosphate.

The import of superphosphate into India is considerable.

1935-36.	1936-37.
6,483 tons	6,009 tons.
Rs. 4,67,064	Rs. 3,99,713

Regarding the use of bone meal as fertilizer, it is known that the disintegration of bone meal and the absorption of phosphoric

water-logging during rains. It is just possible to have a very satisfactory drainage arrangement for the whole of this area with a outfall into the Jheel which runs from north to south finally flowing into the Birupa.

The swamp.—It lies on the eastern slope and mostly to the east of the Orissa Trunk Road. At present it is under Dalua paddy cultivation and in some places water stands there 2 or 3 feet in depth. There is the possibility of draining this swamp directly or indirectly through a sluice under the high level canal into the river Birupa below the Anicut.

Search was made at several places in the swamp to detect mosquitoes and their larvae. But so far nothing could be found out.

Villages.—They are situated over the slopes of the table-land.

(1) *Chauduar.*—It is located on the north-eastern slope and just close to the high level canal which forms its eastern boundary.

The population is about 5,000 and consists of cultivators and day labourers. The village is very thickly populated.

(2) *Water-supply.*—The main source of water-supply is from wells which are on average 20 to 30 feet in depth. They are cut out from laterite stone. Some of them dry up in summer when scarcity of water occurs and some people collect water either from the canal or river.

Diseases.—(i) Malaria is not so common. On examination of 160 boys and 7 girls in this village between 2 to 12 years, enlargement of spleen was detected in only 7 cases, namely, 4.2 per cent. Of these seven cases six gave the history of visiting other villages where malaria is prevalent.

(ii) Deficiency disease was noticed in quite a considerable number of boys examined. Incidentally their parents and guardians were instructed on the lines of improved diet.

(iii) *Filariasis.*—Only 2 cases of elephantiasis of leg out of about 300 people were found, namely, about 0.7 per cent. The disease is not common in this village as could be gathered from the people.

(iv) Cholera sometimes breaks out. This perhaps occurs due to scarcity of water during the hot months.

(v) Small-pox though not so very common is not infrequent.

Education and Medical aid.—There is one middle English school and a girls' school as well. There exists no dispensary for rendering any medical aid. Some social service workers under the guidance of Mr. L. N. Sahu of the Servants of India Society arranges to administer injections in leprosy cases and distribution of Homeopathic medicines.

(2) *Nuagaon.*—Nuagaon is a small village of about 500 people and lies north of Chauduar. It has got a mixed population of all castes. The people are generally labourers and cultivators. The bustees are not congested.

Water-supply.—Like Chauduar here there are a few wells cut out of the laterite. People reported that most of them go dry during hot months. Mosquito larvae were searched for in three tanks in the vicinity but none could be detected.

Diseases—(i) *Malaria.*—23 children were examined for enlargement of spleen without any positive sign. No evidence of malaria could be found out.

(ii) *Filariasis.*—A boy of 15 years was seen to have a swollen leg. People said that there were 10 to 15 more such cases in the village, but we were not able to detect any other case.

(iii) Cholera and smallpox break out occasionally.

(3) *Agrahat.*—Agrahat is situated on the northern slope and is a very much thickly populated village. The population is about 3,000 and consists of cultivators and labourers.

Water-supply is from wells and tanks. Some of the wells dry up during summer and scarcity of water is keenly felt at the time.

Diseases—(i) *Malaria.*—203 children between 2 to 12 years were examined. 7 enlarged spleen and 3 with leprotic patches were detected and 5 of enlarged spleen were from another village, namely, Kujibar about 2 miles further east right down in the cultivated fields. So the incidence of malaria in Agrahat is not so very great.

(ii) *Leprosy.*—This is present as was found during examination of boys. It was reported that there are more cases in the village. This is quite likely to be the case when deficiency diseases amongst these villagers are not uncommon.

(iii) *Deficiency diseases.*—Angulo-stomatitis is highly prevalent amongst the children. Protein deficiency apart from ill-balanced diet seemed to be the main contributing factor.

(iv) *Filariasis* is also present. Seven cases of elephantiasis of leg were seen in a collection of about 100 persons. There was no doubt that most of these cases of filariasis are indigenous.

(v) *Small-pox.*—A very large number of children were found to have suffered from small-pox. All of them were not protected before. It appears that it is greatly endemic here.

(vi) Cholera breaks out occasionally.

Education and medical aid.—There is one primary school. No arrangement for medical aid exists in this village. People were also instructed on prevention of small-pox and deficiency disease.

(4) *Agarpara and Banipada* are two contiguous villages on the south-western slope peopled by about 2,000 persons. The population consists of cultivators and day labourers, a considerable number of whom are very poor. There are a few houses of Muhammadans.

Water-supply is similar to that of Chauduar. Some of these wells dry up in summer and a great scarcity of water is felt although a few wells scattered about in the area are deep enough and never dry up.

Diseases—(i) Malaria.—Too many children were not available. Only 31 were examined and one enlarged spleen could be detected. But on enquiry it was found that fever generally prevails during early winter.

(ii) *Filariasis* was not reported to be at all common. No case could be seen during inspection.

(iii) Deficiency disease was noticed amongst children examined.

Of all the villages the general health of the people of Agrahat seemed comparatively unsatisfactory. The common factor is the deficiency of diet probably due to poverty and ignorance of diet principles. No particular disease is greatly prevalent in any of these villages.

There is strong ground to believe that both malaria and filariasis are prevalent to some extent in these villages, but not at all to an alarming extent and this factor as such may be regarded as negligible when it is quite possible to eradicate these with the improvement of sanitation and drainage. At the present moment it can be said that there is no serious mosquito problem in that area."

CUTTACK.

The Orissa Capital Site Selection Committee has dealt with the possibilities of this site in some considerable detail.

In order to obtain the barest minimum of space required for the Capital buildings the P. W. D. Workshop and launch repair yard at Jobra, as also the Orissa School of Engineering would have to be removed and accommodated elsewhere. Within this area the Secretariat and Council Chamber could be located.

An investigation has been conducted as to whether Government House could be located in a portion of the Fort area and the maidan to the east of it. It has been found possible to do this, though the space would be somewhat restricted when all the numerous subsidiary buildings which are essentially required are taken into account.

The location of the capital at Cuttack will entail the installation of water-supply and drainage schemes for the whole town. The population to-day stands at 65,000 and the above schemes would have to be designed to supply the needs of a very considerable increase in population in order that future requirements could be met.

Consideration will have to be given to the fact that before any progress could be made with the Secretariat buildings, the Council Chamber and residences for officials the Jobra workshop and launch

repair yard together with the Orissa School of Engineering would have to be reconstructed on the new sites and brought into beneficial use, as the present accommodation could not be vacated for demolition until the new premises were ready for occupation.

PURI.

It is thought that building sites are available, subject to further investigation being conducted as regards water-logging during the rains, on the land to the west of the Railway line and also to the north and south of the Puri-Balighai Road up to the casuarina plantations and if this is found insufficient the latter could be encroached upon and moved further along the coast without interfering with the reserved area required for the Puri Waterworks.

From an engineering point of view, subject to further investigation being conducted as regards water-logging, the sites are suitable.

A suggestion has been made that the present Government House could be suitably converted to accommodate a portion of the Secretariat and that the rest of the Secretariat together with the Council Chamber could be accommodated in a building, to be newly constructed, on the land to the east of the present Government House.

Building materials will be expensive as they will have to be transported a considerable distance. Against this, however, may be set the fact that there is an existing water-supply scheme, and a privately-owned Electric Supply Company is likely to commence operations and at no very distant date.

The Director of Health and Prisons Services has reported as follows on the site in question :—

“ I visited the area with Dr. Nayak, Municipal Health Officer, and walked the whole length up to Balliguari.

It is a flat land about 3 miles long and about 1-1½ miles broad, situated to the east of Puri Municipality, bounded on the south by the sea; on the east by the forest department casuarina plantations and village Balipatna, on the north by villages Kumiti Patna Gopalpur and Balliguari and on the west by the Puri Town.

The area is sandy and the major portion of it is about 11 feet above the sea level. From the railway crossing to the end of the municipal limit the existing sandy cart track about 4/5th of a mile usually, as is reported, remains under water during the rainy season although the lands lying on both sides of this track are comparatively high and do not become water-logged. A portion of this cart track about 700 feet long beginning from the junction of this track with the road to Mahabir Patna, is the worst where water stands for about 6 to 7 months. This

area can possibly be drained to the low-lying area on the north of Kumuti Patna when the track will remain dry. During rains with high flood it is very difficult to say if the area can be successfully drained unless the high flood level is taken. On the whole the municipal portion of the area about $\frac{4}{5}$ mile from the railway crossing is much lower in comparison to the major portion of the area which lies towards the east almost right up to Balliguari village. This low-lying area also contains many dobas and depressions where water accumulates, affording facilities for the growth of different weeds specially Pistia (popularly called Borajhanji here). I searched for mosquito larvae in these water collections but did not find any. Portion of the area lying beyond this $\frac{4}{5}$ mile from the railway crossing although rough and undulating is comparatively much higher and also seems healthier. This undulated land can easily be levelled up.

Health conditions.—Balighat (within municipal limit) which is not properly speaking a village at all with only eight houses, usually shops, is a halting place for country carts which go to Puri from Balighat side. There is no history of malaria there.

Near Talbani and Balighat I examined six children all that I could find, but in none I found any case of enlarged spleen, but in almost all cases I found anaemia due to worm infection.

In the Government Experimental Agricultural Farm I enquired of Dayanidhi Tripathi, Sardar of the Farm, who gave me to understand that there was no history of malaria among the members of his own family or among the coolies working in the Farm. But the place is covered with small ditches all over due to planting of trees and collecting earth from the surrounding area for dressing up the roots of those plants, mostly cocoanut trees. I was made to understand by this Farm Sardar that water that accumulates in the surrounding low-lying lands dries up by October.

Balliguari is a village with about 100 houses and a population of about 700 people. This village serves as a main source of milk supply for the Town. On enquiry I found one case of elephantiasis of legs. I examined 37 children for spleen, except in the case of one child there was no enlarged spleen. But in many cases the children were found anaemic probably due to worm infection.

Water-supply.—There is a good sub-soil water strata which is evidenced from the water contained in the different wells in this area and the deep tube-well (62 feet) inside the Agricultural Farm. This Farm is also about $\frac{3}{4}$ mile from the head waterworks of the Puri water-supply.

Drainage.—The municipal portion of the area can be drained to the low-lying area on the north of Kumuti Patna. The major portion of the area can be drained either into the Sur Lake or into the Sur Lake cut.

1. From my observations I gather that there is no problem of malaria or any other severe epidemic diseases which one has got to deal with in this site or its surrounding areas at present.

2. The gentle slope towards the sea in the south and towards the Sur Lake in the east makes the drainage of this vast area of land not a difficult one. A sewage farm on the border of Sur Lake may be a feasible proposition in dealing with the question of drainage and sewage disposal.

3. The innumerable sandy ditches in this area will require levelling up, and perhaps this will present no serious difficulty.

4. The nature of the soil, the sub-soil level of water and the humidity of the place present to my mind exactly the same picture as those obtained in Puri Town, and therefore its suitability for building purposes stands on a par with that of Puri Town; if not a little better as it is situated a little further inland from the sea.

5. It would probably be necessary to adopt some simple control measures against the possible breeding of mosquitoes within the vicinity of the Sur Lake especially on its borders nearest to this site.

6. I think the question of having to cut down or clear up a portion of the casuarina plantation which directly intercepts this site and the sea may have to be considered if this would turn out to be a serious obstruction to the direct blow of wind from the sea.

7. The portion of the land lying to the west of the railway line is not suitable for building purposes for reasons already noted above.

8. As regards water-supply it should, I think, present no difficulty as supply can be obtained from the Puri Water works necessitating no doubt extension of these works."

GENERAL.

An attempt has been made to estimate the figure of cost involved for the various sites suggested. At this stage, however, it is feared that they may prove somewhat misleading; but to conduct a detailed investigation and the preparation of an estimate of the comparative cost for the construction of a Capital for Orissa at all the four sites suggested would not only involve a considerable expenditure of money, but also delay. The figures furnished must therefore be viewed with the utmost caution.

In considering the relative merits of the Chauduar and Parang sites it is necessary to take into account the proximity to Cuttack which will necessarily remain the principal centre of the Province, both from the point of view of trade and commerce and also from educational and other consideration, such as the law courts.

For either of the sites it is essential that either the Mahanadi or the Kathjuri should be bridged eventually, and in considering this aspect of the case and the large sum of money involved, the benefit which will accrue to the Province as a whole by the construction of the Mahanadi Bridge or the Kathjuri Bridge should not be left out of account, as it is out of the question to contemplate both these bridges being constructed for many years to come.

By the construction of the Mahanadi Bridge the coastal regions of the Province will not be materially benefited, as through communication by road cannot be established to the northern extremity of the Province unless the following rivers are also bridged :—

1. The Brahmani river at 31st mile from Cuttack.
2. The Kharsua river at 37th mile from Cuttack.
3. The Baitarani river at 45th mile from Cuttack.
4. The Subarnarekha river at 131st mile from Cuttack.

Access will, however, be established to the western portion of the Province and to the ex-Madras area of Koraput via Sambalpur, Nawarangpur and Kalahandi, if the proposals for road and Bridge construction which are now taking shape, materialise, and for which the Government of India is expected to come to the aid of the Province by substantial grants from the Road Development Account.

The bridging of the Kathjuri will, however, provide direct communication to the southern districts of the Province.

Now as regards accessibility to Cuttack. What seems to be required is that a suburb of Cuttack should be made available on which spare can be found to construct the new Capital buildings and also permit of the town expanding, and having this in view, the Chauduar site has considerable advantages over the Barang site.

The rough notes left by the Executive Engineer, late Central Works Division, have been scrutinised. He has attempted to draw up comparative figures of cost for the various buildings required, assuming that the Capital is located at (a) Cuttack, (b) elsewhere.

The following statement explains the position :—

	Cost at Cuttack.	Cost elsewhere.
	Rs.	Rs.
Government House ...	... 6,15,000	6,15,000
Secretariat and Council Chamber ...	... 6,90,000	8,25,000
Residential accommodation ...	... 13,00,000	22,50,000

N.B.—The cost of removing the Engineering School and Jebra Workshops has not been taken into account.

As regards the assumption that the cost of the Government House at Cuttack or elsewhere will be about the same, it seems reasonable, and for the present purposes only, may be accepted.

As regards the Secretariat and Council Chamber, the difference in cost between Cuttack and elsewhere is due to the fact that in the event of the capital being constructed at Cuttack, the Revenue Commissioner will not have to be accommodated in the new Secretariat building. The point, however, for consideration is whether even in the event of the capital going elsewhere, it is necessary to move the Revenue Commissioner from Cuttack. This has to be decided.

The large difference in cost in the matter of residential buildings is due to the fact that if the capital is at Cuttack then only about half of the budgetted strength of the clerical establishment has to be accommodated, in buildings to be newly constructed, the remainder presumably continuing to live either in their own houses, or in rented buildings.

It has been stated above that in the event of the capital being located elsewhere than at Cuttack, the full clerical establishment should be accommodated in buildings to be newly constructed. Chauduar and Barang sites are, however, within easy distance of Cuttack at present by rail, and in the event of a bridge being constructed they will be still more easily accessible. For various reasons this staff, or a large proportion of it may prefer to continue to live at Cuttack, one chief reason being in the matter of easy access to schools and colleges, for the education of their children. I am, doubtful, therefore, whether it is necessary to provide new buildings for the accommodation of the full clerical staff at Barang or Chauduar.

As regards Puri it is understood that a certain amount of private accommodation is available, and it would be reasonable, therefore, to place Puri, more or less on the same footing as Barang and Chauduar and provide for a little more than half the budgetted strength of clerical establishment to be accommodated in buildings to be newly constructed.

A suggestion has been made that in the event of the capital being located at Puri the building now occupied by His Excellency the Governor could be utilised for the purpose of accommodating a portion of the Secretariat, the remaining portion, together with the Council Chamber to be accommodated in buildings to be newly constructed at the site which is available adjacent to the existing Government House.

Rough calculations have been made and it has been estimated that about 3/4 lakh of rupees could be saved on the estimated requirement for the Secretariat and Council Chamber if the existing Government House is utilised which could be remodelled to serve the purpose intended.

Water-supply.—Water-supply schemes at Chauduar, Barang and Cuttack have to be newly provided for in the event of the capital being located at any of those sites. At Puri there is an existing water-supply which was designed in 1930, when the resident population was estimated at 38,000 at a cost of Rs. 11,59,000. It was not the intention to give

general house-connections, and a provision of 12 gallons per head per day for a resident population of 40,000 and an allowance of 2 gallons per head per day for a floating pilgrim population of about 150,000 people was allowed for. This supply, it was expected, would be sufficient to satisfy the present demand, and that for sometime to come. The water tower from which supplies are distributed has a capacity of about 220,000 gallons and is sufficient to store water to satisfy the maximum demand for about two hours.

Drainage.—No drainage scheme at present exists at any of the sites proposed.

As regards comparative figures of cost for the above two services it is evident that the selection of Puri would be cheaper than Cuttack. It has, however, to be remembered that the introduction of a water-borne sewage system will entail a considerable additional demand on the Puri Water-works which will have to be met. Cuttack will be the most expensive, Barang and Chauduar will cost approximately the same, and will be cheaper even than Puri.

The Superintending Engineer, Public Health, has been consulted personally as regards the cost of the water-supply and drainage schemes at the various sites and he has furnished me with the following figures, though in doing so he stated that they should be regarded as very rough approximations only, as without detailed investigations it is impossible to supply more accurate information. He wished this to be emphasized.

Chauduar.—Assuming a population of 10,000 and a supply at the rate of 25 gallons per head per day the cost of the water-supply may be taken as Rs. 2,50,000 and the drainage scheme at Rs. 2,00,000.

Barang.—The rising main from the likely source is greater for this site than in the case of Chauduar. Assuming a population of 10,000 and a supply at 25 gallons per head per day the cost of the water-supply may be taken as Rs. 3,00,000 and the drainage scheme at Rs. 2,00,000.

Cuttack.—The water-supply scheme as estimated in the year 1925 would cost about Rs. 10 lakhs. The Superintending Engineer, Public Health, who was consulted, considers that this figure is reasonable and may be accepted.

The drainage scheme has been roughly estimated to cost Rs. 8,00,000. The Superintending Engineer, Public Health, considers that this figure is an under-estimation. But for the present purposes and for want of a detailed investigation, this figure may be tentatively accepted.

Puri.—The Superintending Engineer, Public Health, informs me that the existing water-supply scheme is capable of providing supplies for an additional population of 5,000 to be housed on the sites now under consideration at Puri and that the cost of providing an additional rising main and service reservoir would be approximately Rs. 1,25,000.

The cost of a drainage scheme to serve the area would be about Rs. 3 lakhs.

Electric supply.—Cuttack possesses an electric supply and for Puri negotiations are now in progress regarding the granting of a licence. For Chanduar and Barang, an electric installation will have to be put in at the cost of Government, as no private individual or firm would be likely to come forward to take out a licence, unless the Cuttack Supply Corporation would be willing to supply and transmit by a distribution system across the bridges to be constructed.

The cost of Government installations at Chanduar and Barang for rough estimation purposes has been assumed to be Rs. 1,00,000 for each site.

Comparative cost of Building Construction at the four sites in question.

Calculations have been made to arrive at a comparative figure of cost with the following results:—

Site.	Difference in cost of building construction due to foundations compared to that at Puri.	Difference in cost of building construction due to cartage of materials compared to that at Cuttack.
Chanduar	1 per cent less ...	0.25 per cent less.
Barang	Ditto ...	No change.
Cuttack	18 per cent extra ...	No change.
Puri	No change ...	0.6 per cent extra.

Summarising the above the following table, showing comparative figures of cost as regards the principal requirements for the four sites under consideration, has been prepared:—

Name of work.	Chanduar site.	Barang site.	Cuttack site.	Puri site.
	Rs.	Rs.	Rs.	Rs.
Water-supply	2,50,000	8,00,000	10,00,000	1,25,000
Drainage scheme	2,00,000	2,00,000	8,00,000	8,00,000
Electric supply	1,00,000	1,00,000	Nil	Nil
Government House	7,00,000	7,00,000	8,00,000	7,00,000
Secretariat and Council Chamber	8,62,000	8,62,000	18,75,000*	7,99,000
Residential buildings	17,12,000	17,12,000	18,00,000	17,25,000
Total	88,24,000	88,74,000	82,75,000	86,49,000†

* This figure includes the cost of the removal of the Oriana School of Engineering and the Jobra Workshops to another site, but excludes the cost of the Revenue Commissioner's office, the Press and the Office of the Inspector-General of Police. It includes, however, the additional cost that will have to be incurred on account of foundations.

† This figure excludes the cost of the drainage scheme for the Puri Town proper.

The details of the residential buildings proposed have been furnished in the statement which forms an appendix to this Report.

A. VIPAN,
Chief Engineer.

**RESIDENTIAL BUILDINGS REQUIRED FOR THE OFFICERS
AND STAFF OF THE SECRETARIAT AND HEADS OF
DEPARTMENTS AT THE NEW CAPITAL.**

*Residential buildings required for the officers and staff of the Secretariat and Heads of Departments
at the New Capital.*

Serial no.	Name of posts.	Average pay.	Chauduar and Barang.		Cuttack.		Purl.	
			No.	Cost.	No.	Cost.	No.	Cost.
	SENIOR OFFICERS.			Rs.		Rs.		Rs.
1	Ministers	...	8	1,50,000	8	1,50,000	8	1,50,000
2	Chief Secretary	... Senior scale of I.C.S. + 800 S.P.	1	50,000	1	50,000	1	50,000
3	Development Secretary	... Do. + 150 S. P.	1	40,000	1	40,000	1	40,000
4	Law and Commerce Secretary	...	1	80,000	1	80,000	1	80,000
5	P. W. D. Secretary	... 2,875	1	40,000	1	40,000	1	40,000
6	Under-Secretary, P. W. D.	... 1,025	1	80,000	1	80,000	1	80,000
7	President of the Assembly	... 1,000	1	80,000	...	...	1	80,000
8	Revenue Commissioner	... 8,000	...	...	...	...	1	50,000
9	Development Commissioner	...	1	80,000	...	...	1	80,000

10	Director of Public Instruction	...	1,929	1	40,000	...	...	1	40,000
11	Director of Health and Prisons Services	...	I. M. S. officer.	1	40,000	1	40,000	1	40,000
12	Conservator of Forests	...	...	1	80,000	1	80,000	1	80,000
13	Research and Working Plans Officer	...	...	1	80,000	1	80,000	1	80,000
14	Inspector-General of Police	...	2,421	1	40,000	...	...	1	40,000
15	Superintendent of Police, Criminal Investigation Department and Assistant to Inspector-General of Police.	...	1,064	1	80,000	...	...	1	80,000
16	Comptroller, Orissa	...	1,691	...	...	1	40,000	...	...
Total		...	...	16	6,10,000	12	4,80,000	17	8,60,000
JUNIOR OFFICERS.									
1	Under-Secretary (Home)	...	800	1	16,000	1	16,000	1	16,000
2	Assistant Secretary, Finance	...	650	1	16,000	...	...	1	16,000
3	Assistant Secretary, Local Self-Government	...	600	1	18,000	...	...	1	18,000
4	Assistant Secretary, Law	...	650	1	16,000	1	16,000	1	16,000
5	Registrar, Civil Secretariat	...	400	1	18,000	...	...	1	18,000
6	Personal Assistant to Revenue Commissioner	...	850	...	...	...	...	...	...

Serial no.	Name of posts.	Average pay.	Chauduar and Barang.		Cuttack.		Puri.	
			No.	Cost.	No.	Cost.	No.	Cost.
	JUNIOR OFFICERS—concl.	Rs.		Rs.		Rs.		Rs.
7	Inspecting Officer of Excise and Registration ...	850	1	16,000	...	...	...	...
8	Personal Assistant to Development Commissioner...	700	1	16,000	1	16,000	1	16,000
9	Textile Export ...	800	1	16,000	...	...	...	...
10	Superintendent of Fisheries ...	170—800	1	18,000	...	...	...	...
11	Circle Officer, Industries ...	200—25—700	1	18,000	...	...	...	...
12	Personal Assistant to Director of Public Instruction.	876	1	18,000	...	...	1	18,000
13	Inspectress of Schools ...	574	1	16,000	1	16,000	1	16,000
14	Personal Assistant to the Director of Health and Prisons Services (Sub-Deputy Collector).	400	...	...	...	...	...	...
15	Deputy Superintendent of Police, Criminal Investigation Department.	454	1	18,000	1	18,000	1	18,000
16	Assistant Accounts Officer ...	680	...	...	1	16,000	...	...
17	Anglo-Indian Officers ...	196	2	26,000	2	26,000	2	26,000

18	Press Officer	...	250—10—400	...	...	1	18,000	1	18,000
19	Oriya Translator to Government	...	250—400	...	...	...	...	...	...
	Total	...	...	18	2,16,000	9	1,82,000	12	1,71,000
HEAD ASSISTANTS OF THE SECRETARIAT AND HEADS OF DEPARTMENTS WHO ARE ENTITLED TO A TYPE QUARTERS, WHETHER A OR A I.									
1	Home, Finance and Revenue	...	...	2	18,000	...	...	2	18,000
2	Education and Local Self-Government Department	...	...	2	18,000	...	...	2	18,000
8	Law and Commerce	...	...	1	9,000	...	...	1	9,000
4	Public Works Department and Irrigation	...	...	2	18,000	...	...	2	18,000
5	Revenue Commissioner's office	...	...	...	...	...	...	2	18,000
6	Director of Public Instruction's office	...	...	1	9,000	...	...	...	...
7	Director of Health and Prisons Services office	...	...	1	9,000	...	...	...	...
8	Conservator of Forests	...	...	...	...	...	...	...	...
9	Inspector-General of Police's office	...	...	...	...	...	...	...	...
10	Office of the Comptroller'	...	...	...	...	4	86,000	...	...
	Total	...	...	9	81,000	4	86,000	9	81,000

Serial no.	Name of posts.	Average pay.	Chaudnar and Barang.		Cuttfack.		Puri.	
			No.	Cost.	No.	Cost.	No.	Cost.
	ASSISTANTS, TYPISTS AND STENOGRAPHERS.	Rs.		Rs.		Rs.		Rs.
1	Home Department ...	...	8	28,000	6	21,000	8	28,000
2	Finance Department ...	...	6	21,000	5	17,500	6	12,000
3	Revenue ...	...	8	10,500	8	10,500	8	10,500
4	Education, Health and Local Self-Government ...	...	12	42,000	8	28,000	10	85,000
5	Law and Commerce ...	...	12	42,000	7	24,500	10	85,000
6	Public Works Department including Drawing Branch. ...	...	20	70,000	18	45,500	16	66,000
7	Record Room ...	...	2	7,000	1	8,500	2	7,000
8	Reforms Department ...	...	2	7,000	1	8,500	2	7,000
9	Joint Issue Section including Public Works Department. ...	...	12	42,000	8	28,000	10	85,000
10	Revenue Commissioner } including office of the Commissioner.	...	...	...	...	...	25	87,500
11	Stenographer ...	...	...	...	...	...	1	8,500

10

12	Development Commissioner's office staff	...	...	20	70,000	12	42,000	16	56,000
13	Stenographer	...	...	1	8,500	1	8,500	1	8,500
14	Director of Public Instruction's office	...	...	12	42,000	8	28,000	10	85,000
15	Director of Health and Prisons Services office	...	...	16	56,000	10	35,000	14	49,000
16	Stenographer	...	...	1	8,500	1	8,500	1	8,500
17	Conservator of Forests	...	...	12	42,000	6	21,000	10	85,000
18	Inspector-General of Police office	...	...	25	87,500	15	52,500	20	70,000
19	Ditto of Anglo-Indian Assistants	...	...	2	7,000	2	7,000	2	7,000
20	Comptroller, Orissa	...	...	...	...	28	98,000	...	...
21	Government Press	...	...	...	...	7	24,500	10	85,000
22	Secretariat Stenographers	...	...	4	14,000	4	14,000	4	14,000
23	Office of the Oriya Translator	...	...	2	7,000	...	...	...	...
24	Diarists	...	...	5	17,500	2	7,000	4	14,000
Total				177	6,19,500	148	5,18,000	185	6,47,500
RECORD SUPPLIERS AND DAFTARIES.											
3 Secretariat Departments, Public Works Department, Joint Issue Section and Record Room.		...	...	12	24,000	7	14,000	10	20,000
Revenue Commissioner		...	...	2	8,000	2	4,000	3	6,000

Serial no.	Name of post.	Average pay.	Chauduar and Barang.		Cuttack.		Purl.	
			No.	Cost.	No.	Cost.	No.	Cost.
	RECORD SUPPLIERS AND DAFTABIES—concl'd.	Rs.		Rs.		Rs.		Rs.
	Development Commissioner ...	...	2	4,000	...	...	2	4,000
	Director of Public Instruction ...	...	2	4,000	2	4,000	2	4,000
	Director of Health and Prisons Services ...	...	2	4,000	2	4,000	2	4,000
	Conservator of Forests ...	...	1	2,000	1	2,000	1	2,000
	Inspector-General of Police ...	...	...	...	...	...	...	...
	Criminal Investigation Department ...	...	1	2,000	...	...	1	2,000
	Comptroller, Orissa ...	...	...	...	8	6,000	...	...
	Total ...	...	24	48,000	17	84,000	21	42,000
	MENIALS.							
1	Home, Revenue and Finance Departments ...	...	18	14,400	8	6,400	12	9,600
2	Education, Health and Local Self-Government ...	...	11	6,800	5	4,000	8	6,400
3	Law and Commerce ...	...	10	8,000	6	4,800	8	6,400

4	Public Works Department	...	...	10	8,000	6	4,800	8	6,400
5	Joint Issue Section	...	...	4	8,200	2	1,600	8	2,400
6	Record Room	...	...	4	8,200	2	1,800	8	2,400
7	Revenue Commissioner	...	...	10	8,000	5	4,000	8	6,400
8	Development Commissioner	...	...	10	8,000	6	4,800	8	6,400
9	Director of Public Instruction	...	...	8	6,400	4	8,200	6	4,800
10	Director of Health and Prisons Services	...	...	10	8,000	5	4,000	8	6,400
11	Conservator of Forests	...	...	10	8,000	5	4,000	8	6,400
12	Comptroller, Orissa	...	...	...	...	6	4,800	...	...
18	Office of the Oriya Translator	...	...	2	1,600	2	1,600	2	1,600
14	Ministers	...	...	9	7,200	9	7,200	9	7,200
15	Inspector-General of Police	...	...	8	2,400	8	2,400	8	2,400
16	Press	...	...	...	...	10	8,000	12	9,600
	Total	...	...	119	95,200	84	67,200	106	84,800
	POLICE.								
	Constables	...	...	22	17,600	18	14,400	18	14,400
	Assistant Sub-Inspectors	...	...	7	24,500	7	24,500	7	24,500

General Abstract of cost of residential buildings at the New Capital.

	Barang and Chauhar.		Cuttack.		Puri.		Full strength.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
		Rs.		Rs.		Rs.		Rs.
Senior Officers ...	16	6,10,000	19	4,80,000	17	6,80,000	18	7,00,000
Junior Officers ...	15	9,16,000	9	1,82,000	12	1,71,000	19	2,74,000
Head Assistants ...	9	81,000	4	85,000	9	81,000	20	1,80,000
Assistants, Typists, Stenographers ...	177	6,19,500	148	5,18,000	185	6,47,500	245	10,85,500
Record Suppliers and Daftaries ...	24	48,000	17	84,000	21	42,000	35	70,000
Menials ...	119	95,900	84	67,200	106	84,800	161	1,28,800
Police constables ...	22	17,600	18	14,400	18	14,400	22	17,600
Assistant Sub-Inspectors ...	7	24,500	7	24,500	7	24,500	7	24,500
Total ...	...	17,11,800	...	18,06,100	...	17,25,900	...	24,80,400

REPORT
OF THE
CORRUPTION ENQUIRY COMMITTEE
BIHAR.

30th November, 1938.



SUPERINTENDENT, GOVERNMENT PRINTING,
BIHAR, PATNA,
1938.

[Price—Rs. 1-2-0.]

CONTENTS.

	PAGES
CHAPTER I.	
Formation of the Corruption Enquiry Committee ...	1—4
CHAPTER II.	
Bribery, its classification, etc. ...	5—7
CHAPTER III.	
General remedies ...	8—16
CHAPTER IV.	
Civil Courts ...	17—28
CHAPTER V.	
Criminal Courts ...	29—33
CHAPTER VI.	
Police ...	34—39
CHAPTER VII.	
Jail ...	40—42
CHAPTER VIII.	
Registration ...	43—44
CHAPTER IX.	
Excise ...	45
CHAPTER X.	
Irrigation ...	46—47
CHAPTER XI.	
Public Works Department ...	48—50

	PAGES.
CHAPTER XII.	
Public Health	51—52
CHAPTER XIII.	
Medical	53—54
CHAPTER XIV.	
Veterinary	55
CHAPTER XV.	
Education	56—58
CHAPTER XVI.	
Revenue Courts	59—73
CHAPTER XVII.	
Forest	74
CHAPTER XVIII.	
Industries	75
CHAPTER XIX.	
Court of Wards	76
CHAPTER XX.	
Conclusion	77
<hr/>	
Appendix A	78—86
Appendix B	87—90

V253,8:(Y:45).N36
G8

Report of the Corruption Enquiry Committee, Bihar, 1938.

CHAPTER I.

GENERAL

1. In view of the complaint which found expression in some cut motions, and demand made by resolutions in the Legislative Assembly, and, probably, moved by the crying evils of bribery and corruption believed to be prevailing in the various public services of Bihar, the Provincial Government decided to appoint, at an early date, a Committee to enquire into the malpractices, and recommend remedy to eradicate or check them.

2. By resolution no. 1366-A, Government of Bihar (Appointment Department), dated the 8th April 1938, the Corruption Enquiry Committee was appointed. Persons selected to form the personnel of the Committee were as follows:—

Chairman.

Mr. Syed Abdul Aziz, Bar.-at-Law.

Members.

- (1) Rai Bahadur Amar Nath Chattarji, Retired Judge.
- (2) Lt.-Col. A. E. J. O. McDowell, C.I.E., Retired Inspector-General of Police.
- (3) Rai Bahadur Brajnandan Singh, Retired Commissioner of Excise.
- (4) Mr. Brajnandan Prasad, M.A., B.L., M.L.C.
- (5) Mr. Maheshwar Prasad Narayan Singh, M.L.C.
- (6) Mr. Abdul Jalil, B.L., M.L.A.
- (7) Mr. Vindeshwari Prasad Verma, M.L.A.
- (8) Maulavi Muhammad Ibrahim, B.L., Sub-Judge.

Secretary.

Pande Ram Chandra Sahay, Deputy Magistrate and Deputy Collector.

3. The eight members who formed the Committee, besides the Chairman, were drawn from different classes. Few Committees constituted by the Provincial Government to enquire into questions affecting the moral and material welfare of the people can compare in their importance with the Corruption Enquiry Committee, and none had a more thankless and difficult task than the latter.

4. The Committee thought it desirable to recommend to the Government that the scope of its enquiry should be enlarged by including the services under the Local Self-Government, Co-operative Department, and the Court of Wards. The Chairman accordingly addressed the Chief Secretary to the Government on the subject by a demi-official letter no. 17, dated the 26th April 1938. The Government accepted the suggestion that the employees of the Court of Wards might be included in the scope of our enquiry but they regretted their inability to include the other services as the staff is neither appointed nor controlled by Government.

[The terms of reference of the Committee were as follows :—

“To enquire into the extent of corruption in the public services of Bihar and to ascertain its causes, means and occasions and to suggest suitable and effective remedies and to submit a report to Government.”]

5. The Committee held its first meeting on 25th April 1938. The Chairman, in opening the proceedings of the Committee, said as follows :—

“The Government by appointing a Committee to enquire into the corrupt practices in the public services of Bihar and the gentlemen who have agreed to serve on this Committee have undertaken a great responsibility which will entail laborious work and anxious moments in the discharge of their respective duties. The subject of our enquiry is one which has attracted the attention of the Government and the people for a long time and has made both of them share the blame for the corrupt practices believed to exist in various departments. The decision to tackle the problem could not have been delayed longer. Some who are disposed to be pessimists say that the evil defies a solution. Others believe that the evil can certainly be minimized if not altogether eradicated. It is, however, obvious that we shall be seeking the remedy in vain unless we are assisted in our work by officials and non-officials who will take the trouble in a public spirit to acquaint the Committee with their knowledge about the existence, extent, causes and occasions of corrupt practices, and suggestions to remedy them.”

“It would be necessary for those who will be pleased to answer the questionnaire, if issued, and may supply information to the Committee by appearing before it when required to do so, to make sure of their facts which will be helpful to us in dealing with the matter. We expect unstinted co-operation particularly from members of the public to whom I appeal to take active interest in the subject of our enquiry. If the conscience and indignation of the people against the continuance of the corrupt practices are fully roused and this Committee and the Government in their turn are helped at the right moment half the battle will be won in fighting the evil which demoralizes both the giver and the taker of the bribe and leads to an unlawful gain for some at the expense of others including the State.”

The Committee framed a set of questions in respect of the following Departments:—

- (1) Civil Courts.
- (2) Criminal Courts.
- (3) Police.
- (4) Jail.
- (5) Excise.
- (6) Registration.
- (7) Irrigation.
- (8) Public Works.
- (9) Public Health.
- (10) Medical.
- (11) Veterinary
- (12) Education.
- (13) Revenue including Khas Mahal and Survey Department.
- (14) Forest.
- (15) Industries.
- (16) Court of Wards.

The questionnaire will be found in Appendix 'A'.

Our questionnaire was issued to the public and was sent to all the members of the local Assembly, local Council, and to the Bihar members of the Central Assembly, and the Council of State, and to a large number of public organizations, professional associations, officials, and non-officials. The total number of questionnaire issued was 677. We received 256 replies. Out of these only 230 replies could be printed as the remaining were received too late.

The Committee regrets to have to remark that the number of replies received from the members of the Legislatures, and registered associations was very small. Number of questionnaire issued to the members of the Legislatures was 197, and the replies received were 14. Out of 35 organizations and associations to which questionnaire was sent only four replied.

Most of the officials and many non-official gentlemen have sent elaborate replies to our questionnaire, and have stated the extent, causes and occasions of corrupt practices prevailing in the public services of Bihar. They have also suggested various remedies to eradicate the evil.

6. The Committee has examined at all the divisional headquarters a number of officials representing different departments and non-officials competent to throw light on the subject of our enquiry. It was necessary to do so for a three-fold purpose. First, some replies on certain controversial questions required further elucidation which was possible only by examining the witnesses concerned. Secondly, it was felt that people in the interior may not come to know of the formation of the Committee if it held all its sittings at the provincial headquarters. Not only the need for publicity of the enquiry but also the convenience of the witnesses necessitated the visit to the divisional headquarters and to call witnesses from each district, as far as possible, to be examined orally. Thirdly, conditions vary in almost every division and the Committee thought it desirable to study them on the spot. For example, there is a general complaint of overwork on the part of both gazetted and non-gazetted officers in most of the districts of Bihar proper. But the same conditions do not prevail so far as the Chota Nagpur Division is concerned except perhaps in one or two offices. We examined 63 witnesses in all.

The Committee after fully considering the materials before it has formulated its recommendations which will be found in subsequent Chapters under the proper head.

CHAPTER II.

1. Corruptions can be classified under two heads:—

A. *Voluntary*:—

- (1) *Mamuli* or *dasturi* or tip or voluntary payments made in ordinary course to a person to do what is his duty to do.
- (2) Payments made for securing some advantage for a party or himself.
- (3) Payments made for gaining an advantage over the adversary.
- (4) Payments made to be suited without waiting for one's turn or for the usual course.

B. *Extortion or exaction*:—

- (1) Payment demanded for doing or omitting to do a thing which one is bound by law to do or omit.
- (2) Payment demanded for doing a thing or omitting to do what one is not bound by law to do or omit.

2. A departmental head, who is a European, in his reply to the questionnaire, says: 'Corruption has been prevalent so long in India that it has become a *dastur*.' There are others who think that bribery is an oriental vice. Some speak contemptuously even of those who ask for or get *bakshis*, which, according to them, is found on the lips of many from India to the western end of Eastern countries. They do not, of course, mind paying tips which are common, and, at places, very heavy, in Western countries. Sometimes under the cover of an euphemistic term good many things which would otherwise be objectionable become acceptable. They do not know that bribery is not confined to the oriental races but the evil is found in all the countries of the world though in Europe and particularly in Britain, the corruption in public services is much less now than it was before. There was the singular spectacle of Diogenes walking in the streets of his country in broad daylight with a lantern in his hand to find out an honest man! The trial of Lord Bacon on charges of bribery is well known to students of history.

It will not serve any useful purpose to quote recent instances of corrupt practices resorted to by some eminent public servants who are still in the land of the living in Europe. The existence, however, of corruption in other countries does not justify us to tolerate or ignore the evil here. But it must be admitted that the great and rapid purification of the bench and other public services in most of the European countries and particularly in Great Britain has reached a standard that we in India sigh for in shame and sorrow. There are, fortunately, signs of gradual purification in the public services of Bihar though it is time that a strenuous drive is made with determination by the Government and the people to eradicate the evil of corrupt practices.

3. *Bribery and its effects.*—No one will deny the baneful influence of bribery. It demoralizes both the giver and the taker of it. It has proved attractive even to some Judges and highly-placed officers of the Crown with handsome pay.

4. *Extent of corruption.*—The written and oral evidence before us abundantly proves the existence of corruption more or less in almost all the departments of Government. It is, however, not possible for us to state precisely the extent of corruption as it varies with the nature and functions of each department and according to the opportunities, need and greed of the giver and the taker of bribe. It is a mistake to think that bribery is confined to the ministerial staff and subordinate servants of lower ranks who get very inadequate pay. The Committee was pained to learn that some members of provincial and even of all-India services have descended to take bribe and have resorted to other forms of corrupt practices in a manner, and to the extent, which, in certain quarters, may appear to be incredible. The audacity with which they have abused their power and position was in proportion to the security of their service, difficulty of proof, and immunity from punishment. Such officers cannot be condemned too strongly. It is obvious that their dishonest subordinates will carry on their nefarious trade with greater impunity and the contamination will spread all round.

Holding that the reprehensible practices prevail in various services in a large measure, we do not think that they are as extensive and extortionate as prejudiced or ill-informed section of the Press and the people believe in regard to all or some of the departments of Government. There are many people who make sweeping remarks and speak in terms of exaggeration about bribery and corruption in Bihar. They, thus, injure honest public servants, and reduce the incentive to maintain integrity. In almost all the departments there is less corruption now than before. But people naturally will grumble more of their present sufferings and existing evils than they will complain of what they or their predecessors suffered in the past.

5. *Causes of corruption.*—Chief causes of corruption are as follows :—

- (a) Inadequacy of supervising staff in certain departments.
- (b) Lack of effective control over subordinates, and close supervision of their work by superior officers partly due to—
 - (i) an increase of their work ;
 - (ii) laziness and inefficiency in some cases ;
 - (iii) fear of incurring unpopularity, and raising a hornet's nest about their ears by attempting to check corruption specially when all the officers do not do it.
 - (iv) despair of success in the efforts.
- (c) Ignorance of the people who do not know their rights and difference between legitimate and illegitimate work.
- (d) An absence of strong public opinion against giving or taking of a bribe.

- (e) The need of poorly-paid lower grade subordinate staff and menial servants.
- (f) The greed or expensive habits of some gazetted and non-gazetted officers.
- (g) Expenses beyond one's means by certain social customs on the occasion of birth, marriage and death.
- (h) Shortage of hands in certain offices and excessive work which necessitate employment of unauthorized extra hands by some members of permanent staff who have to pay them.
- (i) Want of character on the part of both the taker and the giver of a bribe.
- (j) Some unreasonable and impracticable laws and rules which create difficulties instead of providing facilities for citizens to get their legitimate work done with ease.
- (k) Non-observance of rules made by the High Court and other departments.
- (l) Failure to punish those who are known to be dishonest even through departmental proceedings, and success of some of them in getting promoted.

CHAPTER III.

We now come to general remedies for stamping out bribery and corruption in public services. These remedies may be divided into three classes :—

- (i) Educative.
- (ii) Preventive.
- (iii) Punitive.

(1) *Educative*.—We believe that the happiness and well-being of men can be secured by their own conduct, and not by legislation. But good legislation can be conducive to the happiness and prosperity of the people, and can check a good deal of evils and vices from which mankind suffer. It has been truly said that “National progress is the sum of individual industry, energy and uprightness what we are accustomed to decry as great social evils will, for most part, be found to be only the out-growth of our own perverted life, though we endeavour to cut them down, and extirpate them by means of law, they will only spring up again with fresh luxuriance in some other forms, unless the conditions of human life and character are radically improved”. It is necessary that the importance of uprightness and strong character should be stressed during the boyhood of a man. Its foundation should be laid in schools, and the boys and girls should be taught, and made to realize, throughout their period of adolescence, and youth, the value of forming a good character which will enable them to resist successfully temptations calculated to harm the society.

Text-books on the baneful influence of corruptions should be prescribed for all students who may be reading in some sort of educational institutions. The evil of some social customs involving excessive expenditure by which good many people run into debt and resort to dishonest means to augment their income should be exposed. It should be impressed upon men and women, young or old, that the giving of a bribe is as immoral and degrading as the taking of it, and that both should be regarded as a social stigma. Occasional lectures should be arranged, and delivered, and printed leaflets should be distributed as widely as possible to create and strengthen public opinion for a systematic and effective campaign against bribery and corruption. People should be exhorted both by officials and non-officials to help Government in eradicating this evil and they should be assured that no one will suffer any harassment if he reports to proper authorities a *true* case of corruption on the part of any employee of the Government.

(2) *Preventive*.—Prevention is better than cure, is an old adage. We recommend that the following preventive measures should be taken to stop the giving or taking of a bribe :—

- I. Notices showing the prescribed fees or charges payable should be hung up in a conspicuous manner in front of each

department and, if possible, such notices should periodically be distributed in rural and urban areas, to save simple and ignorant people from being easily-duped and fleeced.

II. Superior and gazetted officers should exercise better control and supervision, and Heads of Departments should pay surprise visits to ensure that their subordinates do not come in contact with litigants, and that departmental work is carried on in a regular manner. But some contact with certain offices by those who have a business is inevitable. Rules made by the High Court in this respect cannot be applied to offices where the nature of work is different from that of the office of the High Court.

III. Many witnesses including some District Magistrates and a Commissioner have emphasized the necessity of increasing the pay of subordinate staff, and we not only share the views of these witnesses but feel that the subordinate clerks in the lower grade and peons in the lower courts do not get a living wage. A probationer's pay begins with Rs. 20 and after three or four years on being confirmed he gets Rs. 30 per month. His time-scale is Rs. 30—2—60 with an efficiency bar at Rs. 50. We are of opinion that the initial pay of a probationer should be raised to Rs. 30 per month. His pay on confirmation should start with Rs. 45 rising to Rs. 90 with an annual increment of Rs. 3. The present pay of an orderly in the lower courts is Rs. 10 per month, and that of a process peon is Rs. 10 rising to Rs. 15. We recommend that the pay of orderlies and process peons should start with Rs. 12 rising to Rs. 18 per month with a biennial increment of Re. 1 and selection grade of Rs. 20 per month for 5 per cent of the cadre.

The pay of the process peons is so low that they cannot avoid taking bribe. They are often required to serve processes long way away from the headquarters—50-60 miles—and are expected to walk these distances. They do not get any travelling allowance. It is most unlikely that they will walk long distances or meet their travelling expenses out of their own pay.

Probationers who know typewriting and shorthand are often employed by some Munsifs. These clerks have to attend them at their residence, and sometimes wait long hours without work. They thus do not get time to perform their prescribed duties properly in office for which they were appointed. They also have to engage unauthorized hands to cope with their work. This practice which leads to corruption should be stopped. The lot of temporary clerks is the worst. Their pay and prospects should be improved.

The minimum pay of clerks in upper division should be raised to Rs. 100 per month and the maximum to Rs. 200 per month.

In no court or office the lot of the ministerial staff is so bad in the matter of their pay and prospects as that of the clerks in the Registration Offices of heavy districts like Patna. They have to work harder than many other employees of the same class. Our recommendations made above should apply to them also.

IV. It is admitted on all hands that the subordinate staff are not only ill-paid but in many offices they are undermanned, and overworked. It is an indisputable fact that work has considerably increased in recent years. The permanent staff have to employ unauthorized hands to cope with the extra works, and have to find out funds to remunerate them. Many members of the ministerial service have to work much beyond office hours, and even during most of the holidays. In several districts the ministerial staff will be found short by dozens, judged by the standard of work, and the number of clerks sanctioned by the Ministerial Officers' Salaries Committee of 1905. We suggest that this important question should at once be taken up by Government and extra hands according to the increase in the volume of work and needs of an office, should at once be provided. In any relief that the Government may be able to provide for the ill-paid and overworked subordinate staff cheap residential quarters and free medical aid for them and for their family, wherever possible, should be included. Some modern industrial concerns do not ignore these requirements of their employees. Cheap, comfortable, and even pretty quarters can be constructed in an open and convenient locality to suit the means of different classes of employees. Inexpensive system of treatment can be provided when the supply of doctors, *vaidis*, *hakims* and Homeopaths is increasing.

V. No confidential report of dishonesty or inefficiency against an officer should be made in the annual merit statement without first obtaining an explanation of the officers concerned. Adverse remarks should be made only when the explanation of the officer is unsatisfactory.

All confidential reports—good, bad or indifferent concerning an officer—should be communicated to him, and in case of a bad remark he should be given a chance to explain his conduct. An officer with a continuous bad record should be compulsorily retired though it may increase the provincial pensionary charges. A business concern would give a short shrift to such an employee. Rule no. 836 in the Police Manual on this point should be extended and applied to all provincial and subordinate services.

VI. Several witnesses have stated that the supply of provisions to superior inspecting officers is a great strain on the honesty of the subordinate staff. We quote an extract from the

statement made by a member of the Indian Civil Service who is a District Magistrate at present. He says: "I know of one case in which a Superintendent of Police stayed for a fortnight in a Dak Bungalow, had all his provisions supplied through his sub-inspector, and in the end was presented with a bill of Rs. 2 by the sub-inspector. The Superintendent of Police, of course, promptly paid the bill without asking any awkward questions. The inference is obvious. The next day I occupied the Dak Bungalow for about a week and the same sub-inspector presented me with a bill of Rs. 1. On being questioned he said that the bill was perfectly all right and that the Police Sahib had stayed for two weeks for which a bill of Rs. 2 was presented."

This practice must be condemned, and we recommend to the Government to issue a circular order to all inspecting officers to make their own arrangements for the supply of provisions without employing the agency of their subordinates, and where a recourse to the services of a subordinate is inevitable, the superior officer must himself make out a list of his requirements or check it, and should obtain receipts for payments made according to the market price of the commodities purchased. His private servants or orderlies should not be allowed to make a requisition for any provision.

Another source of corruption is the presentation of *dalis*. This evil was checked to some extent by the famous Gait *Dali* Circular which, however, permitted acceptance of fruits and vegetables grown in the garden of the presentor. We are of opinion that no *Dali* in any form should be accepted by Government servants.

In reply to our question no. 12 under the heading "General" a very senior and experienced member of the Indian Civil Service says as follows:—

"This evil does persist and I believe the few superior officers who indulge in it are more to blame for its persistence than anything else. This kind of advantage, viz., obtaining provisions or means of conveyance free or cheap, has been seen by me practised by even very high officials. They like and encourage most expensive *dalis* and expect zamindars to provide them with "Nainital" potatoes, sea-fish, Darjeeling peas and Punjab fruit at their *shikar* or holiday camps. The zamindar is expected to make elaborate *bandobast* for their camps and for arranging "kills" and *hakwas*. The officers have sense enough to know that their zamindar host who puts on a smile and says it was a pleasure to make the *bandobast* cannot really afford it and must have run into debt and resorted to measures in securing beaters, coolies, etc., which are little short of criminal. But their greed makes them blind to all this."

"Some superior officers ask their subordinates to make arrangements for the provision, etc. But the requirements are so heavy and extraordinary and the inclination to pay their proper price so small that the subordinate cannot possibly make the arrangements without paying out of his own pocket or shoving the burden on to some zamindar or excise lessee or Public Works Department contractors."

"The subordinates have to make up for what they have spent out of pocket and they also like to have their fun and enjoyment. So they follow the example of their superiors."

VII. Another practice which leads to corruption is the entertainments of officers on the eve of their departure on transfer or from time to time during their stay at a particular station. The Government Servants' Conduct Rules permit restricted entertainments of officers on the eve of their departure. We suggest that all such entertainments of officers should be prohibited except in the case of officers retiring from service. Free admittance of Government servants to places of entertainments should be prohibited except, of course, of those who may go there on duty.

VIII. Some officers use borrowed cars or other conveyances, and place themselves under obligations of local men. This practice is undesirable from the administrative point of view and it would be better to stop it except where borrowing of a conveyance is inevitable for purposes of State or on occasions of marriage, and some other social functions customary in the country.

Some witnesses are of opinion that no reform is possible in certain departments and spheres without the co-operation and active help of the members of the Bar. We agree with this view. They belong to one of the noblest professions and have always taken a lead in advocating reforms and measures calculated to promote the well-being of the people. Their contribution towards public good has been great and valuable. A large amount of most useful materials have been supplied to us by the members of the Bar. But a young member of the Indian Civil Service has said that "75 per cent of them are corrupt themselves, and abet corruptions." We do not agree with him but we recognize that due to economic depression, failure of some to earn a living and the Bar being crowded with many who were forced by circumstances to join it without having aptitude, and full equipment it has not been possible for some of them to maintain the best traditions of the profession. But it is said that even some senior and successful members of the Bar have not set a good example, and have done little or nothing to check corruption. It is the general belief that the prevalence of toutism and misdeeds of lawyers' clerks are largely responsible for corruption in offices of the courts. It is necessary to take drastic action against touts, and those who employ them. We would appeal

to all members of the Bar to exercise a strict supervision of, and control over, their clerks' work, and see that the latter get a living wage by legitimate means without being a party to any act which amounts or leads to corruption. But it would be unfair to put the entire or even bulk of the blame on the weakest party. The position of most of the clerks is unenviable. They have to serve on inadequate remuneration not only their employers but are obliged to work for and help their clients and other litigants who cannot get even their legitimate work done without much trouble and without paying illegal gratification in certain offices. The system is to blame and not only the clerks of the lawyers.

(3) *Punitive*.—Lastly the necessity and importance of detecting and punishing the corrupt servants of the State are too obvious to be stressed. Different methods have been suggested to us by different men for the detection of corruption. One suggestion is that officers of the Criminal Investigation Department should be employed for this purpose. It is recognized that Criminal Investigation Department officers are already unpopular by the very nature of their work, and it would be very inexpedient to add to their unpopularity by deputing them to take up this new duty. Apart from the question of their unpopularity their deputation will naturally be resented even by honest officers, and their honest subordinates, and a system of espionage, if introduced, will have the effect of demoralising members of various services, and may, we fear, give rise to other evils, as bad as, if not, worse than those we intend to remedy. It is, however, certain that no system or agency for detecting corrupt public servants can be introduced without causing resentment on their part. This should not deter the Government from taking effective measures to detect corruption, and drastic action to punish the culprits. Honest people need not fear any agency which may be employed for detecting the evil, and evil-doers. The reputation, status, prestige and utility of the public servants will be enhanced if the black sheep amongst them are found out and severely dealt with. Honest men will gain by the removal of dishonest ones from service. Those who are fortunate to get into Government service in this country ought to consider the lot of their unfortunate brethren who, though highly qualified, are either unemployed or earn a very poor living with no power or position. The Government servants should, therefore, fully realize their responsibility, and be prepared to face the demand of strict integrity and efficiency on their part.

Another suggestion is the formation of a Provincial Vigilance Committee with its branches at each district and subdivisional headquarters. Of those who have sent replies to our questionnaire most of the officials are opposed to the formation of such committees but most of the non-officials favour their formation. A high official remarks: "I fear that such Committee will feel the urge to make some report or other from time to time to justify their existence. The non-official members of the Committee will themselves be not above suspicion. They will be influenced by various considerations—social, communal or political—and it will be easy to prejudice their minds against a particular public servant by an insidious propaganda. If their names are known people having a grudge

against a certain officer will seize every opportunity of poisoning the ears of the members of the Committee. It will be too much to assume that every non-official appointed to a Vigilance Committee will be honest. If honesty is to be presumed I would more readily presume honesty in a public servant than in a 'non-official' member of the Committee. Unfortunately communal bias is daily playing a larger, and larger part in public life of the country. And I have come across instances where an officer of one community is believed to be honest by his community but thought to be dishonest by the other community." The foregoing quotation contains an observation that the witness would more readily presume honesty in a public servant than in a non-official member of a Committee. His opinion may or may not be correct. This is a controversial point and it is not necessary for the Committee to express any opinion on it.

It seems almost certain that efforts to eradicate or check corruption will get relaxed, and the same old indifference to it or ineffectiveness on the part of most of the officials and non-officials will continue unless a permanent body is provided to keep the interest in the subject alive and to help in stopping the evil.

We recommend that there should be only a Provincial Committee consisting of the heads of departments, and five non-officials nominated by Government with power to the Committee to co-opt other persons. Its functions should be—

- (i) To see that the measures adopted by Government are properly enforced.
- (ii) To review from time to time the result of action taken by the officials to prevent corruption.
- (iii) To suggest to Government other methods to remedy the evil in the light of experience, and fresh revelation.
- (iv) To take such action as it may be competent to do within its means and opportunities to secure purity in public services.
- (v) To maintain continued activities of the officials, and the public in the matter, and remove false notion from their mind about corruption due either to a bias or ignorance.

There should also be a Special Officer of high rank appointed in the first instance for one division as an experimental measure to perform mainly the following duties :—

- (1) To be on the look out to find out cases of corruption which may *prima facie* appear to be true, and report them to the Government either directly or through heads of departments concerned. The Government may order further investigations to be made into those cases or take such action as they may deem necessary or desirable.

- (2) To help officers in charge of certain offices and heads of departments in checking corruption.
- (3) To help members of the public in getting their legitimate work done in the ordinary course without paying any bribe. He will have to be easily accessible to those who have a business in any department.

The moral effect of a Vigilance Committee and a Special Officer being in existence to function as described above will lead to a considerable reduction of corrupt practices.

Our next recommendation in this connection is that departmental proceedings against a public servant charged with corruption should be simplified, and made expeditious, and deterrent punishment should invariably be awarded to the guilty. The procedure which commends itself to the Committee is as follows :—

- (i) Complainant should be examined and cross-examined then and there if the public servant concerned is present or his presence can be secured quickly ; otherwise, on the recorded complaint and preliminary enquiry, if any, he should be asked to give his statement orally or in writing at once.
- (ii) Then either proceedings may be drawn up and charge be framed or no further action need be taken.
- (iii) In case a charge is framed explanation should be taken in writing within 24 hours or as expeditiously as possible.
- (iv) Next the statement of witnesses should be recorded as quickly as possible, and the public servant concerned should be asked to cross-examine the witnesses. Defence witnesses, if any, should be kept ready to be examined.
- (v) A finding should be arrived at after examining his previous record.
- (vi) If he is found guilty he should have the right of only one appeal.

Strict and close supervision by superior officers and their prompt action on genuine complaints is obviously one of the chief remedies to remove corruptions. But few heads of departments and other offices are easily accessible to those who may have a legitimate complaint to make against a public servant. Superior officers, with the exception, of course, of some, generally take the side of their subordinates or ignore the complaint. Some get annoyed and even insult or intimidate the complainant. If complaints are investigated they are almost invariably reported to be false or unproved. This state of affairs is due mainly to the unsympathetic and unhelpful attitude and dilatory and inefficient action of the

superior officers. A distinguished District Magistrate says as follows:—
 “It will greatly improve matters if each officer in charge of his department attends to complaints and supervises the work of his subordinates. If the rules are followed properly and if the officers do their work with their eyes open, more than 80 per cent of corruption will cease. At present heads of departments do not attend to litigants and members of the public I do know of cases where dishonest sub-inspectors have been promoted As Subdivisional Magistrate I found that a certain sub-inspector was thoroughly dishonest and there was perhaps not a single person in the subdivision who knew the sub-inspector that could testify to his honesty. The inspector who was thoroughly honest and made a report against this dishonest sub-inspector did not get any response from the Superintendent of Police who, instead of taking action upon the report of the inspector, always took the side of the sub-inspector. I had to adopt my own method to check corruption on the part of the sub-inspector. That is not an isolated instance of a dishonest sub-inspector being supported by his superiors against the view of the inspector.”

Bribery and corruption remain undetected and unpunished also by the fault of the private people concerned. Few have the courage and character to provide proof of the guilt of the offender. It may be conceded that there is a natural and, in many cases, reasonable fear on their part that they will suffer loss and harassment if they give evidence against a member of either superior or subordinate service. Instances are not rare when members of the public and even complainant himself deliberately destroy evidence and some even try to prove the innocence instead of the guilt of the public servants against whom corruption was alleged. A vigilant and active officer, however, who has conceived his duties in the right spirit can prove very helpful in increasing the facilities and decreasing the difficulties of the people who have a business in any court or office. It is true that sometimes unfounded allegations are made against a public servant due to malice or suspicion. It is also true that officers and subordinate staff are often approached with unreasonable requests by selfish or ignorant people. But the present conditions can be greatly improved if the system under which the people and the public servants have to work and the mentality on the part of both are changed. We must, however, emphasize that it is more essential to have good men than to put too much faith in any system.

Complaint Books.—Complaint books may be very usefully introduced in all the Civil, Criminal and Revenue Courts and in all other Government offices where the subordinate staff and peons come in direct contact with the public. Such complaint books ought to be open to the public and should be easily accessible to them at a place unwatched by any public servant and should be put up every day or on the day following before the gazetted head in charge of the department. The value and usefulness of such complaint book has been demonstrated by the State Railways.

CHAPTER IV.

CIVIL.

Money passes at the time of—

1. Presentation of—

- (a) Plaints.
- (b) Written statement.
- (c) List of documents.
- (d) Petitions for —
 - (i) Commissions.
 - (ii) Attachment before judgment.
 - (iii) Receivers.
 - (iv) Injunction.
 - (v) Time.
 - (vi) Almost every other step.
- (e) Appeals.
- (f) Applications for execution and delivery of possession.
- (g) Petitions of objection (i.e., *Mis. Jud.* cases).
- (h) Petitions for restoration of suits and appeals.

2. *Swearing of affidavits*—

- (a) By identifiers as to service.
- (b) By any other person for any other purpose.

3. *Issue of*—

- (a) Warrants of arrests.
- (b) Process of attachment.
- (c) Process of sale proclamation.
- (d) Writs of delivery of possession.
- (e) Attachment before judgment.
- (f) *Ad interim* injunctions.
- (g) Injunctions.
- (h) Any other process when expedition is required.
- (i) Commissions.

- (j) Sale certificates.
- (k) Payment orders.
- (l) Chalans after they are passed.
- 4. (a) *Transfer of decrees to other courts.*
- (b) Communication of result of execution of decrees received from other courts, if expedition is required.
- 5. *Comparison of books of account by the Sheristadar.*
- 6. *Checking of plaints, appeals, petitions for execution and objection petitions.*
- 7. *Adjournment of suits and appeals.*
- 8. *For giving facilities to parties for inspection of records on the dates fixed for hearing of cases.*
- 9. *On the dates cases are taken up known as "Peshi".*
- 10. *Preparation of decrees, especially in Bhaoli rent cases.*
- 11. *Sending—*
 - (a) *Requisition for records and papers.*
 - (b) *Documents to copying department when expedition is required.*
 - (c) *Documents by the Record Room in compliance with the requisitions of different courts.*
- 12. *Supplying—*
 - (a) *Dates of disposal of cases.*
 - (b) *Chalan number and date of deposit.*
- 13. *Inspection of records—*
 - (a) *Pending.*
 - (b) *Disposed of, but not deposited in the Record Room.*
 - (c) *Deposited in the Record Room.*
- 14. *Application for copies especially when expedition is required.*
- 15. *Return of—*
 - (a) *Sale certificates,*
 - (b) *Copies of decrees.*
 - (c) *Documenta.*
- 16. *Deposit of diet money in special cases,*

17. *Refund of unspent diet money.*

(The diet money is usually shared by the Cashier and pleader's clerk.)

18. Issue of processes to the serving peons, when expedition is required.

19. *Execution of important processes by Nazir.*

20. *Delaying issue of urgent processes—*

(a) By office.

(b) By Nazir.

(c) Service by peon.

21. Service of processes especially in attachment before judgment injunction and *dakhal dahani* cases.

22. Making false reports of resistance to the process of the court.

23. *Testing of security by the Nazir.*

24. *Holding sales.*

25. *Releasing attached properties.*

26. *Passing chalans and receiving chalan money.*

27. Passing the bills of assessors, jurors and of Commissioners and guardians *ad litem*.

28. Appointment of clerks, probationers, copyists and typists.

29. *Transfer of clerks.*

30. Enrolment of candidate peons and appointment of peons.

31. *Ex parte disposal of suits.*

32. Transfer of appeals from the courts of District Judges to the files of Sub-Judges.

33. Obtaining permission to sell and other orders in guardianship cases.

34. Taking possession and submitting reports in insolvency cases.

35. *Issue of—*

(a) Succession certificate.

(b) Probate.

(c) Letters of Administration.

The amount varies from annas 4 to Rs. 5 or Rs. 10 and at times to Rs. 50 or more according to the occasion and necessity.

Corruptions can be classified under two heads :—

A. Voluntary :—

- (1) *Mamull* or voluntary payments made in ordinary course.
- (2) Payments made for securing some advantage for a party or himself.
- (3) Payments made for gaining an advantage over an adversary.
- (4) Payments made to be suited out of turn or without waiting for the usual course.

B. Exaction or extortion for—

- (1) Doing a thing or omitting to do a thing which a clerk or peon is bound by law to do or omit.
- (2) Doing a thing or omitting to do what a clerk or peon is not bound by law to do or omit.

The hum and activities in the Civil Courts and their precincts are unmistakable signs of the great interest people take in their functions and the importance they attach to them. A vast amount of matters of varied character come before them for adjudication. These courts deal with disputed rights and interests which affect property and also honour, in many cases, of the litigants who go to law. The nature of work and the rule of business both on the appellate and the original side in these courts make certain amount of contact by the litigants or their agents, and, in some cases even by lawyers, with the offices of the courts inevitable. This contact does give rise to corruptions in offices. It is, therefore, desirable in public interest that the general public or the litigants do not come in contact with the staff except where it is unavoidable by the nature of their business. But the prevention of contact or communication with the staff cannot be altogether stopped nor would it be fair to stop it unless facilities for execution of legitimate work are provided to those who have a business in a court or office by improving the system of business which prevails at present and by having suitable and sympathetic Registrars or other officers easily accessible to those who wish to approach them for getting their lawful work done without difficulties which they otherwise will have to overcome by other questionable ways.

In the case of the High Court not merely the litigants but the lawyers' clerks and even the lawyers are not allowed access to the office. This necessity is recognized in rule 1, Chapter I, Part IX at page 197 of High Court General Rules and Circular Orders, Civil, Volume I. But the nature of work and the system in vogue in the High Court widely differ from those of the lower courts due to the High Court exercising almost exclusively the appellate and revisional jurisdiction in cases. Some of the

rules which can be profitably practised in the High Court cannot be made applicable to the lower courts without adding to the hardship of the litigants and the public and increasing the amount of bribery if not the occasions of it.

In order to prevent corruptions and provide facilities to the public in their legitimate work we propose the following remedial measures :—

Remedies.—1. Plaints should be filed in open court where there is no Registrar and not before the Sheristadar as is permissible under Order IV, rule 1 of the Code of Civil Procedure by a written authority of the Presiding Officer, and provided for in rule 10, Chapter I, paragraph 1 at page 6 of General Rules and Circular Orders, Civil, Volume I.

(Other papers are presented in open court and for that reason no contact with the office staff is necessary.)

2. Rules 11, 12, 12A, at pages 6 and 7 of Chapter I, Part I of General Rules and Circular Orders, and rule 3A at page 49 should be strictly enforced. Thus a party will know the number of the case and the date fixed without reference to office.

3. On the date so fixed, the record will be sent to court to enable the pleaders to make corrections there in the presence either of the Presiding Officer or Sheristadar in the first period of the day.

4. A pleader may be appointed at all the district and subdivisional headquarters to take affidavits for all courts. Deponent should pay two annas extra. This fee will not be grudged by the deponent and the fees will be enough to cover the pay of the pleader. We have elsewhere recommended to dispense with an identifier and affidavit by him. Peons' affidavits may be taken by the Sheristadar as it is done at present.

5. *Comparison of books of account.*—Copy of account should be certified by the pleader and accepted by the court. The comparison seldom, if ever, is made by the Sheristadar who is a hard-worked employee. The present practice leads to corruption.

6. Processes should invariably issue from the office within three days of the filing of the process-fee and the process. But important processes, such as attachment before judgment and injunctions, must issue on the very same day that they are filed (to avoid paying bribe for issue thereof).

7. Delaying the issue and execution of urgent processes may be avoided by supervision and exemplary punishment.

8. To prevent peons' practice of making false reports about service of processes two alternative suggestions were made before us :—

(1) Service by Postal Department.

(2) Service by chaukidars through the collecting *punch* and local or district boards.

The postal peons are certainly not so corrupt as those of the Civil Court, but if they are exclusively employed, they will probably prove to be equally bad. And it will be necessary for the Postal Department to increase the staff and run into additional expenditure. Moreover, the work of the department will be dislocated because the serving peons will be required often to come to court to give evidence about service. We do not, therefore, recommend a change in their favour. There is, however, a provision in Order 5, rule 9 (2), Civil Procedure Code, about the use of the Postal Department in the exercise of its discretion.

The second suggestion also does not appeal to us. The chaukidars are amenable to village intrigue and are prone to help a party to the prejudice of another. They will also be not always available as they have to attend police-stations, report offences, help in the execution of errand of a touring officer and do all kinds of miscellaneous work. Then the processes will come into their hands through the *punch* and the staff of the district and local boards where again corruption will prevail.

The following suggestions are made for better service through the present agency:—

- (1) The pay of the peons should be increased. Their pay should be fixed at Rs. 12 rising to Rs. 18 with an additional fixed travelling allowing of at least Rs. 3 per month.
- (2) There should be an occasional verification of service of processes by a gazetted officer. A probationary Munsif may fittingly be employed for the purpose.
- (3) Exemplary punishment should be awarded when any false report comes to the notice of the court in judicial proceedings or otherwise.

A Government Pleader says: "Peons report non-service with the object that the *talbana* would be exhausted and the party would have to file a fresh *talbana* which can be avoided only by payment being made to him and service being secured. The proper course to avoid this harassment of the parties is to amend the circular about filing a fresh *talbana* after every non-service and to require one and only one *talbana* for one process whether it is served or not served." We recommend that this suggestion may be adopted.

- (4) An identifier should be dispensed with except in cases of warrants of arrest, attachment of movables and delivery of possession. The High Court have recently framed a rule (15A at page 14 of General Rules and Circular Orders, Volume I), that an identifier should not be insisted upon for service of a process or notice. Special precaution should be taken against bribery and corruption in cases of warrants of arrests, attachment of movables and delivery of possession.

- (5) The peon should take the attestation of the chaukidar or dafadar if present, and of one respectable person of the locality in proof of service. The rule on the subject is contained in rule 15 at page 13 of General Rules and Circular Orders. It will be quite enough to take an affidavit from the peon only. No affidavit from any other person for the service should be insisted upon because in that case no independent person would like to attest the service.
- (6) The sale proclamation and attachment of lands are at present executed by the process-server who is expected to go upon each plot of land. It is very doubtful if this is really done. The necessity of an identifier arises for such an execution because the peon who is a stranger cannot otherwise find out the land. It has been suggested by a senior District Judge that when the property is agricultural land in a village the processes should be proclaimed at a conspicuous place in the *basti* in which the land lies. This suggestion appeals to us and we adopt it. If it is acted upon the necessity of an identifier can be avoided. Where, however, the property is situated in a town the existing provision regarding service of such processes should be retained.
- (7) Only one peon should be deputed for one village for all the processes even if parties are different but reside in the same village. This, we understand, is not in vogue in every district.
- (8) Suits for rents in respect of lands of the same village and brought by the same landlord should be fixed for disposal for the same date as far as practicable.

9. It often happens that documents called for are not sent to the requisitioning court without exacting a tip. We would suggest that it should be the duty of the clerk in charge to see that records called for are received in office before the date fixed. If he be found negligent, disciplinary action should be taken against him.

10. *Inspection of Records.*—Records of pending cases may be inspected by the pleader of a party in court but records deposited in the record-rooms should be inspected in the record-room as provided for in rule 51 at page 97 of General Rules and Circular Orders, Volume I. If the records are brought to court from the record-room there is a danger of papers being lost or tampered with. The Judge in charge may occasionally pay surprise visits and see that everything is going on regularly. Pleaders should be allowed to take adequate notes (but not make copies) and the restriction in rule 49 at page 97 which provides for the taking down of notes merely for the purpose of identifying the documents should be modified. There is no danger of any loss of revenue. Parties as a rule do obtain copy of relevant documents. Only in very few cases under an emergency a pleader is compelled to inspect certain documents and take notes. If there is no time to obtain a copy and the

pleader is precluded from taking sufficient notes to be of any use at the hearing of the case the party concerned will have recourse to a dishonest method of obtaining a copy or adequate notes of the required documents. The existing rule, if rigidly interpreted as some courts may do, will either make the inspection utterly useless or will expose the pleader to the risk of being blamed or proceeded against for violating the rule. The Chairman has personal knowledge of a case in which a Judge taking advantage of the rule took action against a pleader though the latter had taken a very meagre note of the document he had inspected in the presence of the Judge with his permission. The High Court on reference quashed the proceedings drawn up against the pleader.

The present rule, therefore, can be a source of harassment or corruption.

11. The practice of giving short dates and frequent postponements does lead to corruptions because (1) the Peshkar will have to be paid a tip on each occasion and (2) a party desirous of choosing his own date will bribe him.

The rules for the fixing of dates of hearing and the grant of adjournments are to be found in Chapter III at pages 22-23 of General Rules and Circular Orders, Civil, Volume I. Corruption arises by a non-compliance of these rules. If the Presiding Officers follow these instructions, much of the hardship caused to the parties will be mitigated. But there are difficulties in their way :—

- (1) The files are usually so congested that they find it difficult to arrange their cases and fix dates. A Munsif has to keep about 100 or more cases fixed for a day.
- (2) They are afraid that if suits are peremptorily fixed for hearing and if on any particular day, the suit fixed for the day is compromised or withdrawn or cannot, for the death of a party or for any other reason, be taken up, they will remain without any work.
- (3) They also feel that the average duration of suits will increase.
- (4) They are also afraid of a decrease in the outturn of contested cases and of the consequent adverse remark of their superiors.
- (5) If a Munsif is compelled to fix dates for all the cases himself a substantial part of the day will have to be devoted to this work to the prejudice of the parties who are ready with witnesses.

So far as Subordinate Judges and District Judges are concerned they can fix the dates themselves. It is possible for a Subordinate Judge to fix a peremptory date in such a way as to avoid ordinarily the necessity of an adjournment on such a date. A party on good grounds may get an adjournment of the hearing of a case but it should not get postponed automatically from time to time by fixing too many cases for a day.

A Munsif also can, by fixing dates himself in old suits and by general instructions to his Peshkar, regulate his case work to a considerable extent so as to avoid harassment to the parties as far as practicable.

The adoption of the following methods is likely to reduce corruptions in certain directions :—

- (1) No adjournment should be ordinarily allowed in Small Cause Court cases for filing written statements. Oral statements of defendants or their lawyers may be recorded in the cause sheet.
- (2) Small Cause Court suits ought to be taken up serially by the court without the Peshkar having any hand in the matter.
- (3) *Ex parte* rent and other suits are to be taken up according to the order in the cause list at a fixed time, having regard to their number. Suits for rents in respect of lands of the same village and brought by the same landlord should be fixed for disposal for the same day as far as possible.
- (4) It is quite possible that on the date so fixed the Presiding Officer will find himself in the midst of a part-heard case going on from before. As soon as he finds that he takes up a suit which will go on for some days and will overlap a suit already fixed for peremptory hearing he should send for the lawyers and inform them beforehand that the suit would not be taken up on the date fixed in order to avoid trouble, harassment and unnecessary costs to the parties.

12. Rule 7, Chapter V, Part I, at page 28 of General Rules and Circular Orders provides for notice when a decree has been drawn up. Lawyers should come to court and peruse the decree made available in court within three days, the time allowed in the rule. But lawyers do not come and peruse the decree as the client does not come being ignorant of the date when the decree was to be ready and put up in court. Therefore the court should, on the day a judgment is delivered, fix an approximate date by which draft decree will be ready. The notice of this date should be hung up and a copy of it sent to the Secretary, Bar Association. The same may be done about the time for objection. Court should fix a date for delivery of a judgment.

13. *Certificate of non-satisfaction of decree for execution in another court*, is usually sent by post. If a rule is observed by the court that it would issue within three days as a matter of course no contact with the office will be attempted, but in exceptional cases the court should accommodate a party by an early despatch if so requested. Where *dusti* cover in this matter is prayed for, the Presiding Judge should make it over to the pleader in open court.

A strict observance of rule 17, Chapter VI, Part I, at page 35 of General Rules and Circular Orders, will stop corruptions in the matter of

sales. Where there is no bid or when the bid does not satisfy the decree or is evidently low the Nazir must obtain orders of the court who should hear the pleaders or the parties and then pass orders.

The same observations should apply to *communication of result of execution of decrees.*

14. When a *sale certificate* is ready for delivery a notice may be hung up on the board or an intimation be sent to the pleader concerned and it should be delivered to the pleader the next day in the presence of the Presiding Officer in the first hour.

15. The same rule may be adopted for the issue of *payment orders.* Pleadors do not generally take payment orders unless their clients are present and, therefore, delivery is sometimes delayed. It will not be convenient to bring payment orders to court day to day and to avoid this inconvenience to the staff, the pleaders should co-operate and take payment orders on the day following the notice of their being ready.

16. Rule 1A, Chapter VI, Part I, at page 30 of General Rules and Circular Orders, provides for payment of annas four as searching fee in respect of an application for execution for the purpose of supplying information to remedy defects. This provision may be extended to an application for payment order, since the payment of a tip for the supply of date of disposal and other particulars will be avoided.

17. It is suggested by the Secretary of a Bar Association that the date of disposal should not be necessary for an application for inspection of a disposed of record. The record, deposited in the record-room cannot be traced without the date of disposal. Hence if a searching fee of annas four be paid, the office should get the date of disposal from the Register of Suits and supply the information in the application on the day following the day of its presentation.

18. *Chalans* after being filled up are to be presented in court and the Presiding Officer should arrange that they should be checked in office and passed by the Sheristadar as also the accountant and returned generally within one hour to the peshkar who will forthwith make them over to the pleader or his registered clerk. If there is any delay, the pleader should at once make a complaint to the court. On the other hand, if for any special reason a chalan is required to be passed at once, the court should arrange that when so requested by a pleader or a party. It is the duty of the accountant to get the signature of the judge in charge of accounts.

19. Payment of a tip for deposit or withdrawal of money may be avoided by generally educating the litigant that no payment is required and by strict supervision, occasional surprise visits and punishment of the guilty person.

20. Rules 18 to 21 at pages 110 and 111 of General Rules and Circular Orders, should be strictly followed since in that case there will be no occasion for giving tips for obtaining copies.

21. Notices showing preparation of Succession Certificates, Probates or Letters of Administration should be hung up on the notice board and documents prepared should be made over to the pleader concerned in open court on the third day (so that the pleader may send word to his client).

22. *Return of Documents.*—Rule 34 of General Rules and Circular Orders, page 92, should be strictly enforced. List of documents should always be sent by the courts when records are sent to the record-room. If the list is not found in the record-room, enquiries should be made from lower courts and explanation asked for. Defects, if any, in application for return of documents should be helpful and specific.

Litigants and lawyers have complained of delay and difficulties and the necessity of paying bribe for getting back the documents which had been filed in a case but in this matter the parties are more to blame than the office concerned. In many cases the litigants or their agents either give too little or misleading particulars of the documents and thus do not enable the clerks to trace them and make sure that the right documents are required by the right party.

23. Copies should be made over in open court; sale certificates, documents and copies of decrees which are required to be returned to a party should also be returned in open court at a fixed time: (See rule 34-C, page 92-H, General Rules and Circular Orders, Civil, Volume I.)

24. District and Sessions Judges should transfer appeal and sessions cases to whichever court they like and the peshkar and the office should have no hand in the matter.

25. The measures suggested above indicate that the presiding officer must be easily accessible to the public and the lawyers, take greater interest in supervision and administrative work, and cultivate a feeling of helpfulness to the litigants. This may adversely affect the outturn of judicial work and, therefore, the same outturn as is expected at present should not be enforced where the Registrar system is not in force.

26. District Judges should themselves pass orders about the appointments, transfers and dismissal of ministerial staff and also of the menial establishment and not depend on the reports of the sheristadars and nazirs. Sheristadars and nazirs should be transferred inter-district. Sheristadars should in no case be allowed to make inspection or prepare inspection notes. The prestige and authority of the Subordinate Judges and Munsifs are undermined, and this affects their power to check corruptions on the part of their subordinates who may be dishonest.

27. Appointment of Commissioners and pleader guardians.

The presiding officers should do this part of the work themselves and should also have in mind an equitable distribution of this work.

28. The system of having a Registrar for civil courts has worked, according to the testimony of competent persons, fairly satisfactorily in the districts of Patna and Gaya. But it has been pointed out by some that the efficiency and utility of the system has considerably deteriorated recently. Corruption has not been eliminated or checked considerably and facilities, to which the litigants, their agents and lawyers are entitled in their legitimate work, have not been forthcoming as expected. The position on the whole has much improved. The success of the system depends largely on the officer selected. If he can enter in a humane spirit into the woes and difficulties of the litigant public he can be very useful to the State and the people who deserve to be served properly.

We recommend the extension of the system because (1) The system enables a party to get all information quickly without approaching the staff. (2) There will be one whole-time Gazetted officer to supervise the working of the offices. (3) He will be able to arrange for inspection of records pending as also disposed of and those deposited in the record-room in his presence and without the necessity of contact with the record-keeper (as would be otherwise necessary). (4) The other Gazetted officers will be able to devote their attention to the cases in their file exclusively without distraction and waste of time over other matters. (5) The work of the Nazarat can be adequately supervised by this special officer.

No Registrar need, however, be employed in subdivisions or in small districts such as Champaran or Chota Nagpur where a subordinate judge can perform these duties.

CHAPTER V.

CRIMINAL COURT.

It is necessary to draw the attention of Government to the importance of making a careful selection of Magistrates to be Subdivisional Officers. A Subdivisional Officer can do a lot to prevent avoidable hardship of the people in his jurisdiction due to corruptions on the part of some public servants. The reports made by the police under sections 107, 144, 145 and 202 of the Criminal Procedure Code should be carefully scrutinized and an independent view should be formed of such reports. Opportunities of corrupt police officers at the time of making enquiries under these sections to take bribe are very great. People in many cases feel helpless against wrong reports made either by taking money or by an error of judgment.

2. It is, however, a common knowledge or belief of the people that Subdivisional Officers, with the exception perhaps of a very few, do not possess that amount of independence which is necessary to check corruptions particularly in the case of police officers.

3. Crown prosecutions in the court of Magistrates almost always are conducted by court Inspector or Sub-inspector. Except in undefended cases it is, however, rare that a private prosecutor rests content with the services of the prosecuting police staff especially when the latter have to attend several courts who all need their services about the same time. The prosecuting staff have to do some clerical and other work also with the result that they cannot always fully devote as much time to a case as necessary and often fail to inspire confidence in the private prosecutor. In such a case the latter always engages a professional lawyer to conduct his case or to assist the court Inspector or Sub-Inspector. The first difficulty that the party and his lawyer have to contend against is the question of the lead being given to the private lawyer. For obtaining the privilege for taking the lead in the case the private prosecutor has to purchase the permission from the Crown prosecutor. Then comes the question of access to the police papers in the case. No professional lawyer can proceed with the prosecution of a police case without the case diaries. Here also money passes very freely and its amount depends upon the importance of the parties or the case or both. A daily fee is paid to the Crown prosecutor for all the dates on which the case is taken up. The Committee would have suggested a complete overhauling of the whole system but it refrains from doing so as it attaches far greater importance to the improvement of the moral tone of the people and securing good men than to improving a particular system under which men are selected for certain office and work under it.

4. The trial court should freely give permission to a competent private lawyer to conduct a police case and the police papers in connection with the cases should be shown to him.

5. Similar concessions should be extended to a private party in Crown prosecutions before the court of sessions with the consent of the District Magistrate who should exercise his discretion freely in favour of permitting a private lawyer to conduct the prosecution taking into consideration his standing at the bar and general reputation. Cases of Crown prosecutors taking fees both from the Government and the private prosecutor are not rare.

6. Money passes at the time of :—

- (i) Filing a complaint or an objection to a police report before the Subdivisional Officer ;
- (ii) Issue of processes for service or execution ;
- (iii) Making an application for bail and executing a bail bond ;
- (iv) Filing a petition for time and on each date of hearing ;
- (v) Unauthorised inspection of records of pending cases by lawyers
- (vi) Obtaining surreptitiously copies of depositions and other papers on the record of a case ;
- (vii) Sending a " Rubakar " calling for a record ;
- (viii) Arguing a case by the court police to secure a conviction or acquittal ;
- (ix) Delivery of judgment ;
- (x) Obtaining a copy of a judgment sentencing an accused to a substantive term of imprisonment to move an appellate court ;
- (xi) Obtaining time for payment of a fine and depositing it in court ;
- (xii) Obtaining a *disti* cover containing the bail order and certifying a bailor as fit ;
- (xiii) Putting up police papers (e.g. reports under section 144 or 107, Criminal Procedure Code) for orders before Magistrates ;
- (xiv) Influencing jurors and assessors in sessions trials ;
- (xv) Allowing conveyance to an accused ;
- (xvi) According permission to a lawyer by the Public Prosecutor to conduct a prosecution.

7. Remedies.—(i) All applications should be received by the Magistrate himself, and not by the Peshkar.

(ii), (iv), (vii) and (viii).—A vigilant magistrate can check these corruptions by taking timely and suitable action. No hard and fast rule or methods can be prescribed to check them. These must be left to the discretion of the Magistrates how to tackle them.

(iii) In no case should the fitness of a bailor or a surety be required to be judged and certified by the Court Sub-Inspector. The Magistrate himself should accept or reject the person offered as a bailor or as a surety. In assessing his worthiness the value of his immovable properties also should be taken into consideration, and not the value of his movable properties only. Their value can be judged by a reference to "Khatian", rent receipt, chaukidari receipt, etc. The Court Sub-Inspector would not know what movables are possessed by a bailor or a surety.

(a) Magistrates should respect the spirit of section 500 read with section 501, Criminal Procedure Code, more than they do at present.

(b) An accused should be released as soon as a bail bond has been executed. Verification of the bond may be made by a further enquiry only in cases contemplated in section 500, Criminal Procedure Code.

(v) and (vi) Arrangements should be made to grant copies of depositions from day to day, in cases which are being tried, on payment of the usual fee. This practice obtains in Sessions Courts, and in some Criminal Courts. This system should be introduced in all Criminal Courts. Uncertified copies of documents filed by or on behalf of a party but not exhibited may also be granted if applied for.

(ix) Judgment should be delivered in first hours.

(x) In case of conviction and sentence of imprisonment a copy of the judgment should be granted in the course of the day. Magistrates who dictate their judgments can supply a copy as soon as a judgment is delivered.

(xi) Date for payment of a fine should be fixed. If an accused applies for time it should be granted as a matter of course and sufficient time should be given. A fine should be deposited in court before the Presiding Officer.

(xii) When a party concerned applies for a *dasti* cover as soon as bail is granted, he should get it through a pleader "as soon as possible in the course of the day. The jail rule for releasing at certain hours an undertrial or convicted prisoner, who has been granted bail, should be modified.

(xiii) Copies of reports under sections 107, 144, 202, Criminal Procedure Code and of final reports, inquest, post-mortem and injury reports received by the Subdivisional Magistrate should be granted as soon as applied for on payment of the usual fee. In a complaint case copy of the complaint should be granted to a lawyer, if he applies for it on behalf of the accused though the latter may not have been summoned or may not have appeared. He should see that police papers are put up quickly before him and that he is not influenced in his decision by the recommendations of the court police.

(xiv) Since there is a good deal of corruptions in the system of trial by jury or by aid of assessors every effort should be made to get good and

reliable men, and their list should be prepared after a most careful enquiry. If good men are not available the system of trial by jury should be abolished.

A very experienced officer who has recently retired from service says that 90 per cent of jurors and assessors succumb to temptation or recommendation. In communal cases seldom, if ever, their verdict or opinion is unbiased.

(xv) Consistently with safety a conveyance at his cost should be allowed to an accused from the jail to the court. This will obviate the necessity of bribing the police or the jailor or both when a conveyance is obtained in some cases.

(xvi) This has been dealt with under preceding paragraphs 4 and 5.

(xvii) Some District Magistrates and Subdivisional Magistrates are irregular in coming to their courts and do not come at a fixed time even when they are at their headquarters. This leads to corruption and harassment to the parties because they become dependent on peshkars for obtaining certain information, etc. A District Magistrate at Patna, not long ago, used to attend his court at a fixed time and intimate beforehand to the parties if he, for any reason, had to alter the hour.

(xviii) Appellate and revisional courts should pass orders as soon as an appeal or an application for revision is presented before them or fix a date for a preliminary hearing.

(xix) Recruitment of Honorary Magistrates from amongst men of at least a fair amount of education, good character, social position and independent means should be insisted upon. Some training in law and procedure may also be provided for persons newly appointed. For the old ones a short course of refresher should be prescribed. The trial of cases by Honorary Magistrates leads to a good deal of corruptions. We would have recommended the abolition of this system but for financial considerations we refrain from doing so.

(xx) The practice of disallowing expenses to witnesses for the prosecution in cases in which a lawyer engaged by a private party appears should be stopped.

(xxi) Proper prices should be paid for provisions supplied to officers or the subordinate staff when they go out in the interior of the district on official duties.

(xxii) A cause list with a column for noting the result in criminal and revenue cases should be prepared and hung up.

(xxiii) Court Sub-Inspectors should not be transferred frequently from court to thana or to any other work. In appointing a police officer as a prosecutor his degree in law, if any, should be given due weight. This recommendation has been made to ensure efficiency and to reduce chances of corruption.

Chaukidari Department.

Money passes at the time of :—

- (1) Appointment of chaukidars ;
- (2) Selection and appointment of collecting punches ;
- (3) Approval of assessment lists ;
- (4) Considering reports against the rural police.

Remedies.—1. Although the appointment of chaukidars is made on the recommendations of the collecting punches and the local police, the Subdivisional Magistrate has to be very vigilant. He should not as a matter of course, accept such recommendations but should satisfy himself that the candidate to be appointed is not only physically fit but also suitable from the point of view of administration and local conditions. A chaukidar plays a very important part in the village life and the local police have to depend upon the information supplied by him.

2. At times undesirable men are appointed as collecting punches by bribing the police and the chaukidari clerk. This is reflected in the frequent defaults which a collecting punch makes in paying the chaukidars' salary and the cost of uniform. Most of the collecting punches are required to make enquiries under section 202, Criminal Procedure Code and, being themselves dishonest, they make money out of such enquiries. It is, therefore, necessary that the utmost care should be given while making such appointments. Men of character and means should be appointed rather than those who have ingratiated themselves into the favour of the police.

3. Collecting punches at times manage to have their assessment lists approved by bribing the chaukidari clerk though the assessment is not fair in many cases. The richer people are lightly taxed while the poorer people are heavily assessed to chaukidari tax. A vigilant Subdivisional Officer can stop such malpractices.

4. Reports against the rural police by the public are suppressed by the chaukidari clerk on being bribed. The Subdivisional Officer or the chaukidari officer should satisfy himself from time to time that these reports are properly entered in the prescribed register and that suitable action is taken against the rural police.

There is no dafadar in the Chota Nagpur Division. Nor do dafadars do the work properly required of them. The present Inspector-General of Police admitted in the course of his evidence before the Committee that they are a superfluity. We recommend that the posts of dafadars in the remaining three divisions of the province should be abolished at the earliest opportunity. The abolition of these posts will give some relief to the tax-payers.

CHAPTER VI.

POLICE.

This is one of the biggest and most important departments of the State. The police are entrusted with the preservation of order and are expected to protect honour, life, and property of the people, and investigate cases of crime committed. They come in contact with the masses and nearly all the classes and deal with matters of vital and varied interests in their day-to-day life. The police have vast powers and opportunities to do service or dis-service to the public. They can be a blessing or a curse.

2. It is generally believed that corruption of the worst character is greater in the police than in any other departments and occasions to take bribe are most numerous.

3. The Police Service, however, cannot be done away with. The lure of this service is so great that though the passing of the matriculation examination is the requisite educational qualification, under the rules, graduates are freely entering the service. The rush of candidates is partly due to economic causes and want of employment. But the keenness to get into this service is due also to the belief on the part of some that there is not a mine but an open field in this department strewn with ingots of gold which glitter like mica found on the surface in some parts of this province, for police officers to pick them up. Many, at the same time, join this service with the fullest determination to perform their duties with scrupulous care and honesty though some of them cannot long escape the contamination. Better educational qualifications have hardly tended to improve the moral tone of the service very much. The increase in the pay and prospect of the Sub-Inspectors and the Inspectors has not fulfilled the expectations of the last Police Commission which recommended it. Better educational qualifications also have belied the hopes of those who have been preferring graduates to matriculates in recent years.

4. Instances of slothfulness, indifference and uselessness of the police are not wanting. They have a peculiar knack of arriving too late at the place where they are wanted to prevent the commission of crime or to detect the criminals. It often suits them to arrive at the place of occurrence after the offence was over even when they had a timely information of the apprehended trouble.

5. Wherever there is money to be made without much labour the police is present but where there is little money or contemptuously small sum and much botheration one will not find the police or even their apparition. There is hardly any effective supervision and control over the subordinate police officers by supervising officers for want of sufficient time due partly to their desk work and partly to their happy-go-lucky routine work and an attitude of superior indifference on the part of many to the weal and woes of the people.

6. In no department honest officers remain so unrewarded and dishonest ones flourish so well as in the police. Honest officers have little incentive to continue to be so beyond their own principle to keep their conscience clean and satisfied. A clever Sub-Inspector or Inspector and even Deputy Superintendent of Police can easily deceive the Superintendents of Police and even higher officers by certain devices and mainly by flattery which is a palatable food for the vanity of some though such subordinate officers may have no or few rivals in dishonesty and corruption. Several Superintendents of Police have admitted in their oral statements before the Committee that many dishonest Assistant Sub-Inspectors, Sub-Inspectors and Inspectors get promoted because the supervising officers could not get legal proof of the corruption of the former. But if there is a belief or well-grounded suspicion about the honesty of an officer who had a previous bad record his promotion should be withheld. Unless an earnest and concerted action is taken by the different supervising officers to detect the dishonesty of their subordinates and punish them severely and facilitate the promotion of honest subordinate staff and officers corruption in the police will, it is feared, continue.

7. The experience of corruption and the difficulties of improving the police should not cause despair in any quarter. If the police is bad to-day it was worse yesterday and worst day before. On the whole there has certainly been a distinct improvement in the police force both in honesty and efficiency. The *darogas* of old days before whom the deeds of a Nero paled are fortunately extinct now. There can be a further and rapid improvement in the moral tone and usefulness of the force provided the supervising officers and particularly the Superintendents of Police are relieved substantially of their desk work by reorganizing the department to enable them to spend more time in the interior of the district and exercise greater vigilance and supervision over the duties of their subordinates and provided also the co-operation of the public and particularly of the educated section is forthcoming, at least, in some measure. The public do not co-operate with the police or respect them, not only because many members of the force are corrupt, cruel and impolite but also because they have done nothing or precious little in connection with the welfare of the people. Their sympathy and co-operation can be obtained both in the rural and urban areas by attending to their simple needs.

8. Money passes at the time of—

- (1) Recording station diary entries particularly in connection with land disputes;
- (2) Making enquiries in proceedings under sections 107, 144 and 145, Criminal Procedure Code;
- (3) Recording of a F. L. R.;
- (4) Investigating riot and other cases—particularly for roping in persons as accused;
- (5) Arresting a wrong person and not arresting an accused;

- (6) Searching for stolen articles and seizing or not seizing them ;
- (7) Making a correct or wrong note of inspection and wilfully delaying visit to a place of occurrence to allow circumstantial evidence to be destroyed or accused to escape ;
- (8) Submitting final reports or charge-sheets ; omitting or adding some facts or making wrong entries in case diaries and issuing unauthorized copies of case diary ;
- (9) Releasing an accused against whom there is not sufficient evidence and on bail in non-cognizable cases against person ;
- (10) Visit of the officer in charge and constables to the spot ;
- (11) First appearance of the accused at the thana ;
- (12) Not handcuffing an accused and showing courteous treatment to him ;
- (13) Giving evidence in court by investigating officers to spoil or support a case ;
- (14) Recording a F. I. R. against unknown under threat of prosecution under section 182, Indian Penal Code. Suspects pay money in such cases to avoid harassment ;
- (15) Delaying or non-executing warrants and processes under sections 87 and 88, Criminal Procedure Code ;
- (16) Instituting non-cognizable cases as cognizable and finally reporting them as non-cognizable ;
- (17) Removing names from the list of *dagis* ;
- (18) Suppressing cases under section 34 of the Police Act, under the Motor Vehicles Act, under the Gambling Act and under municipal and district board bye-laws ;
- (19) Recommending gun licenses, granting procession licenses, issuing driving licenses and allowing pedlars and others to hold shops on the foot-path ;
- (20) Instituting and submitting reports in unnatural death cases and under section 202, Criminal Procedure Code ;
- (21) Testing fitness of sureties and executing bail bonds ;
- (22) Verifying character-rolls of candidates ;
- (23) Not making unnecessary deductions in travelling allowance and other bills.

9. Remedies.—(1) A carbon copy of *saneha* or F. I. R. should be granted then and there by the recording officer to the complainant.

(2) A copy of the F. I. R. and *saneha*, if any, should be granted to the accused by the Subdivisional Magistrate, if applied for, on payment

of the usual fee. The Subdivisional Officer can get a copy of the *saneha* connected with the case sent to him by the inspector of police for a certified copy of it to be issued to the applicant. As soon as charge-sheet has been submitted in a case, copies of statements of witnesses for prosecution and defence, and of the accused, plan of the alleged place of occurrence with the inspection note should be granted to the accused retaining the safeguard in section 162, Criminal Procedure Code, against granting a copy of the full statement which in the opinion of the court may be inexpedient to do in public interests. Copies of *sanehas* or F. I. R. may not be granted in cases of organized crimes committed either in the name of a political party or creed or by habitual or professional criminals except in conformity with the existing provisions of the Criminal Procedure Code. Unless this discretion is given to the police and the court the investigation of the case may be hampered.

The practice of selling copies of *saneha*, F. I. R., case diary, sketch map and the inspection note has been fully established by the evidence of a large number of both officials and non-officials. Prohibition in respect of granting copies of these documents is a fruitful source of corrupting the police and even some of those who have an access to these papers. It seems almost impossible to stop this corruption as these papers pass through many hands. A large number of officials including some police officers, one District Magistrate and one Sessions Judge support the remedy which we have proposed. The danger of a police case being spoiled by the authorized issue of copies is either imaginary or grossly exaggerated. The parties who want copies of these papers do obtain them by bribing the police or one who handles or has access to these papers.

(3) The practice of making a note concerning a case by some investigating police officers in their personal diary should be strictly prohibited.

(4) Investigating officers should be directed to record then and there statements of witnesses as they depose just as an F. I. R. is recorded. The witnesses may, if necessary, be recalled and re-examined. The practice of making first a note of the statements on a plain paper and writing them subsequently in the case diary affords an opportunity to take a bribe for entering the statements in the diary in a modified form to suit a party. Some officers do this without taking any bribe to improve the case for the prosecution.

(5) Bribery for submitting charge-sheet or final report can be stopped or can be considerably reduced by better supervision and announcement, as a rule, of the result of the investigation to the parties by the supervising officer as soon as practicable.

(6) Bribery at the time of making a report under sections 107, 144, 145 and 202, Criminal Procedure Code, can be checked by—

(a) requiring a case diary to be written briefly even in an enquiry under these sections ;

(b) requiring a copy of information about an apprehended breach of the peace to be sent to the Subdivisional Officer ;

(c) prohibiting investigating officers from making a vague note that a confidential enquiry proved possession of a certain party;

(d) expeditious despatch of report.

(7) If it is found necessary that a constable beyond the radius of 5 miles on public duty should travel by bus he should be given a voucher as it is done for the railway journey. The bus-owner can draw the money at the end of the month from the office of the Superintendent of Police.

(8) Postings and transfers should in no case be made by or on the note of the subordinate staff in the police line. They should be made by the Superintendent of Police or Deputy Superintendent of Police without any suggestion from the reserve officer. The existing rules on this point are not observed strictly everywhere.

(9) Not less than 50 per cent of sub-inspectors and 15 per cent of inspectors should be directly recruited with a declaration by Government that the percentage can be reduced or increased on the result of the experiment. Direct recruitment of a certain percentage of sub-inspectors and inspectors is absolutely essential in public interests under the existing conditions. Young men educationally and physically qualified and having a social position and good character with fresh knowledge and energy and without the taint of the department can do their duty with greater credit than those officers who have risen by promotion in spite of their dishonesty. It must, however, be admitted that even many of such young men get gradually spoiled by the environments in which they live and work and succumb to the temptations by the weakness of their character and the strength of their seducers who are private persons or parties.

No change in the present system of recruiting members of the police force seems necessary. The system is satisfactory as good and suitable men are selected with the exception perhaps of a few who may not be as good as some of their unsuccessful rival candidates. Such a contingency is inevitable in all services and in every system of recruitment. The deterioration and demoralization commences later after the appointment. Inspectors' allowance should be increased, and they should be made gazetted officers.

It is impossible for inspectors to pay their bill on tour with the most inadequate allowance they get at present and hence they are, in many cases, obliged to resort to questionable practices and even dishonesty. Their enhanced status by becoming gazetted officers will be conducive to dignity and integrity which is so necessary as they have to do the bulk of supervising work.

Since a good deal of corruption is attributed to most of the assistant sub-inspectors many of whom are nearly of the same status and education

as the sub-inspectors and since the former's pay according to the present scale is Rs. 25 rising to Rs. 35, it is desirable to raise their salary and make their initial pay Rs. 35 rising to Rs. 50.

(10) Inspectors need not be present at the headquarters during the trial of sessions cases. The present practice takes away a good deal of their time unnecessarily to the detriment of much more important duties of supervision.

(11) Informants should be encouraged to give their *saneha* or first information in writing wherever possible.

CHAPTER VII.

JAIL DEPARTMENT.

The jails in India are a terror to many people including criminals for obvious reasons. The confinement of convicts in a jail is regarded as a social stigma from which not only they but their children also suffer. Their liberties are restricted and curtailed though they are not altogether deprived of them. They are further alleged to be subjected to many indignities.

The objects of imprisonment are, in main, threefold (1) the protection of society, (2) the reclamation of the criminal and (3) prevention of the repetition of offences and to serve as a warning to others.

Many reforms have in the past been introduced in these jails. The Government of Bihar have under consideration many other reforms to provide certain amenities to the convicts and generally to improve their lot. The want of imagination and lack of sympathy of those under whom they have been placed have added not a little to their miseries. A kind deed done or a kind word said at the right moment may prove to be a turning point in the life of a convict and may make him a useful citizen.

Money passes at the time of :—

- (i) Supplying prohibited articles to convicts ;
- (ii) allowing unauthorised interviews ;
- (iii) distribution of hard labour and rations among convicts ;
- (iv) supplying inferior articles and stores and condoning deficiency in weight, etc. ;
- (v) appointment and transfer of jail warders.

We suggest the following remedies for stopping these malpractices :—

- (i) Among the prohibited articles, tobacco is much in demand. It is smuggled in the jail precincts either by warders or outsiders who are handsomely paid for it. These warders carry on their trade with impunity. It has been pointed out to the Committee that tobacco is freely supplied to convicts in all jails in Bengal and the Punjab. The convicts in the jails of these provinces are not so much addicted to tobacco as they are in Bihar. There is a view that the free supply of tobacco is likely to undermine the health of prisoners. But there seems to be no real danger of it, particularly if excessive use is avoided. We recommend that tobacco should be removed from the list of prohibited articles and should be supplied to those who are addicted to its use.

* Another source of corruption is unauthorised communication to or from a convict in a jail. This can be checked by affording greater facilities in the matter of receiving or writing letters and by exercising better control over the warders. Warders as a class are corrupt and an attempt should be made to recruit them from a better class of men with some education.

- (ii) A fruitful source of making money is provided for by allowing unauthorised interviews. Interviews are allowed at fixed intervals to different classes of prisoners under the jail rules. These rules are relaxed and frequent interviews are allowed by taking bribes. The present rules should be liberalised by affording greater facilities in the matter of interviews to all classes of prisoners but if this is not practicable or will involve risks, the evil should be checked by better supervision of the subordinate staff.
- (iii) Well-to-do convicts by paying bribes are admitted to jail hospitals and thereby escape hard labour. In fact, those convicts who are admitted to jail hospitals have to do no work. In addition they are supplied with better food, e.g. meat, milk, sugar, etc. This is possible by bribing the Medical Officer of the jail whose verdict is more or less final. A closer supervision of the work of this officer is very necessary. A periodical examination of such cases by a small district Medical Board may be a salutary check on his work. It is reported that at times money is extorted from prisoners or their relations under threat of giving hard labour, bad diet and jail punishments like flogging, bar fetters, etc., to convicts possessing poor health. We believe that such instances are rare and will disappear if superior officers are more vigilant and strict in supervision. It is true that many things which take place within the four walls of the jail seldom reach the ears of the superior officers or the official and non-official visitors. We suggest that the present powers of an official or non-official visitor should be enlarged and he may put any questions, not likely to impair discipline, to convicts either in the presence or absence of the jail staff. At present a visitor's remarks are not forwarded to Government but to the Inspector-General of Prisons. A provision may be made in the existing rules to forward important remarks to Government.
- (iv) The present system of making purchases by a Committee consisting of the District Magistrate, Superintendent of Jail and another member is an improvement upon the old system. It has eliminated corruption in the matter of giving contracts and fixing rates of articles to a large extent though instances are not wanting when the same contractor has managed to get the contracts from year to year or when a contractor has managed to get a contract by offering a higher rate. The vigilance of the Committee is frustrated at the time of

delivering the articles. Articles of inferior quality are passed in collusion with the jail staff and are accepted by the jail authorities. It is therefore very necessary that the delivery of the articles or stores purchased and their acceptance by the jail staff should take place before one or two members of the Committee who would compare the supplies with the samples in stock. The Committee should also check the quantity to ensure against deficiency in weight.

- (v) This form of corruption can be easily checked if the appointing authority exercises his own discretion without depending upon office notes. Much of the corruption in the appointment and transfer of jail warders is due to the fault of such an authority.

It is reported that some jail-manufactured articles are stolen by warders either for their own use or for sale. Theft of blankets is rather common. We have elsewhere suggested the recruitment of warders from a better class of men which, coupled with supervision, will stop this form of corruption in which the Government is the only sufferer.

In addition to the foregoing remedies we suggest the formation of a Provincial Jail Committee consisting of the Hon'ble Minister in charge of Law and Order, the Inspector-General of Prisons, all Superintendents of Central Jails and five other members—official and non-official—nominated by Government. The function of the Central Provincial Committee should be to control, supervise and regulate the work of the jails in the province.

CHAPTER VIII.

REGISTRATION.

The return of registered documents of the claimants either on the day of registration or on the day following has more than once been attempted to be attained but with no success owing to the method of working in vogue at present in the department. The documents registered cannot be returned till a copy thereof has been made in the register for copies of documents. This naturally involves delay and in emergent cases parties are put to much inconvenience and harassments. Then comes the question of the caligraphic merit of the copyist generally available to the department on remuneration offered under the circumstances of the case. An examination of the register does harm or at least causes annoyance to the eyes of readers of these documents. Poor clerks or copyists have to write a fixed number of words or pages in the course of their duties and many of them are hard put to complete the allotted work which is very heavy indeed.

2. In dealing with this subject one may get reminded of what the Chinese have done to facilitate the return of registered documents and preservation of their copies. But it is very painful to think of China at present. It has become a scene of appalling carnage. Atrocious acts of barbarity by diabolical methods and machines are being committed to destroy the life and property.

There are several things that the Chinese discovered several thousand years ago. Among these things come a finger print and the keeping of copies of registered documents. It is not quite clear why the Chinese method has not been copied by others. It may be that we are more prone by habit to imitate the useless and to leave the useful.

3. The Chinese method is that the executant of a document gets the document written on half the page of a paper. A copy of the document is written on the remaining half of the paper. The original and the copy must be in the hand of the same person. That half of the paper which contains the original document is surmounted with the stamp of the requisite value. The document as well as the copy is both duly attested by the executant and the witnesses. When all this has been done the paper containing both the document and its exact copy is presented before the Registrar. Whatever endorsement the Registrar makes on the original half he makes on the copy half also. But then without the aid of any instrument tears the paper into two halves—one containing the original and the other containing its copy. The copy portion is written for the office and the portion containing the original is then and there after comparison handed over to the party or parties concerned. The Chinese discovered that no two pieces of paper can be torn asunder without the aid of any instrument leaving exactly similar frayed edges in both. Whenever a question of the genuineness or otherwise of a document arose, the frayed edges of the original and the copy always told the true tale. If this method is adopted the document can be returned to the claimant on the day of registration and unassailable copy thereof can be preserved. The matter deserves the consideration of the Government.

4. Money passes at the time of:—

- (1) Presentation of a document for registration ;
- (2) checking the sufficiency or otherwise of the stamp duty paid ;
- (3) returning a document registered ;
- (4) compulsory registration ;
- (5) issue of unauthorised notes of documents either from the Sub-Registrar's office or the District Record-Room ;
- (6) filing petitions for a copy of a document ;
- (7) appointment, promotion and transfer of the subordinate staff.

This department suffers more from the bad reputation of the past when bribery was rampant than from the present extent of corrupt practices prevailing in it. There has certainly been a considerable improvement in this department in recent years. The evil that continues is due largely to the immunity which some officers still enjoy and to the grossly inadequate pay of the subordinate staff, who, at some places, have to work much harder than the clerks of some other departments, due to the exacting duties and shortage of hands. We have in a previous chapter dealt with the question of their pay.

5. *Remedies.*—Surprise visits by inspectors and other superior officers and enquiries on the spot from the parties having a business there and from the people present whether any illegal gratification was demanded or paid is one of the means for checking corruption. Punishment by transfer to unsuitable places of suspected officers or clerks will have a salutary effect on the department. An Inspector-General of Registration who, with the support of the Government, took drastic action of dismissing or discharging officers who were proved to be dishonest or even those against whom there was well-grounded suspicion with a previous bad record, succeeded largely in checking corruption in this department. Parties should be frequently told by every Sub-Registrar, District Sub-Registrar and Supervising Officer that the Scribe should not be paid anything beyond his own charges if he asks for it in the name of the Sub-Registrar or a clerk. Many Scribes are said to be in the habit of taking money in the name of a Sub-Registrar or his clerk or both either for the latter or for themselves by fraud.

CHAPTER IX.

EXCISE.

1. Money passes at the time of :—

- (1) Settlement of shops and grant of licenses. Subordinate Excise Officers including warehouse officers also take monthly *salami* from excise vendors ;
- (2) marking palm-trees ;
- (3) initiating false prosecutions and planting of exciseable articles ;
- (4) checking travelling allowance bills ;
- (5) issue of import passes.

2. In view of the policy and action of Government to abolish this department, it is hardly necessary for the Committee to state the evil and suggest remedies for it. If, however, the scheme of abolition fails, or is met only with a partial success, efforts should be made to remove the corruption that exists.

Better supervision and enhancement of the status of Inspectors of Excise by making them gazetted officers will effect improvement.

3. *Remedies.*—(i) Licenses should be distributed by the Superintendents of Excise themselves ; those for *tari* shops may be entrusted to the Inspectors of Excise for distribution under the supervision of Superintendents of Excise as far as possible.

(ii) The Superintendent of Excise should keep himself informed about the honesty or dishonesty of his subordinates. He should make occasional enquiry openly from the vendors whether illegal gratifications are extorted from them by any officer. Deterrent punishments to those who may be found guilty of dishonesty will go a long way to check corruptions. No dishonest officer should be promoted to a higher rank.

(iii) Complaints against officers should never be ignored but should be promptly enquired into.

(iv) Travelling allowance bills should be passed quickly.

CHAPTER X.

IRRIGATION.

This is one of the most beneficent and productive departments though only a small section of the people is directly benefited by it. It is a great pity that the physical feature and the natural lie of the land in this province makes it impossible to extend the system of irrigation by canals. No major project of irrigation can for this reason be taken up. Those cultivators who are lucky to hold land in the neighbourhood of a canal and are able to get water for irrigating their fields either raise a bumper crop, or, at least, it never fails altogether. Those who do not get any water or get less than they want begin to nurse a great grievance against the Irrigation Department or its particular employees. It is quite clear that the canal system is limited to a very small area and the discharge of canals is not sufficient to irrigate even the areas under lease without using rain water. The lucky cultivators who get canal water and flourish by it and who still grumble do not seem to realise the fact that the canal rates in Bihar are the cheapest in India.

Complaints about corruption amongst the subordinate staff of the department are heard in exaggerated terms but the remedy is not easy to find as the cultivators who pay a bribe to obtain an unauthorised irrigation greatly profit by it. Another difficulty is that *Satedars* who are mostly corrupt are elected by the cultivators themselves and there is no method of replacing the former.

Corruptions in this department can, however, be considered under two heads—

(1) Those involving no loss of revenue to Government.

(2) Those in which loss of Government revenue is caused.

As to (1) money passes without any loss of revenue to Government at the time of :—

- (a) making applications for a lease for the supply of canal water ;
- (b) executing a long-term lease ;
- (c) opening the outlet ;
- (d) delivery of the permit to the *Satedars* or when their blocks are enclosed.

In times of drought, distributaries are often cut in collusion with the patrols and the sectional officers and they are handsomely paid to connive at the irrigation of leased or unleased fields.

2. The loss of revenue to Government is caused mostly by unauthorised irrigation which is done either in league with the patrol or sectional officer or without their knowledge.

Remedies.—(1) All applications for supply of water should be filed before the Subdivisional Officer and not before the sectional officer as at present.

(2) The Government should undertake the maintenance of village channels and realise the cost along with the water-rates from the irrigators if the latter do not prevent wastage of water. The cultivators should also be required to maintain fairly high and well-defined ridges of the fields in the leased blocks to distinguish them from unleased fields.

(3) Other measures calculated to reduce corruption are as follows :—

- (i) Intensive propaganda amongst cultivators who should also be supplied with a printed copy of the revised Irrigation Rules in the vernacular.
- (ii) Discharge of the patrol if unauthorised irrigation is detected in his beat on more than two occasions. This should be added to the existing Irrigation Rules.
- (iii) No officer below the rank of an Assistant Engineer—unless he is definitely known to be above suspicion—should be put in charge of an Irrigation Subdivision. Overseers and subordinates should not be promoted to the rank of Assistant Engineers unless they are definitely known to be honest officers.
- (iv) Irrigation Subdivisional Officers should be encouraged to undertake more touring and outdoor supervision and they should make enquiries more freely in the locality of the people concerned by giving them an opportunity to state their genuine grievances, if any, and report true cases of corruption.

CHAPTER XI.

PUBLIC WORKS DEPARTMENT.

This department has an unenviable reputation by the fault of the subordinate staff and the contractors. Corruptions which, in many cases, are palpable continue for want of proper supervision by the superior officers and by the latter's inability or disinclination to detect and punish the offenders. It is mainly the State which suffers by the dishonesty of the employees of the department and the contractors.

For a review, however brief, on the working of this department with a view to describe corruption therein and suggest remedies some knowledge and experience of engineering is required. A committee consisting of non-experts in engineering matters can only suggest remedial measures and methods prompted by common sense and foresight. It is a matter of common knowledge that no sooner buildings and bridges are completed than estimates for their ordinary repairs are prepared and submitted. It is one thing to keep in view and make a provision for fund which will be required for the ordinary repairs necessitated by the wear and tear, so to say, in the course of time but it is another thing to find the buildings in need of repairs in the very year they were constructed. If these estimates for repairs are carefully scrutinized, it would be found that the repairs proposed were mainly due to bad work and still more to bad supervision. The Public Works Department officers cannot be expected to disclose the nature of the defects and their causes because only a few months before they themselves had finally passed the bills of the contractors and testified to the excellence of the work. Arches, lintels and foundations give way in some buildings not long after their construction, and leakage in new buildings is not uncommon. This is so discreditable for the department that even the laymen are often inclined to laugh at the whole department of Public Works. The subordinate staff who supervise the construction satisfy the goodness of work and the materials though they are bad if they are bribed and they reject and criticize them even if they are good when the subordinate staff are not paid. An illuminating reply of the Chief Engineer, Bihar, to our questionnaire about this department is worth quoting. He says as follows :—“ It is the custom for all contractors to pay a certain percentage of the amount of their contracts to the Public Works Department subordinate staff. This is sometimes distributed higher up and the office staff usually gets a share. Complaints are rarely forthcoming and then only when demands greatly exceed the *dastur*. Allowance for this is made in contractors' tenders even by well-established, wealthy and otherwise reliable firms.

“ The Manager of a European firm once told me that unless the Public Works Department overseer received his ‘whack’ everything would go wrong and they could not compete without conforming to the practice.

" With great difficulty I managed to persuade him to give orders that on a particular small building he was about to construct for Public Works Department not a single pice would be paid illegally and I watched the result with interest.

" I was amazed at how many things could go wrong. I forget all the details now but the head of the firm and myself agreed not to interfere.

" Foundation trenches were mysteriously damaged and the contractor put to considerable expense in providing extra concrete. His bricks were rejected, his lime was rejected and so on, and though these were ultimately passed by a superior officer the consequent expense of keeping labour idle put the contractor to great expense. Trouble after trouble ensued always with a legitimate appearance and the Public Works Department subordinates displayed exceptional zeal in Government's interest.

" A consignment of steel for the roof which could have reached the job by rail in two days was mysteriously sent halfway round India and lost for weeks. The job, which could have been completed in three months took about 12 and everything appeared to be the contractor's fault and the firm lost a considerable sum of money over it.

" Later, in strict confidence and on the understanding that I should make no official use of it, I was shown the private correspondence between the Public Works Department subordinates and the contractor's agent on the job. It was most edifying.

" I am unable to suggest a remedy. The Retrenchment Committee are apparently under the impression that by reducing rates they will cut out the 'rake off' and so save money. This will not be so. With all their faults Public Works Department subordinates get good work done under the present system. If the rates are cut, the *dastur* will continue and the 'rake off' will be found by passing bad work as in district boards.

" The practice is universal in India and nothing but a change of mentality will remedy it. With intensive education, adequate wages, reasonable standards of living and avoidance of preposterous expenditure on dowries and weddings it may be possible to eradicate the evil in four or five generations, but I am far from optimistic."

Even some superior officers of high rank have been found to be corrupt but the number of such officers is very small.

In cases of the construction of buildings, bridges and wells, etc., the contractor should be made to give an undertaking in the form of a regular contract that during the first three years after construction all repairs due to defective work should be done by the contractor at his cost. Suitable departmental punishment extending even to fine should be inflicted on the officers who had supervised the construction and passed the partial

or final bills in respect of the work which proved to be defective. The Government should also enquire why the supervision of public works by departmental staff should be necessary and a contractor with a reputation to lose should not be trusted to do the work with the sole responsibility attaching to him for the quality of work. Some supervision or testing may occasionally, if necessary, be made by some superior officers who should make inspection at random without giving any notice to the contractor.

CHAPTER XII.

PUBLIC HEALTH.

This also is a highly technical department. There is not much scope for corruption in this department though some members of the subordinate staff whose pay is very low are believed to take a small bribe. Money passes at the time of granting licences to the vaccinators. Some vaccination inspectors and the office staff exact an illegal gratification from the vaccinators when the former go out to inspect the work of the latter. The vaccinators in turn either realize excess fee from the people or show the vaccination done at home, for which a fee is charged, as having been done free at the depots and misappropriate the fee thus realized. A better supervision by the superior officers may eliminate or check this corruption.

This department is doing very useful work so far as preventive measures and the coping with epidemics are concerned. The activities of the department may further be extended by the delivery of lectures in vernacular in the villages on the subject, particularly of food, diet and water. The primitive idea that if there is neither discolouration nor bad smell in the water it is not objectionable for drinking and culinary purposes should be removed. The disease germs seem to be keeping pace with the increase in human population. But science has also made much advance and can be utilized to prevent the harmful activities of these germs. A practical demonstration of the wonders of a small microscope can easily form part of the lecture on hygiene. It will then and only then convince the people that even seemingly clear and pure water may contain millions of deadly germs which multiply fast.

The methods of keeping food and water free from infection should be instilled into the minds of the people.

The supply of milk and its sale, at least, in towns where there are municipalities should be absolutely under the control of the Department of Public Health. Many of the laws and regulations are useless without the preventive services. The Penal Code, the Excise Laws and the Salt Act, etc., are dependent for their success on the existence of a preventive service. The activities of this department should be substantially extended.

Municipalities, if left to themselves, will never do anything at least for years to come. It is just possible that the vigilance and activities of this department may succeed in rousing the municipalities to a sense of their primary duties. The activities of the department can extend even to areas outside the municipalities. The arms of the Indian Penal Code are very long. Washing dirty clothes and utensils on the parapet of a solitary well in a village is the most common thing to be met with, particularly in the rural area. The practice of bathing while standing on

the parapet of such a well is also very general. These are not looked upon as an offence by anyone and even the officers of the Public Health Department look at such practices with a smile! The officers of this department should be made to pass an examination in those chapters of the Indian Penal Code which describe the offences dealing with Public Health and also in various Food Adulteration Acts.

We have made the foregoing observations in the hope that they may be of some use to the department though they are not connected with any question of bribery and corruption.

CHAPTER XIII.

MEDICAL

The noble traditions of *vaidyas* and *hakims* who provided free medication and in many cases accommodation also to poor sufferers have practically disappeared. The disappearance of this kind of charity was inevitable in modern times. Most of them who qualify themselves as physicians do so to earn a living. But there are still some who are very charitable towards poor sufferers.

Some doctors by their corrupt practices have brought their profession into disrepute and have made hospitals very unpopular. It is the private practice of the doctors and even the dressers attached to hospitals that comes in the way of the efficient discharge of their duties in the hospitals and leads also to certain corruption. But if the door of private practice is closed, a great avenue to experience is closed apart from disadvantages to those patients who do not or cannot go to the hospitals. If that avenue is kept open, the interests of both the outdoor and indoor patients suffer very largely. Some doctors and dressers look more often towards the clock than towards the patients who need their attention in the hospitals. The evil is rampant everywhere and no measure will meet with any success till the problem is seriously tackled. The complaints, however, of the patients are not in every case due to indifference or neglect or an attempt of doctors or attendants to make money unlawfully. Many sufferers expect the doctors to effect cure by miraculous powers which the latter do not possess. Nor can the patients get all that they want and many therefore begin to complain without justification. Complaints arise also out of the difficulties in getting admission in the hospitals as an indoor patient when there are fewer beds than the applicants and an inadequate staff to cope with the work at the Patna Medical College Hospital where the number of both indoor and outdoor patients has enormously increased without a corresponding or proportionate increase in the staff. Complaints of corruption in the hospitals however are not altogether unfounded.

It may perhaps serve a useful purpose if we give greater details about the administration of the hospitals and dispensaries and the evils that exist there. Of the State institutions, the Patna Medical College Hospital and Darbhanga Medical School Hospital are the most important. The general belief so far as the Patna Medical College Hospital is concerned is that patients who are not able to pay to the doctors are not admitted or cared for. This complaint is greatly exaggerated. But there were doctors including some members of the Indian Medical Service who used to take special care of the patients on receiving a fee before the latter were admitted and it was an open secret that one had to get himself examined by a certain doctor at his house and pay him a fee not only to be admitted as an indoor patient but also to be treated with special care.

Public opinion as well as the change in the present staff has reduced the evil though it is believed to continue still to some extent. It is shocking that even the precincts of the hospitals are not free from touts who take a fee from a patient for getting him admitted to the hospital.

The stores, dispensaries and kitchen are the three principal places in which leakages and corruption occur.

For giving contract or making purchases for stores other than medical stores in the Patna Medical College Hospital and other hospitals there should be a committee consisting of suitable persons and tenders should be accepted on their advice. There should also be a managing committee for the Patna Medical College Hospital, and, if necessary, for each ward of it. There should be a committee of visitors for each hospital but they would be useless, and, perhaps, worse than that, if they are not vigilant and active. Members of the managing committee and visitors for each hospital should be chosen from amongst sincere and public-spirited people who would not utilise their position for their own selfish gain but would look to the interest of the sufferers. They can see whether the patients are properly treated and they get unadulterated medicine and food without having to pay to any one for them. They can talk to the patients and know what their needs are and should not expect that the doctors and attendants in the hospitals should do anything to please the members of the managing committee and the authorised visitors but should only do their duty devotedly and conscientiously towards the patients.

There is a great deal of corruption and shameful practice in the matter of granting medical certificate to those who are in need of it either as an applicant for a post or for taking leave or an extension of leave in the case of those who are in Government service. Some doctors and Civil Surgeons have been known to charge a fee of Rs. 16 for granting a certificate of sickness to a Government servant who was getting only Rs. 20 per month. It is difficult to suggest an effective remedy to check these evils. The Provincial Vigilance Committee, if formed, as proposed by us elsewhere in this report, may be able to inquire into the specific cases of corruption of this character and check the malpractices by suggesting drastic action against the offenders who may be suitably dealt with by Government.

CHAPTER XIV.

VETERINARY.

In dealing with this department we cannot help making an observation that its importance has not been fully realized either by the Government or the people. It exists under a constant dread of the axe which is often raised over its neck. The activities of this department are unfortunately very limited and their extension in intensive forms cannot take place unless the people and the owners of animals, particularly of cows and bullocks, realize that good many fatal ailments of animals can be prevented or cured by the services of this department. Enormous loss of cattle is caused to the poor owners for want of proper treatment. An outbreak of a disease in epidemic form wipes out lakh and lakh worth of cattle and thus deprives the cultivators and other poor people of their means of living. An improvement in the breed of cattle cannot be effected without a propaganda amongst the cultivators and owners of animals in the rural areas and the expert advice and services of the Veterinary Department, when in this country human beings are not very anxious and disposed to take preventive measures or to get themselves treated for their own ailments, unless forced by pain and faced with impending death, there is no wonder that animals and particularly cattle should be allowed to continue in their present state of neglect.

There seems to be no room for corruption in this department except in one or two matters. It is heard that poor owners of animals, who are entitled to get them treated free, are sometimes asked by the subordinate staff to pay them something. The greatest complaint of corruption is in respect of the action of some veterinary surgeons, who are employed by the Society for the Prevention of Cruelty to Animals, and the municipality. Sometimes poor people who ply hackney carriage, *ekka* or cart on hire are indiscriminately prosecuted under the Cruelty to Animals Act or the offenders are let off by accepting bribes. These poor or ignorant owners of animals who use them as the means of their living do perpetrate great cruelty, but some dishonest and thoughtless veterinary surgeons perpetrate greater cruelty on human beings. The only remedy is to insist upon the selection of a good officer to work on behalf of the Society for the Prevention of Cruelty to Animals and the municipality and to exercise closer supervision by the proper authority.

In veterinary hospitals a distinction is made between animals used for agriculture and those not used for agriculture. The latter class is designated as pet animals. No fees, we understand, are charged for cattle belonging to poor owners. Both accommodation and medication are free. But for other animals both accommodation and medication are charged for. The result is that the stalls in the veterinary hospitals for dogs and horses which come under the unnatural classification of "Pet Animals" almost always remain vacant. This appears to be a crime against the animal kingdom. The treatment and accommodation in veterinary hospitals should be free for all animals and a small fee may be charged in the case of rich or well-to-do owners.

CHAPTER XV.

EDUCATION.

There is not much of corruption in this department but complaints of nepotism and of corruption to some extent are being heard in regard to the work of the Text-Book Committee and on the part of some teachers and lecturers who engage in private tuition. This presents a most undesirable feature and is highly detrimental to the education of the boys. It is deplorable that even the Text-Book Committee which consists of good men of education and social position could not escape the taint of bribery and corruption though it is confined to only a few of them. The Committee and the rules of business require complete overhauling. The proprietors of private presses who act as publishers also and at times become the owner of the copyright resort to nefarious methods and more often than not succeed in their objective. They find out the names of the reviewers appointed by the Committee and approach them either with recommendations or bribe or both. The objective should be the selection of books most useful to the young students and not the extension of patronage to private authors and printing presses. The present system discourages good and honest authors from producing good and really useful books. The Committee gets demoralised and proves baneful to the students. The frequent changes in the books prescribed add very much to the cost of education incurred by the parents of the students, and increases the difficulties of poor boys. Changes in the proscribed text-books should take place seldom and when absolutely necessary. Men who canvass for election or nomination to the Text-Book Committee should be considered disqualified for it. Only men of tried integrity and definitely scholarly qualifications should sit on the Committee. Many members of the Committee cannot write out a review on a book handed over to them. Some do not take much interest and trouble to read the book proposed along with the book suggested to be taken out of the list. The commercial spirit and unhealthy competition in the supply of text-books for the primary schools have caused corruption in quarters which were expected to remain free from it. Very often ill qualified writers are employed by some publishers who make considerable profit as they buy the copyright for a very small sum. Even when good writers are employed they do not get fair remuneration and thus their products gradually deteriorate. We draw the attention of Government to the desirability of acquiring a State monopoly in the publication of books and charts for primary schools and middle classes. Competent people can be found to prepare a scheme for the consideration of the Government. The Government will not, it is hoped, attempt to make any profit over this business but can get approved books printed by private printing presses and attract good authors by paying them adequately to write books for the primary schools and the middle classes. The reputation of the entire Text-Book Committee suffers though only a few members of it may become corrupt.

The list of approved books for the primary and secondary schools is to be maintained but it has been alleged that to help certain publishers another list containing fewer books or those not mentioned in the approved list is kept and circulated in schools.

2. As for the evil arising out of teachers and lecturers giving private tuition to the students of their schools or colleges the Committee is of opinion that permission to give private tuition should not be granted in the case of the students and the teachers belonging to the same school or college except in special circumstances. And no private tutor should be allowed to be a paper-setter or examiner. The teachers who give private tuition are not necessarily corrupt and no one may have dishonestly favoured his pupil but the practice creates an opinion and suspicion which is desirable to avoid both in the interest of the teacher and the pupil.

3. An officer of high rank in the educational service has, in stating the occasions for dishonest sub-inspectors to take money, said as follows:—

“First, the appointment of *gurus* and the transfers of *gurus*. Then at the time of selection of untrained *gurus* for training; there is competition and naturally a *guru* has some inducement to give something to the sub-inspector and the sub-inspector has some opportunity of taking bribe. There is also possibility of taking bribe in the selection of lower primary school students for scholarship examinations. The sub-inspectors come round to each school to select students who compete for a certain number of scholarships; so there is the chance of his selecting undesirable candidates by taking money. Then there may be complaints against *gurus* either directly to the Inspector of Schools or even to the local board and the sub-inspector is asked to go to enquire into them and like any enquiring officer he may take some money.”

“There is possibility of taking money from the *gurus* because the sub-inspector has to certify the working of the school and the *guru* every three months and upon his certificate payment is made by Money Order by the authorities of the local and district boards. Deputy Inspectors come within the same category as sub-inspectors. They have practically the same work to do and have practically the same opportunities to take money although the Deputy Inspector has fewer opportunities. The District Inspector has very little opportunity to take bribe except in the case of recognition of middle schools when he may be approached by local people interested in a certain school and offered something to recognise it.”

“Appointment, posting, transfer, enquiries about *gurus* and selection for training are made to a great extent now-a-days by the local body either directly or with the help of the sub-inspector. The sub-inspectors are now-a-days almost

entirely under the district board chairman and the local board chairman because they have got more power to transfer than either the District Inspector or even the Inspector of Schools, as the Inspector of Schools cannot transfer any sub-inspector from one circle to another. If the chairman wants to transfer a particular sub-inspector from one circle to another he just passes the order and records his opinion. The consent of the District Inspectors to the proposal is necessary. As regards confidential reports the District Inspectors send one copy direct to the Inspector of Schools and another copy to the chairman and the chairman records his opinion on the confidential report and without showing it to the District Inspector sends it to the Inspector of Schools."

The same officer thinks that Deputy Inspectors and some District Inspectors also take bribes. Since they work mostly under the local bodies we are precluded, under the terms of reference, from expressing any opinion and suggesting any remedy for the evil if it exists.

CHAPTER XVI.

REVENUE COURTS.

The importance of this department and the evils that prevail there are not fully realised by the public and the Revenue Officers generally either because the people have got used to the difficulties and dishonesty which they have to face in this department or because the sufferers do not resort to manifestly spectacular protests. Those who have any business in the Revenue Courts and Offices are mostly landowners and are men of education. Their resentment at the present method of dealing with revenue matters creates a public opinion unfavourable to Government and brings a discredit on the administration.

In most cases bribery in the Revenue Courts takes the form of *Mamuli* but instances are not wanting where both Government and private parties have suffered monetary losses at the hands of Revenue Officers—mostly ministerial—in collusion with some interested party by the offer of a bribe. We suggest the following general remedies to combat the evil of corruption in the Revenue Courts and Offices before making our separate recommendations section by section.

Remedies.—1. Office Superintendents have outgrown their real usefulness. They do not, and cannot for want of time, superintend the work of the offices under them. They are employed for a variety of other works relating to different offices, and matters which could, and should be done by officers in charge of or concerned with them. Office Superintendents should be replaced by Sub-Deputy Magistrates of about eight or nine years' standing whose functions should be similar to those of Civil Court Registrars with necessary modifications to suit the conditions prevailing in Criminal and Revenue courts and offices. They would be looking forward to earn their promotions by showing more than an average keenness and merit in their work. To compensate the ministerial officers for the loss of the post of an Office Superintendent we suggest that one meritorious clerk should be promoted to the Subordinate Civil Service every year. Office Superintendents who are 55 years of age should not be given any extension and those who are below 55 should be transferred to other districts where the proposed system cannot at present be introduced. No Office Superintendent should be allowed to remain in a station for more than three years.

2. Dates of hearing of petitions, cases, and appeals should be announced by the court or noted in the Daily Cause List which should be kept in a register open to inspection at a specified hour. One of the greatest evils in the Revenue Departments arises by the present practice obtaining particularly in the Certificate department of passing orders without informing the parties or their lawyers in cases in which objections had been filed. Rules 11 and 12 at page 57 of the Practice and Procedure Manual about maintaining a Cause List should be strictly followed.

3. Orders directing anything to be done by the parties or their lawyers should be communicated to them and signature of the latter should be obtained as far as practicable.

4. Copies of petitions and list of documents filed by a party in pending cases should be given to the opposite-party as it is done in the Civil Courts.

KHAS MAHAL.

The Khas Mahal is an important Revenue Department. It is important both from the point of view of revenue as well as administration. Government derives a fairly large amount of money as income from the Khas Mahal. It is in the interest of Government itself to see that its revenue is not affected by certain corrupt practices prevailing in the ranks of the subordinate Khas Mahal staff. In the management of the Khas Mahal, Government is supposed to play the role of an enlightened zamindar and to set an example to private landlords in their dealings with the tenantry. But this is hardly possible if the Khas Mahal *amlas* are allowed to be dishonest and instances are not wanting when private landlords have, with derision, pointed out various corrupt practices in the Khas Mahal and advised local executive officers to set their own house in order before asking the landlords to set matters right in their estates. It is, therefore, earnestly expected that steps will be taken that the present discreditable state of affairs should cease quickly.

2. Money passes in the Khas Mahal at the time of—

- (i) payment of rent to the Khas Mahal staff ;
- (ii) annual verification and classification of *diara* lands ;
- (iii) settlement of culturable and waste lands and shops in Khas Mahal area ;
- (iv) filing mutation petitions and when mutations are reported by the collecting staff ;
- (v) submitting reports in miscellaneous Khas Mahal cases ; and
- (vi) unauthorized sale of Khas Mahal trees.

3. We suggest the following remedies *seriatim* for eradication of these corrupt practices :—

- (i) The Khas Mahal collecting staff take some *mamuli* when tenants offer rent, etc., to them. Some private landlords now pay land revenue and cess by postal money order and we suggest that this system should be encouraged in the Khas Mahal for acceptance of Khas Mahal rent. But in order to make it effective it will be necessary that the remittance of rent by money order should be either free of any money order commission or Government should pay the fee.

It will not be feasible to dispense with the collecting staff but the Khas Mahal Officer should visit central villages in the Khas Mahal estates on fixed dates which should be notified to the tenantry beforehand for receiving the Khas Mahal rent.

(ii) It has been reported to us that the Khas Mahal staff including the Kanungo take money for the annual verification and classification of *diara* lands. These officers, in order to satisfy their own greed, allow the interests of Government to suffer. This is possible because there is no proper supervision of their work. The Committee suggests that this work should be entrusted to a survey-knowing officer of gazetted rank who should certify its correctness and be held responsible for it.

(iii) The subordinate staff of the Khas Mahal are reported to settle culturable and waste lands without any authority to the detriment of Government revenue. This is possible because every Khas Mahal office does not maintain a Tauziwar list of all waste and unsettled culturable lands nor do touring officers locally verify that such lands do exist. We lay great emphasis on the maintenance of such a list which must be verified every year by the Khas Mahal Officer and other superior touring officers.

The settlement of shops in Khas Mahal area should be done by and in the presence of the Khas Mahal Officer and the subordinate staff should have nothing to do with it.

(iv) Money also passes when mutations are reported, particularly when any tenant dies without any heir. The only remedy that suggests itself to us is that the Khas Mahal Officer should locally enquire into such cases of mutations in a larger number of cases than he has been doing so far.

(v) Miscellaneous enquiries in Khas Mahal cases should be done by the Khas Mahal Officer or his Assistant or the Second Officer in a mufassal subdivision and the collecting staff should be altogether relieved of this work. The practice of sending miscellaneous enquiries to Khas Mahal Tahsildars not only interferes with their collection work but is a fruitful source of income to them.

(vi) Instances are not very rare when Khas Mahal trees have been surreptitiously sold by the Khas Mahal staff. This unauthorized sale can be stopped by better supervision and tours in the interior, off the beaten track.

CERTIFICATE DEPARTMENT.

1. Of all the Revenue Departments, the Certificate Department is the most unpopular. It has the unpleasant duty of collecting various kinds of public demands either from habitual defaulters or from persons who

have defaulted in making payments through oversight or lack of funds. Its unpopularity has further been enhanced by the vagaries of the process-servers and the law which fixes the joint and several liability of a co-sharer who may have paid his quota. For more than a decade there has been a systematic and continuous agitation against the Department on the floors of the Legislative Council and Legislative Assembly without any satisfactory result.

2. It is a fact admitted all round that the actual working of the coercive processes of the law in respect of the realisation of arrears of cesses has, by the present defective practice, caused great discontent and resentment amongst the land-owning class. Every estate liable to pay Government Revenue, cesses has a ledger account open in the Cess Tauzi Office. Payments by the parties are made by Chalans, and these Chalans are posted in the ledgers. What is this posting? All the contents of the Chalans are not copied in the ledger. When a Chalan, say for Rs. 10, is received in the Cess Tauzi Office it is dealt with as follows:—The Chalan shows the Tauzi number. The ledger account of that Tauzi is opened and the receipt of Rs. 10 is noted in the columns provided for noting collections. The differentiation of current and arrear is made as there are separate columns in the ledger for current demand and arrear demand. The number and date of the Chalan are also noted. These are the only information that are culled from the Chalan, although it contains some other informations also. After the close of the kist the ledgers are examined in order to find out what demands have not been paid up. If this examination shows that there is an unrealised demand of Rs. 20 in a particular Tauzi and the issue of a certificate is called for, the clerk in charge has to go to the record-room in order to consult Register D of that Tauzi so that he may obtain the names of the proprietors of that Tauzi. He copies out ten or fifteen names. The position up to this time is that the ledgers do not show the names of the proprietors and Register D does not give any indication of payment by any of the recorded landlords. The rules require that in order to avoid the issue of certificates against persons who have already paid their quota the clerk in charge should rake up the bundles of dusty Chalans kept in the Tauzi office or on the racks in the upper regions of the record-room. The Chalans show the names of the payers with the list or the partial list of proprietors in his hand. The clerk has to find out if any of the persons named in the list have already paid their quota. In such cases the names of the persons who have paid up are scratched. When all this has been finished the clerk is expected to include in the draft requisition the names of such persons only as have not paid their quota. The system looks perfect on paper but experience has proved that it is an altogether unworkable system and that without a very substantial addition to the ministerial staff the rules cannot be enforced and observed. The result is confusion and dishonesty and their attendant evil hardship to individuals. This cumbersome and altogether unworkable system must be done away with. One more column should be added to the many columns of the ledger account for the insertion of the names of the proprietors. The insertion of this column would naturally require that the width of the ledger should be

increased by about three inches. When this is done the clerk will be relieved of the burden of consulting the bundles of dusty Chalan. With only the ledger under his arm the clerk will walk into the Record Room and take the names of the really defaulting landlords from Register D. This will necessitate some minor changes in the form of the Land Revenue Chalan [Schedule XIV—Form no. 368H (New) 1030 (old)]. *Delete* "Amount" against serial no. 9 and *insert* "Quota payable". "Extent of Share" may be *added* to the chalan under serial no. 10. These changes will facilitate proper check in the Tauzi Office.

Now the person who has paid is absolutely safe from harassment and the honest will not suffer on account of the dishonesty of others. The complaint of the habitually defaulting landlord as to why he is always selected for being proceeded against for recovery of arrears is absurd and does not deserve the sympathy of any sane person. His proper remedy is in his own hands. He should see that he regularly pays his quota and he will have no occasion for any complaint.

Unthinking clerks and even officials—and there is no lack of them—may raise the cry of extra labour. The balance is a very good invention and has to be used in all affairs though the poor instrument is much more misused than used. The balance of advantage, so far as the additional column we have proposed goes, is on the side of better, smoother and more equitable working of the department and greater contentment amongst the honest landlords.

3. To give protection to the person who regularly pays his quota but is even then made to pay either through the negligence of the cess clerks or at the instance of dishonest co-sharers it is desirable not to charge any court-fee or process-fee for application under section 49 of the Cess Act. In the case of a decree the court-fee and process-fee should be realized from the defendant and credited to the Government. In case of an unsuccessful application the court-fee and process-fee are to be realized from the applicant. All the realization to take effect after the disposal of the application.

The fees and incidental expenses of an applicant are so heavy that in most cases it costs him fifteen annas for each rupee he recovers. In some cases he prefers to suffer the loss in silence because it is not worth his while to go to court. The cost might exceed the amount that may be decreed.

The sufferings of the honest zamindar call for sympathy. Government must realize its legal as well as moral obligation and take drastic action to put an end to the tyranny or negligence of the clerks and the officers concerned. A rule may be made that the cost incurred by the zamindar in righting a wrong committed by the office should be made good by the clerk and the officer of the department concerned.

The remedies which we suggest are calculated to give relief to a large number of people who have dealings with the Certificate Department. It is trusted that the suggested remedies, if accepted and applied in the right and proper spirit, will considerably mitigate the evil, if not altogether eliminate it.

Money passes at the time of —

- (1) Preparation of a certificate requisition with an incomplete list of co-sharers. Habitual defaulters arrange beforehand to escape from the certificate procedure and attachment of their movable properties by distraint ;
- (2) Serving notices under section 7 and under rule 27 of the Public Demands Recovery Act sent out to another district. The certificate-debtor manages to have such notices returned unserved by bribing process-servers ;
- (3) Sending a report on an objection petition to oblige a certificate-debtor. At times an incorrect report is submitted by the section clerk concerned ;
- (4) Issuing a writ of release. In several cases this writ is not issued unless the certificate clerk's demand for illegal gratification is satisfied ;
- (5) Submitting reports of service of processes. Peons are bribed to submit false reports.

Remedies.—(1) Names of all the co-sharers should be shown by the Cess Department in a certificate requisition which should be checked before sending it on to the certificate department so that notice under section 7 may be issued to all. Payments by co-sharers should be noted against the name of each on the back of the requisition.

(2) Distress warrants should, in the first instance, be issued only against all the defaulters simultaneously so that office may not have a chance of exempting some by taking a bribe. A defaulter who makes payment on a distress warrant may be authorized to endorse the payment on the distress warrant itself in addition to taking a receipt from the process-server. On failure to realize the demand from the defaulters the co-sharer or co-sharers who have already paid his or their quota should be given a chance to pay off the dues before selling his or their movable property.

(3) Notices under section 7 and under rule 27 of the Public Demands Recovery Act should be sent by registered post with an acknowledgment due in the case of those certificate-debtors who live outside the district to prevent peons from being bribed by an interested party to report falsely.

(4) A report by a clerk of the cess or other requisitioning department on an objection petition filed by a certificate-debtor should be verified by the officer in charge of the department who should certify it to be correct before sending it on to the Certificate Officer. The Certificate Officer himself should pass orders and not let his clerks write out the orders as it often happens. If an objector is present he should be heard before an

(5) Delay in issuing a writ of release in respect of movable property attached in a certificate case can be avoided by strict supervision. The writ of release should be issued on the day the order is passed or the next day at the latest

(6) There is a good deal of corruptions in the Certificate Department in the matter of service of processes and the utmost vigilance on the part of the Certificate Officer can alone check the evil. The Certificate Officer must, without an exception, be in charge of the Nazarat Department.

TREASURY.

Money passes at the time of :—

- (1) Passing cheques issued by local bodies on the last date of the financial year ;
- (2) Seeking information to withdraw lapsed deposits by a party ;
- (3) Issuing stamps from the Treasury particularly during *tamadi* time ;
- (4) Payment of land revenue and cess during *kist* time.

Remedies.—(1) Issue of a large number of cheques on the last date of the financial year should be discouraged wherever possible to check corruption as clerks point out imaginary defects and threaten to delay payment if they themselves are not paid first. A local gazetted officer may be deputed to perambulate and see that the cheques are cashed without bribing any one.

(2) Parties may be allowed to inspect the lapsed deposits registers on payment of a fee of, say, annas 4. This will stop the payment of unauthorized fee to the clerks of the Accounts Department. The rule to the contrary may be modified.

(3) Treasury Officers should enquire from the Civil Courts a month before the *tamadi* day the requirements of stamps and keep a sufficient stock of them. The Treasury should be kept open on the last *tamadi* day even if it is not a day for issuing stamps and in the *mufassal* it may not be even a Treasury day.

(4) During each *kist* time, a gazetted officer should be deputed to the Treasury to see that parties deposit their money without any harassment at the hands of the Treasury clerks and *pottdars*. There have been several complaints in the past that payments are not received unless they get their *mamuli*. These people feel helpless and, in their anxiety to save their estates, are forced to pay tips. It is regrettable that even in making payments of Government dues, a surcharge in the shape of a bribe should be demanded and this state of affairs should continue in spite of there being so many officers who are expected to supervise the work.

LAND REGISTRATION.

Land registration cases—particularly contested cases—often raise difficult questions of Hindu and Muhammadan Laws which can be dealt with by experienced officers who have gathered a working knowledge of the

intricacies of such laws. It is suggested that young and inexperienced officers should not be entrusted with this work though the Committee recognizes that this may not be possible in every district and that the discretion of District Officers should not be fettered by any general direction about the allocation of work to their subordinates. Many of the corruptions are facilitated by the want of vigilance and experience of the officers themselves.

Money passes at the time of :—

- (1) Obtaining information regarding case number and date ;
- (2) Obtaining an unauthorized copy of an objection petition ;
- (3) Drafting incorrect routine orders by section clerks ;
- (4) Preparation of a decree ;
- (5) Return of documents filed in a contested land registration case.

Remedies.—(1) When an application for registration and mutation of names is filed, the applicant has to approach the section clerk and to bribe him to know the number of his case and the date fixed in it. It is suggested that a slip should be attached to each application giving the applicant's name, nature of the case, tausi number and date of filing the application. The receiving clerk should put down on this slip the number allotted to the case and the date fixed for hearing and return the slip to the applicant immediately. This practice obtains at Patna and can be easily followed in other districts.

(2) In contested land registration cases no objection petition should be accepted unless a copy thereof has been previously served on the opposite party or his lawyer otherwise the practice of obtaining a copy surreptitiously will continue.

(3) Routine orders drafted inevitably by clerks should occasionally be checked at random by the officer to prevent corruption.

(4) Before a decree prepared by a land registration clerk is signed an opportunity should be given to the parties or their lawyers to check the decree. Under the present system a party sometimes does mischief by bribing the clerk.

(5) The documents filed by the parties in Land Registration cases should be returned to them in presence of the Land Registration Officer on the date the application is made if the records are in the Land Registration Office and, if the records are in the Record Room, on the following day at the latest. To get back their documents parties at present are obliged to bribe the clerks.

NAZARAT.

do their work expeditiously and methodically. Much of the work in the Nazarat depends on the good work by the peons who are almost illiterate. They are as a class poorly paid. Elsewhere we have suggested an increment in their pay with a fixed travelling allowance. They have to provide their own liveries out of their meagre salary. The average cost of liveries of a peon per year will be about Rs. 3 and we strongly recommend that Government should bear this cost as it does in the case of Excise Peons and police constables.

Money passes at the time of :—

- (1) Distribution of processes to the peons by the Nazir ;
- (2) Submitting false reports of service of processes ;
- (3) Payment of witnesses' expenses ;
- (4) Purchase of furniture and stationery, etc. ;
- (5) Enrolment and appointment of peons.

Remedies.—(1) There are complaints that some Nazirs do not distribute processes for execution and service equitably among the process-servers. They have their own favourites who return the unfair patronage in some form and obtain the paying processes.

The jurisdiction of each Nazarat should be divided into two well-defined areas : urban (within a distance of six miles from the headquarters) and rural (beyond that distance). A process-server who has just returned from the rural area should not be sent again to that area but to the urban area. The system of distribution of processes prevailing in the Civil Courts under a Registrar may not be feasible in the Revenue Courts for various reasons, e.g., multifarious duties which the Nazarat Officer may have to perform in addition to Nazarat work. We, therefore, suggest that the Nazarat Officer should occasionally distribute the processes himself and exercise better control over their distribution in future.

(2) Some corruption prevails in the matter of service of processes. The only remedy is a closer supervision by the officer in charge of this office. Service of processes should be checked locally in a few cases by the Nazarat Officer and the Subdivisional Officers in their respective jurisdiction. This ought to provide a healthy check on the vagaries of the process-servers.

(3) Expenses of witnesses in criminal cases must be paid in presence of the Magistrate and the existing order of Government to that effect should be strictly followed.

(4) Purchase of furniture by the Nazir is alleged in certain quarters to be a fruitful source of income to him. Everything is done by the Nazir and the Nazarat Officer merely puts his initials on the bill and passes it. Such purchases should be made or checked by the Nazarat

Similarly when Government stationery is out of stock, the Nazir purchases stationery locally. He should not be allowed to make purchase of any article worth more than Rs. 50. If the Nazarat Officer is vigilant, he can considerably check corruptions under these heads.

(5) In the enrolment and appointment of peons the Nazir takes money from each successful candidate. This can be stopped if the Nazarat Officer makes his own selection and recommendations without relying upon the recommendations of the Nazir.

CESS REVALUATION.

Money passes at the time of:—

- (1) Filing returns by the zamindars ;
- (2) Getting reduction made.

Remedies.—Since many officers have a bias in favour of increasing cess a close supervision by the Collector is absolutely necessary. Only selected officers of experience should be deputed for cess revaluation work.

LAND ACQUISITION.

Money passes at the time of:—

- (1) Enquiries by Kanungoes for estimating the value of land ;
- (2) Payment of the award.

Remedies.—(1) We can suggest no other remedy than strict vigilance on the part of the Land Acquisition Officer who should locally verify the correctness of the Kanungoe's report.

(2) Payment of the award should be made locally as much as possible and where the award money has been kept in Revenue Deposit, the procedure for withdrawal of money as laid down in the Board's Miscellaneous Rules must be strictly followed.

CESS AND TAUZI.

Money passes at the time of:—

- (1) Preparing a certificate requisition to omit the name or names of a co-sharer or co-sharers from a certificate requisition ;
- (2) Submitting reports on objection petitions filed by certificate-debtors ;
- (3) Filing cases under section 49 of the Cess Act ;
- (4) Passing Chalans, particularly during *kist* time.

Remedies.—(1) We have already suggested some remedies while dealing with the Certificate Department for combating the evil of preparing an

(2) To avoid corruption in the suit for contribution under section 49, rule 1A at page 30 of the General Rules and Circular Orders, Civil, Volume I, may be adopted.

(3) During *kist* days there is a great rush in the Tauzi Office when Chalans are presented to the section clerks for checking. Each presenter has to pay a tip before his Chalans are checked. In several cases this check is most superficial.

We suggest that an officer of gazetted rank should invariably be deputed during *kist* time to the Tauzi Office so that the work may proceed smoothly.

At present land revenue and cess can be paid by postal money order. This is an additional facility given to landlords and the system is working satisfactorily. The check of Chalans in the Tauzi Office, being at times most superficial, we propose another additional facility to be given to landlords. Those who wish to make direct payments in the Treasury or the Imperial Bank without going to the Tauzi Office should be encouraged to do so. This is likely to relieve congestion in the Tauzi Office during *kist* time and to lessen the work of the section clerks who will have much more time for preparation of their quarterly return and other works.

(4) We suggest that a statement showing the Tauzi number of an estate, the amount of arrears and the date of its sale should be hung up in front of each section clerk outside in the verandah in a glass shelf for the inspection of the parties concerned. We have made this recommendation so that the Tauzi clerks should not come in contact with the general public. This will also remove the complaint of the public that notice under section 6 of the Revenue Sale Law is often torn or removed from the notice board.

RECORD-ROOM.

Money passes at the time of :—

- (i) Seeking information from the record-room ;
- (ii) Unauthorized inspection of disposed of records ;
- (iii) Sending records to the Copying Department or to a court.

Remedies.—(1) Parties or their agents approach the record-room clerks for some information without formally applying for it. They bribe the clerks and get the information which causes loss of revenue to Government. This practice can be checked if the Record-Room Deputy Collector pays surprise visits to the record-room. No member of the public should be allowed ingress to the record-room.

(2) Clerks take records home from the record-room and allow parties or their agents to take copies. The taking of records home should, in no circumstances, be permitted and parties should be given the right to inspect disposed of records and to take notes on payment of a nominal fee of four annas. A clerk of the record-room will bring such records for inspection in his presence at a fixed time every day. Separate accommodation, where available, may be provided for this.

(3) Record-room clerks do not send records to the copying department or to a court unless they are bribed. This form of corruption can be stopped only by the vigilance of the officer or court concerned. Any record required by a court must be sent to him a day before it is required by him. In case of failure, he should take effective action himself without asking the party to make his own *pairvi*.

COPYING DEPARTMENT.

Money passes at the time of:—

- (i) Applying for copies and in the course of preparation of copies ;
- (ii) Delivery of copies.

Remedies.—(1) If applications for copies are received by the officer himself there will be hardly any complaint. All sorts of tactics to cause delay are adopted if the bench clerk, copyist and comparer are not paid their *mamuli*. Records of pending cases should be sent to the copying department immediately after a requisition has been made for them. In the matter of notifying deficit folios, etc., the officer in charge of the department should satisfy himself that rules 286 and 288 of the Record-Room Manual are strictly and regularly followed in his office. He should also insist on a strict and regular compliance of rules 290 (notification of dates when copies will be ready) and 289 (list of copies ready) of the Record-Room Manual. He should pay surprise visits to the copying department and inspect the copyists' work to satisfy himself that no copy ready for delivery is being withheld.

(2) All copies after they have been signed by the officer in charge should immediately be distributed by him or in his presence. Any complaint of an aggrieved party should be immediately looked into and the result communicated to him then and there.

We quote an appropriate extract from the reply given by an experienced officer, who has retired, to our questionnaire. We fully agree with what he has said and adopt his suggestion. He says as follows :—
 “ The applications for copies are generally and actually received by one of the comparing clerks in the copying department. At this stage the comparing clerk has to be paid a bribe otherwise there is a chance of either the application disappearing or the stamped folio disappearing. The copying department does not keep records and has to get them either from the record-room or from the bench clerk. Here again the applicant has to bribe either the record-room staff or the bench clerk before a record can reach the copying department. The bench clerk when not paid must cause some delay. The usual excuses that he puts forward are summed up in the following sentences: (a) The records are with the presiding officer. (b) The records are disarranged and are being arranged and indexed. The applicant is in a hurry and has to please the bench clerk. It is then only that the records are sent to the copying department. When the copies are ready they cannot be issued without

the signature of the comparing clerk and the record-keeper. For these 'Dastakhanas' have to be paid. It is aptly called 'Dastakhana'. Real comparison and attestation are never done. Anyone who is familiar with certified copies knows what comparison and attestation mean. Copies full of mistakes and omissions are certified to have been compared with the original and such defective copies are attested by the record-keeper to be true copies."

Remedies.—(1) The principle of first come, first served must as far as possible be observed by the departmental head.

(2) The report of the bench clerk about the records being not available at once for the copying department must be countersigned by the presiding officer of the Court.

(3) It should be the duty of every presiding officer of a Court and in whose Court incorrect and mutilated copies said to have been compared and attested are filed to draw the attention of the gazetted head of the department from where such copies were issued and the cost of fresh copies should be borne by the comparing clerk in fault.

(4) The fee charged for expedition copies requires revision. The fee is so prohibitive that the law of diminishing return applies. I am confident that a reduction in the scale of fees will result in greater returns to the public exchequer. At present there are two classes of application, viz., expedition and ordinary. Expedition copies are expected to be issued to the party in the course of the day on which an application has been filed. The expectation is hardly if ever realised. The earliest ordinary is the next day.

I would propose three classes of applications:—

- (1) Extra Expedition—One day.
- (2) Expedition—Three days.
- (3) Ordinary—Six days.

The charges for the expedition copies to be midway between the charges for extra expedition and ordinary. Then the gazetted officers in charge of the copying department should have purely business interests and should forget that he is a *Hakim*. Much of the corruptions rampant in the copying department will disappear if it be run on purely business lines. There is an adage "A satisfied customer is sure to come again". If the copying department be run on purely business lines the evil of unauthorised and surreptitious copies will be mitigated to a very great extent and may ultimately disappear.

The suggestions I have made are not theoretical but I had occasion to put many of them into practice as far as it lay within my power and I found that they worked well. While I held charge of Criminal and Revenue Record-Rooms I had no occasion to reduce the number of copyists employed but had always to increase their numbers. I used to look upon the copying department as a purely business concern and used

to give all possible facilities to the parties. The result was a definite rise in the volume of work. I have known of cases in which copyists used to inform me that some bench clerk and offices were in the habit of issuing unauthorised copies and the income of the copying department was on that account falling. It is my experience that a lax and unimaginative gazetted officer in charge of the copying department indirectly encourages the issue of unauthorised copies.

There should be a return showing how many copies were issued in how many days.

BATWARA.

Money passes at the time of:—

- (1) The preparation of the change list and entering disputes ;
- (2) Issuing notices for inspection of papers adopted under section 50 of the Partition Act ;
- (3) Raibandi and Pattabandi by the Batwara Officer ;
- (4) Issuing unauthorised extracts of maps of lands and other papers ;
- (5) Distribution of parchas by an Amin ;
- (6) Writing grounds of appeal by the Batwara Head Clerk.

Remedies.—1. After the documents have been adopted for the purpose of partitions under sections 48 and 49, a notice under section 50 should be issued within five days from the date on which the documents were adopted mentioning also the date of adoption which is absolutely necessary since no appeal can be filed after 30 days from the date of adoption. Sometimes a notice under section 50 is issued, 15 days after the adoption of papers, and by the time the notice is received the time to appeal expires. At times a dishonest co-sharer bribes the peon and takes the notice on behalf of all and keeps them in the dark. The date of adoption should be noted in the Cause List also.

2. Corruptions on the part of Amins can be checked if the Batwara Officer carefully scrutinises the change lists, i.e., the lists containing all up-to-date changes which have taken place since the preparation of the last record-of-rights, and the classifications of lands made by them. Too much reliance on the work of these Amins should not be placed. They should in no case be entrusted with the distribution of *parchas* at the time of delivery of possession. Batwara officers should keep a watch over them so that they may not tamper with the allotment or subsequent re-allotment of *takhtas* marked in the map.

3. Copies of extracts of maps of lands and Batwara Khatian should be supplied to the parties at a reasonable cost. They should not be driven to take unauthorised copies by making the cost prohibitive.

4. Batwara officers should not depend too much on their head clerk to write out grounds of appeal. They should themselves do this as far as practicable.

SURVEY AND SETTLEMENT OPERATIONS.

There being no Survey and Settlement operations in any district of the province we refrain from making any recommendations.

SEPARATE ACCOUNTS.

Money passes at the time of fixing disproportionate amounts in Separate Account cases. This evil can easily be checked if the Revenue Munshikhana Deputy Collector exercises proper check and scrutiny before submitting papers to Collector for approval.

MALIKANA MUTATIONS.

Money passes at the time of :—

- (i) Filing a mutation petition by a *malikandar* ;
- (ii) Allowing mutation to a fictitious person without any proper scrutiny ;
- (iii) Preparation of the roll.

Remedies.—1. All malikana mutation petitions should be received by the Deputy Collector in charge in open court. They should not be received in office by any clerk of the Revenue Munshikhana.

2. No malikana mutation should be allowed without making a proper enquiry and also a local enquiry by a responsible Government servant.

3. The roll prepared should be delivered to the applicant by the Deputy Collector in charge or in his presence.

STAMP ACT CASES.

Money passes at the time of :—

- (1) Making an application for refund of value of spoilt stamps ;
- (2) Preparation of refund vouchers ;
- (3) Recommending imposition of penalty on impounded documents.

Remedies.—1. All applications for refund should be received by the Deputy Collector in charge (and not by the clerk concerned) in open court.

2. Refund vouchers should be distributed to the applicants by the Deputy Collector in charge after he has signed them along with Collector's orders sanctioning refunds.

3. The Stamp Deputy Collector should exercise his own discretion in recommending the amount of penalty to be realised and office should not be required to make any suggestions in this connexion.

CHAPTER XVII.

FOREST.

During our visit to Ranchi in the course of our enquiry it occurred to us to explore the possibility of not only checking corruption in the Forest Department but also of improving revenue from it. With this object in view we requested the Conservator and the Deputy Conservator of Forests to give us a short note as to what steps might be taken to attain the objective we have indicated. The Chairman subsequently received their joint note extracts from which, in the opinion of the Committee, deserve a place in its report.

We draw the attention of the Government to the extracts from this illuminating joint note of these officers who, in addition to their long experience, possess a foresight. The extracts will be found in Appendix B.

On one point their suggestion needs a modification. Our recommendation is that only in cases where private forests are interspersed with Government forests acquisition should be resorted to at once. But private forests far apart from Government forests and in no way affecting the latter should not be touched for some time to come.

In an agricultural country like India, forests have a special value and usefulness. They influence the quantity of rainfall in Bihar. This fact has been fully recognized in all the Government reports. A good deal of forest wealth has already been destroyed in South Bihar and Chota Nagpur. If further wanton destruction of forest is stopped and the proposals made in the extracts of the joint note referred to above are accepted and acted upon by the Government their revenue from it is sure to increase considerably.

CHAPTER XVIII.

INDUSTRIES.

There does not appear to be any complaint of corruption having crept into this department. It is a very small and young department. Its activities are summed up and displayed in the Central Institute at Gulzarbagh, Patna. It has done very well so far in certain branches of Cottage Industries. It would have done better if the finances of the province permitted rapid expansion. In spite of an increasing bias in favour of hand-spun, hand-woven and hand-made articles, the sale of articles made through or with the aid of this department is not satisfactory except for *pardas* and curtains over which the department makes considerable profit by having good local and foreign markets for them. The commercial museum and depot have usefulness of their own and should be encouraged but they are generally accessible to city dwellers and the people of rural areas do not come in contact with them. The products of the department can probably be made more popular in rural areas by taking the goods to big village *hâts* on the *hât* days. The Cottage Industries Institute may be supplied with a properly fitted bus with suitable racks for cloths, toys and other products of the department. The experiment may be worth a trial. In making this suggestion the Committee feels that it has gone beyond its scope if its terms of reference are strictly interpreted.

CHAPTER XIX.

COURT OF WARDS.

1. The occasions for taking bribes in the Court of Wards Estates are almost the same as those in the Khas Mahal Estates and the remedies suggested for eradication of corruptions in Government estates will apply *mutatis mutandis* to all estates under the Court of Wards. Only two other matters call for special mention.

2. A senior I. C. S. Officer, who was himself a manager of a big estate, says: "If in a certain big estate in the province under the management of the Court of Wards, the manager is allowed with the approval of the Government to have any amount of milk, fuel, etc., from the Wards Estates free or for a nominal price we cannot expect all managers in other estates or their subordinates to be particularly scrupulous in their dealings with such properties of the Wards."

We invite the attention of Government to this state of affairs and suggest immediate stoppage of such privileges or practices.

3. It is also reported that there is much scope for taking money in the settlement of *jalkars*, *falkars*, etc., and in subsequent remission of these rents. We suggest that the settlement of *jalkars* and *falkars* above Rs. 250 should be made by the Wards Deputy Collector or the Collector and that remissions of such rents should be allowed only after a thorough local enquiry by a responsible Government servant.

CHAPTER XX.

We do not claim to have given an exhaustive list of causes and occasions for bribery in each department that has been dealt with by us nor have we given every conceivable remedy for all the evils that exist. But we venture to say that there is in our report a mass of materials which may enable the Government and the people desirous of checking corruption in public services to adopt measures calculated to attain the object.

It would bear repetition to say that opportunities, need and greed are the principal factors which tend largely to corrupt public servants. Unless wages of ill-paid servants are raised, work is simplified, hands in undermanned offices are increased, better and closer supervision over subordinate staff is exercised, and dishonest servants are severely punished, corruption will continue undiminished and may even increase.

But no one can be punished without proof of his guilt and evidence of corruption in individual cases cannot be found in many cases without the co-operation of the public.

In concluding this report I must thank my colleagues of the Committee for their co-operation in the spirit of a team. Though some of them could not attend all the meetings, every member has made some contribution towards the solution of the problems we had to tackle.

We are grateful to the officials and the non-official gentlemen who have assisted us by replying to our questionnaire and giving evidence before the Committee. We are thankful particularly to non-official gentlemen who at their own expense appeared before the Committee to be examined orally in response to its invitation.

We wish to put on record our appreciation of the work of the Secretary, Pande Ram Chandra Sahay, who rendered useful services in a methodical manner and helped the Committee with a good deal of information which he possessed on certain points relating to the subject of our enquiry.

We submit to the Government this report which embodies our unanimous recommendations.

SYED ABDUL AZIZ.

AMARNATH CHATTARJI

A. E. J. C. McDOWELL, Lt.-Col.

A. JALIL

MUHAMMAD IBRAHIM.

BRAJA NANDAN SINGH.

BRAJANANDAN PRASAD.

MAHESWAR PRASAD NARAYAN SINGH.

VINDHYESHWARI PRASAD VARMA.

APPENDIX A.

CORRUPTION ENQUIRY COMMITTEE.

QUESTIONNAIRE.

NOTE.—(1) Recipients of this questionnaire are not required to attempt to answer every question contained in it. The Committee will be glad if they will furnish replies to any question in which they are specially interested or about which they have personal knowledge or information.

(2) Replies should be sent so as to reach the Secretary, Corruption Enquiry Committee, Patna Secretariat, on or before the 7th June 1938.

General.

1. Do corruptions exist in all or any of the following departments? If so, please state the nature of and occasions for the corrupt practices.

- (1) Civil Court.
- (2) Criminal Court.
- (3) Police.
- (4) Jail.
- (5) Registration.
- (6) Excise.
- (7) Irrigation.
- (8) Public Works.
- (9) Public Health.
- (10) Medical.
- (11) Veterinary.
- (12) Education.
- (13) Revenue, including Khas Mahal, and Survey and Settlement.
- (14) Forest.
- (15) Industries.
- (16) Court of Wards.

2. What remedies can be adopted for eradicating or minimising them?

3. If any confidential report of dishonesty is made against an officer by his superior in the annual merit statement, should this be communicated to the officer with a warning?

4. Should not a well-grounded suspicion of dishonesty against an officer in any part of his service debar him from promotion to the selection grade or to a higher rank? Should such promotion be given

5. Do you consider it desirable to remove an officer from service on the repeated confidential reports of dishonesty made by his superior officers?

6. Do you consider it desirable that officers whose record of service is indifferent should be compulsorily retired before the ordinary time, say, after 20 or 25 years of service?

7. Do you consider it desirable to form a vigilance committee of officials and non-officials in each district or subdivision to watch and report about the corrupt officers of different departments? Would it be necessary to have a provincial vigilance committee to keep the district committees active? What should be the constitution of the provincial committee, if any?

8. What action can be taken to improve the moral tone of the people in the matter of offering illegal gratification?

9. Do superior officers of the department take sufficient interest in checking corruption? Has the action of any such officer been fruitful of any good result? If so, the action taken by him may be stated in detail.

10. Do officers take loan from persons under their influence? Does not this affect their efficiency?

11. Do you consider that the present departmental procedure in taking action against persons accused of corruption should be simplified and made more effective and speedy? If so, in what way?

12. Do some gazetted and superior officers of Government get their provisions supplied free of cost or at nominal price and use motor cars without either paying the proper fare or even for petrol at the expense of some subordinates or private persons?

Questionnaire for Civil Courts.

1. Will you state the bribes and the perquisites which are paid to some employees of the Government and the unauthorised clerks, if any, employed by them from the time of filing cases to the time of their disposal?

2. What illegal exactions or perquisites are paid at the time of preparing and executing a decree and obtaining Dakhaldehani or delivery of possession of the property?

3. Do peons often make false reports about service of processes and are they usually paid their travelling expenses and tips by the parties to perform the former's duties?

4. (a) Can you suggest any better method of service of processes than what prevails at present?

(b) Do you think that local enquiries should be made occasionally by a gazetted officer into the reports submitted by a peon about the service of processes?

5. Is any illegal gratification generally paid for appointments of clerks, peons and even for enrolling candidates? If so, in what districts?

6. Do you know that the practice of giving short dates for the hearing of cases without any prospect of their being taken up at all and frequent postponements lead to corruption?

7. Can you suggest any method by which the hearing of the case may be taken up peremptorily on the date fixed?

8. Are the subordinate staff over-worked and ill-paid?

9. Are you aware that many of them work ceaselessly far beyond office hours and some have to employ unauthorised hands to do the extra work and thereby fall easily to the temptation of taking bribes?

10. Are some of the ministerial officers indolent and untrained in the methods of systematic work? If so, does this fact militate against quick disposal of their work within the office hours?

11. Are the gazetted officers generally inaccessible and indifferent to the members of the public who may want to know or report certain matters directly to such officers and thus leave the public to depend too much on the subordinate staff whose opportunities to take bribe increase thereby?

12. Do you think that supervision by gazetted and other superior officers over their subordinates should be more strict to stop corruption? If so, what do you suggest to make the supervision more effective?

13. Do you think that the system of having a Registrar for Civil Courts should be extended to all districts? If so, why?

14. Do you think that corruption will be eradicated or minimised by appointing a vigilance officer for each division whose duty will be to supervise the departmental work of the administration, to check corruption and help the public concerned to get their proper and legitimate work done speedily and without paying bribes or perquisites?

15. Should rules about inspection of records by a lawyer engaged in a case be made less stringent and should courts permit inspection of records more liberally to prevent corruption which would otherwise take place? If so, please state the extent and nature of the modification of the rules and the circumstances under which courts should be expected to exercise their discretion and power of granting permission for the inspection of records more freely.

Questionnaire on the Criminal Court.

1. (a) Is any illegal gratification given when a complaint or an objection to a police report is made before the Subdivisional Magistrate? If so, who is the recipient and who the intermediary? Can you suggest a remedy if the practice exists?

(b) Is the issue and the service of summons, notice or of a warrant of arrest the occasion for payment of a bribe? If so, who receives it?

(c) Is an illegal fee paid (i) when a *hazri* is filed, (ii) when a petition for time is filed, (iii) on each date of hearing? Can you suggest a remedy to stop this practice?

(d) Is an illegal fee paid when a judgment is delivered? If so, how can it be stopped?

(e) Is an illegal fee paid when a fine is deposited in court? How could you check it?

(f) Is there corruption in the Nazarat? How would you remedy it?

2. (a) Does money pass (i) when an application for bail is made, (ii) when a court passes an order granting bail, (iii) when a bail bond is executed: is there a fixed scale of payment based on a percentage of the sum demanded in the bond? Can you suggest a means of checking these evils?

(b) Reading section 500, Criminal Procedure Code, with section 501, Criminal Procedure Code, do you think that magistrates should use their discretionary powers to grant bail more freely? Will not this lead to reduce the chances of corruption?

(c) Do you think it would eliminate an opportunity for corruption if a *dasti* cover is given to the parties concerned as soon as bail is granted?

(d) Do you favour the release of an accused as soon as a bail bond is executed leaving the verification to be done later on?

(e) Do you think that there exists a practice of assessing the worthiness of a bailor on the value of his movable property only?

If so, does it lead to abuses involving the passing of money?

3. In 110 and other cases tried locally how do the officers and the ministerial staff obtain their provisions? Are proper prices paid for them?

4. Do parties get copies of case diaries, station diaries and other papers by paying bribes? How would you stop this practice?

5. (i) Are copies of depositions and other papers on the record surreptitiously supplied without recourse to the Copying Department on payment of a tip? How would you stop it? (ii) When an application for copies is made in the proper form, has an illegal fee to be paid?

6. Do you think it is necessary that all appellate and revisional courts should pass orders as soon as an appeal or an application for revision is presented before them or fix a date for preliminary hearing?

7. Do you consider that jurors and assessors are exposed to temptation and influence and sometimes they succumb to it?

8. (a) Do you think that in all Crown cases prosecution should be conducted by legal practitioners and not any by a police officer? If so, give your reasons.

(b) Should the district magistrates be empowered to allow a legal practitioner engaged by the private party to conduct the prosecution at any stage of the trial even when there is a Public Prosecutor engaged in behalf of the crown?

(c) Does the practice of taking permission from the public prosecutor lead to corruption?

9. Does corruption exist in the ranks of the Honorary Magistrates? Can you suggest a better method of recruitment?

10. Does corruption exist also amongst some stipendiary magistrates? If so, can you suggest any remedies?

11. Do some magistrates at subdivisional and district headquarters hold court at irregular hours which leads to corruption?

12. Do you think that some corruption will be prevented if in the event of conviction with a sentence of imprisonment a copy of the judgment is kept ready to be granted as soon as the judgment is delivered?

13. Do you favour allowing conveyance to an accused from the jail to the court at his cost?

Questionnaire on Police Department.

1. Do you know that there is a general complaint of corruptions in the Police Department? If so, what is the extent and nature of such corruptions?

2. Will you please state the various opportunities which a police officer gets in his official capacity to accept illegal gratification from litigants and the persons concerned?

3. Do you think that the supply of copies of the First Information Reports and Sanbas immediately to the informant and to the opposite party if applied for is likely to stop payment of bribe to the subordinate police?

4. Do you think that F. I. reports should be attested by two independent literate witnesses in all cognizable cases whenever possible to preclude omissions or modifications by the police officer or subsequent false allegations by the informant?

5. Do you know that in certain reported cases against unknown persons, some people are suspected in Final Reports or later in Supplementary Final Reports on the information of interested persons or personal knowledge of the Investigating Officer and that such Final Reports are used in B. L. cases? If so, what suggestions have you to make to preclude the possibility of unfair play which may have been influenced by local conditions?

6. Do you think that some investigating police officers still continue to make a note concerning a case in their personal diary? If so, what steps should be taken to stop it?

7. Do you think that the despatch of case diary from day to day to the Subdivisional Magistrate is likely to reduce opportunities for taking bribes?

8. What objections, if any, have you to immediate supply to the parties of copies of notes and plans of local inspections made by the Investigating Officer and of statements of the accused persons recorded during investigation?

9. Do you think that all arrests by the police under section 54, Criminal Procedure Code, should be made bailable?

10. Do you think that corruptions in the Police Department are due mainly to lack of effective local supervision? If so, please make your definite suggestions to stamp out corruptions.

11. Does any class of Government servants use conveyances which are plied on hire without paying usual fares and obtain admittance to a commercial entertainment or show free of charges?

12. Do you think that any better system of recruitment and re-organisation will lessen corruption in the Police?

13. Does money change hands in the Police Lines in connection with postings and transfers? If so, what do you suggest to stop it?

14. Have you any practical and effective remedies to suggest other than those indicated in the above questions?

Questionnaire on Jail Department.

1. Are you aware that there are corruptions in all Central, District and Sub-jails? If so, what is the extent and nature of such corruptions?

2. Are you aware that tobacco is sold to convicts through warders at an exorbitantly high price and other prohibited articles are brought in through the connivance of subordinate jail officers by paying bribes?

3. How are purchases of articles of food made for consumption by the prisoners and under-trial prisoners? Is it a fact that contracts for supplies are given to the same contractors from year to year? Does the present method lead to corruption?

4. Are articles manufactured in jails dearer in spite of cheap labour there? If so, why?

5. Are unauthorised interviews with convicts and under-trials granted by taking bribes?

6. Who is responsible for distribution of labour and rations among convicts? Does the present method of distribution lead to corruption?

7. Does money pass in the appointment or transfer of warders?

8. Can a prisoner ventilate his grievances to the District Magistrate, except through the jail authorities? If not what facilities would you suggest to enable the prisoners to represent their grievances before a non-official or official visitor?

9. Is the system of jail visits by non-officials and officials working well? If not, what improvements do you suggest?

Questionnaire on Registration Department.

1. Is there a general complaint of corruptions in the Registration Department? If so, please state the extent and nature of such corruptions?

2. Do you know that an unauthorised fee is charged per deed for its registration mostly through deed writers and that non-payment of this fee involves delay and harassment to the executant?

3. Are you aware that unauthorised copies of deeds are issued to the loss of Government revenue?

4. Has there been any change in the extent of corruption during the last 15 years? If so, please give details and the reasons for the change.

Questionnaire on Excise Department.

1. Do you know that there is a good deal of corruption in the subordinate Excise staff? Do you think that there is some corruption in the ranks of gazetted officers also? If so, please state the extent and nature of such corruptions. What remedies would you suggest for the evil?

2. Is it a fact that most of the sub-inspectors of Excise receive a monthly pay from all excise vendors of country spirit and drug shops for overlooking mal-practices, e.g., dilution, over-charge, short measure sale, etc?

3. Is it a fact that they share this money with the Inspector of Excise and the menial staff?

4. Do you know that warehouse officers similarly extort money from these vendors on pain of giving to them trouble in the issue of country spirit and drug?

5. Are you aware that *salami* of a fixed amount is realised from such vendors including Tari vendors in the beginning of the financial year for the new settlement of shops?

Questionnaire on Irrigation Department.

1. Is any regular illegal fee realised by the subordinate staff of the Irrigation Department at the time of the execution of a *patta* by a cultivator?

2. Are you aware that unauthorised irrigation of land is allowed to the loss of Government revenue and some pattadars?

3. Should the Executive Engineer be asked to make surprise enquiries occasionally in a public manner whether or not illegal gratification is extorted by any class of officers?

4. If substantial rewards be given to the persons instrumental in the detection of irrigation of unleased land, will that check corruption of the subordinate staff?

Questionnaire on Medical Department.

1. Is there any corruption or complaint about the Medical Department in the matter of—

- (a) admission of patients to the General Wards of the Prince of Wales Medical College, Patna and in other Government hospitals?
- (b) treatment of outdoor patients and distribution of medicines to them at these hospitals?
- (c) giving certificates to candidates selected for Government service by a Medical Officer whose duty it is to examine them free of charges and in medico-legal cases?
- (d) supply of rations in the wards of the various Government hospitals of the Province?
- (e) giving certificates about age, health, illness, etc., by a Doctor in Government service?

If so, please suggest effective remedies to remove the complaints.

Questionnaire on Revenue Courts.

1. What are the corrupt practices prevalent in—

- (a) Batwara Department,
- (b) Land Registration Department,
- (c) Certificate Department,
- (d) Tauzi Department,
- (e) Treasury Department,
- (f) Nazarat Department,
- (g) Cess Revaluation Department,
- (h) Land Acquisition Department,
- (i) Survey and Settlement Department,
- (j) Khas Mahal Department,
- (k) Record Room and Copying Department,
- (l) Appraisement and commutation proceedings.

2. Is there an undermanning of any office necessitating the employment of extra hands by the office clerks to cope with the work?

3. What special measures can be suggested for checking corruptions in the different offices?

QUESTIONNAIRE.

Please state the extent and give details of corruptions if they exist in the following Departments with your suggestions for improvement :—

1. Veterinary.
2. Public Health.
3. Forest.
4. Industries.
5. Education.
6. Court of Wards.
7. Public Works Department.

APPENDIX B.

(Extracts from the Note of Messrs. Ouden and Sharma.)

..... the pay of officers should be improved. This recommendation refers to all grades of non-gazetted officers in the permanent establishment and especially so in the lower grades. Most of their time is spent out in the forests where they are exposed to the mercy of the elements. At any time they may be laid up or incapacitated as a result of sickness contracted in the unhealthy tracts in which they live. Medical aid is not always available to them unless they can manage to move to the headquarters stations. The education of their children is also a great problem for them under such circumstances. The hard life led by these subordinates discourages any but the most needy from entering the service and if their remuneration is insufficient to meet their needs, it should not be very surprising if this class of officers is apt to take advantage of the circumstances under which they are employed and possibly accept bribes. The people also with whom they come in contact are fully aware of this fact and with them the payment of a bribe is merely a business transaction to (a) get away with something extra and (b) to escape inconvenience which might result if the bribe were not given. They are always ready to take the risk (1) because they know the attitude of the subordinates towards a bribe and (2) they know that their chances of being found out or exposed should the officer be honest are small because (a) bribes can always be offered and accepted without any evidence being left and (b) they are aware that with the small amount of supervisory control which can be exercised by a single Divisional Forest Officer in a division the chance of detection of actual faults committed in exchange for a bribe taken is small Added to all this the procedure insisted upon in making enquiries after a case is detected takes so long and has from the nature of things to be so drawn out that it often takes months of the Divisional Forest Officer's time where, as a rule, he is already fully occupied with normal work of his division. No Divisional Forest Officer looks forward to the prospects of drawing up proceedings with pleasure and it all means extra and very tedious work.

3. we suggest the appointment of a special officer posted in Ranchi whose principal duty would be to propose and maintain a special drive against corruption including educative talks to subordinates while on tour in divisions and taking immediate action in any cases which come to his knowledge For the present and until his work could be estimated one such officer should suffice. He should be a gazetted officer, specially picked for the purpose and preferably a man of experience with good pay. The post might also draw a good special pay; he should make a special study of languages and might be rewarded for efficiency in this. In addition his services could be used for other works if his own duties did not keep him fully occupied

4. The forest subordinates are entrusted with looking after a very valuable forest property and to enable them to discharge their responsibilities of protecting the forests against theft, fires and grazing, etc., they have been vested with certain powers under the Indian Forest Act. It is sometimes complained that these powers are abused by some of the subordinates. That is inherent in the placing of powers in the hands of subordinates. The remedy lies not in taking away those powers, but in the aggrieved people coming forward and filing their complaints before the district officers or public representatives of the areas or the Divisional Forest Officers. The special officer suggested above for appointment to deal with corruption will be instructed to make a point of ascertaining by enquiries from local people and by investigating cases of abuse of powers by the subordinates and by taking adequate steps against them. If in addition to the duties proposed above, the special officer is invested with magisterial powers to try forest offence cases locally during his tours, it will provide him an opportunity for seeing whether the cases sent up by the subordinates are true or concocted merely to cause harassment to the people. This will also save the ordinary magistrates much of their time spent on trying the forest cases and will save the people from the need of going to headquarters for magisterial enquiry into petty forest offences. It will also save the Forest Department a very great deal of wasted time of subordinates now spent in attending courts at headquarters.

5. Having given better terms of pay we suggest a bonus equivalent say 3 to 4 per cent of the total surplus of the province to all non-gazetted ranks in proportion to their pay, clerks of all grades being included in these rewards. The effect of such a proposal would be to create savings and more economic work on the expenditure side and at the same time to induce all revenue due being fully credited. It would result in renewed vigil on the part of all subordinates not only against the outsider, but amongst subordinates themselves for they would all realize that if A took a bribe he would be reducing the bonus divisible between A, B, C., etc., etc. The proposal is a purely business proposal and the work of the Forest Department should be based on business lines In addition to these proposals Government should provide them with free medical treatment not only for themselves but also for the members of their family and also free education to their children.

6. One of the reasons for dishonesty and consequent loss to Government is lack of control..... But this problem could not be fully solved nor would it be fully solved without a fairly substantial increase in the executive staff and especially in the supervisory staff. For this purpose each Divisional Forest Officer should have a good attached Ranger whose main duty it should be to assist the Divisional Forest Officer in inspecting all works being done in the Division as directed by the Divisional Forest Officer. His energies would be directed chiefly to examining items of expenditure in the field and in carrying out a regular and systematic check on all markings in coupes and in

extraction from coupes sold with the sole object of looking round for faults and discovering and reporting the officer responsible. He would be fully occupied in such work and would probably pay his own pay many times over

7. Apart from this control however in the inner working of a division the introduction of *regular transit rules* in each division and for the province generally would give a much-needed measure of control which besides improving Government revenues would exercise an additional check on dishonesty perpetrated in the forests and escaping detection there and would tend to reduce the ease with which at present thefts can be and are committed. It would be a check both on the staff and on the public in their own interest. It would necessitate the introduction of a check on produce removed by right-holders and provide an easy means of discovering those who now can steal because there is no control over entry into reserved and protected forests or over any forest produce once it has left the forest. To prevent the thief getting away with it, either such entry should be controlled and offender prosecuted as trespassers, or transit rules must be introduced. Much of this work is done at *night* and restrictions even in this are desirable. These measures should, we feel sure, improve the position as far as bribe-taking is concerned and would also *increase Government revenue*.

8. With proper transit rules and a check on the movements of firewood, timber and other forest produce the need for a great increase in staff would be diminished. But until Government obtain complete control of the forest resources of the province even these measures will not prevent leakage. For as long as there are private forests in competition with Government and not subject to restriction as to cutting and extraction, so long will the sale of such produce to reduce Government revenues exist and so long will the theft of Government forest produce be facilitated to be passed off as the produce from private forests. This is so especially in the case where private property is interspersed in large areas of Government forest where it is impossible for Foresters or Forest Guards to control long lengths of boundaries of such areas in addition to their normal coupe supervision, road work, cases, etc., etc. Naturally such conditions increase the possibilities for corrupt dealings and the only policy which will succeed in such cases will be for *Government to make all such forests state-owned*. The indirect effect of such measures would be to control output of produce to the quantity which the state of the growing stock would warrant. This without in any way interfering with the legitimate and possible rights of the right-holding villagers would react favourably on right-holders themselves on prices to be obtained for Government forest sales and so on Government revenue based on an annual possibility of the forests.

9. Nor is it necessary to consider that such proposals would interfere with the rights of the people; in fact the whole position would be improved 100 per cent if Government would only realise the true

objects of reservations which are to admit and perpetuate existing rights for ever. Let all forests in Bihar be reserved to-morrow and let the implication be fully explained to villagers and there would not be one complaint, for people would realize that their rights were then assured for good and that with controlled working there would be no chance for undetected harassment by subordinates of any department. To take any other action than reservation is to leave the position vague and insecure as it is at present and to leave the forests to inevitable destruction and the rights (which Government admits exist) to inevitable extinction. If in addition to securing the rights of the people for ever Government can add to the blessings increased provincial revenue and a control over its staff and the wastage of its forest wealth which will tend largely to reduce this evil of corruption, why hesitate? We know how much forest there is, and how much we ought to have and to keep in the interests of the country surely it should be merely a question of the time it will take to effect the transfer of it to Government control on a fixed policy of procedure. The procedure can be cheap or expensive according to whether Government take firm and determined steps after making up their minds to take everything or continue the present rather slow and laborious makeshift measures. Most of the department's troubles present and past can be traced to lack of development in the past. If the figures be examined for the United Provinces, the Central Provinces, Madras, Bombay and the Punjab, it will be seen that practically all forest lands are in Government hands. This gives Government a complete control over supply and so a corresponding control over prices. In Bihar we have been in continual competition with the private owners of large areas of forest which he has been able to cut without considerations of capital and merely to provide himself with revenue from stored capital which has come down to him from the past, where we have deliberately restricted our output to what our working plans have considered to be the proper yield. Now that capital has been largely destroyed and prices should gradually improve especially for big timber which is now only obtainable in Government Reserves and especially if Government get control of all available forests in the province, but the area under Government Reserve is small and much below the figure which most countries consider desirable about 15 per cent of the total land area (we have 1.7 per cent), a strong policy of reservation can save the position and increase the percentage considerably and as this will be managed under the principles of a controlled yield the prices obtainable from the much larger areas than under Government control should soon improve to a figure which will improve the profits on the working of the Forest Department to anywhere between two to three times its present value. It must be remembered however that mere reservation will not suffice, money must be spent on development and control and with that control if the measures we propose be adopted we can, we think, hope to reduce corruption which may exist in the department at present. The United Provinces gives an excellent example of what development can produce and the same is possible in

DEPARTMENT OF INDUSTRIES.

REPORT

OF THE

Mechanical Industries Committee,

BIHAR.



SUPERINTENDENT, GOVERNMENT PRINTING,

BIHAR, PATNA.

1939.

Priced Publications of the Government of Bihar can be had from—

IN INDIA.

The Superintendent, Government Printing, Bihar,
Gulzarbagh, P. O.

- (1) MESSRS. TRACKER SPINK & Co., Calcutta.
- (2) MESSRS. W. NEWMAN & Co., Calcutta.
- (3) MESSRS. S. K. LAHIRI & Co., College Street, Calcutta.
- (4) MESSRS. R. CAMBRAY & Co., 6 and 8-2, Hastings Street, Calcutta.
- (5) MESSRS. THOMPSON & Co., Madras.
- (6) MESSRS. D. B. TARAPOREVALA SONS & Co., 103, Meadow Street, Fort, Post Box No. 18, Bombay.
- (7) MESSRS. M. C. SIRKAR & SONS, 75, Harrison Road, Calcutta.
- (8) PROPRIETOR OF THE NEWAL KISHORE PRESS, Lucknow.
- (9) MESSRS. M. N. BURMAN & Co., Bankipore.
- (10) BABU RAM DAYAL AGARWALA, 184, Katra Road, Allahabad.
- (11) THE STANDARD LITERATURE Co., LTD., 13-1, Old Court House Street, Calcutta.
- (12) MANAGER OF THE INDIAN SCHOOL SUPPLY DEPOT, 309, Bow Bazar Street, Calcutta.
- (13) MESSRS. BUTTERWORTH & Co., LTD., 6, Hastings Street, Calcutta.
- (14) MESSRS. RAM KRISHNA & SONS, Abarkali Street, Lahore.
- (15) THE OXFORD BOOK AND STATIONERY COMPANY, Delhi.
- (16) MESSRS. DAS BROTHERS, Nonzeikatia, Patna City.
- (17) THE BOOK COMPANY, 4/4(a), College Square, Calcutta.
- (18) MR. K. L. MATHUR, Guzi, Patna City.
- (19) MESSRS. RACHUNATH PRASAD & SONS, Patna City.
- (20) THE GRANTHA MANDIR, Cuttack.
- (21) BART MADAN MOHAN SINGH, PROPRIETOR, MESSRS. R. P. SIKRA & BROTHERS, GUZI, PATNA CITY.
- (22) MESSRS. SAMPSON WILLIAM & Co., 127_B, The Mall, Cawnpur.
- (23) THE NEW BOOK COMPANY, Publishers and Booksellers, 'Kitab Mahal', 192 Moruby Road, Bombay.
- (24) PROPRIETOR SARESWATI PUSTAKALAYA, Booksellers and Stationers, Dakonganj, (Palaiman).
- (25) MESSRS. R. S. TOMARA & SONS, Publishers and Booksellers, Opposite Fort Gate, Delhi.
- (26) MESSRS. HEM CHANDRA KRGOY & COMPANY, Bankipore, Patna.
- (27) PROPRIETOR, KANALA BOOK STORE, Bankipore, Patna.

IN EUROPE AND AMERICA.

THE OFFICE OF THE HIGH COMMISSIONER FOR INDIA, Public Department, India House, Abchurch Lane, London, W. C. 2

To.....

With the compliments of the Members of the Mechanical Industries
Committee of the Government of Bihar.

P. N. MATHUR,
Chairman and Convener.

X9(D6).253.NA 6
99

**MEMBERS OF THE MECHANICAL INDUSTRIES COMMITTEE,
BIHAR.**

1. Mr. P. N. Mathur, *Chairman and Convener.*
Superintendent, Duplex Plant, The Tata Iron and Steel
Company, Limited, Jamshedpur.
2. Mr. N. N. Rakshit, *Member.*
Managing Director, Tatanagar Foundry Company,
Tatanagar.
3. Mr. J. Tullis, *Member.*
Principal, Bihar College of Engineering, Patna.
4. Mr. B. K. Rohatgi, *Member.*
Proprietor and Managing Director, The India Electric
Manufacturing Company, Calcutta.
5. Mr. G. N. Maity, *Member.*
Managing Director, Vishwakarma, Limited, Calcutta.
6. Mr. Gur Sharan Lal, *Member.*
Proprietor, Gaya Cotton Mills, Gaya.
7. Mr. B. L. Roy, *Co-opted Member.*
Secretary, Bengal Industries Association, Calcutta.
8. Mr. T. N. Das, M. Sc., B. L. (Pat.), *Co-opted Member and*
B. Sc., Tech. (Manchester), A. M. C. T., *Secretary.*
Bihar College of Engineering, Patna.

Various meetings of the Committee including those of the Sub-Committee were called to draw up this report. Of all these unfortunately, for some unavoidable reasons, Mr. Tullis attended only two, Mr. Rohatgi one, Mr. Maity one and Mr. Gursaran Lal nil. The others attended all the meetings held during their membership.

**REPORT OF THE MECHANICAL INDUSTRIES
COMMITTEE, BIHAR.**

CONTENTS.

	PAGE.
1. Summary of the Report	1
2. Introductory note	4
3. Terms of Reference	6
4. Main Features of the Scheme	8
5. Direct and Indirect Benefit to the number of persons	9
6. Undisputed suitability of Bihar as a National Industrial Centre.	12
7. Existing Mechanical Industrial Factories in Bihar ..	17
8. Industries proposed for the Province	18
9. Approximate details of the proposed factories ..	19
10. Special Note on Automobile Industry	31
11. Industries to be kept in abeyance at present ..	35
12. Method of Administration	37
13. Sales Organisation	38
14. Labour	39
15. A Brief note on Small and Cottage Industries ..	41
16. Finance	44
17. Committee's Recommendations	46
18. Concluding Remarks	48

APPENDICES.

1. Export and Import figures of the Industries ..	50
2. Industrial Map of Bihar.	
3. Map of Bihar showing Transport facilities.	
4. Chart showing the proposed Units.	

SUMMARY OF THE REPORT.

1. From the point of view of the proximity of raw materials, adequate water-supply, availability of trained labour, transportation facilities, cheap electric current and supply of semi-finished steel products, Bihar is undisputably the most suitable province in India for the establishment of all Major Mechanical and Electrical Industries on a large scale.

2. Bihar is the only province in India which contains all the necessary natural resources, namely Iron Ore, Coal, Limestone, Dolomite, Refractories, Copper, Lac, Aluminium, Mica, etc., for the establishment of Mechanical Industries. It is recommended to start certain group of industries as far as possible, in close proximity to one another.

3. This procedure would materially minimize the initial investment, as well as the cost of the finished products by enabling the units to use water-supply, current, steam, compressed air, and even oxygen from common sources.

4. It will also enable easy utilisation of the bye-products left over by the various industrial units.

5. The supervision regarding the buying of the raw materials and the selling of the finished products on a collective basis would also be more easily and economically maintained.

6. It is proposed to establish at present the following Industrial Units :—

1. National Engineering Workshop.
2. Structural Workshop.
3. Sheet Metal Products Company.
4. Tool Steel Products Company.
5. Bolts and Nuts Factory.
6. Metal Products Company.
7. Metallic Lamp Manufacturing Company.
8. Umbrella Fitting Manufacturing Company.
9. Electrical Product Manufacturing Company.
10. Wire and Cable Company.
11. Electrical Communication Apparatus Manufacturing

7. It is estimated that the initial investment for all the industrial units would come approximately to about 6½ crores of rupees. The number of men expected to be employed directly would be about 33,000. The labour figures have been purposely kept on the high side as in the beginning at least it is intended not to replace labour by specialised machinery and equipment and intensified division of labour to the fullest extent. It is suggested that all the industries should be financed and controlled by the State but managed by private firms of national repute on the line of State-owned Company-managed Railways.

8. Due consideration has been given to the possibilities of manufacturing motor cars in India, but it is recommended that until the demand for motor cars and trucks exceeds 15,000 a year, it is better to manufacture engines in the National Workshop, while the body in the Metal Products Company.

9. The establishment of National Engineering Workshop is very strongly recommended. The idea is not at all novel. It is more or less along the same lines as in Russia, Germany and United States of America. It will manufacture machine tools, Industrial and Engineering machinery, automobile parts, locomotives except boilers, engines of all kinds and will supply castings, forgings, special bars, rods, structural materials and even electric power if necessary to the other Industrial units.

10. The establishment of a National Engineering workshop will not only produce the machinery and equipments necessary for the future industrial growth so essential for the self-defence of the nation but will eliminate multiplication of similar machinery in the different units.

11. In order to encourage the capitalists to invest money in industrial venture, it is absolutely necessary for the Government to guarantee about 4 per cent interest for at least 10 years on the capital invested. On an investment of 6½ crores of rupees, the guaranteed interest comes up only to 26 lakhs a year.

12. In the beginning it will be necessary to import covenanted hands (i.e., specialists) from abroad. However, in order to facilitate the training of Indian staff, it is suggested that the covenanted hands employed must be contracted on the basis of fixed monthly salary and a fixed lumpsum bonus. They would be entitled to the bonus only at the termination of the contract, provided they have fulfilled the condition of properly training

13. The Committee has withheld working out the details of the scheme and to incorporate them in this report till Government takes up definite line of action for the establishment of the industrial units in the light of the recommendations embodied in this report.

13. 50 lakhs of rupees have been allowed for the installation of power house using low grade coal as fuel at the National Workshop. It is expected that it will produce sufficient current for all the subsidiary units. The price of the current should not exceed 2 pies per unit.

14. The selling end of an article being more important than the manufacturing end, special attention has to be paid first to the making of those articles only for which there is guaranteed demand by the Central Government, the Military, the Railway, the Provincial Governments and the leading industrial firms in India.

The scheme would provide food, clothing and shelter directly and indirectly to about 3 lakhs of persons, in addition to considerable profit to the Central and Provincial Governments.

INTRODUCTORY NOTE.

Historically speaking National Planning is a modern technique adopted in some form or other, very successfully by almost all the civilised nations of the world. In India, the need of such an organised and co-ordinated drive for economic advancement was long felt but until very recently attempts were not made to tackle the question seriously. With the coming of the Congress Government at the helm of the affairs, the demand for National Planning became very persistent and the first step was taken by the Congress High Command in appointing a Committee to formulate a comprehensive scheme for the industrial development of the motherland. Hithertofore India has been only a consuming country of finished products and the exporters of raw materials. Under these conditions figures showing balance of trade in favour of India are absolutely misleading. This character must be changed.

About the 4th of October, 1938, a conference of Industrial Ministers held at Delhi in order to tackle the problem of poverty and unemployment in an effective manner, resolved to appoint an All-India National Planning Committee to evolve a practical scheme for this purpose.

The object of this committee is to improve the well-being of the community, principally by intensifying the economic development of the community concerned on a national basis, in an ordered systematic manner, so as to maintain due equilibrium between the producing and the consuming units.

The Provincial Governments have been asked to submit reports regarding the establishment of such industries for which their own provinces are best suited. In pursuance of the above, the Hon'ble Minister, Dr. Syed Mahmud, called a conference at Ranchi on the 24th and 25th October, 1938, to consider the Industrial Planning of Bihar. The meeting was held under the presidentship of the Hon'ble Minister himself.

The Hon'ble Chairman explained the object of the All-India National Planning Committee to be held at Bombay and the part the Province of Bihar should play in the scheme of things. Amongst the other speakers who addressed the meeting were Dr. H. K. Sen, Dr. V. S. Dubey, Dr. Gayan Chand, and Messrs. P. N. Mathur, S. K. P. Sinha, Sardar Bahadur Indra Singh and C. K. Jain who explained the different aspects of

the Industrial Development with particular reference to Bihar. The meeting concluded its proceedings in the formation of the following Committees :—

(a) Chemical Industries Committee.

(b) Mechanical Industries Committee.

(c) Cottage Industries Committee.

The Members of the Mechanical Industries Committee are :

1. Mr. P. N. Mathur (Convener), Superintendent, Duplex Plant, Messrs. Tata Iron and Steel Company, Limited.

2. Mr. N. N. Rakshit, Director, The Tatanagar Foundry Company, Limited, Jamshedpur.

3. Mr. J. Tullis, Principal, Bihar College of Engineering.

4. B. K. Rohatgi, India Electric Works, Limited, Calcutta.

5. Mr. G. N. Maity, Managing Director, Vishvakarma Limited, Calcutta.

6. Mr. Gur Saran Lal, Proprietor, Gaya Cotton Mill, Gaya.

7. Mr. B. L. Roy, Secretary, Bengal Industries Association, Calcutta.

8. Mr. T. N. Das (Co-Member) ; M.Sc. (Pat), B.Sc. Tech. (Manchester); A.M.C.T. Bihar College of Engineering Patna.

This Committee formed a sub-committee consisting of Messrs. P. N. Mathur, N. N. Rakshit and B. K. Rohatgi. The Committee also decided that Mr. Rohatgi will work out the detailed scheme of Electric Machinery, instruments and goods, while Messrs. Mathur and Rakshit will jointly prepare the detailed scheme as regards the Mechanical Industries.

The Committee also decided to co-opt Messrs. T. N. Das and B. L. Roy who would also be on the Sub-Committee.

TERMS OF REFERENCE.

The sub-committee decided upon the following terms of reference for the preparation of the report :—

1. To examine and ascertain the natural advantages of the Province of Bihar for all kinds of Mechanical Industries.
2. To enquire into the present position of the existing Mechanical Industries in Bihar, and find out in which of them there is still scope for further development.
3. To investigate in which directions there are possibilities for the establishment of new industries with a fair prospect of success.
4. To draw a comprehensive list of possible mechanical industries grouped according to manufacturing units, with full information as to their geographical distribution, approximate cost of establishment and production, and all other necessary details regarding labour, water, power, transport facilities availability of raw materials, etc.
5. To consider the problem of financing the industries, and advise how the proposed scheme of industrial expansion may be placed on a sound financial basis.
6. To advise what small and cottage industries may grow together with and as subsidiaries to the large-scale mechanical industries, and suggest ways and means for the rehabilitation of existing cottage industries that are in a moribund state.
7. To recommend such changes in the State policy as are likely to prove essentially necessary for industrial development in this province.

The above terms of references were sent to the Government of Bihar, to the Director of Industries, Bihar and to all the Members of the Committee for their approval and comments. All the parties concerned approved of the Terms of Reference.

Guiding Principles.—For a long time to come, India must remain a nation of Imitators rather than Originators. Today, we are in the same boat as other nations were when they were struggling through the initial stages of their Industrial Development

Practically all the nations without any exception started their industrial career with the establishment of a National Engineering Workshop. After they had gained the confidence of the capital and had produced skilled workmen they went ahead with the establishment of numerous other specialised industries. There is no earthly reason why India should depart from this true and tried-out method of accomplishing things.

At present there is no use spending money on Research Laboratories. There is enough foreign data and information available to set the ball rolling. If necessary foreign experts can be temporarily employed to train up local hands on a similar contract as recently made in Japan and Russia. However, there should be a National Research institute to tackle new propositions and at the same time to help the Industrialists to solve their technical problems peculiar to Indian conditions, climate and materials. Expansion and experimentation should be done on profits rather than on initial capital investment. In the meantime the University Laboratories and post-graduate students should be utilised for research work.

MAIN FEATURES OF THE SCHEME.

- | | | | | |
|-----------------------|-----|-----|-----|------------|
| 1. Investment | ... | ... | ... | 6½ crores. |
| 2. Monthly wages Bill | ... | ... | ... | 15 lakhs. |
3. *Advantages to the Provincial Government :—*
 - (a) Part solution of unemployment problem.
 - (b) 50 per cent of the net profit.
 4. *Advantages to the Central Government :—*
 - (a) Railway freight to the extent of 1 crore of rupees per year.
 - (b) Part solution of National Defence.
 - (c) Loss of revenue if any, can be met from Excise duty.
 5. Central location for all the Industrial units.
 6. Co-operative Buying, Selling and Advertising.
 7. Central Control and Research Laboratory.
 8. Common Electric, Water, Steam and Compressed Air supply.
 9. Minimum multiplication of machinery and equipment.
 10. Most efficient utilisation of scrap materials.
 11. Government to guarantee about 26 lakhs of rupees on annual interest.
 12. Administration to be similar to that of State controlled but Company-managed Railways.

DIRECT INDIRECT BENEFIT TO THE NUMBER OF PERSONS.

ESTABLISHMENT OF MECHANICAL INDUSTRIES AT A COST OF 6½ CRORES OF RUPEES, PROVIDING FOOD, CLOTHING AND SHELTER DIRECTLY TO AT LEAST 2·9 LAKHS OF PERSONS IN THE PROVINCE.

I. Persons directly employed in the National Engineering Workshop and Allied Units—

(a) Skilled .. .. .	..	..	..	11,365
(a) Unskilled .. .. .	..	..	..	19,855
(c) Supervising Staff .. .. .	..	..	..	1,625
(d) Specialists .. .. .	..	..	..	155
Total				33,000

II. Educational facilities for 25,000 boys and girls. Two High English Schools, 8 middle English Schools, 10 Night Schools, 50 Primary Schools and one Technical Institute.

Total number of teachers employed	600
---	----	----	----	-----

III.—Medical Department.

Doctors .. .. .	..	..	..	60
Nurses .. .. .	..	..	..	45
Dentists .. .. .	..	..	..	5
Compounders, dressers and ward boys .. .. .	..	..	..	90
Total				200

IV. Contractors' labour	5,000
---------------------------------	----	----	----	-------

V.—Public Health.

Chief Medical Officer of Health .. .. .	..	..	..	1
Sanitary Inspectors .. .. .	..	..	..	50
Sweepers .. .. .	..	..	..	1,000
Mucadams .. .. .	..	..	..	50
Total				1,101

VI. Police and Guard Force	400
------------------------------------	----	----	----	-----

VII. Post and Telegraph Office Staff	100
--	----	----	----	-----

VIII. Court Staff and Lawyers	100
---------------------------------------	----	----	----	-----

IX. Public Works Department	200
-------------------------------------	----	----	----	-----

X.—Miscellaneous trades and Professions.

25	Coal and Coke Depots	..	..	100
90	Wood and Timber depots	...	..	360
5	Soap Works	..	..	50
5	Flour Mills	..	..	50
5	Soda Water Factories	..	..	50
2	Ice Factories	..	..	20
10	Brickfields	..	..	300
5	Printing Presses	..	..	150
5	Banks	..	..	100
10	Insurance Offices	..	..	50
5	Co-operative Societies	...	..	20
3	Opticians	..	..	9
100	Taxies	..	..	200
50	Buses	..	..	100
50	Lorries	..	..	100
20	Pottery and earthenware	..	..	100
10	Laundry and washermen	..	..	100
				<hr/>
	Total	..	..	1,859
				<hr/>

XI.—Shops.

110	Cloth	..	..	330
300	Groceries	...	..	900
30	Cycle Repairing Shops	..	..	150
10	Book Shops	..	..	30
80	Stationary, oilmen, chemists and druggists	..	..	120
32	Shoe shops	..	..	64
175	Hotels, Restaurants, Confectionaries, and Bankers	..	..	1,225
15	Fish	..	..	45
60	Meat	..	..	240
50	Fruits	..	..	200
140	Vegetables	..	..	420
30	Goldsmith	..	..	120
10	Brass and Aluminium	..	..	50
10	Hardware	..	..	40

11

120 Tailors	..	..	..	480
75 Godowns	..	..	..	300
200 Miscellaneous	..	..	..	2,000
Total				6,714
Total number of persons engaged				49,274
XII. Number of dependents at the rate of five persons per every man engaged.				246,370
XIII. Total number of persons provided with food, clothing and shelter.				295,644

N. B.—The above figures neither take into consideration the additional labour employed by the suppliers of raw or semi-finished materials nor labour involved in Railway or Road transportation.

UNDISPUTED SUITABILITY OF BIHAR AS A NATIONAL INDUSTRIAL CENTRE.

Natural Resources.—Bihar is a specially favoured province by nature. She is richer than any other province in its resources, mineral and agricultural as compared to its size and population. Although the Committee is interested mainly in the mineral resources, it will not be worth while to completely ignore other advantages, because the price of raw materials do not depend only upon the crude mineral resources but also upon local cost of labour, capital and management which in turn depend upon whether there is an abundance or scarcity of the things required to maintain a satisfactory standard of life.

The agricultural pursuits include not only rice, wheat, barley, maize, oil seeds, sugarcanes, tobacco and other indigenous food stuffs, but the province is rich in growing non-food crops like jute, indigo, early cotton, etc.

As for the mineral resources, the following stand in outstanding competition with other provinces and in favourable competitions with other countries :—

1. *Coal.*—Being the most essential material for any kind of industry is found mostly in Dhanbad, Giridih and Jharia. Coal deposits are also noticeable along the valley of Mahanadi, notably in Talcher and Palamau. In 1936 Bihar's production of coal represented about 56 per cent of the total production in India.

2. *Gold* is found in Singhbhum district.

3. *Mica.*—One of the most important material for electrical apparatus is quarried in the Hazaribagh district. It is also quarried in the Gaya district. From Giridih the products are sent down to Calcutta.

4. *Saltpetre.*—Chief source is from North Bihar, the Patna Division and Monghyr.

5. *Salt.*—It is quarried at Monghyr.

6. *Ballast.*—Rajmahal Hills.

7. *Limestone.*—Available in Monghyr and in the districts of Palamau, Singhbhum, Gangpur, Santal Parganas and Shahabad.

8. *Iron ore.*—It is the basic material for the industries recommended. It has extensive deposits in Singhbhum, which are worked at Jamshedpur by the Tata Iron and Steel Company,

Limited. In fact the Singhbhum mines produce nearly the whole of iron ore in India.

9. *Granite*.—Occurs in Gaya and Hazaribagh.

10. *Soap-stone*.—is found in Manbhum.

11. *Copper ore*.—Another indispensable metal for our industry is stocked in Singhbhum District.

12. *Lead*.—Singhbhum District.

13. *Manganese*.—Singhbhum District.

14. Slate

15. Steatite

16. Fire Clay

17. Sand Stone and apatite

} are located in various parts
of the province.

18. *Kyanite*—Singhbhum and neighbouring state of Kharsawan are principal sources of Kyanite in the world.

As far as the natural facilities in the province are concerned the land is fertile and the Province enjoys moderate climate and temperature. With these features together with her underground wealth, Bihar is destined to play a unique and important part in the industrial regeneration of India.

Location.—Location determines the success of every industrial undertaking in the world. In spite of the fact that the modern tendency has been to even up local inequalities through the design of special machinery, the regulation of wages and interest rates, and the judicious application of existing technical information, still the locality exerts a decisive influence on the cost of raw materials and the finished goods due to railway freight.

The establishment of the proposed industrial units between Dhanbad and Giridih deserves special consideration. The following points are strongly in favour of the above location :—

(1) Proximity to Electrification scheme (Jamuniatand).

(2) Ample supply of coal and coke for metallurgical furnances.

(3) Nearness to the intersection of two big Railways, East Indian Railway and Bengal Nagpur Railway.

(4) Easy Road transportation (Grand Trunk road.)

(5) Next door to the biggest distributing centre (Calcutta).

(6) Plentiful water-supply.

(7) Availability of land at low cost.

(8) Easy supply of pig iron and steel from the two main sources, the Tata Iron and Steel Company, Limited and the Indian Iron and Steel Company.

(9) The site is geographically secure on account of reasonable distance from port and surrounded by hills and forests.

Some of the factors which go to determine the locations are :—

1. *Nearness to materials.*—There are various factors which enter into material cost besides the obvious matters of original purchase price and transportation rate. Money tied up in inventory decreases in direct proportion to the proximity of raw materials. The ideal location with reference to materials is the one where all the factors combine to make the lowest possible raw material cost per unit of finished products. Besides effect of location on raw materials, there is the broader effect resulting from the presence or absence in the neighbourhood of those natural facilities which are requisite for the well being of the workers. The cost of finished products depends not only upon the price of crude resources but upon the local cost of labour, capital and management. There is no province in India better than Bihar where raw materials are found in abundance and close to one another.

Labour supply.—The supply of unskilled labour in a district is a tolerably simple function of the mass of total population. However it is rather difficult to recruit skilled workmen. This difficulty, however, can be got over by locating the main industry in the vicinity of some existing ones of similar types. The future reliance must be increasingly placed upon a specially adopted educational institution.

It will not be out of place to mention here that Bihar has been recognised as a home of highly skilled craftsman. In the days of Muhamadan rule the district of Monghyr formed the centre for manufacturing arms like guns and cannons. The pages of the old history of the East Indian Railway show that it was this high class of labour force which had attracted the attention of its then Managing Agency to establish the big

Railway Workshop at Jámálpur. On account of the presence of Bengal Nagpur Railway Workshop at Kharagpur and Tata Iron and Steel Company, with her various subsidiaries in Tatanagar, plenty of skilled labour at present is available in the province.

Transportation.—The strategic places for the location of industries which involve important manufacturing and distributing functions are points on competing waterways, centres at which numerous competing railways converge and good roads to and from. Looking at the map of India it will appear that Bihar is the only province which can boast of possessing centres with such facilities jointly. As freight plays an important part in calculating the cost price, this factor cannot be passed over easily.

The East Indian Railway, Bengal Nagpur Railway and the Bengal and North-Western Railway are the chief railways in Bihar. There are about 4,000 miles of railways in the province besides 4,000 miles of metalled roads and about 26,000 miles of unmetalled roads. There are about 500 miles of navigable annals.

Power supply.—Animal power or man power in a modern industry is only of historical importance. The attention centres round either mechanical or electrical power. The difficulties which beset the former in its maintenance and running are more in comparison to those which beset the latter. Although cost is an important consideration but reliability and continuity of services play a still more important role. The advantages of the electric power in mills and factories can be enumerated with excellent thoroughness as follows:—

1. Real economy in the amount of power used.
2. A reduction in initial cost of building.
3. A reduction in the cost of maintenance.
4. Easy access to machinery.
5. Greater cleanliness.
6. Better Hygienic Conditions.
7. Less chances of accidents.
8. Greater facilities in the increase of establishment.
9. Higher production.
10. Clear and neat spacing of machinery.
11. Greatest flexibility in shop layout.

The Committee holds strong opinion that electric power be utilised wherever possible.

Bihar Electrification Scheme.—At this stage, it is necessary to mention something about the Bihar Electrification Scheme. The scheme as scrutinised and recommended by the committee of experts, has threadbare been discussed and approved by the provincial legislature. Steps have already been taken to appoint experts and specialists to draw up the details of the scheme and put into action as early as possible. The success of the scheme, as emphasised by the Special Officer, entirely depends upon the industrial load. It will appear from the report on the different Manufacturing Units mentioned in this report, that power production is an important and rather costly item. Thus if the Electrification Department wants sufficient load to be guaranteed they have to extend their lines to the site of the industries or if the industries want the power production, cost to be minimised they should be located within the electric supply area. This, with other factors, will also have to be examined before location is decided upon. It is understood that they are at present having two power stations, one at Jamuniatand, and the other at Gaya. As the two power houses will be interlinked, there seems to be no doubt in continuity and reliability of the service at cheap rate.

EXISTING MECHANICAL INDUSTRIAL FACTORIES IN BIHAR.

There are 309 factories in Bihar and Orissa, the most important of which are (a) Linc Factories, (b) Indigo Factories, (c) Sugar Mills, (d) Oil Mills, (e) Match Factories, (f) Jute Mills, (g) Foundries, (h) Locomotive Workshops, (i) Iron and Steel Plants.

Of the total, 243 were perennial and 66 seasonal. There are 86,327 persons employed.

The following are worth being mentioned here :—

Button and Comb Manufacturers.

1. Bihar Industrial Button Factory, Motihari Factory, Motihari.
2. Tirhoot:noon Button Factory, P. O. Mehsi, Champaran.

Culery Manufacturers.

1. Bose Brothers, Limited, Faulkner's Road, Muzaffarpur.

Iron and Steel Works and Cast Iron Foundries.

1. Tata Iron and Steel Company, Limited, Jamshedpur.
2. Tatanagar Foundry, Tatanagar.
3. Aurther Butler and Company, Limited, Muzaffarpur.
4. Arya Mills and Founders, Dinapur.
5. Bankipur Iron Works, Mithapur, Patna.
6. Bharatia Engineering Works, Sahibganj.
7. Bhana Mal, Gulzari Mal, Patna (Branch).
8. Ekkra Engineering Works, Bansjora, Manbhum.
9. Harilal, Nandlal, Muzaffarpur.
10. Katras Engineering Works, Katrasgarh, district Manbhum.
11. Patna Iron Foundry, Patna City.
12. Tin Plate Company, Tatanagar.
13. Indian Steel Wire Products, Tatanagar.
14. Indian Cable Company, Tatanagar.
15. Indian Copper Corporation, Ghatshila.

INDUSTRIES PROPOSED FOR THE PROVINCE.

To make the initial outlay as small as possible, and to meet the nation's demand which at present is too small to warrant specialized industrial machinery, mass production methods or intensified division of labour, the following industrial units with their initial capital outlay and different kinds of labour are suggested :—

TABLE No. 1.

Name of Industries.	Initial approximate capital in lakhs of rupees.	Labour to be employed.				
		Skilled.	Un-skilled.	Super-visors.	Specialists.	Total.
1	2	3	4	5	6	7
1. National Engineering Workshop.	305.0	4,700	10,000	250	50	15,000
2. Structural Workshop	36.0	680	1,100	200	20	2,000
3. Sheet Metal Product Company.	89.0	945	1,000	100	5	2,000
4. Tool Steel Product Company.	61.0	700	1,495	200	5	2,000
5. Bolts and Nut Factory	19.5	290	600	100	10	1,000
6. Metal Product Company.	63.0	1,340	2,500	150	10	4,000
7. Watch and Clock Manufacturing Company.	14.5	600	370	25	5	1,000
8. Metalic Lamp Manufacturing Company.	15.0	295	600	100	5	1,000
9. Umbrell fitting and Manufacturing Company.	14.5	295	600	100	5	1,000
10. Electric Product Manufacturing Company.	60.0	775	1,000	200	25	2,000
11. Wire and Cable Company.	20.0	295	600	100	5	1,000
12. Electrical Communication Apparatus Manufacturing Company.	30.0	400	480	100	10	1,000
Total	679.0	11,345	19,855	1,625	155	33,000

APPROXIMATE DETAILS OF THE PROPOSED FACTORIES.

1. NATIONAL ENGINEERING WORKSHOP.

Products—

Import—Rs. 280 lakhs.

1. Locomotives except boilers.
2. Engines of all kinds.
3. Machine tools, ordinary and pneumatic.
4. Industrial Machinery, e.g., Textile Machinery for cotton and wool, Rice Mill, Flour Mill, Sugar Mill, Paper Mill, Wood Working, Oil Crushing and Refining, Boots and Shoes Manufacturing, Leather Tanning, Mining, Pit Gears. Winding Engines and Pumps, Soap-making, Domestic Pumps, etc.
5. Automobile parts except body, wheels and frames
6. General Engineering Machinery, e.g., Lathes, Planning, Shaping Machine, Drilling, Slotting, Punching, Boring, Grinding, Milling, Machinery, etc.

Total investment	..	..	..	305 lakhs of rupees
Investment—Power House	..	..	..	50 "
Land, Building, houses, etc.				30 "
Equipment and machinery—				
Cranes, motor driven conveyors, etc.	..	..	..	20 "
Cast iron and brass foundry	..	..	..	5 "
Steel foundry	..	..	..	20 "
Forging hammers and hydraulic presses	..	..	..	30 "
Tool room, machine shop	..	..	..	40 "
Heat treatment department	..	..	..	5 "
Rolling Mill	..	..	..	15 "
Miscellaneous	..	..	..	10 "
Working capital	..	..	..	80 "
Labour expected to be employed	..	..	..	15,000 men
Unskilled	..	..	..	10,000 "
Skilled	..	..	..	4,700 "
Supervisory	..	..	..	250 "
Specialists				50 "

2. STRUCTURAL WORKSHOP.

Products—

Import—Rs. 200 lakhs.

1. Locomotives for broad gauge and meter gauge.
2. Boilers.
3. Wheels and axles.
4. Bogie under frames, including wheel and axles, tyres, vacuum brakes and buffers, expanded metals, welded gratings, metallic doors and windows.
5. Wagons.
6. Big bridges, etc.

Total capital	..	..	..	36 lakhs of rupee.
Building, shed, land, etc.	..	..	..	6 "
Quarters, etc.	..	..	..	1.50 "
Machinery, cranes, etc.	..	..	..	17.50 "
Working capital	..	..	..	10 "
Power station	..	..	..	1 lakh of rupees.
Expected labour to be employed	..	..	..	2,000
Unskilled	..	..	..	1,100
Skilled	..	..	..	680
Supervisory staff	..	..	..	200
Specialist	..	..	..	20

3. SHEET METAL PRODUCTS COMPANY.

Products—	Import—Rs. 400 lakhs
1. Automobile and truck bodies for all kinds of vehicles.	
2. Enamelled iron ware.	
3. Metallic buttons and eyelets.	
4. Safes.	
5. Steel furniture.	
6. Washers.	
7. Bicycles.	
8. Umbrella fittings.	
9. Metallic toys.	
10. Wire metallic and other shells for automobiles and cycles, etc.	
Total Investment	89 lakhs of rupees.
Land, building and quarters	15 ..
Power station	2 ..
Equipment and machinery—	
Cranes, conveyors, etc.	2 ..
Machine shop and tool room	10 ..
Punches, presses and dies, etc.	30 ..
Welding and cutting	5 ..
Miscellaneous	5 ..
Working capital	20 ..
Labour expected to be employed	2,000
Unskilled	900
Skilled	995
Supervisory staff	100
Specialists	5

4. TOOL STEEL PRODUCT COMPANY.

Products—

Import—Rs. 40 lakhs.

1. Cut bery.
2. Prunning knives.
3. Cutting tools.
4. Pneumatic tools.

Machinery and equipment :—

	Rs.
1. Power station	4 lakhs.
2. Cranes, motors, conveyors	2 ..
3. Cast Iron Foundry	1 ..
4. Electric Furnace and equipment for manufacturing alloy and special steel.	4 ..
5. Forging, Hammers, Hydraulic Presses, Dies, etc.	10 ..
6. Machine shop and Tool room	15 ..
7. Heat Treatment Department	4 ..
8. Miscellaneous	5 ..
9. Working Capital	16 ..
Total investment	61 ..
Labour to be employed :—	2,000
Specialists	5
Supervisors	200
Unskilled	1,095
Skilled	700

5. BOLTS AND NUTS FACTORY.

Import—Rs. 100 lakh.

Products:—

1. Bolts and nuts.
2. Dog spikes.
3. Coach-screws.
4. Fish bolts and nuts.
5. Galvanised hook bolts and nuts.
6. Galvanized sheeting bolts and nuts.
7. Washers, etc.
8. Wood screws.
9. Cutters, gibs, keys, for permanent way materials for railways.

Total capital	..	..	..	19.5 lakhs of rupees.
Buildings and shed	..	..	..	2 "
Machineries	..	..	..	10 "
Quarters ..	..	..	..	1 "
Working capital	..	..	..	5 "
Power station	..	..	..	1 lakh of rupees.
Expected labour to be employed	..	..	..	1,000
Unskilled..	..	..	..	600
Skilled ..	..	..	..	290
Supervisory staff	..	..	..	100
Specialists	..	..	..	10

6. METAL PRODUCTS COMPANY.

Products :—			Import—Rs. 80 lakhs.
1. Hardware goods, household and builders trade.			
2. Agricultural implements.			
Total capital	..	..	63 lakhs of rupees
Working capital	..	..	15 "
Land, building and quarters	..	..	8 "
Equipment and machineries as follows :—		..	40 "
Power stations	..	..	2 "
Cranes, motors, etc.	..	..	2 "
Cast iron foundry	..	..	4 "
Steel foundry	..	..	4 "
Brass foundry	..	..	1 "
Die casting equipment	..	..	2 "
Forging hammer and presses	..	..	10 "
Tool room and machine shop	..	..	10 "
Heat treatment, electric welding and cutting	..	..	3 "
Miscellaneous	..	..	5 "
Labour expected to be employed	..	..	4,000
Unskilled..	..	..	2,500
Skilled ..	..	..	1,340
Supervisory staff	..	..	150
Specialists	..	..	10

7. WATCH AND CLOCK MANUFACTURING COMPANY.

Products :—

1. Clocks.
2. Timepieces.
3. Watches.
4. Scientific instruments.

Total capital	..	..	..	14½ lakhs of rupees
Power station	..	..	..	½ lakh of rupees.
Working capital	..	..	..	3 lakhs of rupees.
Land and building	..	..	..	3 "

Equipment and machinery as follows :—

Punches, Presses, dies and other workings	..	..	..	4 lakhs of rupees.
Electric cutting, welding and heat treatment..	..	..	..	1 "
Wood machinery	..	..	..	1 "
Miscellaneous	..	..	..	2 "
Labour expected to be employed :—	..	..	..	1,000
Skilled	..	..	..	600
Unskilled	..	..	..	370
Supervisors	..	..	..	25
Specialists	..	..	..	5

8. METALLIC LAMP MANUFACTURING COMPANY.

Products :—

Import—Rs. 48 lakhs.

Eyelets.				
Metallic buttons				
Stove, kerosene and spirit, etc., etc.				
Total capital	..	..	..	15 lakhs of rupees.
Building, sheds, etc., ..	..	..	..	1 ..
Quarters, etc. ..	..	..	..	1 ..
Machinery ..	..	..	..	7 ..
Working capital ..	..	..	..	5 ..
Power station ..	..	..	..	1 ..
Labour expected to be employed	..	..	..	1,000
Unskilled ..	..	..	..	600
Skilled ..	..	..	..	295
Supervisory staff ..	..	..	..	100
Specialists ..	..	..	..	5

9. UMBRELLA FITTING MANUFACTURING COMPANY.

Products :—			Import—Rs. 18 lakhs.
Umbrella and umbrella fittings.			
Total capital	..	..	.. 14 lakhs of rupees.
Building, etc.	..	..	.. 2 ..
Quarters	..	..	.. 1 ..
Machinery	..	..	.. 5 ..
Working capital	..	..	.. 5 ..
Power station	..	..	.. 1 ..
Labour to be employed	..	..	.. 1,000
Unskilled	..	..	.. 600
Skilled ..	..	..	.. 295
Supervisory	..	..	.. 100
Specialists	..	..	.. 5

10. ELECTRIC PRODUCT MANUFACTURING COMPANY.

Products :—

Import—Rs. 75 lakhs.

1. Generators (A. C. and D. C.)	..	..	} to start with average size.
2. Motors " "	..	..
3. Transformers.	..	..
4. Control and switch gears.			
5. Electrical measuring and testing Instruments.			
6. Fans and their parts.			
Total capital	..	..	60 lakhs of rupees.
Working capital	..	..	20 "
Land, building and quarters	..	..	10 "
Power station	..	..	1 "
Equipment and machinery	..	..	29 "
Labour to be employed	..	..	2,000
Unskilled	..	..	1,000
Skilled	..	..	775
Supervisory staff	..	..	200
Specialists	..	..	25

11. WIRE AND CABLE COMPANY.

Products:—

Import—Rs. 70 lakhs.

1. Wires and cables.

(a) Bare.

(b) Insulated.

2. Telegraph and telephone wires.

Total capital :	..	..	..	20 lakhs of rupees.
Working capital	..	..	..	8 "
Land, building and quarters	..	..	..	4 "
Equipment and machinery	..	..	..	6 "
Power station	..	..	..	2 "
Labour expected to be employed	..	..	..	1,000
Unskilled	..	..	..	600
Skilled	..	..	..	295
Supervisory staff	..	..	..	100
Specialists	..	..	..	5

12. ELECTRICAL COMMUNICATION APPARATUS MANUFACTURING COMPANY.

Import—Es. 50 lakhs.

Products :—

1. Radio receiving set.
2. Radio generating sets.
3. Telegraph and telephone instruments
4. Block signal apparatus, etc.

Total capital	..	..	..	30 lakhs of rupees.
Working capital	..	..	..	10 "
Land, building and quarters	..	..	..	7 "
Equipment and machinery	..	..	..	12 "
Power station	..	..	..	1 lakh of rupees.
Labour to be employed	..	..	..	1,000
Skilled	..	..	..	400
Unskilled	..	..	..	490
Supervisory staff	..	..	..	100
Specialists	..	..	..	10

I.—SPECIAL NOTE ON AUTOMOBILE INDUSTRY.

1. The Automobile Industry has become a settled feature of modern civilization and there is no going back to the slow bullock-cart days when time was of little consequence.

India, too, has awakened to the necessity for quick methods of transport, annihilative of distance, and having set up some half a dozen foreign "Assembly Plants", is now seriously contemplating the establishment of a factory for the actual manufacture of motor vehicles.

It is the opinion of some of the Indian captains of industry that the automobile factory should be started in Bombay, and two types of motor vehicles taken up for manufacture, namely a medium power passenger car of 24—28 H. P. like Ford V. S. or Chevrolet, and a truck of 1½ ton capacity, the same engine being used for both types of vehicles for considerations of economy.

The number of vehicles registered in British India up to 31st March 1934, was only 202,960 for a population of 289 millions, the present annual import figure being 24,000 vehicles.

According to the latest statistics available, there is one vehicle per 4·9 persons in the United States of America, per 9 persons in Canada, per 22 persons in France, per 24·6 in the United Kingdom, per 68 in Germany, per 112 in Italy ; per 126 in Czechoslovakia ; per 921 in Russia, and per 1,426 persons in India.

II.—DESTRUCTIVE CRITICISM LEVELLED AGAINST THE PROPOSED AUTOMOBILE FACTORY IN INDIA.

Machinery and equipment involved in the manufacture of motor cars are practically the same as required for a large-size National Engineering Workshop. In the case of a motor car industry the only addition being Presses and Dies costing about 20 lakhs of rupees for body building and special tools, dies, jigs, and fixtures for different machine shops. Had Sir M. Visveswaraya called the automobile factory a large engineering workshop equally capable of making prime movers, heavy and light machinery, machine tools and mechanically-propelled vehicles so essential for peace and war he would have easily escaped the criticisms of the public. The annual drain from India on account of the import of such articles runs into several crores of rupees. Such a national workshop is also indispensable for the future repair,

maintenance, modifications and replacement of machinery installed all over India. An up-to-date National Engineering Workshop is the crying need of the nation. Name it what you may like. Other special industries will naturally follow in due course.

III.—ADVANTAGES OF AN AUTOMOBILE FACTORY IN INDIA.

1. Low priced car and truck to hasten the development of speedy transportation.

2. To make the nation machinery minded.

3. To do its bit towards reducing unemployment. The factory when running at a full speed should employ 1,500 men at least 100 of which will be Indian Foremen and Technicians.

4. To have machinery and equipment will suit to manufacture Hardware goods, Cutlery, Cotton, Jute and Sugar Mill Machinery, farm implements, railway materials, etc., etc., ever ready at the service of the country.

5. To create new business of the annual value of about 3 crores in the country.

6. To have adequate equipment capable of being transformed into an armament manufacturing plant at nation's one month's notice.

The benefits which accrue to a nation from the automobile industry can be gauged from the following figures given by Mr. J. H. Van Deventer, Editor of the *Iron Age*, in his article entitled "What Machines are doing to Automobile Workers", which appeared on June 9, 1938, in the *Iron Age*.

The population of Detroit and its suburbs, which may be regarded as typically automotive cities in America, was 366,000 towards the turn of the century. Since the establishment of the automobile industry, the population has increased five-fold during the last 38 years standing at over 2 millions today, whilst during the same period the population of Buffalo, Cincinnati, Chicago and New York has only increased three-fold.

It is also a matter of interest, Mr. Deventer adds, that whereas the gold fields of South Africa, which are the richest in the world, have produced a total value in gold of approximately 7 billions of dollars, the automobile industry has generated 84 billions for 38 years and provided employment to 1 in every 7 workers usefully employed in the United States.

IV.—THE CAPACITY OF THE PROPOSED FACTORY, THE INITIAL CAPACITY INVESTMENT AND GUARANTEED PROFIT.

Preliminary estimate of the capital cost of proposed factory would be as follows (as per Sir M. Visveswaraya Pamplat) :—

(1) Building including land	7.00 lakhs.
(2) Assembly plant	18.00 ..
(3) Plant and machinery for the manufacture of motor engine, clutch and transmission ..	24.00 ..
(4) Plant and machinery for manufacture of body	20.00 ..
(5) Machine shop and tool room	9.7 ..
(6) Working capital	50.00 ..
Total ..	132.10 ..

The total capacity of proposed factory being 15,000 vehicles the outlay of 150 lakhs would mean on an average an estimated capital of Rs. 1,000 per vehicle.

	Rs.
A medium power car manufactured in U. S. A. cost ex-works	1,260
Packing and freight up to New York "E" ..	176
Ocean freight	246
Sea insurance	11
Import duty in India at 37½ per cent ..	638
Port trust charges, clearing and delivery in Bombay	69
Add 1/3 for gross profit to dealers and for local delivery and service charges	800
Total ..	3,190

The necessity for the establishment of an automobile factory in India cannot be over-stressed. At present, a medium power car manufactured in the United States costs about Rs. 1,300 ex-works, or about Rs. 2,450 in India, including inland and ocean freight, sea insurance, import duty of 37½ per cent and

Bombay port trust charges. Adding one-third of this amount for gross profit to dealer, the total approximate sale price of an American car, delivered at Bombay, works out to Rs. 3,250, as against a price of about Rs. 1,800, in America, the cost to the Indian consumer thus being pretty nearly double the price paid by the American consumer.

It will be seen from the foregoing figures that capital invested in this industry in India ought to bring in a very handsome return over after a full allowance is made for depreciation and replacements. At the present price level the gross profit per car should work out to Rs. 1,000 approximately and even if 50 per cent of this figure is taken as representing the ultimate net gain, the total probable profit on 12,000 vehicles will be in the region of 60 lakhs per annum, which works out to 40 per cent in the initial capital outlay. However if only 6,000 vehicles are made and sold the profit would be about 25 lakhs. To give a return of 10 per cent on the invested capital of 150 lakhs, the profit on 6,000 and 12,000 basis need only be Rs. 250 and 150, respectively, per car.

All that is needed to get the automobile industry started in this country is a spirit of enterprise, a business capacity and the desire to go ahead and be abreast of the rest of the civilised world. The establishment of automobile industry in India amounts to a discovery of a Gold Mine in the country.

INDUSTRIES TO BE KEPT IN ABEYANCE AT PRESENT.

1. **Metallicalloys** such as brass, bronze and similar other alloys cannot be taken up at present without settling terms of supply from the Indian Copper Corporation, Ltd., as they are the only firm engaged in mining copper in this province. Opening of negotiations may not be delayed by the Government, if it is desired to encourage such industries, which seems to have promising feature.

2. As regards agricultural implements the Committee holds the opinion that Messrs. Tata Iron and Steel Company who are already in the business of this kind may be requested to expand their works to cope with the requirements of the nation.

3. The industry to manufacture buckets made of tin and galvanized sheets is taken up as a cottage industry in various places, and the factories already established in Calcutta are not doing well due to local competition, consequently it cannot be recommended at the present time.

4. *Enamelled iron wares.*—Numbers of firms in Calcutta are engaged in manufacture of this commodity and they are now doing very well.

The enamel works was started by Messrs. Kilburn and Company in Tatanagar as a subsidiary concern of Messrs. Tata Iron and Steel Company, Limited but went into liquidation. So we consider there is no scope for this industry at present.

5. *Typewriters, sewing and knitting machines.*—In our opinion this kind of machine cannot be taken up at present, because the competition will be very acute.

6. *Clocks and Timepieces.*—We feel the manufacture of this commodity is more suited to very big cities such as Calcutta and Bombay, because the distribution and initial sale are at present located there. However, general idea regarding this unit is enclosed herewith.

7. *Fencing materials, wires and wire ropes.*—The Indian Steel and Wire Products, Limited are engaged in the manufacture of this class of material. They may be requested and assisted to cope with the requirements of the country. Another factory is not necessary.

8. *Steel weldless pipes, for gas, water, etc., and galvanised pipes.*—The manufacture of ship class of articles may be entrusted with Messrs. Tata Iron and Steel Company, Limited.

Cast Iron Foundry works, such as, sanitary fittings, cast iron pipes, etc., may be entrusted with Messrs. The Tatanagar Foundry Company, Limited. A separate works for this purpose may not be profitable because the competition from Bengal is very acute and the Bengal Manufacturers are situated more favourably.

9. *The manufacture of batteries, electric lamps, including Glow lamps, vacuum and gas filler and other parts.*—Although these have good sale but in view of the fact that several Indian manufacturing concerns have already come up in the market, the Committee does not consider desirable to recommend the start of such industries in the province to bring in undue competition.

METHOD OF ADMINISTRATION.

The responsibilities of an administrative management may be listed as to establish sound business policies, to finance the enterprise, to control the expenditure of funds, to develop an organisation whose functions are logically assigned to competent individuals, to design, test, improve, and warrant a product which is to be distributed according to demand and competition, to build or secure plant and equipment, and utilise them economically and effectively, to procure adequate supplies of proper raw materials, to maintain a suitable supply of labour and supervise and co-ordinate its effect, to organise and sustain proper relationships between owners and workers, to formulate procedure based upon practicable and economical methods and to manufacture and sell finished goods at a reasonable profit. Such administrative staff can be had only from that class of people who have been devoting all their efforts in studying and practising scientifically the economics of business from the time they have realised the responsibility of life. The Committee thus holds the opinion that the organisation of the manufacturing units recommended, be entrusted in the hands of such selected people who have already shown their capability in efficient management of big industrial concerns. The Committee views with disfavour the Managing Agency system of management of such industrial concerns. For proper and efficient administration, we should take the State-owned but Company-managed railways as the rough prototype, in which the actual management lies in the hands of some well-organised and reliable firm, under a strict surveillance from the Government. Experienced industrialists should be the proper control over the administration, by means of sending some nominated members to the Board of Directors and also by auditing the accounts of the company every year.

SALES ORGANISATION.

It is becoming increasingly clear that the selling end of an article is as much, or perhaps more important than the manufacturing end. Sale is the final and the most important stage in the process of production. Particular attention should be given to this problem.

One of the lessons learnt from the business established and statistical researches of recent years is that the process of taking goods from manufacturers and growers to consumers is extremely costly. The spread between the price received by the prime producer that paid by the consumer is astonishingly high, and the part played by middlemen in the ultimate disposal of goods, has consequently assumed an importance in India which is neither just nor necessary. The extreme difficulty experienced by Indian manufacturers in selling their goods in proper markets is a great set back to Indian industrialists. Owing to almost a complete absence of marketing facilities Indian producers are compelled to run into the clutches of profiteering middlemen who not only rob the producer of his just dues, but also exact unusual high prices from consumers whenever possible. But in spite of the many economic evils created by them, we can hardly hope to do away with the services of middlemen so long as marketing facilities are not properly organised. The Committee recommends that a sales organisation should be set up by the Government to take charge of proper, quick and easy distribution of products throughout the country. Prices should as far as possible be standardised, and numerous distributing centres should be established throughout the length and breadth of the country to cater to the needs of the people even of innermost villages. In organising the sale, we can learn our lesson from Messrs. Bata, and Burn Oil Company. They have their selling centres in all important towns, and the prices are the same in all places. Similar organisation should be set up by the Governments. The existing co-operative organisation may be utilized for the purpose.

LABOUR.

Industrial backwardness of India is to a considerable extent due to the inefficiency of the Indian labour. Though India possesses enormous man-power, and though Indians are inferior to none in intelligence and craftsmanship, India nevertheless is badly lacking in the supply of skilled labour, the real living force of a successful industry. The deplorable inefficiency of Indian labour is mainly due to lack of proper guidance and sympathetic training. Indian labour is mostly composed of illiterate and ignorant men and women who had never been trained for the work they are required to do. In recruiting the labour force, the idea of the average employer seems to be that any man is good enough for working in a factory. This is obviously a very erroneous principle. Indiscriminate recruitment of labour is generally ruinous to a new industrial undertaking. The creation of a competent, responsible, intelligent and loyal skilled labour force is the first essential for the growth of industries in this country. Illiterate labour is as bad or worse than an undisciplined army, and India can never hope to fight her industrial battle successfully against the progressive nations of the world with her ignorant host of unskilled and unintelligent workmen.

In recent years, labour has come into the limelight in India more of course as a political power than as a factor of industry. Though there is no end of talk about the betterment of labour conditions, very little has been said and done for the improvement of the efficiency and skill of the workmen. A skilled workman is a national asset. This aspect of the question is being completely ignored in India at present. It is time for those, who are actively engaged in ameliorating the labour conditions in India, to understand clearly that the greatest benefit that can be conferred upon the workmen is to make them better by increasing their skill and efficiency.

The establishment of national industries, it is hoped, will go a long way in rendering this much-needed service to our workmen.

The national workshop will be an institution where workmen would be properly trained and disciplined so that they would realise their duties and responsibilities towards quality and quantity of productions. They will be made to feel that their contributions to the growth and development of industry is not in any way less important than that of capital or

management. In this way a skilled and intelligent labour force would be created in these national industrial concerns, and these men, it may be hoped, will be the nucleus of further groups of responsible and loyal workmen who will be able to make all Indian industrial enterprises a success.

In order to create such intelligent workmen, it is necessary that recruitment of labour should be carried on with discrimination. In Army and Navy only, those who possess certain qualifications are taken as cadets. In recruiting Industrial workmen also, there should be some standard to which they should come up, to be selected as a workman. General intelligence and technical aptitude of a man should be always taken into consideration. Psychological tests as applied in other countries may be to a certain extent introduced in India to advantage.

The attitude of the Government should be strictly impartial in all cases of labour trouble and disputes. While the legitimate grievances of workers must be removed, care should also be taken that the industry concerned does not suffer from lack of patronage. State should look to the interests of labour and capital with an impartial eye and should also exercise its influence in bringing about a reconciliation between the two contending factors. There should be a strong legislation against strikes. All labour disputes must be settled through arbitration.

A BRIEF NOTE ON SMALL AND COTTAGE INDUSTRIES.

COTTAGE INDUSTRIES PERTAINING TO MECHANICAL GROUP WHICH CAN BE STARTED WITH CAPITAL NOT EXCEEDING Rs. 5,000.

Everyone is aware that 75 per cent of the people of this country live and die in villages. In spite of the continuous urbanisation, no national uplift is possible unless the conditions of villages be improved. But all talk of rural uplift is mere waste of time, without also finding out practical ways and means for the development of the economic condition of the villages. In fact economic improvement is the condition precedent to the success of any scheme of rural reconstruction. The Committee is of opinion that the immediate solution for chronic poverty of the villages lies in the development of various small and cottage industries.

Revival of cottage and small industries will mean an extra income for the agriculturists, will give employment to the educated classes, fill the coffers of the State, maintain and improve the standard of our old manual craftsmanship, improve the quality of rural artisan and in general will lead to social contentment on which alone the economic and the political structure of the State can be securely based. We are advocates for the development of large industries. At the same time we hold small and cottage industries can and should be developed. The Imperial Government can take the following steps to help cottage and small industries :—

1. Preference should be extended to selected small and cottage industries. Preference on raw materials alone will not do. In order to reach the economic balance between raw materials and manufacturers preference would be granted to small industries as well.

2. In granting preference to imports care should be taken to find out that small industries are not adversely affected.

3. Preference on Raw Materials should not be such as to put difficulties in the way of small industries in their purchase of raw materials in this country.

4. The Government stores purchase policy should be so modified as to require that certain percentage of purchases should be from small industries.

5. There should be a quota basis for the exchange of our manufactured goods for the manufactured goods of other countries.

Financing small and Cottage Industries.—Small and Cottage Industries suffer from many difficulties of which the most important are those relating to finance and marketing. The Co-operative movement has not much succeeded in giving assistance to these industries in appreciable degree. As regards finance, the Central Government could be approached for allocating a portion of the surplus budget for the purpose of financing small and cottage industries. If possible the Local Government should approach the Central Government to set aside certain portion of its revenue for rendering financial assistance to organisations which will undertake to :

- (a) Form chain stores with Headquarters at the capital of the Province and Branches in the districts, towns and all important villages.
- (b) Supply machinery on the higher purchase system.
- (c) Furnish, patterns, ideas and designs to village, artisans and men engaged in small industries.
- (d) Supply raw materials and semi-finished materials to producers at competitive prices.
- (e) Develop marketing facilities, in particular, by eliminating middle men both in the matter of supply of raw materials and sale of finished products.

In the above state of affairs the Committee recommends the list for cottage industries which may be encouraged and started with a capital of within Rs. 5,000.

But Government will have particularly to watch that such industries do not come into competition with the large scale industries,

LIST OF SMALL AND COTTAGE INDUSTRIES.

1. Dry cell batteries and Electric Torches.
2. Stove making.
3. Small Electric Switches, Regulators.
4. Spectacles frames.
5. Safety razor and blades.
6. Pin, gems clips, nibs, Clips.
7. Electric casing, blocks, picture frame.
8. Lacquering.
9. Brass fittings for doors and furniture.

10. Jewellery works.
11. Watch and clock repairs.
12. Spring hinges.
13. Electroplating.
14. Brass and Aluminium Utensils.
15. Utensils of alloys.
16. Brass and bell-metal ornamental works.
17. Small tin cases of sizes and shapes for various domestic purposes.
18. Metallic sticks.
19. Musical instrument making.
20. Radio and gramophone repairing.
21. Balances.
22. Fountain pen and stylo pen assembly.
23. Electric fans, etc., repairs.
24. Motor car and cycle repairs.
25. Small cast iron foundry.
26. Small brass foundry.
27. Adjustable pencils and metallic tapes.
28. Surveying instruments repairing.
29. Type-writing machine repairs.
30. Electric Iron and Heater.
31. Metallic buckets and jugs.
32. Heat treatment of tools.

FINANCE.

Money is the sinews of industry and the whole problem of our industrial expansion centres round the question how sufficient funds can be raised to start the proposed Industrial Units. Lack of financial facilities is the rock on which most of the indigenous industries are generally wrecked. This does not mean that India has no capital. That the capital resources of India are not so meagre, can very well be proved by the fact that her contributions to Government loans are by no means negligible. Shares of the Reserve Bank were sold in India more quickly than any one expected. Gilt edged shares and debentures have a ready market in Indian Stock Exchange. India, therefore, cannot be said to be in want of money to finance new industries nor is Indian capital really so shy as is usually represented in text books. The real reason of the apparent immobility of Indian capital is that our business promoters hardly enjoy the confidence of the people. Indians usually are not industrially minded. They have been more than once robbed of their money by industrial gamblers. So many Indian Industrial enterprises have ended in failure that people have grown suspicious of any new Industrial undertaking organised by private enterprise. We cannot blame private investors for the distrust they entertain against business organisers. Men who finance, go to the best money market and buy with expert foresight. The chances to secure money depends solely upon confidence that can be inspired in the capitalist.

Failing this natural source of money supply, we have no other alternative but to fall back upon the patronage of the State. But here also, we can hardly expect the State to furnish all the funds necessary for the enterprise. Key industries require enormous capital resources, the burden of which is too heavy to be borne by the State. Provincial Governments are handicapped not only by their limited sources of revenue, but also by many statutory disabilities.

In order to lay all plans of industrial development on a sound financial basis, it seems necessary that both the State and people should be brought to share the responsibilities of financing the industries. The most practical method seems to be to invite the great and powerful industrial magnets of this country to take up particular industries for which they are best suited. This help of the Government should be extended to them just in the same way as the railways were patronised by the State in the early days of their establishment in India. Reliable and reputed firms of astute businessmen should be

allowed to organise the industry and Government should guarantee a certain percentage of interest on the capital invested for a limited period. If the Government comes forward in this manner to take some risks, it will create confidence, and plenty of money would be forthcoming for what will be considered as quite a safe investment. A Joint Stock Company organised on this basis will be in no want of funds, and if efficiently managed there is nothing to hinder it from becoming a success. Just as the State-owned but the Company-managed railways are organised by private firms but are always controlled and supervised by the Government, the proposed industrial enterprises also should be left to the management of private companies under the strict surveillance of the State.

In emphasising its recommendation for the adoption of the financial scheme given above, the Committee would like to point out that the money spent on the interest, would be no loss to the State, but on the contrary, it will be one of the most fruitful sources of increased revenue. By guaranteeing about 4 per cent interest for 10 to 15 years on the invested capital of $6\frac{1}{2}$ crores of rupees the Government will have to take the risk of only 26 lakhs of rupees per year, but this money will be fully repaid when the enterprise becomes a flourishing industry, capable of giving profits to the State practically for ever.

The above is only a tentative outline of the scheme which should be discussed with financier experts before it can be finally adopted.

COMMITTEE'S RECOMMENDATIONS.

1. The Government of Bihar must press before the all-India Planning Committee for the immediate start of recommended industries in Bihar on national basis.

2. The State should guarantee interest on the capital invested in the industries, the administration of which should be on the same lines as the State Controlled Company Managed Railways.

3. All units should preferably be located near one another to be able to use water, current, steam compressed air, and even oxygen from common sources, as far as possible. This will also simplify purchases, sales and supervision.

4. Central Government, Railways, Provincial Governments and leading industrial concerns must be made to buy major part of their requirements from the national workshop and units.

5. Before establishing any unit a delegation consisting of a suitable number of industrialists and experts must be sent abroad (say U. S. A., England and Germany) to collect first-hand knowledge and information regarding the manufacturing unit under consideration.

6. In the beginning, Covenanted hands (specialists) have got to be recruited from abroad. They should be called on contract basis, on a reasonable monthly salary *plus* a bonus at the termination of the contract provided they train up in their profession, the Indian assistants under them.

7. All covenanted hands to be engaged as consultants and not as Superintendents or Supervisors.

8. From the point of view of the proximity of raw materials, water-supply, availability of trained labour, transportation facilities and availability of Pig Iron and Steel, Chota Nagpur Division seems to be the most ideal location for the establishment of the industrial units.

9. The manufacture of motor cars and trucks ought to be the most paying industry in India at present. Due to insufficient import of the above, it is suggested that the manufacture of engine and other major assemblies should take place at the national workshop while the building of bodies and final assembly and testing should be done at the Sheet Metal Products Company. The same company should also undertake the assembly of bicycles.

10. The manufacture of such products, as porcelain insulators, copper wire and cables and motors which are to be extensively used in the transmission lines and tube-wells is desired first.

11. Building should be designed to suit the equipment and machinery and not the *vice versa*. In order to tie up the minimum amount of capital in investory, as far as possible all the equipment, machinery, conveyers and cranes should be of the same size, make and design.

12. In order to avoid cut-throat competition and over-production no new manufacturing plant should be allowed to be started in India without the consultation of and coming to a mutual agreement with the owner of the present industries, large or small.

13. The national workshop and other industrial units should be utilized by Engineering Graduates from Indian Universities for getting practical experience.

14. The members are strongly of opinion that due consideration should be given to the scheme submitted by Sir Vishweswaraya, regarding the manufacture of motor cars and trucks in India.

15. The Control Laboratory and its staff connected with the National Engineering Workshop shall assist all the prospective small independent manufacturers with necessary technical informations and selection of proper machinery and equipment.

CONCLUDING REMARKS.

The Committee has prepared this preliminary report with the view that its general feature may be considered on provincial as well as national basis. The manufacturing units have been selected, the products of which the Committee has sanguine hope of ready market with profit from the very beginning. There seems to be no reason why they cannot start with giving about 5 per cent of dividend to the investor after meeting with the necessary expenses. The figures showing the labour employed, have definitely been kept on high side because it is desired to avoid as much of automatic machines as possible to provide for the cheap manual labour available in India. The scheme will also partly solve unemployment problem of the country. The capital invested in power production can be saved if the same can be bought from the Bihar Electrification Scheme. The location of the manufacturing units have not been definitely ascertained, although the Committee feels that their establishment in Chota Nagpur Division would be very suitable. As it is iron-copper age, the National Government should lose no time in fortifying the country with iron-copper products from the point of view of industrialisation of the country as well as means towards national self defence. The estimate of the manufacturing units are based on the nature of work they will undertake and their import value in India.

APPENDICES
TO THE
REPORT OF THE MECHANICAL INDUSTRIES
COMMITTEE, BIHAR,

EXPORT AND IMPORT.

1936-37.

(INDIA.)

		Rs.	
Import Merchandise	.. ..	..	1,25,24,00,006
Export	.. ..	..	2,02,36,53,487
Total Import and Export Merchandise		..	3,27,60,53,493
<hr/>			
Government Stores Import	.. ..	..	2,48,07,826
" " Export	.. ..	..	12,41,397
Import from British Empire	.. ..	..	61,66,93,366
" " Foreign Countries	.. ..	..	63,57,06,640
Total		..	1,27,24,00,006
<hr/>			
Export to British Empire	.. ..	..	89,46,10,006
" " Foreign Countries	.. ..	..	1,06,66,35,693
Total		..	1,96,12,45,699
<hr/>			
		Import.	Export.
		Rs.	Rs.
Food, drinks and tobacco	.. ..	11,15,48,350	40,22,58,821
Raw materials, etc.	.. ..	19,41,58,655	1,02,54,34,570
Articles wholly or mainly manufactured	.. ..	92,39,66,816	48,82,37,445
Raw materials, products articles mainly unmanufactured—			
1. Coal	.. ..	11,31,655	20,17,918
2. Gums, resin and lac	.. ..	38,87,721	2,61,18,857
3. Metallic ores, scrap, iron and steel for remanufacture	.. ..	1,84,853	3,37,25,581
4. Rubber, raw or crude	.. ..	2,04,916	1,04,03,202
5. Wood and timber	.. ..	26,07,686	1,75,79,157
6. Miscellaneous	.. ..	99,22,231	2,08,68,978
Articles wholly or mainly manufactured—			
1. Arms, ammunist and military stores	.. ..	66,09,289	4,253
2. Cutlery hard ware, implements and instruments, including electrical instruments and	.. ..	5,78,26,211	21,39,778

	Import. Rs.	Export. Rs.
3. Electrical goods and apparatus, other than machinery ..	3,03,61,285	..
4. Furniture cabins ware ma- nufacture of wood and timber	44,43,650	3,54,561
5. Machinery, all kind, includ- ing belting for machines ..	14,78,10,967	1,21,686
6. Metals, iron and steel and manufactures thereof ..	5,93,91,138	1,32,11,559
7. Metals other than iron and steel and manufactures thereof	3,72,94,159	3,32,54,489
8. Rubber manufactures ..	2,11,24,642	4,073
9. Vehicles, excluding loco- motives	6,57,76,163	36,427
10. Miscellaneous	5,96,25,325	3,38,54,160
		Import. Rs.
Main Items of Import Government stores—		
1. Arms, Ammunition and Military Stores ..		34,36,426
2. Building and Engineering Materials		1,24,584
3. Hardware and Cutlery		7,38,531
4. Locomotive Engines and Tenders and parts thereof		16,89,402
5. Total Machinery and piece work, including locomo- tives.		26,81,572
6. Metal and Ores, including Cu., Brass, Bronze, Steel, etc.		26,09,126
7. Vehicles (Railway Wagons, carriages, etc.) for rail- ways, excluding locomotives.		49,49,642
8. Other Articles		36,51,214
General Imports, 1936-1937—		
1. Arms, Ammunitions and Military Stores ..		66,09,289
2. Buttons of all sorts { Metal		8,31,738
{ Others		13,14,863
3. Clocks and Time-Pieces		13,68,616
4. Watches		25,78,676
Cutlery—		
Pruning Knives		1,61,370
Other kinds		26,96,898
Total Cutlery		28,58,268

	Import. Rs.
Furniture and Cabinet Ware	12,99,851
Hardware, excluding Outlery and Electro-plated Ware—	
Agricultural Implements	2,88,455
Buckets of Tinned and Galvanized Iron	29,293
Builders' Hardware, locks, hinges, doors, bolts, etc. ..	22,65,006
Domestic Hardware, other than Enamelled Ware ..	10,56,823
Enamelled Iron Ware	14,80,931
Gas Mantles	2,35,907
Implements and tools, other than Agricultural Imple- ments and Machine Tools.	55,89,349
Carb Hoes (Mamaolies or Phouras)	3,45,873
Others	45,30,614
Lamps (Metal)	43,55,195
Lamps (Glass)	69,471
Parts of lamps, other than glass	3,34,440
Hand Lamps	2,74,317
Saws and Strong Boxes Metal	36,432
Stoves	4,78,991
Other Sorts	1,32,09,059
	<hr/>
Total Hardware, excepting Outlery and Electro-plated Ware.	2,89,35,307
	<hr/>
Electrical—	
Fans and parts thereof	35,15,896
Wire and Cables Rubber Insulated	31,97,682
Insulation other than rubber.. ..	43,57,364
	<hr/>
Total Electric Wires and Cables	1,10,70,942
	<hr/>
Telegraphic and Telephone Instruments	19,19,983
Electric lamps, parts thereof, Electric glow lamps (Gas filled Electric Bulbs).	16,38,346
Electric Lamps and parts thereof, Vacuum electric bulbs	12,49,764
Batteries	25,73,055
Electric Motors	7,56,893
Switch Boards	3,10,487
	<hr/>
Total of Electrical, including Telegraphic and Telephone Apparatus, not being machinery.	3,03,61,285

	Import. Ru.
Scientific Instruments	14,81,079
Surgical Instruments	18,78,186
Locomotives and Railways—	
Oil Engines	3,46,788
Oil Engine parts	82,870
Steam Engines	5,05,088
Parts	4,71,437
Railway Locomotive Engines, Tender and Parts ..	46,25,260
Other Locomotives	1,91,354
Gas Engines	72,641
Parts	92,976
Other than Locomotives—	
Oil Engines	58,22,883
Parts	20,40,759
Steam Engines	7,11,665
Parts	6,16,434
Others	7,26,122
Electrical Machinery of all kinds, not including instru- ment, Apparatus, etc.—	
Control and Switch Gear	48,81,765
Generators, Alternators Dynamos	39,78,088
Motors	35,25,902
Transformers	19,66,052
Turbo Generator Sets	15,29,673
Others	96,35,927
Electrical Machinery all kinds ..	2,55,17,807
Total Machinery not being prime mover or electrical Agricultural Machinery—	
Trochos and parts	6,13,739
Ploughs and parts	2,00,181
Other Agricultural Implements	3,88,674
Total ..	12,02,594
Boots and Shoes Manufacturing Machines ..	4,80,074
Leather tanning and curving ..	1,26,937

	Import. Rs.
Metal Working (1936-37)—	
Machine tools, Lathes, Shapers, Grinders, Meters, planning, etc.	23,17,800
Others	6,54,031
Coal Mining Machines	2,08,464
Coal Mining—Other sorts	71,45,673
Total ..	73,54,137
<hr/>	
Oil Crushing and refining	27,59,773
Paper Mill	7,85,109
Pumping	30,57,418
Refrigerating	15,54,116
Rice and Flour Mill	7,09,537
Saw Mill and Wood Working	4,52,242
Sewing and Knitting Machines	51,45,540
Parts of Sewing and Knitting Machines	9,51,365
Sugar Machines	95,16,462
Tea	14,77,250
Textile cotton, bleaching and dyeing	5,77,250
„ Printing	1,47,438
„ Spinning	95,04,747
„ Weaving	54,70,495
„ Other Sorts	23,72,978
Total Cotton Machines ..	1,80,72,908
<hr/>	
Total Jute	73,97,840
Shuttles—Jute Mill	5,66,636
Wool Machines	2,81,817
Others	12,14,680
Total of Textile Machines ..	2,75,33,881
<hr/>	
Type-writers	15,87,380
Parts	3,27,460
Other sorts of Machinery	2,25,40,022
Total Machinery and Mill Work ..	14,13,93,696

	Imports Rs.
Metals and Ores—	
Aluminium—	
Unwrought Ingots, Blocks and Bars	7,601
Wrought Crates	32,99,355
Sheets	2 01,950
Other Manufacture	8,34,732
	<hr/>
Total of Aluminium	43,43,638
	<hr/>
Brass, Bronze and similar alloys, Sheets, Rods, Bars, etc.	99,53,629
Total of Cu.	80,50,221
Ferro Alloys	2,34,978
German Silver	14,19,017
Pig Iron	1,27,575
Angles, Tees, Bolts, Rod Bars	5,611
Channels	1,59,838
Rice Bowls	20,568
Steel—	
Angles and Tees	15,86,069
Springs	78,492
Bars .. .. .	..
Bars under 1/2" Rod or Sq.	3,43,856
Other sorts	33,06,329
Tool Steel—	
H. S. S.	1,20,494
Carbon	2,46,296
Ingots, blooms, billets and slabs	23,13,340
	<hr/>
Total of Steel	80,71,656
	<hr/>
Anchors and Cables	3,73,684
Beams, channels, pillars, girders and bridgework	29,58,750
Bolts and nuts	23,45,882
Fencing material, including fencing wire	15,21,135
Hooks and Strips	53,88,745
Nails, rivets and washers	32,45,072
Pipes and fitting cast	6,64,206

				Import
				Rs.
Ports, Chain, Fish Plates	..	..	..	10,11,972
Wood Screws	..	..	..	8,80,842
Metal Thread Screws	..	..	..	9,213
Sheets and Plates, corrugated and galvanized	..		..	90,11,734
Ditto		plain	..	19,88,717
Ditto		Tinned	..	5,15,055
Sheets upto $\frac{1}{8}$ " thick not galvanized	..	..	..	20,45,263
Total not galvanized and tinned sheets	..	..	..	36,03,641
Total of sheets and plates	..	..	..	1,51,65,738
Wire Nails	..	..	..	12,50,772
Wire Rope Black	..	..	..	12,90,661
Do. Galvanized	..	..	..	4,94,704
Wire other than fencing wire	..	..	..	14,11,191
Total of Iron and Steel				5,10,23,121
Lead and Products	..	..	..	5,30,668
Quick Silver	..	..	..	1,75,728
Solder	..	..	..	4,26,012
Tin	..	..	..	59,18,835
Tin foils	..	..	..	4,954
Total Tin	..	..	..	59,49,915
Total Zinc or spelter	..	..	..	53,38,900
Total Metals, excluding Ores	..	..	..	9,67,96,128
Ores	..	..	..	1,64,127
Tea Chests—				
Of Iron and other Metals	..	..	..	5,49,685
Toys and Requisites for Games and Sports, including fishing tackle—				
Toys	..	..	..	27,60,413
Playing Cards	..	..	..	17,02,779
Other Sorts	..	..	..	8,89,497
Umbrellas	..	..	..	1,62,887
Fittings	..	..	..	17,77,403
Vehicles (Excluding Locomotives for Railways)—				
Cars, carts, pram, not mechanically propelled	..		..	9,84,783

				Import.
				Rs.
Cycles and parts thereof—				
Cycles	..	..	..	47,48,362
Parts and Accessories	..	..	..	64,93,510
Total				1,12,41,872
<hr/>				
Air Craft	..	..	..	7,07,311
Parts—Air Craft	..	..	..	8,82,357
Carriage and parts of railways	..	..	..	48,78,425
Wagons and parts for railways	..	..	..	2,42,93,148
Motor Cycles	..	..	..	3,50,887
Bobbins	..	..	..	22,43,902
Mechanically Propelled Vehicles—				
Motor Cars, including Taxi Cabs—				
British Empire	..	..	..	1,44,75,484
U. S. A. <i>via</i> Atlantic and Pacific	..	..	..	75,56,424
Total Foreign	..	..	..	98,17,664
Total British and Foreign				2,42,93,148
<hr/>				
Motor Cycles	..	..	..	3,50,887
Motor Omnibus, Motor Vans and Motor Lorries with bodies	..	..	..	13,10,099
Chassis	..	..	..	1,17,95,799
Tram Cars	..	..	..	36,11,730
Parts of mechanically propelled vehicles and accessories, other than air craft	..	..	..	74,04,908
Total of mechanically propelled vehicles and accessories				5,31,68,972
<hr/>				

**REPORT OF THE
CHEMICAL INDUSTRIES COMMITTEE, BIHAR,
1939.**

X9(F).253.N45
99

SYNOPSIS OF THE REPORT.

1. As a first instalment of industrial planning Government should make special efforts for the establishment of the following major chemical industries in Bihar :—

- | | | |
|--|---------|-----|
| (1) Low Temperature Coal Carbonisation | Chapter | III |
| (2) Manufacture of fertilisers by nitrogen fixation. | Chapter | IV |

These two industries are of all-India importance and the capital required for them will be of the order of 1.25 crores of rupees.

2. It is desirable that Government should also help, in different ways the establishment of the following basic industries on a provincial scale only :—

- | | | |
|---|---------|------|
| (1) Sulphuric acid in conjunction with Low Temperature carbonisation. | Chapter | VI |
| (2) Alkali industry | Chapter | VII |
| (3) Glass and ceramics | Chapter | VIII |
| (4) Pulp, paper and card-board .. | Chapter | IX |
| (5) Bone crushing and superphosphates | Chapter | V |

Many of these industries are co-related to the major industries or to one another and the success of one will very often depend on the success of the other (vide chart after page 14).

3. There are other chemical industries suitable for Bihar but not being in the nature of key industries no special effort on the part of Government is required for their establishment. They may, for the present, be left entirely to private enterprise.

MAIN FEATURES OF THE SCHEME.

	Figures given by the Mechanical Industries Committee, Bihar.	Corresponding figure for Chemical indus- tries Committee Bihar.
	Rs.	Rs.
1. Investment	6½ crores ..	2 crores.
2. Monthly wage bill.. ..	15 lakhs ..	1 lakh 3 thousand.
3. Advantages to the Provincial Government—		
(a) Part solution of unemploy- ment problem.	..	Same.
(b) 50 per cent of the net profit	..	..
4. Advantages to the Central Government—		
(a) Railway freight to the extent of 1 crore of rupees per year.	..	..
(b) Part solution of National Defence.	..	Same.
(c) Loss of revenue if any can be met by Excise duty.	..	..
5. Central location for all the in- dustrial units.	..	Same.
6. Co-operative Buying, Selling and Advertising.	..	Same.
7. Central, Control and Research Laboratory.	..	Same.
8. Common Electric, Water, Steam and Compressed Air Supply.	..	Same.
9. Minimum multiplication of machinery and equipment.	..	Same.
10. Most efficient utilization scrap materials.	..	Same.
11. Government to guarantee about 35 lakhs of rupees as annual interest.	..	..
12. Administration to be similar to that of State Controlled but Company Managed Railway.	..	Same.

Establishment of Mechanical Industries at a cost of 6½ crores of rupees providing food, clothing and shelter directly to at least 2.9 lakhs of persons in the province—

I.—Persons directly employed in the National Engineering Workshop and Allied Units—

(a) Skilled	.. 11,365
(b) Unskilled	.. 19,655
(c) Supervising staff	.. 1,625
(d) Specialists	.. 155

Total .. 33,000

II.—Educational facilities for 25,000 boys and girls, 2 High Schools, 8 Middle Schools, 10 Night Schools, 50 Primary Schools and one Technical Institute.

Total number of teachers employed. 600

III.—Medical Department—

Doctors	.. .. 70
Nurses	.. .. 45
Dentists	.. .. 5
Compounders, dressers and ward boys.	90

Total .. 200

IV.—Contractors labour .. 5,000

V.—Public Health—

Chief Medical Officer	.. 1
Sanitary Inspectors	.. 50
Sweepers	.. 1,000
Mucadame	.. 50

Total .. 1,101

Establishment of Chemical Industries at a cost of 2 crores of rupees providing food, clothing and shelter directly to at least 26,000 persons in the province.

1,100

2,200

300

100

3,700

Educational facilities for 3,000 boys and girls, 1 High School, 1 Middle School, 1 Night School, 6 Primary Schools and one Technical Institute.

Total number of teachers employed. 70

Medical Department—

Doctors	.. .. 7
Nurses	.. .. 5
Dentist	.. .. 1
Compounders, dressers and ward boys.	10

23

Contractors labour .. 550

Chief Medical Officer	.. 1
Sanitary Inspectors	.. 6
Sweepers	.. 110
Mucadame	.. 50

Total .. 167

(ii)

VI.—Police and Guard Force.	400	Police and Guard Force
VII.—Post and Telegraph Office Staff.	100	Post and Telegraph Office Staff.
VIII.—Court staff and lawyers.	100	Court staff and lawyers
IX.—Public Works Department.	200	Public Works Department.
X.—Miscellaneous trades and professions—		
25 Coal and coke depots	100	3 Coal and coke depots
90 Wood and timber depots.	360	10 Wood and timber depots.
5 Soap works ..	50	1 Soap work ..
5 Flour mills ..	50	1 Flour mill ..
5 Soda-water factories..	50	1 Soda-water factory ..
2 Ice factories :	20	1 Ice factory ..
10 Brick factories ..	300	1 Brick factory ..
5 Printing presses ..	150	1 Printing press ..
5 Banks	100	1 Bank
10 Insurance companies	50	1 Insurance company ..
3 Co-opetative societies	20	1 Co-operative society ..
3 Opticians ..	9	1 Optician.. ..
100 Taxies	200	11 Taxies
50 Buses	100	6 Buses
50 Lorries	100	6 Lorries
20 Pottery and Earthenware.	100	2 Earthenware and pctery.
10 Laundry and washermen.	100	1 Laundry and washerman.
Total ..	1,859	

XI.—Shop—

110 Cloth ..	330
300 Groceries ..	900
30 Cycle repairing shops	150
10 Book shops ..	30
80 Stationery, Oilmen, Chemists and Druggists.	120
32 Shoes	64
175 Hotels, Restuarants, Confectionaries and Bakers.	1,225
15 Fish	45
60 Meat	240
50 Fruits	200
140 Vegetables ..	420
30 Goldsmith ..	120
10 Brass and aluminium	50
10 Hardware ..	40
120 Tailors ..	480
75 Godowns ..	300
200 Miscellaneous ..	2,000
Total ..	6,714

Total number of persons engaged. 49,274

XII.—Number of dependents at 5 persons per every man engaged. 246,370

XIII.—Total number of persons provided with food, clothing and shelter. 295,644

12 Cloth	40
35 Groceries ..	100
3 Cycle repairing shops ..	20
1 Book shop ..	3
9 Stationery, Oilmen, Chemists and Druggists.	15
4 Shoes	8
20 Hotels, Restaurants, Confectionaries and Bakers.	140
2 Fish	6
7 Meat	30
6 Fruits	25
20 Vegetables ..	60
3 Goldsmith ..	15
1 Brass and aluminium	5
1 Hardware ..	4
15 Tailors	60
9 Godowns ..	40
20 Miscellaneous ..	200
Total ..	751

Total number of persons engaged. 4,344

Number of dependents at 5 persons per every man engaged. 21,720

Total number of persons provided with food, clothing and shelter. 26,064

N.B.—The above figures neither take into consideration the additional labour employed by the suppliers of Raw or Semi-finished materials nor labour involved in Railway or Road transportation.

CONTENTS.

CHAPTER.	PAGES.
I Introduction	1—8
II Raw materials for Chemical Industries in Bihar.	9—14
III Economic Treatment of Coal. Low Temperature Carbonisation.	15—27
IV Synthetic fertilisers. Nitrogen fixation ..	28—36
V Phosphatic manures	37—46
VI Heavy chemicals and Sulphuric acid ..	47—51
VII Alkali Industry	52—60
VIII Glass, ceramics and refractories	61—69
IX Pulp, paper and card-board	70—72
X Artificial silk and celluloid	73—76
XI Belting for machinery	77—78
XII Oil, oil-cakes, soap, toilet requisites, stearine, candle and glycerine.	79—92
XIII Paints, varnishes and lacquers	93—105
XIV Industrial solvents	106—110
XV Lac, Plastics, Gum and Resins	111—116
XVI Leather, Boots and Shoes, Rubber.. ..	117—140
XVII Pharmaceuticals	141—144
XVIII Match Industry	145—151
XIX Electro-Chemical Industries	152—160
XX Cottage Chemical Industries	161—165
Notes by individual members—	
(a) By Mr. O. K. Jain, B. Sc., B.L., M.L.A. ..	166—168
(b) By Dr. V. S. Dubey, M.Sc., Ph. D. (Lond.).	169—174
(c) By Mr. A. S. Khan, M.Sc., I.E.S. ..	175—176
Summary of recommendations	177—180

CHAPTER I.

INTRODUCTION.

This is the report of the Chemical Industries Committee appointed by Government in their resolution no. 2118-D., dated the 28th November 1938 for reporting on the possibilities of the development of chemical industries in the province (vide appendix I). The following members were appointed to constitute the committee :—

1. Mr. A. S. Khan, M.Sc., I.E.S., Principal, Science College, Patna—*Convener*.
2. Mr. Chakreshwar Kumar Jain, B.Sc., B.L., M.L.A., Zamindar and Mill Owner, Arrah—*Member*.
3. Dr. V. S. Dubey, M.Sc., Ph. D. (London), D.I.C., Professor of Economic Geology, Benaras Hindu University, Benares—*Member*.
4. One Industrial Chemist.

The Committee also co-opted as a member Dr. H. Mukherji the Agricultural Chemist to Government while dealing with chemical fertilisers and Mr. S. K. P. Sinha, Special Officer In charge Electrification, Bihar, while dealing with fertilizers and fuels.

The meetings were held at Ranchi in accordance with the orders of Government. Mr. Jain found it impossible to attend any of the meetings. The report has the approval of Dr. H. N. Mukherji, Agricultural Chemist to Government as regards the manufacture of fertilisers and of Mr. S. K. P. Sinha as regards this and the economic treatment of coal generally. Mr. Chakreshwar Kumar Jain, Dr. V. S. Dubey and Mr. A. S. Khan have signed the report subject to separate notes of dissent or explanation on a few points.

We have given very careful consideration to the possible development of the chemical industries of the province and the conclusions will be found in this report. We must however give a note of warning at the outset regarding the value to be attached to these conclusions. In the limited time at our

disposal and for lack of funds it has not been possible for us to record any evidence. We have received memoranda from certain official and non-official sources which have been of much help to us in the preparation of our report. Further our energetic Secretary has been able to collect a considerable amount of information by personal contact with industrialists in Calcutta. To these sources of information must be added the personal experience of some of the members of the Committee. While all these sources of information are very valuable and are sufficient to make our conclusions qualitatively definite we wish to make it clear that the figures of costs and productions are approximate. Our purpose in mentioning them has been merely illustrative, and hence in the case of industries involving large capital a closer scrutiny by experts actually engaged in the operation of such industries is recommended.

We have been asked to examine the possibility of the following 27 industries.

1. Oils.
2. Dyes.
3. Artificial silk.
4. Chemicals including pharmaceuticals.
5. Paper, pulp and celluloid.
6. Rubber (manufactured).
7. Glass and glass-ware.
8. Paints and painters materials.
9. Manures.
10. Toilet requisites.
11. Belting for machinery.
12. Earthenware and porcelain.
13. Soap.
14. Boots and shoes.
15. Tallow and stearine.
16. Gums and Resins.
17. Paper making materials.

18. Coal and coke.
19. Matches.
20. Leather, Raw hides and skins.
21. Oil cakes.
22. Lac.
23. Rubber (raw).
24. Mica.
25. Bones.
26. Candles.
27. Minerals.

For the purposes of our report we have re-grouped these headings as will be seen by a reference to the table of contents. Broadly speaking we may divide Bihar industries into two categories (1) those of all-India importance (2) those of provincial importance. By the former we mean those industries for which raw materials and other facilities are so abundant that they can be established on a sufficiently large scale to supply the whole of the Indian market. By the latter we mean those industries for which the facilities are not so good yet they are sufficient to supply local requirements at competitive prices. The importance of these industries is to be measured by the help which they can give to other local industries and to cottage industries which depend on them.

We have not considered it necessary to enquire into the possibilities of all the industries in detail. Some of them are dependent on others and it is useless to deal with the dependent industries until the possibility of the fundamental industry has been fully explored. We shall mention only one example to illustrate our meaning. To establish the synthetic dye industry it would be necessary to have a well established coal-tar industry and heavy and fine chemicals industry. It would, therefore, be futile to enter into an examination of the synthetic dye industry without exploring the possibility of the fundamental industries on which it is based.

Of the basic industries, the committee have naturally tried to develop only those for which the province possesses exclusive advantages in the shape of raw materials and other co-lateral facilities making the province the fittest economic supplier for the rest of the country. The chief characteristic

of the province is its unique fuel resources in the shape of coal which whether for a mere power industry or for the development of chemical industries is the essential raw material. Thus the proper utilization of coal with a view to develop a national fertiliser industry has been specially emphasized and recommended as the major industries to be established. The auxiliary industries for this purpose, for example, sulphuric and nitric acids, have been fully treated in the appropriate chapters.

In the opinion of the Committee the order of importance of the industries selected for the first instalment of the provincial programme is as follows:—

- (1) Low Temperature Coal Carbonisation and synthetic fertilisers.
- (2) Heavy chemicals.
- (3) Silicate industries : glass, ceramics, refractories, etc.
- (4) Pulp, paper and card-board.

After the above industries have been established it will be possible to start many other dependent industries such as aniline dyes from coal-tar and synthetic petrol which are of very great importance to the country and for which it is necessary that Government should begin to collect data from now.

Of the two all-India industries recommended neither of them is in existence in India, although they are so important to the nation. Hence it is imperative that these should be developed.

As regards silicate industry, though it is will developed in the United Provinces we have still to depend upon Japanese imports for more than 60 per cent of our requirements. The low price of Japanese products has dealt a severe blow to the glass industry in various provinces of India. If the glass industry is developed in Bihar, we may cut down the cost of production to such a figure that Japanese competition will be ineffective.

In the choice of the above industries we have been guided not merely by the existence of the necessary raw materials in the province but also to a certain extent by the necessity for co-relation of the industries to be established, the desirability of safe-guarding the key industries of the province, the possibility of future expansions and the requirements of a mainly agricultural population.

Our task has been rendered difficult by the fact that an industrial survey of the province has never been attempted and as the Director of Industries remarks guess work has often taken the place of statistical data. An accurate estimate of the mineral resources of the province also does not exist. In the absence of these we had to be content with such informations as our Secretary could collect from industrialists in Calcutta or from the published literature.

As regards finance, the Committee feel that this is perhaps outside their terms of reference. They wish to indicate, however, that there are three ways in which this problem may be approached—

(1) Government may finance the approved schemes by means of a loan.

(2) Government may guarantee a minimum dividend of 3 or 4 per cent in which case they should have some kind of control in the organization of the factory and a large share in the profits over a certain limit.

(3) The industry may be started by private individuals or companies, Government giving only technical advice and guidance.

In the case of industries of all-India importance such as coal carbonisation and nitrogen fixation the possibility of co-operation of all the provinces in raising funds and shouldering the financial responsibilities should be explored.

In conclusion the Committee wish to mention the difficulties under which they had to draw up the present report and the consequent shortcomings thereof. The time at their disposal was too short and the work was done by the members in the intervals of their normal duties in course of about three months. They hope, however, that they have brought together sufficient materials to help Government to decide whether or not it will be worth their while to proceed further with any of the schemes mentioned in the report.

The Committee wish to record their thanks to their Secretary Dr. S. C. Neogy, D.Sc., whose memoranda on the various industries have been of very great help to them. Dr. Neogy collected most of the informations given in this report by personal visits to industrial centres in Calcutta and without his help it would have been impossible to prepare the report in such a short time.

A summary of the Committee's recommendations will be found at the end of the report.

APPENDIX I.

No. 2118-D.

GOVERNMENT OF BIHAR.
DEVELOPMENT DEPARTMENT.

—————
RESOLUTION.
 —————

Patna, the 28th November 1938.

At an informal conference held at Ranchi on the 24th and 25th October 1938 under the presidency of the Hon'ble Minister for Education and Development, to consider the industrial planning of Bihar, it was decided to form various committees for carrying out detailed investigation into the prospects of different industries in the province. The Government are, accordingly, pleased to appoint the following committees with the members mentioned under each :—

(a) CHEMICAL INDUSTRIES COMMITTEE.

1. Mr. A. S. Khan, L.E.S., Principal, Science College, Patna—*Convener.*
2. Mr. Chakreshwar Kumar Jain, M.L.A.
3. Dr. V. S. Dubey, M.Sc., Ph.D. (London), D.L.C., Professor of Economic Geology, Benares Hindu University.
4. One Industrial Chemist.

The Committee may co-opt as a member the Agricultural Chemist while dealing with chemical fertilisers and Mr. S. K. P. Sinha, Special Officer, while dealing with fuel and power generation.

(b) MECHANICAL INDUSTRIES COMMITTEE.

1. Mr. P. N. Mathur, the Tata Iron and Steel Company, Limited, Jamshedpur—*Convener.*
2. Mr. J. Tullis, Principal, Bihar College of Engineering, Patna.
3. Mr. N. N. Rakshit, General Manager, Tatanagar Iron Foundry, Jamshedpur.
4. Mr. B. K. Rohatgi, India Electric Works, Limited, Calcutta.
5. Mr. G. N. Maity, Managing Director, Vishwakarma, Limited, Dharamtola Street, Calcutta.
6. Mr. Gur Sharan Lall, Proprietor, Gaya Cotton Mills, Limited.

(c) COTTAGE INDUSTRIES COMMITTEE.

1. Mr. S. N. Dhar, I.C.S.—*Convener.*

APPENDIX I—*contd.*

3. Mr. Lakshmi Narayan Sahay, Secretary, Bihar Branch of the All-India Spinners' Association, Madhubani.
4. Mr. B N. Sarkar, Senior Marketing Officer, Bihar.
5. Dr. Gyan Chand, M.A., Ph.D. (London), Professor of Economics, Patna College.
6. Mr. K. S. Rao, Textile Expert, Member-Secretary.

2. All the three committees will have the power to co-opt additional members for dealing with particular problems, if they consider it necessary.

3. The Chemical Industries Committee and the Mechanical Industries Committee will also deal with all the cottage and small industries coming within their respective scope. The Cottage Industries Committee will therefore, meet after the reports of the other two committees are available.

ORDER.—Ordered that the resolution be forwarded to the Director of Industries and to all the members of the committees.

Ordered also that the resolution be published in *Bihar Gazette*.

By order of the Governor of Bihar,

S. M. DHAR,

Secretary to Government.

MEMO. NO. 2118-D.

Patna, the 28th November 1938.

Copy forwarded to all members of the committee and the Director of Industries for information.

2. The Chemical Industries Committee and the Mechanical Industries Committee will each have the services of a whole-time Secretary to be appointed by Government, orders about which are under issue separately.

3. The enclosed list shows the distribution of industries between the Chemical Industries Committee and the Mechanical Industries Committee but it is not exhaustive and is drawn up as a general guide.

4. The Chemical Industries Committee will meet at Ranchi, the Mechanical Industries Committee at Jamshedpur and the Cottage Industries Committee at Patna. Government hope that the Mechanical Industries Committee and the Chemical Industries Committee will be able to submit their reports by the end of December 1938 and the Cottage Industries Committee by the end of January 1939.

By order of the Governor of Bihar,

B. B. SINGH,

Assistant Secretary.

APPENDIX I—*concl'd.*

INVESTIGATION OF PROSPECTIVE INDUSTRIES IN BIHAR.

MECHANICAL INDUSTRIES COMMITTEE.

- | | |
|---|-----------------------------------|
| 1. Machinery and Mill work. | 8. Toys and requisites for games. |
| 2. Metals. | 9. Bobbins. |
| 3. Vehicles. | 10. Umbrella and Fittings. |
| 4. Instruments, apparatus and appliances. | 11. Cutlery. |
| 5. Hardware. | 12. Furniture and cabinet ware. |
| 6. Building and Engineering materials. | 13. Clocks, watches and parts. |
| 7. Arms, ammunition and military stores. | 14. Coir and hemp. |

CHEMICAL INDUSTRIES COMMITTEE.

- | | |
|--|-----------------------------------|
| 1. Oils. | 14. Boots and shoes. |
| 2. Dyes. | 15. Tallow and stearine. |
| 3. Artificial silk. | 16. Gums and Resins. |
| 4. Chemicals, including pharmaceutical. | 17. Paper making materials. |
| 5. Paper and pulp including artificial silk and celluloid. | 18. Coal and coke. |
| 6. Rubber manufactured. | 19. Matches. |
| 7. Glass and glassware. | 20. Leather, raw hides and skins. |
| 8. Paint and painters materials. | 21. Oil cakes. |
| 9. Manures. | 22. Lac. |
| 10. Toilet requisites. | 23. Rubber raw. |
| 11. Belting for machinery. | 24. Mica. |
| 12. Earthenware and porcelain. | 25. Bones. |
| 13. Soap. | 26. Candles. |
| | 27. Minerals. |

CHAPTER II.

RAW MATERIALS OF BIHAR FOR CHEMICAL INDUSTRIES.

(A) Minerals. (B) Agricultural products. (C) Forest Products.

Before dealing with the Chemical Industries proper we wish to give a general survey of the raw materials available in the province as Chemical Industries must be ultimately based on these raw materials.

(A) MINERALS.

The following list represents the minerals of Bihar :—

- | | | |
|-----------------------|-----------------------|-----------------------------------|
| 1. Coal | 8. Glass making sand. | 15. Gemstone. |
| 2. Iron ore. | 9. Barytes. | 16. Graphite. |
| 3. Copper ore. | 10. Bauxite. | 17. Manganese. |
| 4. Mica. | 11. Kyanite. | 18. Apatite and other phosphates. |
| 5. Potassium nitrate. | 12. Chromite. | 19. Quartz and quartzite. |
| 6. Fire clays. | 13. Asbestos. | 20. Steatite. |
| 7. China clays. | 14. Limestone. | 21. Building materials. |

Most of these deposits are being worked in the province. Besides these there are several other deposits which are known to occur but which are not being worked :—

- | | | |
|------------------|---------------------|------------------------------|
| 1. Antimony ore. | 7. Fuller's earth. | 13. Platinum. |
| 2. Arsenic ore. | 8. Gold. | 14. Sodium sulphate. |
| 3. Bismuth ore. | 9. Lead and silver. | 15. Zinc ore. |
| 4. Cobalt ore. | 10. Tungsten ore. | 16. Radium and Uranium ores. |
| 5. Tin ore. | 11. Magnesite. | |
| 6. Corundum. | 12. Molybdenum ore. | |

In many cases detailed information is lacking and it is possible that further investigation may make their commercial working feasible.

Coal.—This is the most important of the Bihar minerals. This province is fortunate in having the largest deposits of coal in India. The chief deposits are at Jharia, Raniganj, Bukaro, Ramgarh, Giridih and Raj Mahal. Some of these are still undeveloped being far off from railways. Most of these coals are quite suitable for metallurgical purposes. The occurrence of iron in the neighbourhood makes these deposits of exceptional

value. Unfortunately the mines are not being worked either efficiently or economically, and the coal itself is being consumed most unscientifically. It is true that there are coke oven plants at Barhahi, Lodhna and Giridih and the iron and steel companies are manufacturing and using about 19 lakhs of tons of *hard* coke and recovering some of the bye-products, but the present condition of the *soft* coke industry is very backward. The coal is heated in open air and all the volatile matter is allowed to escape. Nearly $\frac{1}{3}$ rd of the total quantity of coal extracted is lost in the coalfields because it is in too finely powdered a state to be used in the ordinary way. Power plants utilizing pulverized fuel might be one of the solutions of this problem.

Iron ore.—As regards the occurrence of iron ores Bihar is the most important province in India. As we have already stated the occurrence of suitable coal deposits in the province and also of such materials as limestone, chromium and manganese makes this deposit of special significance. At present iron and steel are being manufactured for the production of ordinary goods only such as sheets, girders, rails and other common articles. If India has to be industrialized it is necessary that more highly specialized products must also be manufactured. Several kinds of alloy steels which require chromium, manganese, nickel, tungsten, etc., for their manufacture should be produced as they are indispensable in most heavy machinery and chemical industries.

Copper.—India has been a great copper producing country in the past but during the last century competition with better and cheaper goods from abroad killed this village indigenous industry. In these days small plants have no chance of surviving before modern methods of manufacture. At present manufacture of copper on more modern lines has been started at Ghatshila in this province. The total production of this Copper Corporation is valued at about Rs. 80 lakhs. In some chemical operations special alloys containing copper are required. The production of such alloy will become increasingly important as the Chemical Industry advances. Another problem in connection with the manufacture of copper in India is the utilization of sulphur in the ore. The concentrated ore contains about $\frac{1}{3}$ rd of its weight of sulphur. No attempt is made to utilize this sulphur. This means that we are wasting about 7,000 tons of sulphur every year. As there are few sources of sulphur in India the problem of utilizing this source of sulphur in the interest of key industries like the sulphuric acid industry is deserving of most serious consideration.

Mica.—India is one of the largest producer of mica and of the total quantity exported, Bihar furnishes some 80 per cent. The export figures are given below :—

	1935-36.	1936-37.	1935-36.	1936-37.
			Rs.	Rs.
Mica..In blocks	24,528 cwt.	27,295 cwt.	41,64,650	47,08,397
Mica..In splittings	142,121 „	152,299 „	41,53,997	46,97,580

The electrical machinery industry is dependent upon mica and in the absence of any such industry in India, the only possible way of disposal of mica is to export it to the European countries. Micanite, a valuable insulating material, is manufactured from thin sheets of mica and shellac. It would not be impossible to undertake the manufacture of micanite goods in Bihar but the protective tariff in the European countries, will make the disposal of the articles difficult. Waste mica may, however, be utilized mixed with asbestos powder and a binding material for a composition of boiler covering, which is now imported.

Saltpetre.—It is found in large amount in Bihar. It is extracted by dissolving the soil containing the salt and filtration. Most of the saltpetre is used in the manufacture of gun powder and small quantities also serve as manure. In Bihar it is produced to the extent of about 2,000 tons a year. India exports about 8,500 tons of saltpetre annually costing about 13 lakhs of rupees or about Rs. 7 per cwt. It is a very important compound as it contains potash, a valuable constituent of manures. In India apart from wood and plant ashes there are no other sources of potassium and so this is the ultimate raw material from which all the requirements of potash salts in India can be met.

Glass, Ceramic and Refractory raw materials.—These include glass making sands, China clays, fire clays, silliminite, kyanite, silica and graphite all of which are known to occur in the province. Besides these plenty of quartz and felspar are available which on crushing can be utilized for glass industry.

The glass sands are found near Rajmahal Hills, and in the south they are found near Barakar while quartz occurs in many places of a quantity suitable after crushing for glass manufacture. Quartz and felspar are associated with mica and occur in the mica belt of Hazaribagh.

Barytes.—It is found in the Singhbhum district but the mineral has not been much exploited till now. It is being mined in small amounts, its chief use being in the paint industry.

Chromite—Occurs in Bihar in several localities near Chaibassa. It has not been mined extensively till now, but there are good reserves of this mineral. One important use for it would be in the manufacture of alloy steels, as such steels are very important in machinery manufacture. Chromite can also be used in the manufacture of potassium dichromate necessary in the tanning industry as potash salts also are available in the province. Neutral refractories can be manufactured out of chromite which are used for steel and other metallurgical industries.

Asbestos—Is found in Singhbhum district. It has been mined in small amounts but has not found much use in the country till now. The production in India of asbestos most of which comes from Bihar amounts to nearly 90 tons annually. Though Indian asbestos is not of very good quality still it can replace much of what is imported at present from foreign countries. It can be used for the manufacture of eternite sheets and roofing materials. The import of raw asbestos annually is worth about 2 lakhs of rupees while that of finished goods is over 12 lakhs giving a total of nearly 15 lakhs of rupees. Most of this can be substituted by the asbestos found in Bihar.

Limestone.—Limestone has great many uses these days. It is used in various industries such as lime, cement, iron and steel, glass, chemicals, etc. Of these the most important use is in the cement and iron and steel industries. Bihar is very fortunate in having large deposits of limestone in close proximity to other suitable materials. In Bihar there are at present three cement factories manufacturing about 1,500 tons of cement per day worth nearly Rs. 50,000 or more than a crore of rupees per year. Bihar limestone is also used exclusively at the Tata Iron and Steel Works, as well as the Indian Iron and Steel Works. It has not been much used in the chemicals and glass

industries till now. The reserves of this mineral in the province are said to be enormous and can adequately supply the growing need of all the industries.

Bauxite—Is the ore of aluminium. Large deposits of bauxite are found near Ranchi and Palamau districts situated quite near the coalfields from which cheap current can be generated for aluminium manufacture. The amount of bauxite is large and the quality fairly rich. This industry has great future in Bihar as aluminium is used in many industries. The present import of aluminium in India amounts to about 3,000 tons including wrought and unwrought materials worth about 43 lakhs of rupees.

Graphite—Does not occur in large amounts in the province, and the quality of the mineral requires investigation. It is used for the manufacture of crucibles and other refractory materials.

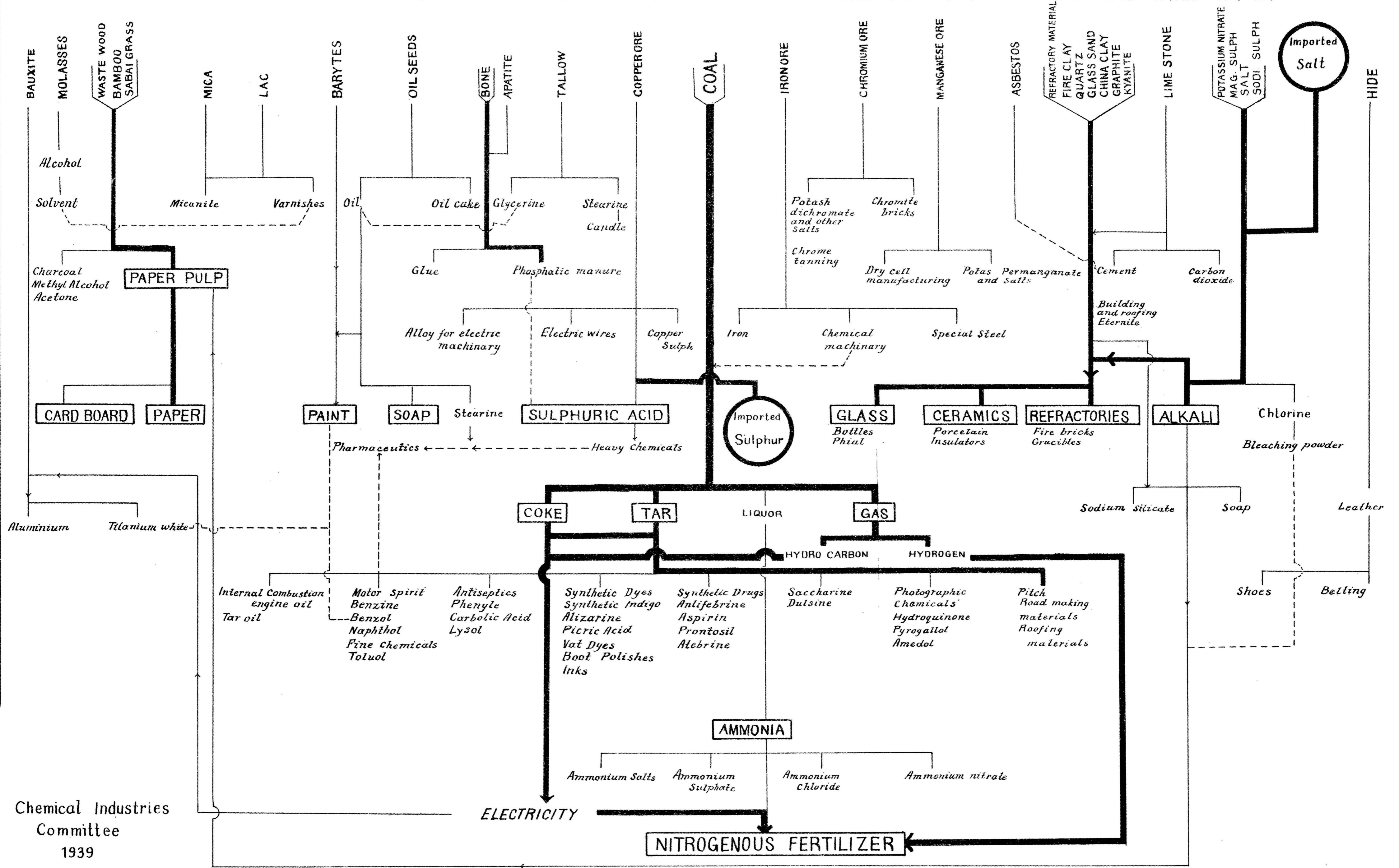
Manganese.—Ores of manganese are found in several localities in the province. The deposits of importance are those in the Gangpur State and in Sirghbhum. The production of the metal in the province in 1936 amounted to nearly 12,000 tons. Manganese is used in the manufacture of ferromanganese and where it is obtained in a pure condition it can be used for glass industry.

Besides the above many other minerals are found in the province, but these have not been fully investigated. As the country advances industrially the value of these minerals is bound to increase. At present it is not possible to suggest any method of exploiting them.

(B) AGRICULTURAL PRODUCTS.

Bihar is very rich in agricultural resources. Rice, wheat, maize, linseed, rape and mustard, groundnuts, pulses, etc., are grown abundantly in the province. Fruits like mangoes and lichees are also plentiful. The relationship of agricultural products to chemical industries arises from two causes. Firstly chemical manures are necessary for intensive cultivation and secondly some of the agricultural products are required as raw materials in certain chemical industries. Oil is required for soap and paint industries, glycerine and toilet preparations. Similarly fruits can be converted into jams and preserves while food-grains can be used for biscuit making and other such industries. It is not necessary for us to go into greater details as the memorandum submitted by Mr. B. N. Sarkar gives all the relevant facts and is exceedingly interesting.

CHART
SHOWING THE RAW MATERIALS OF BIHAR AND THE CORRELATION OF THE CHEMICAL INDUSTRIES WHICH CAN BE BASED ON THEM



Chemical Industries
Committee
1939

A.S.K.

CHAPTER III.

ECONOMIC TREATMENT OF COAL.

Low Temperature Carbonisation.

The coal deposit of any country is an asset of the greatest national importance and its conservation should engage the attention of all well wishers of the country quite apart from the question of immediate industrial developments. It is a duty which we owe not only to the present generations of India but to posterity. Bihar is the principal coal-producing province in India. This will be evident from appendices 3 (a) and 3 (b). It will also be evident that in Bihar the chief coal-producing locality is Jharia. The total reserve of coal in India is stated to be 54,467 million tons of which 30,573 million tons is in Bihar. The total reserve of coking coal in India is said to be 3,948 million tons of which 2,940 is in Bihar. When we examine the actual production figures we find that Bihar contributes as much as 53 per cent of India's production of coal and Jharia alone produces about 41 per cent. Any scheme of coal conservation in India should, therefore, be initiated at Jharia where it has the best chance of success and indeed is likely to produce the maximum effect.

Coal conservation.

That the need for coal conservation is urgent will appear from the following extracts :—

“The working of great seams in this country has resulted in a confessedly immense wastage, almost unparalleled elsewhere..... This wastage whatever be the cause, is a scandal for which the present generation will ultimately be called to account”. (John, Henry, Trans. Min. and Geol. Inst., Vol. XXIV, 1929, pages 117-118.)

“With regard to conservation of coal and the Grading Board, it so happens that in the Jharia coalfields there are certain thick seams of which only a part of the section has been graded as ‘selected’ or ‘first class’. Now many companies cannot dispose of anything inferior to at least ‘first class’ graded coal at the present day, so they have no alternative but to work only the better graded section of these seams, and leave the rest which, in some cases, amounts to 60 per cent of the total coal in the seam;

this portion, in one particular instance being in the upper part of the section is entirely lost to posterity, when the lower and better part of the seam is goaved. The top portion, although not graded as 'selected' or 'first class' is a very valuable coal which may some day be wanted". (Starksfield—Trans. Min. and Geol. Inst., Vol. XXIV, 1929, pages 117-118.)

"In the absence of good market second class coal is being neglected and sometimes unmined. Better class coals normally, suitable for metallurgical purposes sometimes occurring below the second class coal are being extracted and used up in large quantities for boiler firing..... After this extraction the whole of the upper layer of rocks, together with millions of tons of second class coal are allowed to go down into goaf consisting of a hopelessness of rock and coal debris from which there is absolutely no chance of the economic extraction of coal. Thus not only is a large quantity of coal occurring at the deeper regions of the mine, faced with the danger of abandonment on account of fire, flood and the present day methods of faulty working but many coal seams occurring near the surface are also being ruined". (S. K. Roy—Bulletin no. 1, 1937. The Geol. Min. and Metal. Soc. of India, page 1.)

From the above it is clear that there is urgent need for a scheme of coal conservation in the province. This is all the more necessary as the reserve of coal in India is extremely poor compared with the population of the country. Now if we analyse the various causes of wasting of coal we find that the two main causes are:—

- (1) Bad methods of working.
- (2) Want of market for second and lower grade coals.

In this report our purpose is to suggest remedies for the second cause of waste, i.e., to find market for second and lower grade coals. Various suggestions have been made to bring about this result. Among these are the following:—

- (1) To encourage the use of second class coal in boilers.
- (2) To manufacture oil from low grade coals.
- (3) To manufacture smokeless fuel or soft coke from low grade coals and to make use of the bye-products for

industrial purposes such as the manufacture of oil and fertilisers and the generation of electricity. To us it seems that item (3) should be taken in hand first.

It has been shown that generally speaking Jharia coals are quite suitable for the manufacture of soft coke by Low Temperature Carbonisation and many valuable bye-products can be recovered. (R. C. Bhattacharjee—*Qurt. Jour. the Geol. Min. and Metl. Soc. of India*, Vol. I, page 101, K. L. Roy, S. S. De and B. C. Guha, *Ind. and News Edn. of J. Ind. Chem. Soc.*, 1938, page 48.)

From the available data of consumption of coal in India it will be seen that barely 3 million tons of coal are used for household purposes. Without question it can be asserted that there are possibilities of great expansion in the household coal trade. In order to help this branch of the coal industry an act (Act VIII of 1929) known as "Indian Soft Coke Cess Act" was enacted. The main features of this are (1) "to levy and collect on all soft coke despatched by rail from collieries in the provinces of Bengal, Bihar and Orissa a cess at the rate of two annas per ton" and (2) "the proceed of the cess and any other monies received by the committees shall be applied to meeting the expenses of the committee and the cost of such measures as it may consider advisable to take for promoting the sale and improving the methods of manufacture of soft coke".

Although due to the efforts of the soft coke cess committee consumption of soft coke is increasing year by year yet from the fact that only 860,000 tons of soft coke are consumed annually (note on the production and consumption of coal in India, 1934, p. 1870), it is evident that only a few million people use it. For large circulation of this material it is necessary that this fuel should be available at a cheaper rate.

According to the present day method of manufacture of soft-coke in the coalfields about 100 tons of coal is burnt to produce only 50 tons of soft coke. (Rec. G. S. I., Vol. LXIV, 1930, p. 67.) By this method all the bye-products are lost. But when a ton of coal is subjected to a low temperature carbonisation process about 15 gallons of tar yielding 1.5 gallons of motor spirit can be recovered. (Bulletin 1, 1937—*The Geol. Ming. and Metl. Soc. of India*—p. 47.) Also by the same process one ton of coal yields about 14 cwt. of soft coke that is recovery is about 70 per cent against 50 per cent in the ordinary method.

Even taking the present day consumption of soft coke it will be seen that about 2 crore gallons of tar yielding 20 lakhs gallons of motor spirit are wasted every year. If a scheme of low temperature carbonisation can be shown to be feasible the abovementioned valuable bye-products will not be allowed to be wasted.

COAL CARBONISATION.

When coal is subjected to a suitable process of destructive distillation (carbonisation) the following primary products are obtained :—

- (1) A smokeless fuel (coke).
- (2) Coal-tar.
- (3) Ammonia.
- (4) Coal gas.

The quantity of the products varies with the kind of coal and the process of coking. On the average one may assume that 1 ton of coal will produce 14 cwt. of soft coke, 15 gallons of tar, 5,000 cubic feet of gas and 25 lbs. of ammonium sulphate.

Soft coke can be used as domestic fuel; but it can also be utilized for all purposes for which coal can be utilized including the firing of boilers and the manufacture of gaseous fuel (producer gas and water gas). Coal-tar can be utilised for the manufacture of various liquid fuels for motor and diesel engines or as nucleus of synthetic dye and organic chemical industry. Coal gas can be burnt either in an internal combustion engine or under a suitable boiler for the generation of power which can be obtained in the form of electricity and transported to long distances. The hydrogen in the coal gas can if so desired be separated and utilized for the manufacture of ammoniacal fertilisers and for other purposes. The gas remaining after the removal of hydrogen can be burnt for the production of heat or electricity in the usual manner.

THE ECONOMICS OF THE PROCESS.

It has not been possible for us in the short time at our disposal to obtain recent quotations from abroad for low temperature carbonisation plants. Consequently figures based on such quotations cannot be included in the report. However the illustration given below may serve to explain the nature of the problem with which we have to deal

In a well known publication (Lander and McKay, Low Temperature Carbonisation, page 269) the following balance sheet is given to illustrate the economics of low temperature coal carbonisation for conditions prevailing in England soon after the war :—

Sheet A.

Income.			Expenditure.				
£. s. d.			£. s. d.				
Coke 14 cwt. at 20 sh. per ton.	0	14	0	Coal 1 ton at 20 sh. per ton.	1	0	0
Tar 15 gallons at 5 d. ..	0	6	3	Cost of carbonising including fuel.	0	4	0
Gas 30 therms. at 4 d. . .	0	10	0	Interest and depreciation.	0	4	0
Total ..	1	10	3	Total ..	1	8	0

Favourable balance 2 sh. 3 d. or 11 per cent on cost of plant.

If we were to apply the above figures to conditions in India the following balance sheet will result :—

Sheet B.

Income.			Expenditure.					
Rs. a. p.			Rs. a. p.					
14 cwt. of coke at Rs. 4 per ton.	4	2	13	0	1 ton coal at Rs. 2 ..	2	0	0
15 gallons of tar at annas 3.	2	13	0	Cost of carbonisation including fuel.	1	7	3	
Gas 5,000 cu. ft. ..	0	6	6	Interest and depreciation.	2	8	0	
Total ..	6	0	6	Total ..	5	15	3	

Favourable balance annas 0-1-3.

In this balance sheet Indian price of raw materials and products has been substituted for the English price. The cost

of coal is put down at Rs. 2 per ton because it is only the inferior kinds of coal which will, in practice, be subjected to low temperature carbonisation. The cost of interest and depreciation will not alter very much while the cost of carbonisation will be reduced as it includes fuel also. In sheet A the cost of carbonisation is four shillings which includes the cost of $\frac{1}{10}$ ton of coal which at 20 shillings per ton will amount to 2 shillings. If we exclude the cost of fuel, the cost of carbonisation alone will be 2 shillings or Rs. 1-4-0. To this must be added the cost of fuel at the Indian rate of Rs. 2 per ton i.e., annas 0-3-3. Thus the total cost of carbonisation will amount to Rs. 1-7-3 per ton.

On the income side the price of coke and tar is in accordance with the present day market rates. The price of gas is according to its value as a fuel reduced to its equivalent in Indian coal.

The conclusion to be drawn from this balance sheet is that if expensive imported machinery of such a type is used that the depreciation and interest charges would amount to Rs. 2-8-0 per ton of coal treated, then the margin of profit will be small although even in this case there will be no actual loss. It is clear from this that every effort will have to be made to keep the cost of carbonisation and depreciation as low as possible.

Dr. H. K. Sen of the Lac Research Institute, Namkum, has been conducting researches on coal carbonisation for a number of years. We have examined the result of his experiments and have privately discussed the matter with him. It is clear to us that if the cost of machinery is reduced by making use of the simplified type of plant devised by him low temperature carbonisation will become not only a practicable but a most profitable industry for Bihar. For comparison with sheets A and B above we give sheet C below which is based on Dr. Sen's experiments.

Sheet C.

Income.	Rs. a. p.	Expenditure.	Rs. a. p.
Price of 14 cwt. of coke at Rs. 2-12-0.	1 15 3	1 ton coal at Rs. 2 per ton.	2 2 0 0

	Rs. a. p.		Rs. a. p.
Gas 5,000 cu. ft. ..	0 6 6	Cost of 7—100 tons of fuel.	0 2 4
		Labour ..	0 6 0
		Over-heads ..	0 2 4
			<hr/>
		Total ..	0 10 8
			<hr/>
		Interest and depreciation at 15 per cent on 1,000.	0 7 0
			<hr/>
Total ..	5 2 9	Total ..	3 1 8
			<hr/>

Favourable balance Rs. 2-1-1 per ton of coal carbonised.

Our colleague Mr. S. K. P. Sinha has suggested certain amendments in prices of tar, coke and coal in this sheet which will have the effect of reducing the margin of profit to a certain extent as shown in sheet D below.

Sheet D.

Income.	Rs. a. p.	Expenditure.	Rs. a. p.
14 cwt. coke at Rs. 5	3 8 0	Coal at Rs. 3 per ton ..	3 0 0
15 gallons tar at annas 2	1 14 0	Cost of carbonisation ..	0 10 8
Gas ..	0 6 6	Depreciation and interest.	0 8 0
			<hr/>
Total ..	5 6 6	Total ..	4 2 8
			<hr/>

Favourable balance Rs. 1-3-10.

Dr. Dubey has worked out a balance sheet based on imported machinery in accordance with American practice and finds that even in case of this type of machinery there will be ample profit. We give his figures as balance sheet E.

Sheet E.

Income.	Rs. a. p.	Expenditure.	Rs. a. p.
14 cwt. coke at Rs. 2-12-0.	1 15 3	Coal at Rs. 2 per ton ..	2 0 0
17 gallons tar at annas 3.	3 3 0	Cost of carbonisation...	0 11 6
Gas utilized for heating.	0 0 0	Interest and deprecia-	0 14 6
Therefore no income from it.		tion.	
Total	... 5 2 3	Total	.. 3 10 0

Favourable balance Rs. 1-8-0.

In all the above computations the price of tar has been assumed to be not more than annas three per gallon but we hope that once the coal distillation process comes into general use the further working up of the tar into useful products will also be started. The extended use of internal combustion engines for the production of power is bound to create a good market for distilled tar to be used as liquid fuel. The effect of all this will be that the price of tar will not only be maintained at its present value but will very probably increase.

In none of the balance sheets have we taken the value of ammonium sulphate into consideration. We are certain that the isolation of this substance will become a valuable source of additional income to the coke manufacturers. According to the nature of the coal and of the process of carbonisation 14—40 lbs. of ammonium sulphate per ton of coal can be obtained. Assuming 25 lbs. to be the average, the cost of manufacturing ammonium sulphate will be about six annas which according to the present market price of Rs. 100 per ton will fetch annas eleven and thus leave a clear margin of five annas to be added to the income side of the balance sheets given above.

The price of gas has been assumed to be annas 0-6-6 only on the basis of its value as second class fuel in terms of coal at Rs. 2 per ton. In our opinion this is a very conservative estimate. Gas as fuel is too valuable to be ranked as a second class fuel. If we treat it as a first class fuel its price can be easily doubled and if it is found possible to utilize even a portion of it either as illuminant or for the manufacture of chemicals its value will be still more increased.

We thus see that the balance sheets as they stand are far from discouraging. But the important thing to remember (and which does not appear in the balance sheet, is that on the asset side we should also place the advantages of coal conservation and the prevention of the disastrous consequences of the waste of low grade coals which we have fully explained in the beginning of the chapter. To these advantages may be added those arising from the starting of certain key industries in the country which are based on coal carbonisation, of finding employment for the educated young men of the province and of preventing the smoke nuisance which though not so great as in European countries is bound to increase in future and is already a menace to health in the larger towns.

SUGGESTIONS.

A comparison of the balance sheets shows that there is distinct agreement between sheets (C) and (D) but sheet (B) characterises itself by increased allowance on the cost of plant imported from abroad. If the cost of this plant is reduced to Rs. 2,500 per ton of coal treated per day or even to Rs. 3,000 as appears to be indicated from reference to the cost of plants already in operation abroad and if corresponding charges for depreciation and interest are effected in balance sheet (B), the margin of profit becomes Re. 1-1-6 per ton. It would appear, therefore, that low temperature carbonisation under Indian conditions is a profitable venture, apart from its far reaching influence on the general economy of coal in the country.

We are definitely of opinion that the present wasteful method of making soft coke by burning coal in heaps in the open should not be allowed to continue. The committee definitely recommend to Government that immediate and imperative steps should be taken to stop this irrational method of handling coal.

Having thus established a definite objective the next question that arises is what method should be adopted of bringing it about. As we have already stated Dr. H. K. Sen has been working on a special method of low temperature carbonisation about the potentialities of which we are very hopeful. In fact he has already got a plant working on a miniature scale at Namkum. A somewhat enlarged experiment on the same line is about to be conducted at the Science College, Patna and it is our hope and belief that that experiment will yield valuable results which will go to show conclusively that this scheme of low temperature carbonisation can be made a commercial success.

even on a comparatively small scale. We are conscious of the fact that the experiment at the Science College is yet in an embryonic stage, but the committee after considering the potentialities of the scheme feel justified in entertaining the hope as outlined above.

For the reason given above the committee recommend to Government to prohibit by legislation the present open air method of the manufacture of soft coke. Firms and individuals who are engaged in this trade can make it by the new process. The capital cost involved is by no means prohibitive and Government, by way of assistance to them should make plans available and should give all facilities and help. With this method of manufacture of soft coke two bye-products will become available. One is gas which the manufacturer will be able to utilise himself in heating the retort and the second bye-product will be crude tar.

In the opinion of the Committee Government should guarantee the purchase of all the the tar at a fixed price of annas two per gallon to such producers as are prepared to enter into agreement with Government as to its sale for a long term. The tar should be dealt with at a central factory under state auspices.

While we are convinced of the soundness of our above recommendations we are of opinion that before undertaking legislation it will be advantageous for Government to invite the present producers of soft coke to a conference and discuss with them the specific steps suggested above.

The committee are not prepared to recommend to Government to start a big central carbonisation plant by itself, but they feel justified in suggesting that the question of putting up a plant in connection with the Electrification Scheme where the products may be utilised in that scheme for heating the boilers, may be properly examined and investigated.

SUMMARY OF RECOMMENDATIONS.

(1) Open air method of soft coke manufacture should be prohibited by legislation and the manufacturers required to instal low temperature carbonisation plant.

(2) Government should guarantee the purchase of all the tar produced.

No central factory for coal carbonisation should be erected by Government but possibility of erecting a plant in connection with the Electrification Scheme should be investigated.

APPENDIX III(a).

Reserve of coal of all kinds in India (in million tons).

Coal fields.			Total all kinds of coal.	Total coals of coking quality.	All coals other than coking coals.
			Ton.	Ton.	Ton.
Bihar.	Giridih	60	40	20	
	Jharia	20,500	2,300	18,200	
	Bokaro Ramgarh ..	1,000	600	400	
	Karampura South ..	75	} Not fully tested.	8,975	
	Karampura North ..	8,900			
	Auranga	20	..	20	
	Hutar	9	Said to be some.	9	
	Daltonganj	9	..	9	
	Rajmahal area ..	200	Not properly tested.	200	
Total	30,773	2,940	27,833		
Raniganj	22,000	408	21,592		
Sirguja, Korba, Sambalpur ..	200	Some in Korba small quantity.	..		
Talchar	44	..	44		
Wardha and Godavari valleys ..	400	..	400		
Satpura Region	150	Some very small amount.	..		
Assam	600	600	There are some.		
Other fields	100	..	100		
Total	54,467	3,948	50,519		

APPENDIX III(b).

Annual production of coal from various coal-fields in India.

Countries.	Year 1934.	Per cent of total.
	Ton.	Ton.
Bihar—		
Bokaro	1,399,261	6.34
Giridih	761,010	3.45
Jainty	42,717	0.19
Jharia	9,057,546	41.06
Karanpura	397,147	1.80
Rajmahal Hills	1,599	0.01
Total	11,659,280	52.85
Bengal and Orissa—		
Rampur	28,128	0.13
Raniganj	6,795,838	30.81
Talchar State	306,649	1.39
Central India—		
Sohagpur (Rewah)	194,638	0.88
Umaria (Rewah)	94,743	0.42
Central Provinces—		
Ballarpur (Chanda)	321,038	1.46
Korea State	400,350	1.82
Pench Valley	1,117,942	5.07
Raigarh State	3,162	0.01
Hyderabad—		
Sasti	41,880	0.19
Singareni	527,989	2.39
Tandur	199,767	0.91
Total	21,691,404	98.34

ADPENDIX III(b)—concl'd.

Countries.	Year 1934.		Per cent of total.
		Ton.	Ton.
Assam—			
Makum, etc.		186,313	} 0.86
Khasi and Jaintia hills		3,214	
Baluchisthan—			
Kalat State		4,221	} 0.07
Khost (Sibi district)		4,161	
Quetta (Fishin district) ...		6,358	
Punjab (Salt Range)—			
Jhelum district		54,909	} 0.57
Mianwali district		64,986	
Shahpur district		5,371	
Rajputana—			
Bikaner		36,510	0.16
Total		336,043	1.66
Grand total		22,057,447	100

(Note on the production and consumption of coal in India 1934, pages 2-3).

CHAPTER IV.

SYNTHETIC FERTILIZERS.

Nitrogen Fixation.

As we have already stated previously the economic treatment of coal is an all-India problem. We have also seen that its chance of success will be greatly increased if it is combined with other useful schemes for the utilisation of tar and gas which will help the industrial development of the province. One such scheme is the production of nitrogenous artificial fertilizers by the process of nitrogen fixation. We have chosen this item to be in the fore-front of our programme for the following reasons:—(1) All the raw materials required for the industry are available in Bihar. Coal the most important material is obtainable more cheaply in this province than anywhere else in the world. (2) This industry can be made to fit in with a scheme of coal conservation, and soft coke manufacture. (3) There will be no difficulty in marketing the products. (4) India is principally an agricultural country and nitrogen fixation for the production of a cheap fertilizer is of the greatest national importance and is pre-eminently a key industry.

Two of the essential things required for intensive cultivation are water and fertilizers. In the past a great deal has been done to extend the benefit of irrigation but as regards fertilizers, almost nothing has been done with the result that India has to import a large amount of synthetic fertilizers from abroad. At present the amount of ammonium sulphate imported into the country can satisfy the need for nitrogen for a very small acreage only and the cost is too high to bring it into general use. For the agricultural prosperity of India it is necessary that fertilizers like ammonium sulphate should be available at as cheap a cost as possible. For this it is necessary to have a cheap and abundant source of ammonia.

For the production of ammonia most of the civilised countries of the world have got well established nitrogen fixation industry. In countries like Germany, Japan, United States of America and U. S. S. R. the amount of fixed nitrogen produced per year amounts to two to four lakhs of tons while in India even a beginning has not yet been made. India is importing about 60,000 tons of ammonium sulphate per annum which means about 12,000 tons of fixed nitrogen. This amount is nothing compared with the production of three lakh tons of fixed

nitrogen or about 15 lakhs tons ammonium sulphate in Japan and similar production in other countries. There has been a great increase in the number of plants for nitrogen fixation during the last few years and now it has become comparatively an easy task to obtain suitable plants.

The chief raw materials for the manufacture of synthetic ammonia are nitrogen and hydrogen which are combined under certain conditions to give rise to ammonia. As far as nitrogen is concerned, the only thing required for its manufacture is power which is utilised to liquify the air from which pure nitrogen is obtained. The other raw material, hydrogen is more difficult to obtain and its cost is much higher than that of nitrogen.

Manufacture of hydrogen.

On examination of the synthetic ammonia plants of the world, we find that there are three main sources of hydrogen. (1) Coke oven gas. This gas coming out as a by-product from coke oven, contains about 50 per cent of hydrogen the rest being other combustible gases. In the case of Low Temperature Carbonisation in the externally heated retorts, the gas given out amounts to 3—6 thousand cubic feet, 25 per cent of which is hydrogen, while in the case of Low Temperature Carbonisation in the internally heated retorts, the amount of gas given out amounts to 30—35 thousand cubic feet, about 16 per cent of which or say 5,000 cubic feet is hydrogen. This method of obtaining hydrogen can be adopted near the coal fields with well developed coke oven plants.

(2) The second source of hydrogen is water gas produced from coal. When steam is blown over a bed of glowing coke water gas is produced which contains 50 per cent of hydrogen. Besides this it also contains carbon monoxide. This carbon monoxide gas can be made to react with steam to give rise to hydrogen and carbon dioxide. So this water gas is another source of hydrogen. For producer gas manufacture, inferior coal will serve the purpose; in Germany brown coal is utilised for this purpose. In India this method of production of hydrogen can only be useful near the coalfields and is rather unsuitable for any other part of India. If in Bihar, coal distillation plant is not established the hydrogen can be easily obtained by this method. But the price of hydrogen would work out to be slightly higher in this case than in the case of by-product coke oven gas. For this reason it is desirable that synthetic ammonia

manufacture should if possible be combined with coal carbonisation and if this cannot be done then and then alone water gas method of making synthetic ammonia should be used.

(3) The third source of hydrogen for manufacture of synthetic ammonia is electrolysis of water. In those localities where electric current is very cheap this method of production of hydrogen has been utilised for the production of synthetic ammonia. In Bihar this method is not likely to be as economical as either the coke oven gas or water gas method. The power produced at the coalfields with coal at Rs. 4 a ton will cost not less than $1\frac{1}{2}$ pice per unit. The cheapest rate at which electric power is available in any part of India is Rs. 60 per K. W. Y.* at Mettur in Madras which also works out to $1\frac{1}{2}$ pice per unit.

Cost of machinery.

From the above consideration it is clear that there are no inherent difficulties in obtaining the raw materials for ammonia manufacture in Bihar. We have next to examine the cost of machinery and the cost of production of the finished goods to see whether or not nitrogen fixation is likely to be a commercial success. Unfortunately none of the members of this committee have first hand knowledge of nitrogen fixation. It is, therefore, not possible to go into full details but our colleague Dr. V. S. Dubey has been long in correspondence with Mr. Fauser an Italian expert who is a patentee of one of the well known processes of nitrogen fixation. Mr. Fauser has supplied certain figures for the cost of manufacture based on the prices of power and raw materials available in India. The report is confidential but Dr. Dubey has been good enough to make it available to the committee. It is appended to this report for the information of Government. It will appear from a perusal of these papers that the capital required will be of the order of 60 thousand to one crore of rupees. The cost of synthetic ammonia will be approximately £ 6/4 per ton and may be as low as £ 4 per ton if certain economies are effected by combining the process of nitrogen fixation with that of low temperature carbonisation. It appears to the committee that these figures are most encouraging and if they are found to be confirmed by expert examination nitrogen fixation is a very practicable proposition for this province.

*Dr. H. K. Sen in his Presidential address on some aspects of National Planning delivered before the Institution of Chemists (India at Jamshedpur 1939 vide pages 14—19), has calculated the cost of 1 K. W. Y. as low as £ 1.53 or Rs. 22 by a combination of low temperature distillation of coal and subsequent gasification of the soft coke by the Mond process. If his figures stand rigorous scrutiny, the production of electrolytic hydrogen is expected to be as cheap, if not cheaper, than by the other two processes.

Ammonium Sulphate.

Ammonia after manufacture must be converted into some form of ammonium salt before being placed on the market as fertiliser. The usual salt in agriculture is ammonium sulphate. According to Dr. H. K. Sen who has considerable experience in this line the cost of ammonium sulphate from ammonia at £ 6/4 per ton will not be more than £ 4 per ton which can be sold to the cultivators at Rs. 65 per ton. The present selling price of imported ammonium sulphate is Rs. 100 per ton F. O. B. Calcutta. We thus see that the synthetic ammonium sulphate could be placed on the market at lower prices than at present.

We have seen above that nitrogen fixation is quite practicable if the ammonia is converted into ammonium sulphate. If however the ammonia can be sold in the alternative form of nitro-chalk then the proposition would become not only more feasible but one of the most successful and profitable enterprises we can think of. Subject to the accuracy of the figures supplied by Mr. Fauser and to certain reservations regarding the suitability of nitro-chalk for Indian soil which we shall explain later we feel that the manufacture of nitro-chalk has certain inherent advantages which require closer examination and which we explain in the next paragraph.

Nitro-Chalk.

As we have already stated the usual salt used in agriculture is ammonium sulphate but for this purpose sulphuric acid is required. Now a suitable source of sulphur has not yet been discovered in this country and this makes the sulphuric acid industry dependent on imported sulphur. For this reason the cost of sulphuric acid works out to be high and so also that of ammonium sulphate. Moreover the supply of sulphur may be cut off during war time, in which case a key industry of the nature of nitrogen fixation on which so much capital is to be sunk will find itself in great difficulty.* From all these considerations it appears desirable that if possible the ammonia should be

*In the Presidential address referred to in the previous foot note Dr. H. K. Sen has laid special stress on the feasibility of using gypsum instead of sulphuric acid, for fixing ammonia. As a matter of fact this process was used in the Haber Process of manufacturing ammonium sulphate during the last world war. Considerable deposits of gypsum are available in several places in India and on the assumption that a ton of gypsum could be had for Rs. 15 at any suitable site in Bihar, the cost of production of ammonium sulphate from synthetic ammonia would be of the order of Rs. 43 per ton. This process deserves therefore to be carefully considered. The bye-product ammonium sulphate manufactured with gypsum would cost about Rs. 22 per ton.

converted into ammonium nitrate for marketing as nitro-chalk. In this process a portion of the ammonia will be oxidized by a catalytic process into nitric acid and combined with the rest of the ammonia to form ammonium nitrate which will then be mixed with lime-stone and sold as nitro-chalk.

Mr. Fauser thinks that this is the best solution of the problem of the dearness of sulphuric acid and has supplied figures of production cost of nitro-chalk which we have included in the appendix. From these figures it seems that the cost of production of nitro-chalk containing 15 to 16 per cent of nitrogen will be about Rs. 26 per ton or if an alternative method of hydrogen manufacture is chosen to about Rs. 20 per ton. Nitrogen for nitrogen this price is one quarter of the present selling price of ammonium sulphate. It could be supplied to cultivators at prices which will make it popular and bring it into general use in the country.

As we have said before nitro-chalk contains 16 per cent of available nitrogen as against 20 per cent of ammonium sulphate; but if it can be manufactured so cheaply as Mr. Fauser's figures indicate it is really much more economical than ammonium sulphate and has the advantage of not being dependent on imported sulphur. Its suitability for Bihar soil however has yet to be proved. This is the reservation to which we alluded in a previous paragraph. It is true that this material has been widely used in Europe and America but Dr. H. N. Mukherji, Agricultural Chemist to Bihar Government, is of opinion that without experiment it would be risky to assume that it will be suitable for Bihar soil and thinks that on theoretical grounds there is some danger of the nitrogen as nitrate being lost by being washed away from the soil during heavy rains as the absorption of this portion of the nitrogen by the soil is not as rapid as that in the ammonia part. Moreover the deliquescent nature of nitro-chalk may make its storage and transport more difficult than that of ammonium sulphate.

SUGGESTION AND RECOMMENDATION.

After fully taking into consideration the potentiality of the market for the sale of ammonium sulphate, the desirability of this industry from the national point of view the practicability of the process and the availability of the raw material we are of opinion that it is most desirable that a nitrogen fixation industry should be established in Bihar. In the opinion of the Committee the proposition is quite feasible but as none of the members of the Committee have any direct experience of the nitrogen

fixation industry they recommend that for the settlement of technical details as well as for the selection of suitable plants the Government will be well advised to refer the matter to a Committee of Experts, who may also be required to critically examine the financial aspects of the question.

APPENDIX IV(a).

Capacity of plants for ammonia per day.

Belgium	..	..	400 tons per day ammonia.
Canada	..	..	100 " " " "
Czechoslovakia	..	..	20,000 tons of nitrogen per year.
China	..	.	15,000 " " " " "
England	..	..	25,000 " " " " "
France	..	..	234,000 " " " " "
Germany	..	..	250,000 " " " " "
Holland	..	..	360 tons per day ammonia.
Italy	..	..	400 " " " "
Japan	..	..	400,000 tons of nitrogen per year.
Korea	..	..	150,000 " " " " "
Manchukuo	..	..	150 tons per day ammonia.
Norway	..	..	100,000 tons per year nitrogen.
Poland	..	..	50,000 " " " "
Spain	..	..	10,000 " " " "
South Africa	..	..	8,000 " " " "
United States	..	..	350,000 " " " "
U. S. S. R.	..	..	200,000 " " " "

Sources of hydrogen in different plants of the world.

Coke oven gas	...	..	29 plants.
Water gas	..	..	20 "
Electrolysis of water	..	..	23 "
Electrolysis of sodiumchloride		..	4 "
Total			76 plants.

APPENDIX IV(b).

Estimate of cost of a complete plant for an output of 60 tons per day of ammonia starting from water gas and of 360 tons per day of nitrochalk of 15—16 per cent nitrogen content according to Mr. Fauser received through Dr. V. S. Dubey.

The production of 60 tons a day of anhydrous ammonia requires about 168,000 of N—H mixture of which 126,000 c. m. is hydrogen and 42,000 c. m. nitrogen (at 0 and 760 mm Hg.).

Consequently the converted gas will contain including a reserve of 10 per cent, $126,000 \div 0.9 = 140,000$ c. m. hydrogen.

It is assumed to gasify coal to obtain water gas with a hydrogen yield after conversion of CO, of 75 per cent by volume. The requirements of water gas are therefore $140,000 \div 0.75 = 186,000$ c.m. per day.

£ s d.

(a) *Cost price of 1,000 kg. anhydrous ammonia—*

Depreciation, interests, machinery	$\frac{406,288 \times 0.16}{350 \times 60}$ ...	...	...	3	1	10
" " buildings	$\frac{30,951 \times 0.11}{350 \times 60}$ ...	...	...	0	3	3
Coal	1,900 kg. at 5 11 d.	...	...	0	11	2
Workmen	6.5 h at 6 d	...	...	0	3	4
Water	150 c. m. at nominal	...	...	0	1	1
Copper	0.14 kg. at 11 d.	...	...	0	0	2
Formic acid	0.85 kg. at 1-4	...	...	0	1	2
Electric energy	1,600 kwh at nominal	...	...	1	0	0
Maintenance and sundries	...	...	...	1	2	6
Total	...	...	...	6	4	6

APPENDIX IV(b)—concl'd.

(b) Cost price of 1,000 kg. nitric acid referred to 100 per cent—

			£ s. d.	
Depreciation, interests machinery	$\frac{119,229 \times 0.16}{350 \times 130}$	...	...	0 10 7
" " buildings	$\frac{5,055 \times 0.11}{350 \times 130}$	...	...	0 2 2
Ammonia	290 kg. at $1\frac{1}{2}$ d.	...	...	0 15 7
Electric energy	25 kwh at nominal	...	...	0 0 4
Workmen	0.6 h at 6 d.	...	...	0 0 4
Water	100 c.m. at nominal	...	...	0 0 4
Maintenance, and sundries	... ..	...	...	0 1 6
Platinum	0.05 kg. at 1.6 d.	...	...	0 0 3
Total				2 11 2

(c) Cost price of 1,000 Qkg: nitro-chalk of 15—16 per cent N₂ in store—

Depreciation, interest, machinery	$\frac{50,585 \times 0.16}{350 \times 130}$	...	...	0 2 0
" " buildings	$\frac{8,441 \times 0.11}{350 \times 350}$	...	...	0 0 2
Ammonia	110 kg. at $1\frac{1}{2}$ d.	...	...	0 13 2
Nitric acid (100 per cent)... ..	300 kg. at $\frac{1}{2}$ d.	...	...	0 18 7
Lime-stone	520 kg. at nominal	...	...	0 1 9
Coal	25 kg. at 5 11 d.	...	...	0 0 2
Current	35 kwh. at nominal	...	...	0 0 5
Workmen	0.9 h at 6 d.	...	...	0 0 3
Water	10 c. m. at nominal	...	...	0 2 3
Total				1 19 1

Rate of depreciation for buildings	...	...	5 per cent.
" " " " machinery	...	...	10 " "
" " interest	...	...	6 " "
Working days in one year	...	...	350

CHAPTER V.

PHOSPHATIC MANURES.

Three of the most important elements which are essential for the growth of plants and therefore for crop production are fixed nitrogen, phosphorus and potash. We have already made our recommendations regarding the former. As regards phosphorus there are four important sources of this type of manure:— (1) phosphatic rocks, (2) bones, (3) oil-cakes (4) basic slag. The first does not occur extensively in India and therefore one of the most important ingredients for the manufacture of superphosphate is lacking. Another ingredient for this purpose is sulphuric acid which also is not sufficiently cheap in India. The second source of phosphorus is bone. It can be used either as bone meal or converted into superphosphate in which form it is more rapidly absorbed by the soil. Unfortunately bone is being exported either abroad or to other provinces and Bihar soil is being gradually depleted of this most necessary constituent. If this bone had been allowed to remain in the soil instead of being collected and exported even then it would have served a useful purpose in conserving the amount of phosphorus within the province as sooner or later by a process of natural decay the phosphorus would have returned to the soil to be taken up by plants and subsequently by animals to be again returned to the soil in the form of bone or seeds. The export of the bone seriously interferes with this natural circulation of phosphorus in the soil with the result that the country is sure to become increasingly less fertile if steps are not taken to prevent this or to make cheap phosphatic manure available to the cultivator.

With regard to the third source of phosphorus, viz., oil-cakes the position is equally unsatisfactory. The seed takes up phosphorus from the soil which appears in the oil-cake. If the phosphorus in the oil cake were ultimately returned to the soil by using it as cattle food, for instance, then the natural cycle will not be interfered with, but as is the case at present the seeds are largely exported and the phosphorus goes to the soil of another country. We think that every effort should be made to encourage the crushing of oil-seeds locally and to popularize the use of oil-cake as cattle food.

As regards basic slag, we are informed that about 4,500 tons per month are available as a waste product from the Duplex Plant of Tata Iron and Steel Company. This slag contains

7 per cent phosphoric acid of which 60—70 per cent is soluble in citric acid. On account of the low percentage of phosphoric acid it cannot be directly used as manure. The Agricultural Chemist to the Government of Bihar is of opinion that if this slag is used for mixing with ammonium nitrate the cost of manufacture will be lowered and the manure will be better because of the presence of phosphoric acid. He has already started experiment with ammonium nitrate and a sample of slag obtained from Tatas and will be in a position to report the affectiveness of the mixture as compared to nitro-chalk within a short time. We are of the opinion that this is a very promising line and his experiments should be watched with interest. If the results are satisfactory steps should be taken to utilize the basic slag with synthetic nitrogenous fertilizers.

SUPERPHOSPHATE INDUSTRY.

In 1931 as the result of an exhaustive enquiry by the Director of Industries, Bihar, it was revealed that the total quantity of bones exported from the districts of Bihar, came up to 300,000 maunds at a price of Rs. 47 to Rs. 50 per ton at Calcutta. In a memorandum which has been submitted by the Senior Marketing Officer, Government of Bihar, the quantity of bones available in the province is stated to be as follows:—

			Mds.
(1) From dead animals ..	...	...	1,331,374
(2) From slaughtered animals ..	...	..	67,859
			<hr/>
Total ..			1,399,233
			<hr/>
Export ..	..	..	303,068
Net available supply ..	..	..	1,096,165

It thus appears that there is a large quantity of bones available in the province which has no value at present and which could be utilised either as bone meal or as bone superphosphate.

The import of superphosphate into India is considerable.

1935-36.	1936-37.
6,483 tons	6,009 tons.
Rs. 4,67,064	Rs. 3,99,713

Regarding the use of bone meal as fertilizer, it is known that the disintegration of bone meal and the absorption of phosphoric

acid by the soil, is a very slow process and some three to five years must elapse before the action of the fertilizer is manifested. Bone meal may therefore be only used for waste lands which are to be brought under cultivation for the first time. Superphosphates on the other hand are very rapid in their action on plants. Although no superphosphate is being manufactured in India at present the world consumption of superphosphate has been estimated to be 15 million tons in 1938. (Chem. Met. Eng. Feb. 1939.)

The process of manufacture of superphosphate from bone meal is well known and requires no explanatory remarks. The cost of installing a plant for handling five tons of raw bone per day is given in the appendix.

In conclusion we think that the export of bones from the province should be discouraged and every encouragement given to the local crushing of bone and the preparation of superphosphate for the province.

APPENDIX V.

The following are the principal items of cost involved in the process :—

1. Weighing and receiving the raw bones.
2. Cleaning or washing.
3. Drying.
4. Storage.
5. Crushing.
6. Storage for crushed bones.
7. Weighing and mixing.
8. Acid storage.
9. Damping in " dens ".
10. Excavation and storage of manure.
11. Lands and sheds.
12. Supervision.

(1) *Weighing and Receiving.*—A small platform weighing machine capable of weighing upto five cwts. would suffice. The bones are to be loaded into wooden carts which can be pushed on to the machine and then dumped into the cleaning tanks.

			Rs.
Price of machine	..	...	500
Installation and accessories at 20 per cent	..	...	100
Total			600
Daily charges :—			
			Rs.
Interest at 6 per cent	..	...	0·12
Depreciation at 10 per cent	..	...	0·20
Maintenance and repairs at 5 per cent	..	...	0·10
Labour—16 man hours at anna 1 as per man hour.			1·00
Total			1·42

APPENDIX V—contd.

(2) *Washing and Clearing.*—The washing is to be done in masonry tanks, two tanks are necessary, one being emptied while the other is being charged. Shallow tanks of 150 c.ft. capacity would suffice.

		Rs.	Rs.
Cost of tanks	.. ..	2×40	80
Daily charges :—			
Labour 48 man hours, at anna 1 per hour.		..	3

(3) *Drying.*—In summer months the process of drying would only involve the spreading of the bones on the drying yard. During the rainy season a drying stove of the simple hot room type would be necessary.

			Rs.
Cost of erecting the room	.. ..		500
Accessories at 10 per cent	.. ..		100
			—
	Total	..	600
			—

Daily charges :—

			Rs.
Interest at 6 per cent	... ..		0-11
Depreciation and maintenance at 5 per cent...			0-09
Fuel for heating	.. ..		1-00
			—
	Total	..	1-20
			—

(4) *Storage.*—The dried bones should be carefully conserved and guarded against moisture and putrifaction. A good stock should be held.

Daily charges :—

		Rs.
Labour 48 hours (man), at anna 1 per man hour.		3

APPENDIX V.—*contd.*

(5) *Crushing.*—Two toothed roll mills are to be used in series followed by a simple roll mill delivering a product of about 40 mesh size, the mills should be capable of handling about $\frac{1}{2}$ th ton per hour normally.

		Rs.	Rs.
Price of the toothed roll mills	..	2×2,000	4,000
Price of the ordinary rolls	..	...	1,500
			<hr/>
Total	..		5,500
			<hr/>
Accessories and installation at 30 per cent	..		1,650
			<hr/>
Total	..		7,150
			<hr/>
Daily charges—			
Interest at 6 per cent	..	...	1.43
Depreciation at 10 per cent	..	..	2.38
Maintenance and repairs at 10 per cent	..		2.38
Power 7 H. P. per hour at anna 1 as per K. W. H.			2.61
Labour 32 man hours at anna 1 as per hour			2.00
			<hr/>
Total	..		10.80.
			<hr/>

(6) *Storage for crushed bones.*—A storage bin capable of holding about 10 tons of crushed material is necessary (500 c. ft.).

			Rs.
Cost of erection	...	...	100
Accessories	..	...	100
			<hr/>
Total	..		200
			<hr/>
Daily charges—			
Interest at 6 per cent	..	..	0.04
Labour 16 man hours at anna 1 as per hour	...		1.00
			<hr/>
Total	...		1.04
			<hr/>

APPENDIX V—*contd.*

(7) *Weighing and mixing.*—Three mixers each having a capacity of about 12 c. ft. would be necessary.

			Rs.
Price of weighing machine	..	..	300
Accessories at 20 per cent	..	..	60
			<hr/>
	Total	..	360
			<hr/>
Mixers—3 × 800	..	..	2,400
Installation and accessories at 25 per cent	..	..	600
			<hr/>
	Total	..	3,360
			<hr/>

Daily charges—

			Rs.
Interest at 6 per cent	..	..	0.67
Depreciation at 10 per cent	..	..	1.12
Maintenance and repairs at 10 per cent	..	..	1.12
Power 3 H. P. per hour at anna 1 as per <i>kwh.</i>			1.10
Labour 32 man hours at 1 anna per man	..	..	2.00
			<hr/>
	Total	..	6.01
			<hr/>

(8) *Acid storage.*—For five tons of bone meal, about 2.6 tons of chamber acid are required. Provision should be made to store acid sufficient for a week's consumption. This would require a 15 ton acid tank connected with a three ton "calibrated" feed tank.

			Rs.
Price of tanks	..	..	2,000
Installation and accessories at 30 per cent	..	..	600
			<hr/>
	Total	..	2,600
			<hr/>

APPENDIX V—contd.

Daily charges—

			Rs.
Interest at 6 per cent	..	..	0.52
Depreciation at 15 per cent	..	..	1.22
Maintenance and repairs at 10 per cent	..	..	0.86
Labour 8 man hours at anna 1 as per man hour			0.50
			<hr/>
	Total	..	3.17
			<hr/>

(9) *Dumping*.—Two dens should be constructed on two sides of the mixing machines, which should be provided with arrangements for titling on both sides. Each den should be big enough to hold a day's charge, so that they may be filled and emptied alternately.

Cost of two dens Rs. 400.

Daily charges—

Interest at 6 per cent Rs. 0.08

(10) *Excavation and storage*.—Hand excavation is to be resorted to and the material after excavation is to be stored in a closed bin or silo.

			Rs.
Cost of erecting a silo	..	..	250
Accessories at 20 per cent	..	..	50
			<hr/>
	Total	..	300
			<hr/>

Daily charges—

			Rs.
Interest at 6 per cent	..	..	0.06
Depreciation and maintenance		..	0.05
Labour 48 man hours at anna 1 as per man hour.			3.00
			<hr/>
	Total	..	3.11
			<hr/>

APPENDIX V—contd.

(11) Land and sheds—

			Rs.
Buildings and sheds	..	..	5,000
Land	..	..	2,000
			<hr/>
		Total	7,000

Daily charges—

			Rs.
Interest at 6 per cent	..	..	1.40
Depreciation and maintenance on buildings and sheds at 10 per cent.			1.66
			<hr/>
		Total	3.06

(12) Supervision—

			Rs.
(1) One Chief Chemist	..	..	200 per month.
(2) One Assistant Chemist	..	..	100 „
(3) Two mechanics	..	..	80 „
(4) Accounts clerk	—	..	80 „
(5) Two ordinary clerks	..	..	80 „
			<hr/>
		Total	540 „

Daily charges—

18.00

Total costs—

Items.		Investment.	Daily charges.
		Rs.	Rs.
1. Weighing and Receiving	..	600	1.42
2. Washing and cleaning	..	80	3.00
3. Drying	..	600	1.20

APPENDIX V—concl'd.

	Rs.	Rs.
4. Storage	...	3-00
5. Crushing	7,150	10-80
6. Storage for crushed bones	200	1-04
7. Weighing and mixing	3,360	6-01
8. Acid storage	2,600	3-17
9. Dumping	400	0-08
10. Excavation and storage	300	3-11
11. Lands and buildings	7,000	3-06
12. Supervision	...	18-00
13. Sulphuric acid 2-6 tons at Rs. 50 a ton.	...	130-00
14. Bone at Rs. 40 per ton	5 tons	200-00
Total	22,290	382-89

The product from 5 tons of bones would be about 6-6 tons on a theoretical basis. The present market price of superphosphate is about Rs. 76 per ton so that the total sale proceeds will amount to Rs. 426.

CHAPTER VI.

HEAVY CHEMICALS AND SULPHURIC ACID.

In introducing this section, we have taken note of the heavy chemicals at present being imported into the country, both with regard to their quantities and their distribution. We find that amongst these, four items deserve our closest attention and scrutiny, viz.—(1) Acids (including the salts), (2) Alkalies, (3) Fertilisers and (4) Bleaching powder. In the latter two, acids have taken part in some stage of manufacture and as such the manufacture of acids may replace, for the matter of classifications, these two items. Thus in developing a heavy chemical industry, one has to consider the development of the alkali and the acid industries.

We propose, therefore, to examine first the possibilities of developing these two industries in Bihar. Acids are dealt with in this chapter and alkalies in the next.

Acid industry.—As sulphuric acid is the most important of generally required acids, and as on it depends the manufacture of other acids and salts, we give below the position of large-scale manufacture of this acid. It is well known that India, as yet, has no sulphur deposit of her own and the recently discovered pyrites deposit near Simla has not been sufficiently explored to give us the fundamental raw material for the sulphuric acid industry. We mention, however, in this connection that while for the present we are forced to depend upon imported sulphur, the possibility of utilising Indian gypsum and the zinc blende of Burma requires to be explored by a special committee appointed for the purpose. It has come to the notice of the committee, that a good deposit of pyrites also exists in Burma but how far transport facilities would admit of its use should be gone into by the proposed special committee. Whilst recognising this inherent difficulty in building up an independent sulphuric acid industry for the present, pending these inquiries, the committee would like to point out the advantage which the province enjoys in regard to the freight which imported sulphuric acid has to pay. The cost of producing sulphuric acid in Bihar at any reasonable distance from Calcutta, with imported sulphur, will not exceed Rs. 40 per ton of pure sulphuric acid in form of chamber acid (see Appendix VI). This is about Rs. 10 to 12 more than the cost of production of sulphuric acid in European countries. As mentioned before, the freight tends to equalise this difference. India imports today 27,582 tons of sulphur and among 20 sulphuric acid works most of it is consumed. Seeing

that the actual import of sulphuric acid as such is negligible it is clear that the country is manufacturing its sulphuric acid at a competitive rate. The question, therefore, is to trace how much sulphuric acid is indirectly coming into the country in the shape of heavy chemicals like salts and fertilisers. From a reference to the sea-borne trades figures, it would appear that about 60,000 tons of ammonium sulphate, 6,000 tons superphosphate, 232 tons sodium sulphate, 546 tons magnesium sulphate, 1,655 tons of copper sulphate, 205 tons alum and 1,719 tons aluminium sulphate are at present imported. This would correspond to 46,772 tons sulphuric acid per year, besides the quantities that must have been used in the manufacture of these commodities in which sulphuric acid is used but is not present in the finished product. It would be fair, therefore, to assume at least 100,000 tons per year as the requirement of this country, if a self-contained manufacture of a group of heavy chemicals were contemplated. As we have already recommended that amongst the fertilisers ammonium sulphate should be manufactured in Bihar to the extent of 60,000 tons now being imported, for Bihar alone 45,000 tons of sulphuric acid would be required. The location of sulphuric acid plants would depend upon where the coal carbonisation or the synthetic ammonia plants are established and this would involve roughly the expenditure of Rs. 20,00,000 as capital charges (vide Appendix VI).

The committee are of the opinion that to initiate a heavy chemical industry, the establishment of sulphuric acid plant in Bihar, linked up with the manufacture of fertilisers in special and other chemicals in general, is essential. It may also be pointed out that this acid will be required in larger quantities with the development of co-lateral industries, whether in heavy chemicals or in fine chemicals.

A recent development about the problem of sulphur is worthy of serious consideration. In a recent number of the Journal of the Society of Chemical Industry of Great Britain (J. Chem. Soc. Ind. 1939, 58, 163, 707) an article has been published about the recovery of sulphur from coke oven gases. The process is known as the Thylox process and is being successfully worked in the United States of America, Germany and Japan. It has been stated that the cost of recovery of sulphur from gases containing 250—600 grains of sulphurated hydrogen per 100 cu. ft. is 0·09 d. and a ton of sulphur can be produced at 60—80 yens. Bihar coals are somewhat poor in sulphur (about 0·5 per cent). In the case of high temperature carbonisation, almost the whole of the organic sulphur passes out into the

gas and may be recovered. It is not known whether the low temperature carbonisation process will yield a gas equally rich in sulphurated hydrogen or not. When countries like United States of America and Japan with huge sulphur deposits have taken up this process investigation is necessary in this direction for exploring the possibility of recovering the sulphur of Indian coals as India has to depend mainly upon imported sulphur for meeting the demands of heavy chemical industry. Another possible line of development in this direction is to utilise the sulphur dioxide gas produced in the smelting of copper ores at Ghatsila. Quite a large amount of sulphur dioxide, of a dilution suitable for conversion into sulphuric acid by Chamber process is being wasted in this operation. As we have already pointed out in Chapter II about 7,000 tons of sulphur are wasted every year. The utilisation of this sulphur will partly solve the problem of imported sulphur.

The use of sulphuric acid in the manufacture of hydrochloric, nitric, acetic acids, etc., is well known but as the consumption of these acids is as yet low no specific recommendation is made here. As the manufacture of bleaching powder is effected generally now-a-days by chlorine, directly obtained from the electrolytic alkali industry, the use of hydrochloric acid in this direction is not emphasised. The consideration of the manufacture of bleaching powder is, therefore, linked up with the manufacture of caustic soda by the electrolytic method.

The other important heavy chemicals that are at present imported into India are potassium chlorate and potassium dichromate. Potassium chlorate is imported to the extent of 2,000 tons valued at Rs. 9,00,000. We are also importing potassium chloride, 3,000 tons valued at Rs. 2,00,000. Potassium chlorate is manufactured from the chloride by an electrolytic process. With cheap electricity, the manufacture of this commodity would present no great difficulty in the near future.

The import of potassium dichromate is also considerable, 2,400 tons. It is largely used for leather manufacture and match industry. With chromites available in the province, serious attempts must be made to take up this industry by private parties. It must be borne in mind when the manufacture of potassium dichromate is contemplated, that a factory worked for a number of years at Calcutta for the manufacture of this commodity. The quality of the product was excellent but the factory had to be closed down. The causes of failure of Dutt Chemical Works should be thoroughly investigated before a new attempt is made in this direction.

APPENDIX VI

*Estimate for a 10-ton sulphuric acid plant.**(Chamber Process.)*

	Rs.
1. Lead sheets for chambers and towers ..	65,000
2. Building	10,000
3. Wooden frame (for chamber) ...	3,000
4. Coils	1,000
5. Platform	1,000
6. Pumps	2,000
7. Atomiser and compressor..	5,000
8. Cooling tanks	2,000
9. 4 acid tanks on top of towers ...	}
4 acid tanks at the bottom of towers ..	3,200
10. Coolers	2,000
11. Burners	3,000
12. Erection charges	10,000
Total	1,07,000

Monthly expenses.

	Rs.
1. Manager	300 per month.
2. 3 chemists at Rs. 100 each ..	300 " "
3. 3 assistant chemists at Rs. 50 ..	150 " "
4. 9 labourers for sulphur burners at Rs. 30 each	270 " "
5. Coolies (9) at Rs. 20	180 " "
6. Mechanics (3) at Rs. 40..	120 " "
Total	1,320 " "

APPENDIX VI—concl'd.

Raw materials.

	Rs.
30 tons sulphur at Rs. 90 per ton	2,700
0.5 ton sodium nitrate at Rs. 120 per ton ..	60
	<hr/>
Total ..	2,760
	<hr/>

Cost of production of 1 ton of chamber acid, assuming an efficiency of 97 per cent :—

	Rs. a. p.
1. Sulphur—0.33 ton	30 0 0
2. Nitre	0 12 0
3. Labour and overhead charges	4 10 0
4. Depreciation at 7½ per cent on Rs. 1,25,000...	3 2 0
	<hr/>
Total ..	38 8 0
	<hr/>

CHAPTER VII.

ALKALI INDUSTRY.

The alkali industry is one of the legs on which modern civilization stands or runs. No chemical industry can exist on a satisfactory basis in India or in any other country, without the establishment of alkali and sulphuric acid industries. There is no doubt that the manufacture of this chemical is a key industry whose ramifications are very wide and its establishment in India is essential to the expansion of the future home industries.

The oldest process for the manufacture of sodium carbonate is Leblanc process which requires cheap sulphuric acid and common salt for its success. This process is still in use in some parts of the world but has been greatly supplanted by other processes. It cannot be worked successfully in India as we have no source of cheap sulphuric acid. The ammonia soda process in which sulphuric acid is not required has a better chance of success and is said to be operating successfully in Japan.

Caustic soda can be manufactured easily from sodium carbonate by treatment with lime but the bulk of the caustic soda now manufactured in America and Europe is produced electrolytically from aqueous solution of common salt. Chlorine and hydrogen are obtained as bye-products. The former can be utilised for the manufacture of bleaching powder and the latter for the hydrogenation of oil or for other technical purposes. For the establishment of this industry in India the following conditions are necessary :—(1) cheap electricity, (2) common salt, (3) existence of market for the product not too far from the place of manufacture to minimise the cost not only of transport but sometimes also of evaporation as in those industries in which a solution of caustic soda is used it will save the cost of evaporation if the solution produced in the process of manufacture could be used directly, (4) market for the bye-products, viz., bleaching powder or chlorine and hydrogen.

Probably the most dangerous competition which Indian alkali may have to meet is the sodium carbonate from Lake Magadi in East Africa but as the alkali industry is a key industry this competition must be faced.

We understand that a great step forward in the manufacture of alkali in India has already been taken and that in the near

future India may become independent of foreign sources of supply of this important commodity. The Alkali and Chemical Corporation of India, Limited, has recently been constituted as subsidiary to the Imperial Chemical Industries (India), Limited, and is going to manufacture both caustic soda and sodium carbonate. The sodium carbonate plant will be erected at Khewra in Jhelum district in the Punjab and the caustic soda plant in the vicinity of Calcutta. Tata and Sons, Limited, are also said to be contemplating the erection of a plant at Port Okha in Baroda for the manufacture of caustic soda and sodium carbonate. Details are not available but it is said that the company will have an authorised capital of Rs. 5,00,00,000 but only Rs. 1,25,00,000 will be issued at present. The salt required for the manufacture of these chemicals will be obtained from the Okha salt works which the company intends to take over and limestone can be obtained from large and rich deposits in the immediate neighbourhood. It is estimated that this scheme will only meet about $\frac{1}{3}$ rd of the total demand for alkalis in this country leaving $\frac{2}{3}$ rd of the amount consumed to be manufactured elsewhere or imported.

In Madras Presidency the Mettur Chemical and Industrial Corporation has been formed with the object of manufacturing caustic soda, bleaching powder, hydrogen and other chemicals. The company proposes to produce initially $4\frac{1}{2}$ tons of chlorine and 5 tons of caustic soda daily. If all these enterprises succeed, and there is no reason why they should not do so, this crying need of the country will be entirely met and India will soon become self-supporting in this respect.

In Bihar many of the conditions for the success of a large alkali industry are wanting. It is true that on account of cheap coal, electricity can be produced fairly cheap but common salt, the chief raw material, will have to be brought from a distance. Also there is no near market for the finished products. No heavy chemical industry exists in the neighbourhood nor is there a home market for the bleaching powder which will have to be exported to Bengal or the United Provinces. In spite of all these drawbacks the existence of industrial centres like Jamshedpur gives some hope of starting a small alkali industry in the province. This will become more desirable if soap factories, glass factories, tar distilleries and other such industries spring up round the coal-fields as they are bound to do.

One of the arguments against the establishment of alkali industry in Bihar is that the province has to depend upon salt

which must be obtained from Bengal. Even if it is assumed that the railway freight from Calcutta to a suitable site in Bihar will come up to four annas per maund or Rs. 7 per ton, yet the province has an advantage in having deposits of limestone within its boundary. The Calcutta figures for the electrolytic manufacture of caustic soda and bleaching powder are as follows :—

For a plant of 3 tons of caustic soda and $7\frac{1}{2}$ tons of bleaching powder per day —

	Rs.
Salt—5.7 tons at Rs. 15 per ton	86
Lime—5.25 tons at Rs. 20 per ton	105
	<hr/>
	191
	<hr/>

In Bihar, near limestone deposits the figures would be as follows :—

	Rs.
Salt—5.7 tons at Rs. 15 per ton	86
Freight at Rs. 7 per ton	39.5
Lime at Rs. 10	52.5
	<hr/>
	178
	<hr/>

So that even with imported salt the industry will not be at a great disadvantage when considering the price of raw materials alone. If the possibility of generating electric power at a very much cheaper rate in Bihar is taken into consideration, then the prospects of the industry will become still more hopeful. It must also be taken into consideration that a saving in railway freight will be effected for supplying the finished products to dealers within the province and in the neighbouring provinces like United Provinces and Central Provinces.

An estimate for a 3-ton caustic soda and 7.5-ton bleaching powder plant with daily approximate cost of production is given in appendix VII(a).

SOLVAY SODA OR AMMONIA SODA PROCESS FOR THE MANUFACTURE OF SODIUM CARBONATE.

The manufacture of sodium carbonate by this process occupies to-day a predominant position in chemical industries. From an insignificant beginning in 1865, 100 tons per annum, the annual output at the present time, exceeds 300,000 tons. This industry has practically driven Leblanc soda out of the market but it is itself challenged by two serious rivals, the electrolytic method of manufacture of caustic soda and the vast deposits of soda near Lake Magadi in British East Africa. Soda is largely causticised by lime and if the electrolytic process can produce caustic soda at a sufficiently cheap price the industry will certainly suffer to a great extent. The large deposits of soda in British East Africa will certainly play a very important part in this industry, when the factories for working it are fully equipped but seeing that the crude soda has to be carried to the sea-ports at a distance it may be expected that the price will not be very much lower than the Solvay soda.

The only serious attempt that was made in India for the manufacture of soda by this process was at Kathiawar. It is said that the failure of the undertaking was probably due to the plant being far from up-to-date. We understand that there is a proposal to start a solvay soda factory in South Bengal. An American firm is prepared to supply the necessary plants for the production of 10 tons of sodium carbonate per day at a cost of Rs. 6,00,000. The firm in question will supply the technical men necessary for starting the plant, with the guarantee of production of 10 tons a day on the condition that they will receive a royalty of Rs. 5 for every ton of soda manufactured during the first seven years. Fuller details are not available.

A scheme for a 60-ton plant for carbonate of soda by the Solvay process is given in appendix VII(b). As we have remarked in the introduction to this report these figures are given merely for the purpose of illustration. Considering the progress which is reported to have been made recently in the schemes for the manufacture of soda in India any special efforts on the part of the Government of Bihar to establish soda industry in the province is perhaps not necessary. The matter may be left to private enterprise assisted by such aid which Government may be able to give under the Aids to Industries Act.

APPENDIX VII(a).

Estimate for 3-ton caustic soda and 7½-ton bleaching powder plant.

	Ra.
I. Cost of machinery	3,33,000
(a) D. C. power plant	80,000
(b) Cells with accessories	1,08,000
(c) Evaporating plant	40,000
(d) Lime slaking plant	15,000
(e) Bleaching power plant	65,000
(f) Melting plant	5,000
(g) Filter press, pumps	5,000
(h) Boiler plant	5,000
(i) Transport, elevators, etc.	10,000
(j) Building and erection cost	1,00,000
(k) Working capital	1,00,000,

Production cost of a 3-ton capacity caustic soda plant and 7½-ton capacity bleaching powder plant for 24 hours :—

	Ra.	a	p.
(1) Power—	196	0	0
4,170 K.W.H. per ton of caustic soda per day— $3 \times 4,170$ or 12,500 K.W.H. at 0.25 anna per K.W.H.			
(2) Salt—	86	0	0
1.9 tons of salt per ton of caustic soda— 3×1.9 or 5.7 tons at Ra. 15 per ton.			
(3) Lime—	105	0	0
0.70 tons per ton of bleaching powder— 0.7×7.5 or 5.25 tons at Ra. 20 per ton.			
(4) Coal—	42	0	0
2 tons per ton of caustic soda— 2×3 or 6 tons at Ra. 7 per ton.			
(5) Labour—	33	0	0
14 unskilled labour per shift at Ra. 15 per month. 6 skilled labour per shift at Ra. 20 per month.			

APPENDIX VII(a)—*contd.*

	Rs.	a.	p.
(6) Overhead charges—	50	0	0
1 foreman per shift at Rs. 40 per month.			
1 Electrician per shift at Rs. 40 per month.			
1 Mechanic per shift at Rs. 40 per month.			
1 Chemist per shift at Rs. 150 per month.			
1 Laboratory boy per shift at Rs. 10 per month.			
1 Engineer at Rs. 150 per month.			
1 Manager at Rs. 300 per month.			
1 clerk at Rs. 40 per month.			
1 stenographer at Rs. 30 per month.			
1 office boy at Rs. 10 per month.			
2 watchmen at Rs. 15 per month each.			
(7) Renewals and maintenance— ..	55	0	0
	Rs.		
Electrolyser	20		
Evaporating plant	10		
Melting	5		
Bleach plant	15		
Pipe line	5		
(8) Packing—			
210 drums of 1 cwt. at Rs. 1 per drum.	210		
(9) Depreciation—			
Machinery Rs. 3,33,000 at 10 per cent.			
Building Rs. 1,00,000 at 3 per cent.			
(10) Interest—	17	0	0
Running capital Rs. 1,00,000 at 5 per cent.			
(11) Insurance, etc.	6	0	0
Machinery Rs. 3,33,000 at 0.5 per cent.			

APPENDIX VII(a)—concl'd.

	Rs.
Yield per year—	
900 tons of caustic soda at Rs. 240 per ton ..	2,16,000
2,250 tons of bleaching powder at Rs. 120 per ton.	2,70,000
	<hr/> 4,86,000 <hr/>
Total cost per year	3,11,560
Cost of production per year	2,76,000
Selling cost	35,260
	<hr/> 3,11,560 <hr/>
Net income	1,74,440 <hr/>

APPENDIX VII (b).

Scheme for a 60-ton plant for carbonate of soda by the Solvay process.

	Rs.
Machinery	12,00,000.
Duty, freight, insurance, etc., on machinery at 20 per cent.	2,40,000.
Cost of land	2,40,000
Building and quarters	3,25,000
Working capital	3,30,000
Factor of safety at 5 per cent	1,21,750
	24,56,750

Cost of production per ton of soda ash.

	Rs.	a.	p.
Salt at Rs. 15 per ton 1.6 ton	25	0	0
Limestone at Rs. 7 per ton 1.3 ton	9	2	0
Coal at Rs. 7 per ton 0.5 tons	3	8	0
Coke at Rs. 12 per ton 0.13 ton	1	9	0
Ammonium sulphate at Rs. 7 per cwt.	1	14	0
Bags 20, 1 cwt. capacity	4	4	0
Power 225 K. W. H. at 0.5 anna per K. W. H.	7	1	0
Labour	5	0	0
Technical management	1	8	0
Depreciation	8	8	0
	Rs.	a.	p.
10 per cent on machinery	8	0	0
3 per cent on buildings	0	8	0
	8	8	0
Repairs	1	0	0
Insurance	0	4	0
Sales and office	1	0	0
Factor of safety at 5 per cent	3	5	4
Total	72	15	4

APPENDIX VII(b)—*concl'd.*

RECEIPTS.		EXPENDITURE.	
			Rs.
Proceeds from sale	$360 \times 60 \times 20$	Cost of production	$360 \times$
$\times 5.9 =$	Rs. 25,60,000.	60×73	.. 15,76,800
		Management and sales	
		expenses	.. 28,000
			17,04,800
			Rs.
Profit	..	25,60,000	
		17,04,800	
		7,55,200	

CHAPTER VIII.

GLASS INDUSTRY FOR BIHAR.

As we have already stated in the Introduction, Bihar is a suitable place for the establishment of glass industry on a provincial basis. By this we mean that although some of the raw materials, specially alkalis, are not available in Bihar yet on account of the cheapness of certain raw materials, specially coal, it would be possible to start this industry on a scale which will readily supply most of the local needs at competitive prices.

In India there has been a great development in the glass industry during the last 30 years, and at present this country is said to be producing glass goods worth about 75 lakhs of rupees annually. The two chief centres of production are United Provinces and Bengal, but in spite of the development of this industry, large amounts of glass goods worth about 125 lakhs of rupees is imported annually. The details of the import are given below :—

Name of the article.	1934-35.	1935-36.	1936-37.
	Rs.	Rs.	Rs.
1. Bangles ..	31,00,000	27,00,000	28,00,000
2. Beads and false pearls	13,00,000	15,30,000	12,15,000
3. (a) Bottles (soda-water)	5,67,000	8,12,000	5,44,000
(b) Bottles (other-types)	19,14,000	22,10,000	18,11,000
Total ..	1,25,00,000	1,31,00,000	1,19,00,000

In the year 1936-37 goods worth Rs. 62,38,325 were imported from Japan, Rs. 19,71,960 from Czechoslovakia Rs. 15,72,457 from Germany, Rs. 12,54,279 from Belgium and

Rs. 10,00,952 from United Kingdom. In 1937-38 Bihar imported 84,000 maunds of glass whereas only 8,000 maunds were exported. These figures clearly show that there is a great scope for further development of this industry in India. A study of the import list of these articles reveals that they can be divided into two groups :—

- (a) Goods such as bottles and phials which can very easily be manufactured in the existing glass factories of the country. But Japanese competition stands in the way the price of the Japan-made bottles being lower than those manufactured in the country. As regards sheet glass it also is being manufactured at Bahjoi in the United Provinces but due to hard Japanese competition, the market for the products are limited.
- (b) Goods of special type which require high technique and skill such as the optical and chemical glass-wares, which have not been manufactured in India up till now.

The only way to produce in India articles belonging to group (a) is to try to cut down the cost of their manufacture so that it may be possible for them to find a market against Japanese competition. As regards the manufacture of articles of group (b) it will require a certain amount of local investigation and the introduction of new technique.

As pointed out in the beginning, the present glass industry of India is concentrated in the United Provinces and Calcutta. The chief raw materials required for the manufacture of glass are sand, lime and soda which form the main constituents of the mixture which is melted to produce glass. In order to melt this mixture coal is required. The third item of cost after batch and fuel is refractories (heat-resisting materials) which are used for constructing pots and furnaces for melting glass.

At present, the chief locality of glass sand production is Bargarh at a distance of 30 miles south of Allahabad. Sand from this locality is being sent to western United Provinces, a distance of about 350 miles and to Calcutta, a distance of about 500 miles. Thus sand which costs at Bargarh Rs. 0-2-0 per maund, costs in western United Provinces about Rs. 0-6-0 and at Calcutta Rs. 0-8-0 per maund. Most of the lime used in glass

manufacture is imported from Katni which is about 400 and 600 miles respectively from western United Provinces and Calcutta. Soda is imported from England and distributed to all the northern Indian towns from Calcutta. As regards coal it is being supplied from Bihar coal-fields to glass factories, both in the United Provinces and Calcutta. The refractories, firebricks, blocks, etc., are also supplied to these centres of glass production from the coal-fields of Bihar where there is a well developed industry in refractory materials.

In order to prepare one maund of melted glass we require about 28 seers of sand, 13 seers of soda and 4 seers of lime; fuel consumption is about two maunds of coal. Unfortunately the present glass-manufacturing centres are situated at fairly long distances from the localities where raw materials are available, as indicated before. Moreover, the manufactured goods instead of being consumed in the local markets are sent to far off centres up to a distance of 1,000 miles. Under these conditions the price of the glass goods is bound to be high and it is no wonder that the present glass industry is unable to compete with Japan. For Calcutta, although coal is comparatively near, all the other raw materials have to be obtained from a distance of 500 miles or more.

From the different proportions of the raw materials required to prepare one maund of glass it is clear that the requirement of coal is highest in amount being double the weight of melted glass. Thus it is obvious that the cost of coal will be a very important factor in determining the cost of manufactured glass. The cost of these two maunds of coal in western United Provinces factories amounts to Re. 1, at Calcutta Rs. 0-10-0, while in the coal-fields of Bihar it would be Rs. 0-5-0 only.

A detailed survey of the raw materials for the manufacture of glass in Bihar, carried out by one of us (Dr. V. S. Dubey) showed that within 50 miles of different coal-fields, quartz, quartzite and sand-stone are found which are suitable for being turned into glass sand while good quality limestone also occurs within 100 miles. As regards soda, it is obtained from England and has almost the same cost at different localities in India.

Thus we see that the total cost of raw materials and fuel is the least at the coal-fields as compared with any other part of India. The following table represents the comparative cost

of different raw materials and of one maund of melted glass at different centres of the country.

Locality,	Sand 30 seers.	Lime 4 seers or limestone 7 seers.	Soda 13 seers.	Other chemicals required in small amount.	Coal 2 maunds or crude oil 5 maunds.	Total.
1	2	3	4	5	6	7
	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
1. Western United Provinces ...	0 4 6	0 1 6 lime.	1 5 0	0 2 0	1 0 0 coal.	2 13 6
2. Calcutta ...	0 6 0 at present.	0 1 6 lime.	1 3 0	0 2 0	0 10 0 coal.	2 6 6
3. Coals-fields of Bihar ...	0 2 0	0 0 6 limestone.	1 4 0	0 2 0	0 4 0 coal.	1 12 6
4. Bombay ...	0 6 0	0 1 0 lime.	1 3 0	0 2 6	1 6 0 coal. 0 13 0 crude oil.	3 4 0 coal. 3 3 0 crude oil.
5. Madras ...	0 2 0	0 0 6 limestone.	1 3 0	0 2 0	1 4 0 coal. 0 12 0 crude oil.	2 11 6 coal. 3 3 6 crude oil.

Besides the raw materials and fuels the other items of cost in the glass manufacture are the refractories and the labour for making finished articles from molten glass. The cost of refractory per maund of glass depends on the location and the size of the plant. The chief centres of production of refractories in India are the coal-fields where naturally they are cheapest. The cost of refractories, pots, etc. to the western United Provinces glass manufacturer using pot furnaces amounts to Rs. 0-4-0 per maund of glass melted and for a tank furnace, about Rs. 0-2-6 per maund, but if the glass industry is started on a large scale with tank furnaces in Bihar coal-fields, the cost of refractories will amount to about Rs. 0-2-0 per maund as they are the cheapest there.

As regards other items of cost of production, that is the charges for turning the molten glass into finished goods, a good deal depends on the method of working, namely, (1) mouth blowing, (2) automatic machine blowing and (3) semi-automatic machine blowing. It is not possible to enter into the details of their respective costs, but it may suffice here to say that the average cost of mouth blowing will be about Rs. 0-12-0 per maund, while in the case of automatic machinery, producing large amount of goods, the cost of making finished articles from molten

glass may amount to Rs. 0-6-0 per maund, while from semi-automatic machinery, it will amount to Rs. 0-8-0 per maund. This cost of turning out finished articles from molten glass by different devices will not vary with the locality but on the whole will be slightly cheaper in the coal-fields due to the low cost of power.

As regards the manufacture of sheet glass there are well standardised automatic machines and there is no question of alternative methods of working. But naturally the production cost will be the least in the coal-fields as the power is cheapest there. From all these considerations it is clear that the cost of production will be the least in the coal-fields and if there is any chance of competing with Japan with regard to bottles and sheet glass it is possible only if the industry is established near the Bihar coal-fields. The details of the cost of production and the question of competition with Japan have been further discussed later on.

The cost of manufacture of bottle and sheet glass at the coal-fields of Bihar.

Before working out the cost of manufacture it is essential to decide about the size of the plant because to a great extent the cost of manufacture will depend upon it. In deciding about the size of the plant one may assume that in the beginning the aim of the Bihar factory will be to replace the import of the Japanese bottles from Calcutta port and the factory should cater for the market which is being supplied from Calcutta port at present. The import list shows that Calcutta imports bottles and phials up to the extent of about seven lakhs of rupees and assuming an average price of Rs. 150 a ton, the import at Calcutta port amounts to about 5,000 tons a year. So the size of Bihar bottle plant should be about 10 tons a day. The plant should be so designed that it should manufacture 10 tons of bottles a day economically. Besides this bottle plant there ought to be a sheet glass plant as it is impossible for the present factory at Bahjoi to compete with Japan in this line. As regards the size of sheet glass plant in the beginning it should also cater for the needs of Bengal and Bihar. In the case of sheet glass the import figures are not clear as in the list of imports, sheet and plate glass are given together. The import of sheet and plate glass at the Calcutta port amounts to about Rs. 6½ lakhs a year weighing about 5,000 tons and if out of this 90 per cent be assumed to be sheet glass and 10 per cent plate glass, the import of sheet glass will be about 4,500 tons a year. So for the sheet

glass also we ought to have a plant manufacturing 10 tons a day. Therefore, the size of both sheet glass and bottle plant should be on an average 10 tons a day each. It is not possible here to go into details about the cost of the plant but the capital required including building will be of the order of about 8 lakhs while three lakhs may be required as working expenses. Thus a total sum of approximately 10 lakhs will be adequate for starting this industry.

Cost of manufacture of bottle, glass, etc., capacity of the plant being assumed as 10 tons per day.

	Rs.
The cost of 12.2 tons of batch at Rs. 1-6-0 per maund	460
Cost of 20 tons of coal at Rs. 4 per ton ..	80
Electric power 50 H. P. at 6 pies per unit ..	30
Bottle-making charges at Rs. 14 a ton including labour	140
Repairs and maintenance of furnace, etc., at Rs. 12,000 a year or per day	35
Mould repairs and maintenance at Rs. 7,000 a year or per day	20
Fixed costs—	
Salaries of technical staff Rs. 100 per day (Rs. 50 to be debited to bottle plant)	50
General administrative expenses Rs. 50 a day (Rs. 25 to be debited to bottle plant) ...	25
Depreciation and interest at 15 per cent on Rs. 3,45,000 per day	150
Packing charges at Rs. 0-8-0 a maund ..	140
	1,125

Therefore the total cost of 10 tons of glass bottles manufactured per day amounts to Rs. 1,125. So that the cost of bottles packed for delivery works out on an average Rs. 4 per maund. The cost of Japanese bottles at Calcutta port never amounted to less than Rs. 5. So if we sell our bottles at Rs. 4-12-0 for northern Indian markets and Rs. 4-8-0 for the Calcutta we can successfully compete with Japan. Assuming the selling price on average of Rs. 4-10-0 at the factory we get a margin of Rs. 0-10-0 per maund or Rs. 18 a ton or about Rs. 180 per day or

about Rs. 63,000 per year over and above the 6 per cent interest charged, in the calculation of the cost. Thus the total profit works out to be about Rs. 90,000 or so a year. With this rate of selling at Rs. 4-14-0 a maund it is possible to compete with Japan successfully and if the whole thing works in an efficient manner it should be possible to displace the import of Japanese glass bottles firstly from northern India and then from Madras and Bombay.

Cost of manufacture of sheet glass, capacity of the plant being assumed as 10 tons per day.

	Rs.
Cost of 12.2 tons of batch at Re. 1-6-0 per maund	460
Cost of coal 15 tons at Rs. 4 per ton ..	60
Electric power 80 H. P. at 6 pies per unit ..	50
Plate machine expenses including labour per day ..	100
Repairs and maintenance of plant per day ..	50
Repairs and maintenance of the furnace ..	100
Salaries of technical staff per day ..	100
General administrative staff per day ..	75
Interest (6 per cent) and depreciation (9 per cent) at 15 per cent on Rs. 4,00,000.	170
Packing charges	130
	1,245

Say about Rs. 1,250 per day which is for producing 10 tons of goods.

The above figures correspond to a cost of Rs. 4-8-0 per maund of glass produced. The lowest price of the Japanese plate glass is about Rs. 5 per maund. So, if our plate glass obtains a price of about Rs. 5 a maund we can make a profit of about Rs. 140 per day or annually about Rs. 59,000 over 6 per cent interest. Therefore including the interest the profits amount to about Rs. 83,800 which works out to be about 17 per cent on an investment of 5 lakhs (including one lakh running capital).

SUMMARY.

From the details of cost of manufacture it is clear that if this industry is started at the coal-fields in Bihar there is a good chance of competing successfully with Japan. The first thing to be decided is about the exact location of the industry. There are several coal-fields in the province where most of the raw materials are available in the neighbourhood. It will require a very detailed study to select the best place. The locality should be such that besides coal it should have as many raw materials as possible occurring in the vicinity. It should also be near the places where packing materials are available as also the market. In order to decide all these questions it will be essential to set up a committee of experts to visit the different centres to make a detailed study of the advantages offered by the respective localities. After this the size of the plant should be definitely decided upon. This can be done only after critically investigating the market condition including the question of competition.

As regards finance it would require about Rs. 10,00,000 of capital. For suggestions for raising this amount see Chapter I.

Porcelain industry.

The chief raw materials for ceramics are china clay, quartz and felspar. China clay is found in large quantities in Rajmahal hills and also in Singhbhum. In both these places it is associated with quartz and felspar deposits, the other essential raw material, coal, of fairly good quality is also available at a comparatively cheap price. The close association of the raw material and fuel ought to have given a great impetus to the porcelain industry in the province but unfortunately no porcelain factory has yet been established in Bihar although India imported earthenware and porcelain goods to the value of Rs. 47,81,011 in 1937-38. It is regretted that it has not been possible to frame any estimates of cost and machinery required for this industry but a fairly good-sized factory will require a capital of the order of 5 lakhs of rupees.

Refractories.

The common refractory materials are fire-clay, kyanite, silica, graphite, magnesite, etc. With the exception of the last one, magnesite, all the others are found in abundance in Bihar. Fire-clay found in coal seams, is being utilised for the manufacture of fire-bricks for which Bihar along with Bengal holds the

monopoly. But unfortunately kyanite, which is found near Ghatshila and in the Kharsawan State is being exported at a cheap rate. Attempts should be made to prepare kyanite-sillimanite refractories in the province, which are undoubtedly better than fire-clay refractories. Graphite, which is used in large quantities for the manufacture of crucibles, is not being utilised within the province. The question of the manufacture of bauxite refractories requires careful consideration. Bauxite, as mined, contains a large quantity of combined water and shrinks considerably on heating to ordinary ranges of firing temperatures for refractories. If it is possible to heat bauxite up to 1500°—1600°C, an alteration in the physical structure takes place, so that bricks manufactured from this ignited material, do not exhibit any shrinkage and are ideal for basic furnace linings. But at present, the cost of heating bauxite to 1600°C is prohibitive and hence the industry has not been taken in hand by any manufacturer.

CHAPTER IX.

PULP, PAPER AND CARD-BOARD MANUFACTURE.

We attach great importance to the establishment of pulp, paper and card-board industry within the province. Its establishment will benefit practically every industry specially a number of cottage industries. Almost anything sold these days requires paper either for packing, wrapping, labels, advertisement or at least for account keeping. On the successful manufacture of paper pulp will depend the establishment, at a later date, of such an important industry as the artificial silk industry. Paper pulp industry is truly a key industry and every effort should be made to make the province self-sufficient in this respect. We understand that Messrs. Dalmia have started the manufacture of paper and paper pulp at Dehri-on-Sone. In the opinion of the Committee this is a very desirable undertaking and deserves to be encouraged. But the manufacture must be conducted on modern lines and under proper technical control.

Although there are a number of paper mills working in the different provinces of India, the consumption of paper in India is beyond the capacity of the existing factories and a very large quantity of paper has to be imported every year.

	Import of paper in cwt.		Price in rupees.	
	1935-36.	1936-37.	1935-36.	1936-37.
1	2	3	4	5
			Rs.	Rs.
Packing and wrapping paper.	405,495	364,146	53,01,635	48,05,959
Printing paper (machine glazed poster paper).	33,646	28,062	4,36,479	3,66,641
News printing ..	686,555	734,961	52,44,990	52,99,242
Writing paper ..	147,233	156,486	34,71,153	33,59,888

The cheaper varieties of paper for news print, etc., are made from raw materials which are found in abundance in Bihar. The available quantity of sabai grass and bamboo in Bihar is considerable.

Sabai grass—100,000 maunds per year.

Bamboo—Considerable but quantity not known.

16,000 maunds of sabai grass are used locally for rope-making the remainder being sold outside the province. Similarly in the case of bamboo, after meeting the local demand for building houses for the poorer classes, the excess is exported. The cultivation of sabai grass and bamboo should be encouraged and further suitable areas should be planted under the directions of the Forest Department. A number of paper mills near Calcutta, are manufacturing pulp from bamboo by digestion with caustic soda and there is no reason why the same process should not be successfully worked in Bihar.

A difficulty that is being experienced in this process is the recovery of caustic soda. Bamboo, as is well known, contains a fair quantity of silica and during alkaline digestion this is converted into sodium silicate which brings about considerable difficulty in the recovery of soda from the waste liquors.

The other essentials for a paper factory are filling and sizing materials and the cheap supply of electric power for the manufacture of chlorine. The former are found in abundance in Bihar and when the Electrification Scheme comes into operation, a cheap supply of electricity will also be available. As all the raw materials are available in the province, the question of starting paper factories ought to be taken up seriously by the industrial men of the province.

The cost of machinery for a bamboo pulp and paper mill of 5 tons capacity for 24 hours is given in the appendix.

APPENDIX IX.

Estimate for a paper mill of 5 tons capacity per day.

	Rs.
1. Bamboo crusher, conveyer, autoclaves for digestion, etc.	1,02,500
2. Mixing chest, strainer, pumps, fittings, etc. ..	14,400
3. Paper making machine	1,06,400
4. Re-winder, slitter, cutters, etc.	5,600
5. Accessories to paper machine	4,200
6. Erection charges	52,500
7. Bleaching liquor plant	1,00,000
8. Caustic recovery plant	75,000
9. Boiler	20,000
10. Power plant	50,000
11. Buildings and sheds	25,000
	<hr/>
	5,55,600
12. Working capital	2,00,000
	<hr/>
Total	7,55,600

Cost of production of a ton of bleached bamboo pulp paper. 1 ton of paper (90 per cent pulp 10 per cent filler.)

	Rs.
Pulp	127-65
Bleaching powder 200 lbs. at Rs. 120 per ton ..	12-5
Sizing materials and chemicals	12-0
Coal 2-5 tons at Rs. 8 a ton	20-0
Labour	20-0
Repairs	10-0
Packing	20-0
Overhead charges	10-0
Depreciation on machinery	15-0
Depreciation on buildings	1-7
Interest on working capital	20-0
Insurance	5-0
	<hr/>
Total	272-35 per ton.

The average price of this type of paper is about Rs. 400 per ton, so that there is ample margin of profit for the undertaking.

CHAPTER X.

THE MANUFACTURE OF ARTIFICIAL SILK IN INDIA.

In our opinion the establishment of the artificial silk industry must follow and not precede the establishment of heavy chemical and ordinary paper pulp industry. We, therefore, do not recommend that Government should examine the possibility of this industry any further at present. The following note, however, is added in case Government desire to have further information on the subject :—

At present for the manufacture of artificial silk, two principal processes, viz., the viscose process and the acetate process, are in use. The main materials required for these processes are many and only a few of these are manufactured in India. These processes are of high technical complexity and require for their successful exploitation, a range of raw materials of high quality as well as skilled and experienced technical staff and costly plants.

For the viscose process sulphites for the preparation of wood pulp, carbon bisulphide and sulphuric acid for the actual artificial silk process and other auxiliary materials are required. It appears that India and specially Bihar, may in future become a supplier of artificial silk if it is found practicable to utilise the deposits of pyrites in Bihar or in the neighbouring state of Nepal for the extraction of sulphur for use in the manufacture of carbon disulphide. In the absence of cotton linters of standard quality it may be found possible to employ soft woods like spruce and silver fir found in the Himalayas for the manufacture of wood pulp. But all this will require extensive research and investigation.

As regards raw materials for the acetate process, the position is no more attractive since no acetic acid, acetone or acetic anhydride are at present being manufactured in this country. Molasses from sugar factories may become the source of these important chemicals. Here again Bihar occupies a very favourable position as she has a large surplus of molasses from sugar factories.

The above two processes for the manufacture of artificial silk are well known and standardised and there is no necessity for a pilot plant to be installed in India simply for the purpose of demonstrating that artificial silk can be made. Pilot plants are desirable however for investigating the suitability and economics of the manufacture of high grade cellulose from various grades of cotton linters and from wood. The question

then arises as to what should be regarded as a suitable size of pilot plant for this purpose. The pulping plant of the Titaghar Paper Mills, Calcutta, for the production of bamboo pulp is of interest in this connection as the average size of the pulping digestors installed by this firm is of 5 tons capacity, i.e., five tons per charge which is quite normal for this type of plant. A plant of 1-10th this capacity would provide a suitable pilot plant for our purpose. Similarly a pilot plant to investigate the possibilities of producing chemical cotton should have a capacity of say 800 lbs. (2 bales).

As regards the availability of other raw materials the present position is as follows :—

Materials in use in the principal manufacturing countries for production of artificial silk by the Viscose process :—

Raw materials.

Cellulose (chemical wood pulp and chemical cotton).

Caustic soda.

Carbon bisulphide.

Sulphuric acid.

Auxiliary materials.

Glucose and sizing materials.

Sodium sulphate.

Zinc sulphate.

Sodium hypochlorite.

Hydrochloric acid.

Sodium carbonate (soda ash).

Softening oils.

Dyes.

We have already indicated that chemical wood pulp and chemical cotton are not produced in India at present. Caustic soda also is not produced in sufficient quantity but as we have already mentioned there is good prospect of this difficulty being solved in the near future. Carbon bisulphide is not manufactured in India, but as indicated before it may be manufactured where pyrites or other sources of sulphur are available. Sulphuric acid is manufactured in India from imported sulphur.

As regards the auxiliary materials suitable glucose or other sizing material is not at present produced in India, but there

should be no difficulty in their preparation once the heavy chemical industries are safely established. Zinc sulphate, sodium hypochlorite, softening oils, and suitable dyes are not produced in India, but their manufacture also is governed by the same consideration of establishment of heavy chemical industry. Sodium sulphate (Glauber salt) and hydrochloric acid are produced in India but with the aid of imported sulphur. Sodium carbonate (soda ash) is not at present produced in India but will shortly be manufactured here by Messrs. Imperial Chemical Industries. Dyes of the types in general use are not manufactured in India. Indigenous dyes might be suitable but this would require lengthy and intensive investigation.

Materials used in the principal manufacturing countries for production of artificial silk by the acetate process.

Main materials.

Cellulose (chemical cotton).

Acetic acid.

Acetic anhydride.

Acetone.

Auxiliary materials.

Sulphuric acid.

Sodium carbonate (soda ash).

Sodium acetate.

Softening oils and sizing materials.

Dyes (Special dyes).

Acetic acid, acetic anhydride and acetone are not produced in India. Their production from molasses will require the setting up of new factories. Sulphuric acid is available though as mentioned above, this is manufactured from imported sulphur. Sodium carbonate, i.e. soda ash, will shortly be manufactured in India by Messrs. Imperial Chemical Industries and possibly also by Messrs. Tata and Sons, Limited. Sodium acetate is not at present manufactured in the country but this will be readily possible when soda ash and acetic acid are available. Suitable softening oils and sizing materials are not at present produced here but there is no inherent difficulty in their production. The dyes required in the case of this process are of a highly specialised type such as the Solacet range of Azo dyes developed by Messrs. Imperial Chemical Industries, and are not manufactured in India.

From the above it is evident that an artificial silk industry set up in India at present would be dependent upon a large number of imported raw materials. It is consequently desirable that every thing should be done to develop the production of the necessary raw materials which are not manufactured in India and which have been specified above. The most important of these are alkalies, sulphuric acid, acetic acid and coal tar dyes. For the present, therefore, the artificial silk industry cannot be regarded as a feasible industry in this province but one which is potentially a possible industry and which it is desirable to establish in not too distant future.

Import of camphor.

Celluloid is a solid prepared by subjecting pyroxylin, a nitrated cellulose with 11—12% Nitrogen camphor and other substances which act as stabilizers, to hydraulic pressure. The import figures of celluloid are not available but that of camphor is given below :—

Import of camphor.

In lbs.		Rs.	
1935-36.	1936-37.	1935-36.	1936-37.
2,207,386	1,868,011	22,41,510	21,24,856

As stated before, pyroxylin is a nitro-cellulose and consequently an explosive. Although there are no technical difficulties in its preparation yet proper safeguard must be introduced to prevent its manufacture, distribution and use by authorised firms or individuals. Camphor, the other essential constituent, can be made from Indian turpentine but there is no factory where this has yet been attempted.

The method of preparation consists of mixing moist pyroxylin with powdered camphor, sprinkling alcohol on the mixture and kneading at a temperature below 35° C for several hours. The resulting mass is soft and by the application of hydraulic pressure it is formed into sheets, rods or blocks. Pigments are incorporated during the kneading, zinc oxide giving a white body resembling ivory. For transparent celluloid urea is used as a stabilizer. Camphor not only plasticises pyroxylin but removes its explosive nature. This industry also is not feasible in the province under the present conditions and must wait until the artificial silk industry has been established so that large quantities of suitable cellulose becomes readily available.

CHAPTER XI.

BELTING FOR MACHINERY.

The manufacture of beltings for machines is one of great importance for every country where machines are used in large numbers for manufacturing processes. The import prices of beltings during the last two years are given below :—

1935-36.

1936-37.

Rs. 53,51,072

Rs. 45,95,033

The imported materials are usually made from the following sources :—

1. Cotton:
2. Hair.
3. Leather.
4. Other materials.

There are two belting manufacturing factories near Calcutta—(1) Messrs. Bengal Belting Works, Ltd., (2) Messrs. Birkmyre Bros. A third is in course of construction. During the visit of our Secretary the factory of Messrs. Birkmyre Bros. was not working but from the discussion he had with the various firms the following points were brought to light :—

(1) Messrs. Bengal Belting Works, Ltd., with a capital of Rs. 3,00,000 is now turning out belting to the value of Rs. 3,50,000 per year, working one shift per day. With double shifts the output may be raised to Rs. 7,00,000 per year. This firm is manufacturing beltings of the following varieties :—

(a) Cotton—mainly brought from Cawnpur, (b) hair from imported Australian wool, (c) flax—the yarns being imported from England, (d) silk—from Assam silk. Canvas and hose pipes of various sizes are also being manufactured in the factory.

(2) Messrs. Birkmyre Bros. The output of their factory is Rs. 10,00,000 per year. It is said that they have to close down because of the unfair competition of imported materials.

It was pointed out to our Secretary that although the jute mills of Calcutta and the cotton mills of Bombay are virtually enjoying a protection from the Government of India very few of them are using beltings manufactured in the country. As the

total production of these two factories near Calcutta working two shifts per day may come up to Rs. 34,00,000 the country might be independent of foreign supply if proper protection is given to this infant industry with the understanding that unless the price of raw materials exceeds the present figures the price of beltings manufactured by them will not be allowed to be enhanced. The establishment of any new belting factory for Bihar need not be considered at present unless the demand increases beyond the production capacity of the existing firms. This is extremely unlikely as the modern tendency of machine manufacture is to dispense with belting drive and to provide individual motors as the regulation of speed and the facility of working are greater with this form of driving.

It is very probable that the quality of the Indian produced beltings requires to be further improved so as to appeal to those users who are at present using imported materials.

THE BENGAL BELTING WORKS, LIMITED, SERAMPORE.

Weaving shed :—

- 5 looms to make 7" to 10" belts.
- 1 loom to make 12" to 24" belts.
- 12 looms to make 4" to 6" belts.
- 1 loom to make Listing.
- 14 looms to make $\frac{3}{4}$ " to 4" belts.
- 2 looms to make Hose Pipe.

Monthly production at present is Rs. 25,000 per single shift. On double shift the production may reach Rs. 1,00,000 worth of Belting and Hose Pipe.

Preparatory shed :—

- 3 Re-winding machines.
- 3 Beaming machines.
- 1 Big Beamer.
- 2 Twisting machines. 1 more Twisting machine under construction.
- 1 Cheese Winder.

CHAPTER XII.

OIL INDUSTRY.

As we have already stated elsewhere the local crushing of oil seeds deserves to be encouraged because when seed is exported the oil cake which is an excellent manure and contains both nitrogen and phosphorus is lost to the province. There are very few sources of phosphorus in India and the conservation of this element is most desirable. A reference may be made in this connection to Chapter V dealing with phosphatic manures.

There are 31 oil mills in this province all of which are equipped primarily for crushing mustard but all of them crush a certain amount of linseed and *serguja*. Almost all these mills work on the system of power-driven rotary *ghanis*, only some of the mills having expellers. As far as can be ascertained the number of rotary *ghanis* is about 3,000 and the number of expellers 30. The industry is concentrated in the towns situated along the south bank of the Ganges, mainly because of the facilities afforded by cheap river transport. There are still thousands of old fashioned village *ghanis* in use, although their number is fast decreasing under the pressure of competition from power-mills.

Oil seed crushing industry is recognised to be one of the important industries of the country. The import of different classes of oils is not insignificant.

Import in gallons.

—	1935-36.	1936-37.	1935-36.	1936-37.
	Gallons.	Gallons.	Rs.	Rs.
Cocoanut oil ..	8,543,902	7,826,528	90,19,207	91,36,803
Ground nut oil ..	1,664	1,355	2,709	1,997
Linseed oil ..	136,311	143,518	3,27,118	3,54,854

The export of oil during these periods is insignificant. The export of oil seeds however is very considerable.

Export of oil seeds, in tons.

	1935-36.	1936-37.	1935-36.	1936-37.
	Tons.	Tons.	Rs.	Rs.
Castor	59,968	43,089	83,14,775	62,97,761
Copra or cocoanut kernel	48	38	17,652	15,158
Cotton seed ..	730	9,003	45,215	5,01,764
Ground nut ..	412,567	739,483	6,65,10,263	12,28,57,494
Linseed ..	164,743	296,034	2,20,62,178	4,36,44,191
Mustard ..	2,117	2,615	4,06,955	4,78,929
Rape	19,021	37,637	25,78,782	53,67,792
Sesame ..	1,300	14,216	2,69,803	27,15,117

Among the important class of oil seeds, Bihar exports a fairly large quantity of linseed whereas she has to depend upon the import of mustard and ground nut for supplying her local demands.

A scheme for the setting up of a plant capable of crushing 10 tons of oil seeds per day of 24 hours is given at the end of this chapter [see appendix XII(a)]. In the case of mustard seeds ordinary types of *ghani* are said to be necessary for the first crushing of the seeds in order to impart the pungent odour to the product. It is possible that the problem of pungency may be solved by the use of synthetic pungent principles which are on the market. The output of the factory will depend upon the nature of seeds crushed. Most of the progressive oil mills near Calcutta have installed machineries of this type and are running at a profit. It seems that in Bihar, the conditions will not be very different. The prices at which the factories in Bihar would be able to obtain seeds like ground nut, castor, etc., would be lower than those obtaining in the Calcutta markets and consequently the price of oils would naturally be slightly lower. In this connection attempts should be made for the manufacture of cold drawn castor oil, which after refining may be sold as medicinal product.

OIL CAKES.

From the manurial point of view, compared with the synthetics, oil cakes fetch a fairly good price (vide the export figures). The question then arises whether we should preserve the oil cake for cattle feeding and manurial purposes, or continue to export them. Taking a long view, these cakes should be utilised in the country for the sake of improving the cattle as also to check the phosphorus impoverishment of the soil. We say long view, because the effect on the cattle cannot be so definitely measured as to be able so say whether export prices are not compensated thereby, but experts are of the opinion that the retention of the oil cakes in the country is a move in the right direction. In any case, a restriction on the export of oil cakes, after thorough calculation of our cattle requirements is imperative.

The export trade of India in oil cakes is very large as the following figures will clearly indicate :—

—	1935-36.	1936-37.	1935-36.	1936-37.
	Tons.	Tons.	Rs.	Rs.
Castor cake ..	1,657	1,698	69,671	82,777
Cocoanut cake ..	3,825	4,187	2,54,331	2,94,106
Cotton cake ..	6,213	4,187	2,92,147	5,43,833
Ground nut ..	1,94,238	2,37,760	1,16,36,320	1,64,33,687
Linseed cake ...	71,774	50,194	43,93,826	34,51,280
Rape and sesame cake.	7,697	13,736	2,72,029	4,97,759

The problem of the utilisation of this vast quantity of oil cake is very pressing. Besides containing a certain percentage of oil (7-10 per cent), the oil cakes are employed as manures in foreign countries. The usual export practice is to guarantee 2.75 per cent P, O₂ and 4.5 per cent N.

SOAP.

The supply of vegetable oils for the manufacture of soap is fairly abundant in Bihar. Of the other raw materials, caustic soda, sodium silicate, etc., have to be imported. A cost sheet for a plant manufacturing 0.75 tons washing soap and 0.25 tons of milled toilet soaps is given in appendix XII(b). The prices given are those obtaining in the Calcutta markets at the present time.

Soap is a feasible industry for Bihar and may be left to private capitalists. It is one of those chemical industries which are suitable for cottage scale production in Bihar. We have discussed this point in the chapter on Cottage industries.

TOILET GOODS.

The use of toilet goods, like snows, creams, toilet powders is on the increase among the educated classes all over the country. The preparation of these can easily be undertaken by an experienced chemist, without any costly machinery and the profits are very alluring. Details as to the cost of manufacture for a fairly large concern are given below. The undertaking may easily form part of a soap factory.

SNOW.

Raw materials.—

			Ra.	a.	p.
Stearic acid—10 lbs.	..	..	3	12	0
Borax and caustic potash	..	..	0	10	0
Perfume—1 oz.	..	..	10	0	0
Labour ..	..	..	10	0	0
Containers and packing for 500 bottles	..	..	47	0	0
Total	..	..	71	6	0
			<hr/>		
			Ra.	a.	p.
Sales commission at 10 per cent of the sale price	..	..	25	0	0
Dealers' commission at 12½ per cent.	..	..	42	0	0
Delivery charges at 2½ per cent.	..	..	6	4	0
Advertisement at 5 per cent.	..	..	12	8	0
Total	..	..	157	2	0

	Rs.
Sale price for 500 bottles at annas 8 per bottle	250
Profit	92

Cold Cream.—The preparation of cold cream is very similar to that of snows, the only difference being that a part of stearic acid is replaced by lanolin. The production cost and the profits are about the same.

Toilet powder.—

	Rs.	a.	p.
Talc. 56 lbs.	3	8	0
Starch 56 lbs.	3	8	0
Boric acid ..			
Magnesium carbo- nate ..	3	8	0
Zinc oxide ..			
Scent 2 per cent. at Rs. 16 ..	33	0	0
	<hr/>		
	39	8	0
Sale charges at 30 per cent ..	49	0	0
Labour	7	0	0
	<hr/>		
Total	93	8	0
	<hr/>		

	Rs.
Sale price at annas 3 per packet of 2 oz.—896 packets	168
Profit	74

TALLOW, STEARINE AND GLYCERINE.

Import of Glycerine.

1933-34.		1934-35.		1935-36.
11,464 cwt.	..	10,334 cwt.	..	9,420 cwt.
Rs.		Rs.		Rs.
3,63,291	..	3,66,709	..	4,08,768

The import figures for tallow and stearine are not available, the current prices of these in Calcutta markets are given below :—

	Rs.	a.	p.	
Australian Best White Mutton Tallow ..	21	8	0	per cwt.
„ Mixed Tallow no. 1 ..	20	0	0	„

The industry of the hydrolysis of tallow for the production of stearic acid and glycerine is now well-established in European countries, the stearic acid being utilised for the manufacture of candles. But unfortunately this industry is non-existent in India, because stearine candles are looked upon with disfavour by the majority of our countrymen. The main uses of stearic acid in India are the manufacture of shaving soaps, cosmetics, leather dressings, etc. The high price of this commodity stands against its use in the soap industry although the process of manufacture may be considerably simplified with stearic acid as the starting material.

The second product of the process is glycerine which is used in large quantities for the manufacture of explosives and certain medicinal preparations. The usual source of glycerine is the waste-lye of the soap factories. But unfortunately that soap factories of our country are built in such small units that the quantity of waste-lye in each factory would not be enough to justify the cost of a glycerine recovery plant. If, however, a central factory is erected, near a group of soap factories where the waste-lye from each of them may be easily transported, the proposition may turn out to be a promising one. There is no such place in Bihar at present. Moreover, the manufacture of pure glycerine from soap lye is a highly technical process. The prospect of the manufacture of glycerine by the hydrolysis of tallow is most promising because the crude glycerol is obtained in a comparatively pure state.

The methods that are used for the splitting of fats are the following :—

- (1) Saponification under pressure, with bases like lime, magnesia, etc.
- (2) Acid saponification process, in which concentrated sulphuric acid is used as a hydrolysing agent, the fat being intimately mixed with the acid by mechanical agitation and kept fluid by the addition of dry steam.

- (3) Lipase fermentation process in which the fat is hydrolysed by an enzyme present in castor seeds.
- (4) Twitchell process, which consists in emulsifying the fat with water by small quantity of certain compounds (sulpho aromatic fatty acids) and passing open steam through the emulsion.

A comparison of these processes shows that none of these is without some disadvantage. In the first process, the saponification is carried out under pressure which involves rather costly plants and a part of the stearic acid is converted into insoluble soaps. On the other hand, the stearic acid is very pure and white and the yield of glycerol is very good. In the sulphuric acid process, the yield of solid fatty acids is greater than that in any other process (55—65 per cent from tallow) but the quality of the acid and also of glycerol is poor. The fermentation process gives a fairly pure fatty acid but the yield of glycerol is low and owing to the presence of foreign organic matter, the process of recovery becomes cumbersome. The Twitchell process has been found to give the best yield and quality of fatty acid and glycerol.

The Twitchell reagent is prepared by adding a large excess of sulphuric acid to a mixture of benzene and oleic acid in molecular proportions and washing the resulting product. Tallow after preliminary purification is treated with the reagent 1 per cent sulphuric acid (60° Be, 1 c.c. per lb. of tallow). Steam is then passed through the mixture for 12—15 hours, when the hydrolysis is complete. A better and more active reagent can be prepared from naphthalene instead of benzene. About 96 per cent of the fat is hydrolysed by heating for 12—24 hours, and the fatty acid is easily pressed out and is found to be of a white colour. The yield of glycerol in this process is 7-8 per cent.

There is, however, little prospect of success of this industry in Bihar at present. A small plant will be uneconomical. For a large unit, the necessary raw materials will not be easy to collect and there is sure to be difficulty in marketing the products as there is no local demand at present for large quantities of these materials.

APPENDIX XII(a).

Estimate for a plant capable of crushing 10 tons of oil seeds per day of 24 hours.

	Rs.
One Hexagonal screening reels capacity 1,500 lbs. per hour	2,830
One Oil-seed mill with superimposed rollers, for the preliminary crushing ..	10,545
Two Oil expellers "Schler system" at Rs. 9,100 each less 7½ per cent ..	17,900
One Filter press with pump 24½" × 24½" ..	3,010
Buildings and land	5,000
Erection charges	1,000
Motor—50 H. P. 1,200 revol.—	
One D. C.	1,500
One A. C.	1,200
Shafts, countershafts, pulleys, plumber, blocks, beltings	3,000
Boiler, 4N H. P.	1,000
6 Oil tanks—10 tons capacity ..	600
Contingency	2,000
	49,585
Total	49,585

APPENDIX XII(b).

A cost sheet for a plant manufacturing 0.75 tons washing soap and 0.25 tons of milled toilet soaps.

Block capital—

	Rs.	a.	p.
1. One boiler for steam generation ..	4,000	0	0
2. One soap pan 7'×7'×8' for washing soap base or a cylindrical one 8' diam. ×8' depth	1,000	0	0
3. One soap pan 7'×7'×8' for toilet soap	1,000	0	0
4. Fittings for the soap pans ..	200	0	0
5. Iron soap boiling pan 50—60 mds. capacity for making semi-boiled soap 15 mds. per day	90	0	0
6. Soap framers, capacity 12—13 mds. of soap 10 frames for (2) and (3) at Rs. 80 each	800	0	0
7. Soap slabbing apparatus	20	0	0
8. Soap cutting machine for washing soap 2 at Rs. 50 each	100	0	0
9. Stamping machine (country made) —2 at Rs. 60 each	120	0	0
10. Soap chipping machine	250	0	0
11. Steam drying chamber for drying toilet soap chips with exhaust fan and motor as designed by the Director of Industries, Bengal	2,000	0	0
12. Complete toilet soap machinery including one plodding machine, one milling machine, one cutting machine and one stamping machine with one motor 12 H. P.	6,000	0	0
13. Erection expenses, etc.	1,000	0	0
14. Building, sheds, etc.	10,000	0	0
15. Land 2 bighas	4,000	0	0
Total	30,580	0	0
Working capital	1,00,000	0	0
Grand total	1,30,580	0	0

APPENDIX XII(b)—*contd.*

Raw materials—		Rs.	a.	p.
1. Caustic soda—1 ton per week	...	207	8	0
2. Soda silicate (country) 5 cwt. per week		20	0	0
3. Salt—20 mds.	„ „	40	0	0
4. Tallow—for toilet soap—35 mds.				
	for semi-boiled—20 „			
	—	55	„	per week
		605	0	0
5. Cocoanut oil—Toilet—10 mds.				
	Washing—20 „			
	semi-boiled—30 „			
	—	60	„	per week
		600	0	0
6. Mowha oil—washing—25 mds. per week		275	0	0
7. Ground nut oil—Toilet—3 mds.				
	Washing—5 „			
	semi-boiled—9 „			
	—	17	„	per week
		180	0	0
8. Castor oil—toilet—2 mds.				
	Washing—3 „			
	—	5	„	per week
		55	0	0
9. Rosin—toilet— $\frac{1}{2}$ mds.				
	Washing— $2\frac{1}{2}$ „			
	semi-boiled— $1\frac{1}{2}$ „			
	—	$4\frac{1}{2}$	„	per week
		40	0	0
10. Perfume for toilet soap 9 lbs. at Ra. 8 per week	... ..	72	0	0
		<hr/>		
	Total ..	2,094	8	0 per week.
11. Power .. ..	.. ..	50	0	0 „ „
		<hr/>		
	Grand total ..	2,144	8	0 „ „

APPENDIX XII(b)—contd.

Wages—				Rs.	a.	p.		
Chemist	..	...	...	50	0	0	per week.
Assistant chemist	..	...	...	20	0	0	„ „
Boiler man	...	..	...	10	0	0	„ „
Soap boiling mistry	...	...	...	15	0	0	„ „
Assistants to soap boiling mistry,—2 at Rs 7 each per week	...	...	...	14	0	0	„ „
Labour for soap boiling—5 at annas 4 per day	...	..	...	7	8	0	„ „
For washing soap unit—								
3 expert stampers at annas 8 per day	}			15	0	0	„ „	
2 expert cutters at annas 8 per day								
7 coolies at annas 4 per day	..			10	8	0	„ „	
For toilet soap unit—								
2 coolies for chipping and drying at annas 4 per day	...	...	...	3	0	0	„ „
2 expert stampers at annas 12 per day	...			9	0	0	„ „	
2 expert hands for plodding milling at annas 12 per day	...	...	...	9	0	0	„ „
6 coolies and packers at annas 4 per day	...			9	0	0	„ „	
1 Electrician and mechanic...	...			9	0	0	„ „	
Total				...	181	0	0	„ „
Office expenditure—								
1 accountant	..	...	...	15	0	0	per week.
2 clerks	..	..	...	20	0	0	„ „
1 cashier	..	..	...	10	0	0	„ „
1 store keeper	..	..	..	10	0	0	„ „
1 bearer	..	..	...	4	0	0	„ „
Total				...	59	0	0	„ „

APPENDIX XII(b)—concl'd.

Sale charges—		Rs.	a.	p.		
Canvassers at 10 per cent of the sales.	...	365	0	0	per week.	
Advertisements at 5 per cent	.. ..	182	0	0	.. ..
Delivery charges at 5 per cent	.. ..	182	0	0	.. ..
Cost of production—						
Materials	... ..	2,144	8	0	.. ..
Labour	... ..	200	0	0	.. ..
Depreciation	... ..	25	0	0	.. ..
Office expenditure	... ..	59	0	0	.. ..
Canvasser	.. ..	365	0	0	.. ..
Advertisement	... ..	182	0	0	.. ..
Delivery	.. ..	182	0	0	.. ..
Total		3,163	8	0	.. ..
Sales—						
90 mds. semi-boiled soap at Rs. 11 per md.		999	0	0	per week.	
60 mds. washing soap (sunlight type) at Rs. 13 per md.	.. ..	780	0	0	.. ..
32 mds. toilet soap (Turkish bath type) at annas 10 per seer	.. ..	800	0	0	.. ..
18 mds. toilet soap at Rs. 1-8-0 per seer	...	1,080	0	0	.. ..
Total		3,650	0	0	.. ..
Working expenses		3,163	0	0	.. ..
Profit		487	0	0	.. ..

APPENDIX XII(c).

Estimate of a plant for producing one ton of stearin per day.

	Rs.
A.—Machinery—	
Boiler 5,000—6,000 lbs. of steam per hour ..	20,000
Two hydraulic presses $\frac{1}{2}$ ton capacity, hot and cold at Rs. 5,000	10,000
Two glycerine concentration pans (200 gals. capacity)	1,000
One vacuum distillation plant for glycerine (capacity 2 cwt.)	10,000
One fatty acid distillation plant	10,000
Twitchell plant (pumps, lead-lined vats, etc.) ..	10,000
Crystallisation apparatus and refrigerating plant	5,000
	<hr/>
Total ..	66,000
	<hr/>
B.—Buildings, etc.—	
Factory shed 6,000 sq. ft.	6,000
Office and godown	2,000
Furniture, equipments, etc.	1,000
Miscellaneous	5,000
	<hr/>
Total ..	14,000
Working capital	1,00,000
	<hr/>
Total ..	1,80,000
	<hr/>

(Working expenses.

Wages and salaries—

- (a) Manager at Rs. 150 per month.
- (b) Chemist at Rs. 100 per month.
- (c) Assistant chemists 3 at Rs. 60 per month.
- (d) Clerk at Rs. 50 per month.
- (e) 30 coolies in 3 shifts at Rs. 20 per shift.

APPENDIX XII(c)—concl'd.

	Rs. s. p.
Raw materials—	
Tallow 1·1 ton at Rs. 17 per cwt. ...	374 0 0
Twitchell reagent (25 lbs.) ..	7 8 0
Sulphuric acid and lime ..	1 0 0
Fuel (5 tons)	50 0 0
Interest on capital—	
Rs. 1,80,000 at 6 per cent per annum ...	29 8 0
Depreciation on machinery—	
At 10 per cent	16 8 0
Miscellaneous	15 0 0
	<hr/>
Total	... 529 8 0
	<hr/>
Sales—	
Stearic acid 9·4 cwt. at Rs. 45 per cwt. ..	413 8 0
Oleic acid 9·4 cwt. at Rs. 15 per cwt. ..	141 0 0
Glycerol 1·3 cwt. at Rs. 60 per cwt. ..	78 0 0
	<hr/>
Total	.. 632 8 0
	<hr/>
Profit—Rs. 103 per day of 24 hours.	

CHAPTER XIII.

PAINTS, VARNISHES, LACQUERS.

Bihar produces one-sixth of the total linseed of India and practically exports 80—90 per cent of its production. After meeting the local demands, a portion of the large quantity now exported, could be converted into raw and boiled linseed oils, for use in the manufacture of paints. The pigments required, their sources, and processes of treatment are all described in brief in the appendix, which would show that the establishment of a paint factory on suitable lines, depending on the economic availability of pigments could be recommended. As the consumption of paints in Bihar is not definitely known, we are of the opinion that for the present, only a small factory, capable of further extension can be recommended to be safely undertaken by capitalists.

Spirit varnishes.—French polish is one of the most important of spirit varnishes, and already the required quantities are manufactured in the country, simply by dissolving shellac in spirit and adding the desired colour. No factory exists for this as this varnish is made in small lots by the user, whenever required. A small amount of ready-made French polish is imported but its quantity is not such that an independent factory can be recommended. It is suggested, however, that the existing paint works should look into this problem as an adjunct to their ordinary manufactures. Colourless French polish would require bleached lac for its manufacture. The beaching of lac, though simple, requires experience, but as details are available as a result of experiments at the Indian Lac Research Institute, the paint manufacturers might well look into this part of the trade as a subsidiary enterprise to their own.

In the case of lacquers, which are nothing but solutions of nitro-cellulose, aceto-cellulose and shellac, in various solvents, the chief difficulty lies in the necessity of importing special solvents. In spite of this, it has been found possible to manufacture lacquers at a profitable price. We have, however, dealt with the problem of solvent manufacture under a different section which may be read along with this.

Oil varnishes.—The manufacture of oil varnishes, whether from imported resins or from indigenous varieties, is being done by some of the paint manufacturers but as there is still considerable import of this commodity, there is room for further

development. The manufacture of lac-oil varnishes can now be safely recommended as the pioneering work in this direction has been done by the Indian Lac Cess Committee's Laboratory (vide Bhattacharya and Gidvani Paint Techn. 1938, 3, 189-90).

Pigments.—The common pigments like ochres, siennas, barytes, etc., are already being prepared in the country for use in the paint industry. Neither lead pigments nor zinc pigments have sure prospects as long as these metals are not manufactured in the country. But attention may be drawn to the titanium oxide which, it is hoped, will shortly be made available from the aluminium factories. Private enterprise in this direction is recommended.

For further informations see Appendix XIII.

APPENDIX XIII.

A REVIEW OF THE PAINT AND VARNISH INDUSTRY.

The raw materials used in the manufacture of paints and allied products are very numerous and every country manufacturing these commodities has to import a considerable proportion of its raw materials. In this respect, India is very favourably situated and in a better position than Great Britain. India grows her own linseed, contains large pine forests which are potential sources of turpentine and rosin and has virtually a monopoly of lac. Of the materials used as pigments, barytes is found in various places as also ochres and oxides. The Persian Gulf Red oxide which was used extensively a few years ago, for the manufacture of red oxide paint, is being gradually replaced by red oxide manufactured at Katni in Central Provinces. Synthetic red oxide, from the waste acid of Tatas, is being manufactured on a large scale at Tatanagar and has been found to be quite satisfactory. The Bangalore White Lead Syndicate is producing white lead at Bangalore and Messrs. D. Waldie and Company, are manufacturing red lead at Konnagore near Calcutta. The raw material for the manufacture of the important pigment—Titanium white—will be available in large quantity, when the factory of Messrs. Aluminium Corporation of India is put into working.

The paint manufacturing industry in India has however not reached the state of development that these advantages appear to warrant. The imports of paints and paint materials are still high and far in excess of Indian manufactures.

IMPORT OF PAINTS AND COLOUR INTO INDIA.

1930-31.	1931-32.	1932-33.	1933-34.	1935-36.	1936-37.
Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
492,701	453,131	3,33,726	3,69,915	371,498	372,425
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
85,80,724	66,49,173	70,26,976	70,28,844	80,55,025	76,54,770

IMPORT OF ENAMELS.

1930-31.	1931-32.	1932-33.	1933-34.
U. K. cwt.	U. K. cwt.	U. K. cwt.	U. K. cwt.
4,490	2,621	2,342	1,873
Rs.	Rs.	Rs.	Rs.
2,51,626	1,44,804	1,71,096	1,35,570
Foreign cwt.	Foreign cwt.	Foreign cwt.	Foreign cwt.
1,895	836	993	1,097
Rs.	Rs.	Rs.	Rs.
1,42,642	53,650	53,747	59,470

APPENDIX XIII—*contd.*

IMPORT OF VARNISH.

1930-31.	1931-32.	1932-33.	1933-34.
U. K. cwt.	U. K. cwt.	U. K. cwt.	U. K. cwt.
27,740	22,258	23,463	21,949
Rs.	Rs.	Rs.	Rs.
14,44,996	11,38,651	11,64,933	11,08,440
Foreign cwt.	Foreign cwt.	Foreign cwt.	Foreign cwt.
6,194	5,883	5,699	5,538
Rs.	Rs.	Rs.	Rs.
3,36,369	2,70,894	2,46,964	2,23,389

No figures are available for the output of the Indian factories but it might be assumed that the production of these has reached a total value of Rs. 80,00,000 to Rs. 90,00,000 at the present time. It may therefore be reasonably said that at present, the Indian industry is, compared with its possibilities, poorly developed. The branch of manufacture that is best represented is the manufacture of ordinary oil paints, i.e., grinding pigments in oil and subsequently thinning with further oils and solvents in order to make a mixed paint. The manufacture of pigments is less advanced; although some advance has been made in recent years, as described in the first paragraph. Many of the other pigments required in paint making are made by Indian paint manufacturers for their own use but majority of the factories import most of the pigment that they use.

With regard to varnish industry, the picture is rather depressing. Indian made varnish is generally said to be inferior to imported varnish. There is no apparent reason why this continues to be the case. Gums and resins, of good quality, may be imported into India, as in all other countries while turpentine, linseed and white spirit are already available in India. The Indian manufacturer is in a position to study the effect of the Indian climate or rather the various climates of India, on varnish. But in spite of these natural advantages, the varnish industry is not making any great progress in India.

RAW MATERIALS.

Ordinary paint (oil paint) consists of an intimate mixture of very finely divided solids, known as pigments and a liquid, known as the vehicle. The vehicle is a mixture of a drying oil, generally linseed and a "thinner". Raw linseed oil dries very slowly in air and for enhancing the rate of drying, it is heated to 150°, with the addition of "driers" to accelerate the subsequent drying of the oil in paints. The function of the pigment is to support and strengthen the paint film and to give it colour and opacity.

A mixture of boiled linseed oil and pigment in the best proportion, is too thick for proper application and consequently most paints contain a "thinner"—a volatile oil such as turpentine or a petroleum product, known as white spirit. When the paint is applied, the thinner evaporates

APPENDIX XIII—*contd.*

slowly and its function is merely to make the paint of the correct consistency for the purpose of application. In the case of oil varnishes, the strengthening of the film given by a drying oil, generally linseed oil or tung oil, is obtained by the incorporation of hard resins, usually copal.

DRYING OILS.

Linseed oil.—Of all the drying oils used in paint and varnish industry linseed oil is the most important. It is obtained from the seeds of flax plant which grows in North and South America, Russia and India. Of the Indian production, about 50 per cent comes from the Central Provinces. The production in India fluctuates greatly. In 1908 it was 163,000 tons, in 1912, 641,000 tons, in 1924, 463,000 tons and in 1935, 90,144 and in 1936, 217,666 tons. The Bihar production is about 1/6th of the total production of India.

Most commercial linseed oil is obtained by pressing the hot and moistened seed in a hydraulic press. The cake, amounting to about 66 per cent of the seeds, presents a problem for its disposal. It is generally used as cattle food. If it could be used in India at a reasonable price, we would be able to export linseed oil instead of the whole seed as is being done at present.

Boiled linseed oil.—In preparing boiled oil, the raw oil after storage is heated to a temperature of 150°C, while air is blown through the oil. Driers, consisting of rosinate or linolate of lead, manganese, cobalt, etc., are added in small quantity to accelerate the drying. During this heating, the chemical nature of the oil is changed in that it is partly polymerised. The oil becomes thicker and drier.

Stand oil.—Stand oil is linseed oil thickened by heat alone. It has undergone considerable polymerisation and differs materially in its qualities from ordinary linseed oil, raw or boiled. Stand oil finds considerable use in the manufacture of varnishes and enamels and in printing inks.

Tung oil.—There are two varieties of tung oil, Chinese and Japanese, but only the Chinese variety is used in paints. The oil is prepared from the nuts of *Alcornoque cordata*, by a process of roasting, crushing and pressing. This oil is the most important of the drying oils other than linseed oil. The raw oil dries rapidly but gives a film quite unsuitable for paint making. On moderate heating, it polymerises and the polymerised oil is used in the varnish industry.

Soya Bean oil.—The soya bean is cultivated widely in the Far East and it has also been grown in India. The oil has moderate drying properties and is sometimes used when the price of linseed oil is very high.

Poppy seed oil.—The varieties of poppy seed used for oil pressing are grown in France, India and the Near East. The principal crushing industry is in France to which the bulk of the Indian crop is exported. The oil is used in artists' paints and is said to remain whiter than linseed oil. The drying power is, however, inferior to that of linseed oil.

APPENDIX XIII—contd.

THINNERS.

Turpentine.—The most widely employed “thinner” in the paint industry is turpentine, the essential oil of the oleo-resins obtained from different species of pine. The production of turpentine in various countries is given below :—

				Barrels of 50 gallons.
U. S. A.	..	..	..	650,000
France	..	..	..	130,000
Spain	..	..	..	50,000
Greece	..	..	..	15,000
India	..	..	..	2,500

Two centres of the important and growing turpentine industry are at Jallo in the Punjab and Clutterbuckganj in the United Provinces. The Indian production of turpentine is given below :—

1900-01	...	..	..	1,600 gallons.
1916-17	..	..	..	1,000 "
1926-27	..	..	..	280,743 "
1936-37	..	..	..	245,871 "

The value of turpentine as a thinner in paint and varnish industry is due principally to its solvent action on paint vehicles and on its convenient and regular rate of evaporation. Unlike petroleum “white spirit” turpentine is a solvent of the hard varnish making resins and hence it is universally used in the manufacture of varnishes made from such resins (i.e., copal varnish). A disadvantage in the use of turpentine is that the substance is subject to oxidation on standing in presence of air, forming non-volatile bodies. Even in absence of air, on long storage, it partly polymerises to non-volatile products.

White spirit.—The increasing demand for paint thinners and the relatively stationary amount of the supply of turpentine, has made the use of other solvents imperative in paint manufacture. White spirit is the substitute most commonly employed. It is a petrol fraction boiling between 150°—200°C. Although, originally a substitute for turpentine, the improvement in the quality of commercial product with the use of white spirit, has led to the extensive use of this product by paint manufacturers. Again compared with turpentine, white spirit has the advantage of its permanence on keeping and of leaving no residue on evaporation. On the other hand, its solvent properties are much inferior to turpentine. The use of white spirit as a thinner is therefore restricted to the paint industry. Mixed with turpentine it is employed in varnish making.

RESINS.

The resins do not form part of the vehicle of paints. They are used for the manufacture of varnishes. The principal varnish making resins or “gums” as they are named technically, are the different copals, resin in its various forms, dammar, lac, etc. Copal and resin are used for the manufacture of oil varnishes while dammar and lac are used in the

APPENDIX XIII—*contd.*

Copal.—“Copal” is a word used to cover a large variety of varnish making resins. The best copals for the varnish maker come from East and West Africa. Manila is the trade name of Asiatic copals from Phillipine Islands and Straits Settlement and Kauzi is found in New Zealand. The last two are inferior to the first two in varnish making properties. The value of copal is determined by its hardness and colour, the hard copals making the better varnish. No suitable copal is found in India.

Resin.—When pine oleo-resin is distilled, the volatile distillate consists of turpentine while the residue in the still is resin. The molten resin is sieved, strained and run off into casks for the market. The yield is about 70 per cent of the oleo-resin. For use in varnish manufacture, resin is hardened by making salts with lead oxide or zinc oxide, in some cases. The prevailing practice is however to make the calcium resinate and cheap varnishes contain no other resinate.

An ester of resin with glycerol is known under the name ester gum. In conjunction with tung oil, ester gum is extensively used in water resisting varnishes.

Dammar.—The most important source of dammar is the Straits Settlement. It is a soft resin and dissolves in turpentine to form an almost colourless varnish, suitable for some particular purposes, e.g., as a paper varnish.

PIGMENTS.

The pigments used in the manufacture of paints are very numerous and include both natural and synthetic materials. Of these inert pigments or fillers form an important group.

Barytes.—The most important of the inert pigments is barytes or barium sulphate. Extensive deposits of this mineral are found at Cuddapah and at Kurnool in Madras Presidency and also in Alwar State, Rajputana. Deposits of coloured barytes occur near Ranchi in Bihar, which are being used by Messrs. Napier Paint Works of Calcutta.

Barytes is the principal constituent of cheap coloured paints which must possess good opacity. Thus cheap oxide paint may be made of 5 per cent red oxide and 95 per cent barytes. In cheap black paints, the percentage is still higher. Barytes is also used in white paint but on a smaller scale.

Raw barytes is first washed in a “tromel”, consisting of a rotating tube in which the crude material is washed with water. The outlet of the tube is provided with screens to allow the fine particles of sand and dirt to pass through while the larger pieces pass on to a picking table. The barytes travels along the table on an endless band and is hand picked to remove impurities. The barytes is next pulverised in two ball mills and sieved.

Other fillers which are rarely used in paint manufacture are the following:—(1) “Blanc Fixe” or permanent white—is the artificial form of barium sulphate, prepared in the usual manner. The high price of sulphuric acid offers a great difficulty in its extended use. (2) Gypsum has little to commend its use in paint and its partial solubility in water renders

APPENDIX XIII—*contd.*

the use of this material rather undesirable. The anhydrous form is said to be used in fairly large quantities in the United States of America. (3) Whiting of commerce is imported from England. It is generally used in distemper, in whitewash and in a stiff paste with linseed oil as putty.

Iron oxide pigments.—The range of pigments obtained from iron oxide^o is extensive. Hydrated forms of iron oxide give yellow, passing through various shades of brown to red. The state of hydration thus plays an important role in its value as pigment while the presence of a small quantity of manganese oxide also influences the colour.

A well-known natural oxide is found in the Persian Gulf area and is widely used as a bright red pigment. The best Indian oxide comes from Katni and is inferior to the Persian Gulf variety in its brightness of colour. The Bihar iron oxides are generally light red or purple in colour. As these oxide paints are used for under-coats, the depth of colour is of no great consequence.

Analysis of red oxide paints.

					Persian Gulf.	Katni.	Bihar.
Moisture	...	...	...	...	1.4%	0.5%	1.4%
Loss on ignition	...	...	...	...	1.0%	1.3%	5.7%
Silica	...	...	...	...	18.7%	5.3%	9.9%
Ferric oxide	...	...	...	...	72.5%	91.0%	77.2%
Manganese Dioxide	...	...	...	...	...	...	0.2%
Alumina	...	...	...	...	2.8%	1.7%	5.7%
Lime...	...	...	...	...	0.7%	...	...
Magnesia	...	...	...	...	2.5%	Trace	Trace.
Soluble Chloride	...	...	...	...	0.3%	...	...
				Total	99.95	99.8	100.1

An impure variety of artificial oxide is made from the waste acid liquors of galvanising industries at Tatanagar. The liquors are exhausted acid baths and are charged with iron. The iron is precipitated by the addition of lime and the precipitated hydroxide of iron with calcium sulphate, is roasted till the desired depth of colour is obtained.

Yellow Ochre.—Yellow ochre consists of hydrated ferric oxide, with considerable amounts to silica and clay. Deposits of varying colour and importance are found in many places of India—near Chaibassa, at Katni in Central Provinces and at Patna in Central India.

APPENDIX XIII—*contd.*

Sienna.—The true siennas are only found in Italy. It is used in paint manufacture, either in the natural state "raw" or "burnt" after calcination which modifies the colour very considerably.

Umber.—This is also a hydrated iron oxide pigment containing an appreciable amount of manganese. The best varieties come from Cyprus and are known as Turkey umber.

White Lead.—The import of white lead into India is considerable. In 1935-36 the total import was 12,665 cwt. and in 1936-37, 13,589 cwt. In addition to this, a considerable quantity of "reduced" white lead is also imported. Some 10 or 12 years before, a plant was working at Bangalore for the manufacture of white lead. The production figures from 1922—25 are as follows :—52 tons, 55 tons, 175 tons and 216 tons. No further information about this enterprise is available. The absence of any lead smelting factory in India is a great handicap to the development of this industry. A Calcutta firm has very recently taken up the lease of a property near Jasidih in Santal Parganas. The quality of galena is fairly good and if the deposit proves to be of commercial value, the possibility of starting a lead smelting plant and a white lead factory may be considered to be hopeful. With imported lead, the prospects of starting this industry is not very promising.

Zinc white.—Zinc white is also imported in large quantities into India.

IMPORT OF ZINC WHITE.

					1935-36.	1936-37.
Pure	...	...	...	...	1,375 cwt.	1,788 cwt.
Reduced	...	...	...	..	35,140 "	32,695 "

Paint made from zinc white has a high spreading power and gives a smooth, hard film which however has a tendency to peel off on exposure to sun light. Mixed with white lead it is an excellent paint for outside work, while for interior work, zinc white alone or lithophone is very satisfactory. The prospect of the manufacture of zinc white in India depends upon the supply of zinc concentrate from the Baldwin mine in Burma. In 1926-27 nearly 19,000 tons of zinc concentrates were exported.

Lithophone.—Another important white pigment is lithophone a mixture of zinc sulphide and barium sulphate, containing about 30 per cent zinc sulphide and a little zinc oxide. The import of this is also fairly large:

					1935-36.	1936-37.
Lithophone	...	...	...	...	28,160 cwt.	30,419 cwt.

The material is frequently used for painting interiors and as a constituent of washable water paint. When used outside it is liable to crack and darken. Better results are obtained by mixing lithophone with a portion of zinc oxide.

The manufacture of lithophone is complicated and unless proper supervision and expert advice are available, it would be difficult to take up its manufacture.

APPENDIX XIII—*contd.*

Titanium white.—This pigment is rapidly coming to the front of all white pigments, on account of its excellent body and non-poisonous properties. It does not peel off or crack like zinc white or lithophone and has been tested under the most trying conditions in marking roads with excellent results. At present, Travancore exports about 30,000 tons of illeminite per year for the manufacture of titanium white. Stray, deposits of illeminite occur in Santal Parganas near Simultala but unless a thorough survey of this district is made, it is difficult to ascertain the quantity of available material. Another source of this pigment will be available when aluminium extraction is started in India from Indian bauxite which is very rich in titania. No inherent difficulty is known to exist in extracting pure titania from bauxite residues.

Red Lead.—The import figures of red lead are given below:—

	1935-36.	1936-37.
Pure red lead ..	36,761 cwt.	15,573 cwt.
Reduced read lead ..	3,443 „	1,846 „

It is manufactured by Messrs. D. Waldie and Company, Konnagar, Bengal, but the production figure is not known. Chemically red lead is triplumbic tetroxide but the commercial variety contains upto 25 per cent lead monoxide. The presence of lead monoxide alters the character of red lead. It is a pigment of great importance, forming a hard coat of remarkable durability in a short time. As regards the prospect of its manufacture, a great deal will depend upon the availability of metallic lead or scrap lead in fairly large quantities (see white lead).

Prussian Blue or Chinese Blue is an extremely fine pigment of a deep, rich, transparent colour. It is generally used with other pigments such as barytes and in conjunction with yellow pigments to form different greens. It is made locally by mixing ferrous sulphate with sodium or potassium ferrocyanide and oxidising the precipitate. The colour of product varies with its mode of manufacture, the best ones having a cop pery lustre.

Ultramarine is another important blue pigment and is used to a limited extent in paint manufacture. As the raw materials for its manufacture are easily available there is no reason why its manufacture should not be attempted in India.

Lead chromes.—The lead chromes are a series of pigments ranging in colour from yellow to red. They are generally prepared by the precipitation of lead nitrate or acetate with alkali chromates. For pale shades, sodium sulphate is added simultaneously to precipitate lead sulphate and for the deeper shades, caustic soda. The large paint factories manufacture lead chromes according to their requirements.

Zinc chrome.—Zinc chromate is prepared by precipitating zinc sulphate with sodium chromate. It is used for making greens and is said to inhibit the formation of rust on iron and steel. This is also made in the local factories.

APPENDIX XIII—*contd.*

Brunswick Green.—The majority of green pigments sold under this name are mixtures of Prussian blue and lead chrome in varying proportions, with an addition of lead sulphate. All these varieties are made locally as required.

Chromium Oxide is a green pigment which is prepared by fusing alkali dichromates with boric acid. The pigment so obtained is permanent but costly. It is also made in India.

Black pigments.—Lamp-black; carbon-black, bone-black and graphite are some of the blacks that are on the market. When properly made, these with the exception of graphite, are fair paint materials, although they require a long time for drying or a large percentage of "driers". Graphite is said to be not suitable for direct coating of steel work since it appears to enhance the rusting of iron.

Manufacture of paints.

The pigments used in paint manufacture are required to be ground to an exceptional degree of fineness, most of the machines required in a paint factory are for these grinding operations. In recent practice, a system of air flotation of the finer particles is frequently employed.

Paints may be made either from a single pigment or a mixture of pigments. The modern practice seems to favour a mixture of pigments. High grade white paints for outside work frequently contain 60—80 per cent white lead and 40—20 per cent zinc white with about 5—10 per cent of inert material. Grey paints are made from a mixture of white lead and barytes tinted with lamp-black. Red oxide paints also contain barytes to a considerable extent. Expensive green paints contain 75 per cent of pigment and 25 per cent of barytes; the cheaper ones containing only 10 per cent of pigment.

The oil used in paint grinding is invariably linseed oil, raw or boiled. White lead requires about 8 per cent of oil for grinding and barytes about the same. Carbon black requires more than its own weight of oil.

Stiff paints.—The usual practice of paint manufacture is first to produce stiff paint, i.e., the mixture of pigments ground to a paste with linseed oil. The stiff paint can be stored satisfactorily without settling of the pigment. For making "stiffs", the mixture of pigments and oil receives a preliminary mixing in a pug mill or edge runner and the grinding proper is carried out in triple roller mills. The rollers are usually of granite or chilled steel, and revolve at different speeds. The paint is ground by passing between the middle and back roller and is then carried round to the middle roller and is again ground between the middle roller and the front roller. It is removed from the latter by a scraper. In order to achieve a thorough mixing of oil and pigments, it is necessary for the paint to be passed several times through the rolls.

Mixed paint.—The mixing of the "stiffs" with additional oil and "thinners" is carried out on a large scale in a mixer consisting of a rotating pan inside which vertical paddles revolve. The oil used is boiled linseed oil and "thinner" is white spirit and turpentine. Additional driers are added as necessary at this stage.

APPENDIX XIII—*contd.*

VARNISH.

Import of varnish.

1935-36—26,069 cwt.

1936-37—24,144 cwt.

The most important varnishes in the market at present are the Copal varnishes. They are made in numerous varieties, and sold under different names. Copal varnishes are made from copal and linseed oil with the necessary driers and thinners. Calcium resinate is sometimes used in partial replacement of copal in cheap varnish. The differences among the various copal varnishes are largely due to a variation in the proportion of copal to oil. The proportion of driers also varies considerably according to the nature of the varnish and the practice of the manufacturer.

The first operation in varnish making is the "running" or melting of the copal. The resin, about 100 lbs. is placed in a metal pot mounted on wheels, so that it can be drawn on and off the fire easily. When the resin has melted, well-settled, raw linseed oil, previously heated, is added in small quantities at a time. The varnish maker withdraws a small quantity on his rod and allows a few drops to cool on a glass plate. If the cooled varnish is turbid, it is indicated that the mixture requires further heating before the addition of another portion of oil. Driers are added at this stage and finally the pot is withdrawn from the fire and allowed to cool. When the temperature is low enough, "thinners" are added cautiously. The freshly made varnish is clarified by a prolonged process of storage whereby the suspended impurities settle out and the varnish matures.

Varnish is made by most of the paint factories in India and has a ready market. Since linseed oil is available, there is no reason why varnish manufacture should not be successful in Bihar.

LIST OF MACHINES.

1. Raymond mill with air separator.
2. Flat stone machine with sieving and air separator.
3. Levigator with filter press and tank.
4. Pug machine.
5. Lead-lined vats for chromate.
6. Wooden precipitation vats with steam pipes.
7. Filter press.
8. Hot air drying chamber.
9. Edge runner—double roll.

APPENDIX XIII—*conctd.*

10. Triple roll machine.
11. Torren's combination mill—rolls of chilled iron.
12. Buhler machine—with water cooled rollers.
13. Torren's master mill.
14. Ball Mill.
15. Tanks with stirrer.
16. Storage tanks.
17. Aluminium pots—for gum melting.
18. Centrifuge.
19. Storage tank.

As most of these machineries have to be imported from Great Britain, the prices cannot be stated with any certainty. A complete factory for the manufacture of paints, varnishes, etc., with a capacity of 5 tons per day may be started with a capital of Rs. 2,00,000 and a working capital of Rs. 1,00,000. This does not include the cost of erection, power plant and other accessories.

CHAPTER XIV.

INDUSTRIAL SOLVENTS.

With the development of arts and industries, the use of solvents is continually increasing. As yet there is no consolidated solvent industry in India, whilst there is considerable use of directly or indirectly imported solvents in the country. The varnish and lacquer industries consume considerable quantities of varieties of solvents whilst the chemical industry itself depends upon a few major solvents for the production of which no attempt has been made so far. Solvents may be divided under the following heads :—

- (a) Hydrocarbons.
- (b) Alcohols.
- (c) Ketones.
- (d) Esters.
- (e) Glycols.
- (f) Cyclo-hexane derivatives.
- (g) Chloro compounds.
- (h) Furfurals.
- (i) Plasticising solvents.

It is not the intention of the Committee to describe the manufacture of these solvents in this report but it would be useful to indicate in short the sources of these solvents from which the practicability of certain solvent industries in Bihar will be apparent.

Benzene, toluene and xylene are obtained in the fractional distillation of coal tar and is collected in the fraction, known as light oils. After preliminary purification, they are separated by fractional distillation. With the development of bye-product coke-ovens, the quantity of tar and consequently, the quantity of these hydrocarbons, will be on the increase. The three hydrocarbons are largely used as diluents for lacquers. Cymene or p-methyl-isopropyl-benzene is not found in coal tar but is present in resin oil and spruce turpentine; it is also obtained as a bye-product in the manufacture of sulphite pulp. Cyclo-hexane or hexemethylene is now available technically and is manufactured by the catalytic hydrogenation of benzene. It may replace benzene in lacquers. Tetrahydronaphthalene

(tetralin) and Decahydronaphthalene (decalin) are two hydrogenated derivatives of naphthalene. These are excellent solvents for oils, resins, waxes, etc., but do not dissolve cellulose esters, hard copals or bakelite.

The alcohols constitute another important group of solvents for varnishes. The first number of this series, methyl alcohol, was formerly obtained by the destructive distillation of wood but the greatly increased demand for this solvent has led to the development of various synthetic processes for its manufacture. Pure methyl alcohol dissolves neither cellulose acetate nor nitrate but the presence of a small quantity of acetone renders it a potent solvent for these cellulose derivatives.

Ethyl alcohol is manufactured from starchy materials or molasses and the anhydrous alcohol is a good solvent for ethyl cellulose, colophony, dammar, shellac and also for synthetic resins. It is miscible with castor oil and hydrocarbons. Of the two propyl alcohols, n-propyl alcohol is one of the chief constituents of fusel oil while iso-propyl alcohol is manufactured either from acetone or from gases arising from the cracking of petroleum. N-butyl alcohol is of great industrial importance since butyl acetate is the most widely used of cellulose nitrate solvents. This alcohol is manufactured by the fermentation process developed by Strang, Graham, Fernbach, Weizmann and others. It is also manufactured in large quantities from acetaldehyde. Butyl alcohol has the unique property of being a solvent for hard copals. Of the eight amyl alcohols two only occur in fusel oil, viz., primary amyl alcohol and active amyl alcohol. Synthetic amyl alcohol is also available being produced from the pentanes obtained in petroleum distillation. Synthetic amyl alcohol is not a solvent for cellulose esters but it dissolves ester gum, shellac, etc., and is miscible with castor and linseed oils and with hydrocarbons.

The esters of the alcohols, described in the previous paragraph, and acetic acid are good solvents for cellulose nitrate and acetate. Of these n-butyl acetate and amyl acetate are the ones that are widely used in spite of many new additions during the last decade. They are very well adapted for cold lacquers and cellulose paints since their volatilities are sufficiently high to leave the film readily and quite dry. They are also non-toxic and easily miscible with oils and hydrocarbons.

The esters of ethyl and butyl alcohol with lactic acid are the most important of high boiling solvents for cellulose nitrate and acetate. Compared with the corresponding acetates their

solvent action for cellulose nitrate is distinctly slower and their solutions are decidedly of higher viscosity but they will tolerate two to three times as much non-solvent dilution : quantities of water up to 20 per cent can be added without causing precipitation or blushing on subsequent evaporation.

Of the dihydric alcohols or glycols, ethylene glycol mono-methyl ether and ethylene glycol mono-ethyl ether, are the most important solvents for cellulose derivatives. The methyl ether is a good solvent, not only for cellulose acetate and nitrate but also for the gums and resins incorporated in cellulose lacquers. The ethyl ether on the other hand is not a good solvent for the resins in the lacquer. The addition of other solvents like benzyl alcohol, amyl acetate, ethyl lactate, removes this defect. In the absence of resins, solutions of cellulose nitrate in the ethyl ether have a high tolerance for dilution with solvents. In spite of these defects, this ether offers the advantage over most other solvents of similar boiling points in having but a slight odour. This ether is made commercially from ethylene chlorohydrin by first converting it into ethylene oxide and adding this with stirring to cold ethyl alcohol containing one per cent sulphuric acid, the product being neutralised and fractionally distilled. Other ethers may be made by the use of appropriate alcohols or phenols.

Cyclo-hexanol and methyl cyclo-hexanol are prepared by the hydrogenation of phenol and cresols, under a pressure of four atmosphere in the presence of nickel as catalyst and temperatures between 160°—200°C. They are excellent solvent for cellulose acetate but not for the nitrate. But their addition to solution of cellulose nitrate in amyl alcohol, increases the tolerance of the solution to dilution with hydrocarbons. They dissolve ester gum, resin, shellac, bakelite, etc., and are miscible with linseed oil, petroleum and aromatic hydrocarbons.

The acetates of cyclo-hexanol and methyl cyclo-hexanol, which are prepared by direct esterification, are non-poisonous and powerful solvents for cellulose nitrate and acetate. They are also solvents for gums and resins present in lacquers.

Ethylene chlorohydrin is a good solvent for cellulose acetate and the solutions have a high tolerance for water. Cellulose acetate containing over 50 per cent of combined acetic acid, will dissolve in a mixture of equal parts of ethylene chlorohydrin and water. It is usually prepared starting from ethylene which is converted into chlorohydrin by treatment with chlorine water. Mono-chlorohydrin and dichlorohydrin are not very suitable

for lacquers as they tend to liberate hydrochloric acid in presence of moisture. Chloroform, carbon tetrachloride and sym-dichlorethane are not very suitable for dissolving cellulose derivatives. Tetrachlorethane is dangerously toxic and attacks iron, copper, nickel and lead slightly and aluminium vigorously. It is non-inflammable and is useful for reducing the inflammability of lacquers. It is usually prepared by passing alternately acetylene at 60°—80°C and chlorine at 80°—100°C into antimony pentachloride.

Furfural is prepared at present from oat hulls, a waste product of the manufacture of rolled oats. These hulls contain 32—36 per cent of pentosans, 35 per cent of cellulose and 10—15 per cent of lignin. These are digested in copper-lined steel autoclaves with one-third of their weight of 5 per cent sulphuric acid with the passage of steam at 60 lb. pressure at the bottom of the mass. The exit steam contains about 10 per cent furfural and is passed into a copper fractionating column where crude furfural with 16 per cent water is collected. By careful distillation in specially designed vessels, the water is removed and crude furfural is obtained which may be further purified by fractional distillation under vacuo.

Furfural dissolves cellulose nitrate, acetate and nearly all known cellulose esters and ethers but is rather slow in its action. Its solvent properties are increased by mixture with alcohol and benzene. It is not a good solvent for some resins and for linseed oil.

Tetrahydro-furfuryl alcohol is a product obtained by the partial hydrogenation of furfural. It dissolves cellulose nitrate and these solutions have high tolerance for aromatic paraffin. It is also a good solvent for gums and resins used in lacquer manufacture.

The substances described below are known in the trade as plasticising solvents. The first substance of this class is acetophenone which possesses softening as well as solvent properties for cellulose nitrate, acetate, shellac and other gums and resins. The high price of this article is against its extended use. Diacetin and triacetin, the acetyl derivatives of glycerol, are fairly good solvents for cellulose acetate and resins but they are not miscible with linseed oil or with hydrocarbons. Glyceryl tribenzoate is a solid plasticiser and is soluble in all anhydrous solvents with the exception of petroleum. It is rapidly gaining favour in the lacquer industry.

Tricresyl phosphate is one of the most widely used plasticisers. It is an extremely stable ester, practically non-volatile and odourless. It has a moderate solvent action on cellulose nitrate but none on acetate. It is, however, a good solvent for gums and resins and is miscible with castor and linseed oil in all proportions as also with hydrocarbons. It also diminishes the inflammability of cellulose nitrate films.

From the above it would appear that the manufacture of many of the solvents is feasible in Bihar, specially those dependent upon coal distillation and fermentation of starch and sugar. The employment of synthetic transformations of carbon monoxide and hydrogen into methyl alcohol is another practical feature in solvent production. The large quantities of molasses available for fermentation and subsequent treatment of industrial alcohol to produce acetic acid and acetone is an important feature. Although all these processes have been well worked out abroad, the Committee is of opinion that in order to develop a solvent industry in the province some preliminary experiments should be undertaken by the Government of Bihar in their own laboratories or by sending out properly trained young men to different Indian laboratories to perform pilot experiments with the aid of Government funds. At the same time efforts should be directed to secure quotations of plants from abroad, with a view to utilise the experience of chemists trained by the Government of Bihar. Unless the coal tar industry and other allied industries for the manufacture of benzol, alcohol, acetone, acetic acid, higher alcohols, etc., are developed, there is little chance of this industry making any great progress in this province.

CHAPTER XV.

LAC INDUSTRY.

The annual production of scraped lac in India varies between 1,200,000—1,600,000 maunds and the export of shellac of all kinds varies from 400,000—800,000 cwts. valued at from 1·6 to 1·8 crores of rupees at the present time. Of this annual production, Chota Nagpur contributes about 55 per cent.

The industries into which shellac enters are many and varied. The most important is the gramophone record industry which absorbs 30—35 per cent, the electrical, paint and varnish industries utilise about 35 per cent and the hatting trade about 10 per cent. As most of the countries of Europe and America had to depend, formerly, for the supply of this important resin, on India, synthetic substitutes have been produced which are extremely satisfactory for some of the trades in which shellac was formerly employed. These rivals of lac owe their position not so much to any intrinsic superiority over the natural product, as to the frantic efforts of the consuming countries to be self-sufficient at the time of emergency. Among these substitutes of shellac, the most important is bakelite, a condensation product of phenol and formaldehyde, which are available in all industrial countries of Europe and America at a very cheap price. The competition from this synthetic product has given the lac industry a severe blow in its use in the electrical trade. In the varnish industry also, bakelite, other aldehydic condensation products and cellulose preparations are now firmly established, partly owing to the ease with which they can be applied and partly due to their standard qualities. In the gramophone record industry, however, shellac is still supreme and all attempts of synthetics to capture this market have been unsuccessful up till now.

In the face of this intensive competition from synthetic resins, it is high time to find out further industrial uses of shellac, on which the well-being of a large part of the population of Bihar depends. We cannot think of anything better than to indicate the lines along which the Indian Lac Research Institute at Ranchi and at London, are working at present. Lac contains two distinct products—a dye similar to cochineal and a resin. Unfortunately the competition of synthetic dye-stuffs has driven the lac dye out of market and it is extremely doubtful if the industry can be revived, even for local consumption. Investigations are now being made at Namkum for improving the quality of shellac varnish by removing its low water resistance,

which would undoubtedly extend the usefulness of the natural resin. It has been demonstrated that the addition of a small quantity of certain chemicals to shellac varnish results in a profound change in the varnish film on drying, in that it loses its solubility in organic solvents and becomes extremely resistant to water. The successful completion of this work on shellac varnish may put the shellac varnish industry beyond the competition of the varnishes made from synthetic resins and cellulose preparations. The hardening of shellac resin by the addition of urea, has been observed for the first time at Namkum and efforts are now being made to use this hardened resin in the moulding industry, which, up till now, has been a monopoly of synthetic resins of bakelite type. An extension of this work by combining shellac with formaldehyde and urea, and in special cases, starting with vulcanised shellac, has led to very important practical results. Moulding powders can now be prepared which could be pressed on the bakelite technique, with very little difference in the quality of the finished product the cost of articles being appreciably lower than those made from bakelite and other synthetic resins (see appendix XV).

These are some of the problems on shellac resins which are now being investigated and on which the future expansion of the industry depends greatly.

In the manufacture of shellac of good quality a large quantity of an inferior grade of resin, known in the trade as 'kiri', is obtained. Attempts are also being made to utilise this by-product. 'Kiri' is extracted with solvents to get the shellac in solution. This solution is mixed to a paste with wood flour and dried. The dry powder when heated under pressure cements the wood flour into a moulding which is quite strong and takes an attractive polish. As the price of this material is very low, it will be of great value as a substitute for the cheaper grades of moulded articles and may even replace the cheaper grades of articles now being made from bakelite resins.

In the processing of shellac new developments have taken place both in London and at Namkum which are in a position to place practically a standardised product called Hard Lac Resin, in the market. Its use in the paint and varnish industry is expected to be considerable and already several firms in England have been manufacturing this product.

Shellac oil varnishes are also finding limited use in the trade, and a bleached lac industry for lacquering can also be

visualised at no distant date. The development of a solvent industry in the country (vide solvents) is very urgent in this connection, as with imported solvents the margin of profit is small.

Various other uses of shellac and shellac derivatives are possible with the growth of micanite industry, safety glass industry, water-proofing of fabrics, shellac bonded fabrics, etc. The chief mass use of shellac, however, in the absence of other heavy industries, is, for the present, only in the moulding and the varnish industries for which large fields exist. The replacement of imported bakelite goods, both fancy and electrical, would open an avenue for the manufacture of goods to the tune of 3,00,000—4,00,000 of rupees with prospects of doubling or trebling this figure.

In the indigenous processing of shellac, seed lac is an important stage. This seed lac is now being sold to the extent of 300,000—400,000 mds. annually, principally to the United States of America and in small quantities to other countries. There have been frequent complaints about the quality of this commodity, but a recent investigation at Namkum has so far improved the technique that this product can now be manufactured at slightly increased cost as practically a standard product. When the process is adopted by the indigenous manufacturer a profitable export trade can be visualised in this commodity alone. We are of the opinion that the Government should direct its attention to the general improvement of shellac manufacturing process by disseminating knowledge and where necessary, by rendering small aids to the smaller manufacturers.

The Committee recommend that the industry should be aided by encouraging the establishment of a moulding industry based on shellac with the assurance that Government requirements would be purchased exclusively from such factories if the quality of their products comes up to a standard. It further recommends that as there are a dozen moulding factories in India encouragement should be given towards the establishment of a moulding powder factory to supply shellac moulding powders to the factories in India.

Synthetic resins.

Synthetic resins belong chemically to a group of non-crystallizing organic compounds, resembling natural resins in

appearance and properties. The products marketed by the manufacturers are in an unfinished state. Under the action of heat and pressure, the unfinished products are transformed into insoluble, infusible, lustrous articles.

Synthetic resins may be divided broadly into two classes. In the first class are included those which after moulding and curing, give products of various shapes and in the second class, are placed film-forming substances, for use in varnishes and protective coatings and, in general, soluble in oils. An older plastic, still very valuable, is celluloid, a nitrated cellulose, plasticized by camphor. Casein plastics are also used for some special purposes. It is unfortunate that in the absence of raw materials like phenol, formaldehyde, etc., at a cheap price the industry of synthetic plastics is non-existent in India and dealers in the market import the unfinished product at a cost of Rs. 60—80 per md. and subject them to the finishing process, with machineries imported at a cost of Rs. 80,000 to 1,00,000. In the event of a war in Europe, the supply of unfinished material will be stopped and the factories will have to be closed down.

The process of manufacture of phenol-formaldehyde resin does not involve any great difficulty. Equal weights of phenol and 40 per cent solution of formaldehyde are placed in a kettle with a reflux condenser, with 0.5—5 per cent of a catalyst, the nature of which varies with different manufacturers. With the application of gentle heat, the liquid in the kettle is kept boiling for 2 hours. The upper aqueous layer is run off and the thin-flowing liquid is the resin, which on cooling hardens to a brittle solid, soluble in organic solvents. The fusible dehydrated resin thus obtained is mixed with sufficient hexamethylene tetramine and wood flour and ground in a ball mill. Such a powder charged into a steel mould and subjected to heat and pressure, is changed to an infusible, rigid moulded article.

As the success of the whole process depends upon careful chemical investigation an impetus should be given by the Government to specific research in this direction in suitable laboratories under them by all possible means.

In the absence of phenol and formaldehyde produced locally, it would not be economical to start the industry in Bihar. Phenol is obtained from coal tar and formaldehyde from methyl alcohol. If the coal tar industry in the province develops in accordance with our suggestions in Chapter III and wood distillation makes methyl alcohol cheap or some

other independent source of formaldehyde is utilised, e.g., from coal (the methanol process), then the manufacture of bakelite itself is not likely to give much trouble and can be safely established in Bihar. Its reaction on the shellac industry has already been discussed, but in a provincial or national planning, an adjustment between synthetic and natural resin can be brought about, according to their importance, nature of use and costs of production.

APPENDIX XV.

Estimate for a plastic industry utilising Bihar lac.

CAPITAL INVESTMENT.

		Rs.
Sixty-ton automatic press	..	4,000
Eight impression mould (4 switches)	..	2,000
Mixing machine	...	3,000
Grinding machine	..	750
Vacuum drying machine with recovery still		3,500
Building	..	5,000
Incidentals	..	1,750
		<hr/>
Total	...	20,000
		<hr/>
Working capital	..	12,000

With the above equipment 60 lbs. of powder could be prepared and handled every day. By taking 30 pressings, i.e., 30×4 or 120 switches per hour, daily output will be 80 dozen switches.

Cost of materials, process and overhead charges. (For 960 switches.)

		Rs.	a.	p.
Powder 960 oz. at 4 annas a lb.	..	15	0	0
Electrical energy	...	1	0	0
Two working men for the press	..	1	0	0
Two working men for making powder	..	1	0	0
Supervisor	..	3	0	0
Mechanic	..	3	0	0
Inserts and screws (at Re. 0-1-1 each switch)	..	65	0	0
Finishing (buffing, etc.) at $\frac{1}{4}$ anna each		7	8	0
Depreciation on Ra. 20,000 at 10 per cent about	..	6	0	0
Interest on above at 5 per cent	..	3	0	0
Interest on working capital of Ra. 12,000 at 5 per cent	..	2	0	0
Office management, etc.	about	11	8	0
		<hr/>	<hr/>	<hr/>
Total	..	120	0	0
Cost per switch	...	0	2	0
Sale price	..	0	2	9-75
Profit per article	..	0	0	9-75
Profit on 360×960 articles	..	17,550		

CHAPTER XVI.

LEATHER INDUSTRY.

The quantity of raw hides and skins exported from Bihar is very considerable. In the absence of factories for the manufacture of finished goods, the export of raw hides and skins is a source of loss to the province, as we have to import the tanned goods at a greatly enhanced price. The province is also supplied with materials from which tannin may be extracted easily. Thus there is no inherent difficulty in the manufacture of leather and leather goods in Bihar.

Vegetable tanning materials.

Some of the more important vegetable tanning materials are mentioned below :—

- (1) *Babool*.—(*Acacia arabica*).—The bark contains 12-20 per cent tannin and is used largely in India. The pods also contain tannin and are used for bating in India.
- (2) *Chestnut*.—The bark contains tannin up to 17 per cent and is used as a tannin material. The wood containing 3-6 per cent is used in very large quantities.
- (3) *Gambier*.—A climbing shrub of East Indies. The material on the market occurs as a hard earth-like substance with about 45 per cent tannin.
- (4) *Hemlock*.—The tree grows in the Himalayas from 6,000 ft. upwards. The bark contains 8-10 per cent tannin and is used in large quantities in America.
- (5) *Oak*.—The bark containing upto 10 per cent tannin, is one of the earliest tannin materials known and is still used to a great extent for sole leather.
- (6) *Myrobalans*.—are the fruits of a species of trees growing in India. They usually contain 30-40 per cent tannin and are valuable tanning material.
- (7) *Quebracho*.—The tree is grown in the Argentine and the wood contains about 20 per cent tannin. It is now used to an enormous extent in the form of extract, made in the forests.

Of the mineral tanning processes, the most important is that involving the use of chromium salts. About 2,400 tons of potassium dichromate is imported into India for the purpose of chrome tanning and also for the manufacture of matches.

As hides and skins as well as tanning materials are available the manufacture of leather and leather products is a feasible industry in Bihar ; but competition from neighbouring provinces will be very keen. The manufacture of leather goods as a cottage industry is already established in the province and deserves to be encouraged.

A scheme for the manufacture of boots and shoes on a small scale as also of a small leather factory is given in appendix XIV(a).

Rubber industry.

The use of manufactured rubber goods is on the increase all over the world and the import of rubber goods into India is considerable, as the following tables will indicate :—

	1935-36.	1936-37.	1935-36.	1936-37.
			Rs.	Rs.
Raw ... lbs.	1,010,817	684,615	3,37,749	2,04,918
Motor tyres ..	280,866 pcs	290,367 pcs	1,26,22,468	1,32,08,548
„ tubes ..	253,865 „	263,922 „	15,62,559	14,05,969
Total import of rubber, raw and manufactured is Rs. 2,10,22,396.				

There is only one factory that of Messrs. Dunlop Rubber Company, near Naihati, Bengal, which has started working within the last few years and is turning out different varieties of manufactured products in considerable quantities. The smaller concerns near about Calcutta are engaged in the manufacture of rubber cloth and other articles from raw rubber imported from foreign countries.

The establishment of a rubber factory for Bihar is not feasible. Neither raw materials nor skilled labour is available. The matter, therefore, need not be considered any further. For those who are interested in the subject additional information will be found in appendix XVI(b).

APPENDIX XVI(a).

A SCHEME FOR A SHOE-MAKING BUSINESS ON A SMALL SCALE WITH A CAPITAL OF RS. 2,000.

Estimate of capital required.

A. Block.—(i) *Building.*—It is assumed that such a business should better be started in a hired building. Monthly rent for necessary accommodation has been provided for in the scheme.

(ii) *Tools and accessories.*—

	Rs.	a.	p.
One Singer sewing machine ..	375	0	0
Lasts, small tools, furniture ..	175	0	0
Total—Tools and accessories ..	550	0	0

B. Working.—It is estimated that 260 pairs of shoes of different types and designs as per details given below will be produced in a month of 26 working days.

Cost of materials for 260 pairs of shoes to be manufactured monthly.

	Rs.	a.	p.
Gent's oxford (good quality) 7 pairs at Rs. 3-6-0 per pair	23	10	0
Do. (medium) 20 pairs at Rs. 2-8-0 per pair ..	50	0	0
Do. (cheap) 25 pairs at Rs. 1-8-0 per pair ..	37	8	0
New cut selim, etc. (chrome quality) 60 pairs at Rs. 1-2-0	67	8	0
Do. (glace kid) 38 pairs at Rs. 1-4-0 per pair.	65	10	0
Do. (fancy) 9 pairs at Rs. 2-8-0 per pair average.	22	8	0
Sandals 104 pairs at annas 12 per pair average ..	78	0	0
	344	12	0

Labour.

Pattern cutter and upper closer on Rs. 50 per month.	50	0	0
1 do. assistant on Rs. 25 per month ..	25	0	0
Bottoming 260 pairs at annas 7 per pair average	113	12	0
1 boy assistant at annas 4 per diem ..	7	8	0
House rent, etc.	20	0	0
Advertising and canvassing	20	0	0
Total—Working ..	581	0	0
Say ..	580	0	0

APPENDIX XVI (a)—*contd.**Summary of capital required.*

			Rs.	a.	p.
Block	..	..	550	0	0
Recurring	..	...	580	0	0
Reserve	..	..	870	0	0*
Total	..	..	2,000	0	0

*As the capital invested in this business may take about a month to revolve the reserved capital has been kept at Rs. 570.

Expected realisations from the sale of 260 pairs of shoes monthly.

			Rs.	a.	p.
Gent's oxford (good quality)	7 pairs at Rs. 6 per pair	..	42	0	0
Do.	(medium) 20 pairs at Rs. 4-12-0 per pair	..	95	0	0
Do.	(cheap) 25 pairs at Rs. 3-8-0 per pair average.	..	87	8	0
New cut selims, etc. (chrome quality)	60 pairs at Rs. 2-10-0.	..	157	8	0
Do.	(glace kid) 35 pairs at Rs. 3-10-0 per pair.	..	126	14	0
Do.	(fancy) 9 pairs at Rs. 5-8-0 per pair average.	..	49	8	0
Sandals	104 pairs at Rs. 1-7-0 per pair average.	..	149	8	0
Total	..	..	707	14	0
Say	..	..	700	0	0
Less depreciation on soiled stock	10 per cent of Rs. 700.	..	70	0	0
Net realisable amount	..	..	630	0	0

Expenses.

Raw materials	..	..	..	344	12	0
Labour, etc.	..	..	..	196	4	0
Rent	..	..	..	20	0	0
Advertisement and canvassing	..	..	..	20	0	0
Depreciation of tools (Singer machine 5 per cent per annum of Rs. 375 for one month)	..	..	..	1	9	0
Depreciation of small tools and lasts, etc., 20 per cent per annum of Rs. 175 for one month.	..	..	..	3	0	0
Total—Expenses	..	..	..	585	9	0

APPENDIX XVI (a)—contd.

Net monthly profit—Rs. 44-7-0, say Rs. 40.

Net annual profit—Rs. 480.

This works out at about 24 per cent on the capital of Rs. 2,000.

A SCHEME FOR A COMBINED FULL-TANNING AND HALF-TANNING DEMONSTRATION FACTORY IN NORTH BIHAR.

Capacity per month—

- (i) 1,800 pieces cow hides and 300 pieces sheep skins by chrome process.
- (ii) 20 pieces cow hides and 200 pieces sheep skins and 150 pieces buffalo hides by vegetable process (full tanning).
- (iii) 700 pieces cow hides and 500 pieces calf skins by vegetable process (half tanning).

Estimate of expenditure involved.

Block Capital—

	Rs.	a.	p.	Rs.	a.	p.
(I) Land 5 bighas at Rs. 500 per bigha.				2,500	0	0
(II) Buildings				60,000	0	0
			Sq.ft.			
(A) To accommodate (1) Lime yard, (2) Tan yard and (3) Setting tables 150' x 50'.			7,500			
(B) Machine yard 100' x 50'.			5,000			
(C) Disintegrator room 20' x 15'.			300			
(D) Boiler house 15' x 15'			225			
(E) Office 30' x 20'			600			
(F) Stores 40' x 15'			600			
(G) Drying chamber 30' x 15'.			450			
Total			14,675			
of covered area with brick wall, brick on edge floor and corrugated iron roofing on iron structure at Rs. 4 per sq. ft.				58,700	0	0
(H) Service latrines 6 at Rs. 200 each.				12,000	0	0
Total				59,900	0	0
			Say	60,000	0	0

APPENDIX XVI (a)—*contd.*

	Rs.	a.	p.	Rs.	a.	p.
(III) Equipment (masonry pits) ..	..			2,400	0	0
Masonry pits 5'×5'×4' for washing liming, and delimiting hides 20 at Rs. 45 each.	900	0	0			
Masonry pits 4'×4'×4' for washing, liming and delimiting skins 15 at Rs. 25 each.	375	0	0			
Masonry pits 5'×5'×4' for tanning 24 at Rs. 45 each.	1,080	0	0			
	<hr/>					
Total ..	2,355	0	0			
	<hr/>					
	Say	2,400	0	0		
(IV) Drums and machines ..	..			54,000	0	0
4 Big drums 6'×5' each	..	2,000	0	0		
3 small drums 4'×3' each	..	750	0	0		
2 shaving machines ..	..	4,800	0	0		
2 Buffing machines ..	..	2,400	0	0		
2 Staking machines ..	..	4,000	0	0		
2 Glazing machines ..	..	3,000	0	0		
1 measuring machine ..	..	3,500	0	0		
1 leather press ..	..	15,000	0	0		
1 sole leather rolling machine ..	..	2,000	0	0		
1 no. 1½ Carter's Disintegrator with box and balloon.	..	1,000	0	0		
1 oil engine 67 H. P. with cooling tanks.	..	8,500	0	0		
2 10 cwt. Avery platform weighing machines.	..	700	0	0		
1 small vertical boiler for process steam.	..	2,000	0	0		
Line shafting pulleys, etc. ..	..	3,000	0	0		
Tube well and pump ..	..	900	0	0		
	<hr/>					
Total ..	53,550	0	0			
	<hr/>					
	Say	54,000	0	0		

APPENDIX XVI (a)—*contd.*

	Rs.	a.	p.	Rs.	a.	p.
(V) Tools and accessories	1,100	0	0
2 small scales with weights	30	0 0			
1 holo iron fastener	100	0 0			
16 horse benches	64	0 0			
4 hand stakers	24	0 0			
25 wooden boards 7'×4' each	250	0 0			
8 cork boards	32	0 0			
8 fleshing knives	24	0 0			
8 unhairing knives	20	0 0			
2 shaving knives	9	0 0			
10 fleshing beams	20	0 0			
2 shaving beams	14	0 0			
12 brass slickers	18	0 0			
6 iron slickers	6	0 0			
4 glass slickers	4	0 0			
1½ doz. galvanised buckets	13	0 0			
4 enamelled buckets	12	0 0			
1 doz. enamelled bowls	6	0 0			
12 earthen gamlas (small)	3	0 0			
6 wooden tubs (40 gallon capacity)	24	0 0			
6 wooden tubs, small (20 gallons capacity)	12	0 0			
4 Patent stone tables (7'×4')	60	0 0			
8 wooden tables 7'×4'	120	0 0			
3 wooden table 8'×5'	45	0 0			
2 wooden tables 5'×3'	20	0 0			
3 electric hand irons	30	0 0			
Small tools and furniture	134	0 0			
1 doz. hand knives	6	0 0			
Total	1,100	0 0			

APPENDIX XVI (a)—contd.

	Rs.	a.	p.	Rs.	a.	p.
Working capital—						
(VI) Establishment (general)—				15,528	0	0
1 Expert Tanner on Rs. 750 per month.	750	0	0			
1 Assistant tanner on Rs. 150 per month.	150	0	0			
1 clerk on Rs. 100 per month ..	100	0	0			
2 clerks on Rs. 40 per month ..	80	0	0			
2 Durwans at Rs. 15 each per month	30	0	0			
2 peons at Rs. 15 each per month ..	30	0	0			
1 orderly at Rs. 15 per month ..	15	0	0			
1 market investigator on Rs. 100 per month.	100	0	0			
1 duffary on Rs. 15 per month ..	15	0	0			
2 sweepers at Rs. 12 each per month	24	0	0			
	<hr/>					
Total	..	1,294	0	0		
	<hr/>					
	1294 × 12	..	15,528	0	0	(annual).
(VII) Power plant—Establishment including fuel and lubricating oils, etc.				3,325	0	0
1 oil engine driver at Rs. 40 per month.	480	0	0			(annual).
1 fitter on Rs. 50 per month ..	600	0	0			..
Fuel oil 5,760 gallons at 6 annas per gallon.	2,160	0	0			..
Lubricating oil 50 gallons ..	45	0	0			..
Sundries	40	0	0			..
	<hr/>					
Total	..	3,325	0	0		..
	<hr/>					

APPENDIX XVI (a) *contd.*

	Rs.	a.	p.	Rs.	a.	p.
(VIII) Chrome Tanning Section—				1,10,700	0	0
Capacity—1,800 pieces cow hides and 300 pieces sheep skins.						
(a) Cost of hides and skins (annual) —						
1,800 pieces cow hides $\times 12 = 21,600$ pieces at Rs. 5 per piece (average).	1,08,000	0	0			
300 pieces sheep skins $\times 12 = 3,600$ pieces at 12 annas per piece (average).	2,700	0	0			
Total hides and skins ..	1,10,700	0	0			
(b) Chemicals (annual) :—				15,140	0	0
Lime—256 maunds ..	192	0	0			
Sodium sulphide 48 cwts. ..	276	0	0			
Artificial bate—18 cwts. ..	1,458	0	0			
Salt 462 maunds ..	1,155	0	0			
Sulphuric acid—23,415 lbs. ..	975	0	0			
Soda bichromate—165 cwts. ..	4,331	4	0			
Molasses—60 maunds ..	270	0	0			
Borax—40½ cwts. ..	769	0	0			
Soda ash—3 cwts. ..	13	8	0			
Liquor ammonia—150 lbs. ..	46	14	0			
Black aniline dye—285 lbs. ..	356	2	0			
Brown aniline dye—800 lbs. ..	1,500	0	0			
Fustic extract—600 lbs. ..	375	0	0			
Cutch—600 lbs. ..	131	4	0			
Red dyewood extract—300 lb. ..	300	0	0			
Logwood extract—900 lbs. ..	421	14	0			
Titox—585 lbs. ..	950	10	0			
Pigment finishes—195 lbs. ..	156	0	0			
Ready made fat liquor—3,524 lbs. ..	991	2	0			
Kid finishing oil—450 lbs. ..	112	8	0			
Glycerine—4½ cwt. ..	243	0	0			
Formaldehyde—36 lbs. ..	9	0	0			
Misc. chemicals and stores ..	106	4	0			
Total ..	15,140	0	0			

APPENDIX XVI (a)—contd.

	Rs.	a.	p.	Rs.	a.	p.
Labour (Annual) :—				4,104	0	0
1 machine shavers at Rs. 35 each per month.	840	0	0			
2 glazers at Rs. 20 each per month	480	0	0			
2 stakers at Rs. 20 each per month	480	0	0			
3 fleshers at Rs. 20 each per month	720	0	0			
6 unskilled workmen at Rs. 12 each per month.	864	0	0			
4 setters at Rs. 15 per month each	720	0	0			
Total ..	4,104	0	0			
Proportionate cost of power— $\frac{2}{10}$ of Rs. 3,325.	2,992	8	0			
Proportionate cost of general establishment— $\frac{1}{4}$ of Rs. 15,528.	11,646	0	0			
Total—Cost of production (chrome section).	1,44,582	0	0			
Estimated receipts from sale of leathers (chrome section) Box sides 21,600 × 200 = 432,000 sq. ft. at 6 annas 3 pies per sq. ft. (average).	1,68,750	0	0			
Sheep skins—3,600 pieces at Re. 1-4-0 piece.	4,500	0	0			
Total	1,73,250	0	0			
	Rs.	a.	p.	Rs.	a.	p.
Estimated profits—						
Gross estimated receipts from sale of leather	1,73,250	0	0			
Less estimated cost of production ..	1,44,582	0	0			
Less proportionate depreciation on buildings and masonry equipment 5 per cent of Rs. 31,200 (half of the total) ..	1,560	0	0			
Less proportionate depreciation of machinery, 7 per cent of Rs. 51,000 ..	3,570	0	0			
Less depreciation of tools 14 per cent of Rs. 1,100 ..	154	0	0	1,50,366	8	0
Estimated profit net (Chrome section) ..	22,883	8	0			

APPENDIX XVI (a)→contd.

	Rs. a. p.	Rs. a. p.
(IX) Vegetable Tanning Section (Full Tanning)—		7,110 0 0
Capacity—50 pieces buffalo hides, 20 pieces cow hides and 200 pieces sheep skins per month.		
(a) Cost of hides and skins (annual)—		
Buffalo hides $50 \times 12 = 600$ pieces at Rs. 7-4-0 per piece ..	4,350 0 0	
Cow hides $20 \times 2 = 240$ pieces at Rs. 4 per piece ..	960 0 0	
Sheep skins $200 \times 12 = 2,400$ pieces at Re. 0-12-0 per piece ..	1,800 0 0	
Total ..	7,110 0 0	
(b) Chemicals (annual)—		2,550 0 0
Lime—75 maunds ..	57 0 0	
Sodium sulphide—3 cwts. ..	17 4 0	
Acid boric— $3\frac{1}{2}$ cwts. ..	87 10 6	
Myrobalan—228 maunds ..	456 0 0	
Brown aniline dye—60 lbs. ..	112 8 0	
Pigment finishes—30 lbs. ..	24 0 0	
Ready made fat liquor—76 lbs. ..	21 6 0	
Babul bark 775 maunds ..	968 12 0	
Acid oxalic—100 lbs. ..	37 8 0	
Tallow—900 lbs. ..	159 2 3	
Cod oil—62 gallons ..	209 4 0	
Quebracho extract—8 cwts. ..	101 6 0	
Wattle extract—8 cwts. ..	96 0 0	
Til oil—7 maunds ..	168 0 0	
Miscellaneous ..	84 3 3	
	2,550 0 0	
(c) Labour (annual)—		708 0 0
1 flesher at Rs. 20 per mensem ..	240 0 0	
1 setter at Rs. 15 per mensem ..	180 0 0	
2 Workmen at Rs. 12 each per mensem ..	288 0 0	
	708 0 0	

APPENDIX XVI(a)—contd.

	Rs. a. p.	Rs. a. p.
Proportionate cost of Power—1/20th of Rs. 3,325	166 4 0	
Proportionate cost of general estab- lishment 1/16th of Rs. 15,528 ..	970 8 0	
	<hr/>	1,136 12 0
Total cost of production (Vegetable Section full tanning) .. ..	.. ..	11,505 12 0
Estimated receipts from sale of leathers (Vegetable Section full tanning)—		
Bark tanned cost hides (case leather) 240 pieces at Rs. 6-8-0 per piece	1,560 0 0	
Barked tanned sheep skins (lining leather) 2,400 pieces at Rs. 1-4-0 piece	3,000 0 0	
Barked tanned buffalo hides (sole leather) 600 pieces of 24 lbs, each 14,400 lbs. at Rs. 0-9-0 per lb.	8,100 0 0	
	<hr/>	12,660 0 0
Estimated profits—		
Gross estimated receipts from sale of leathers .. ..	.. ..	12,660 0 0
Less estimated cost of production ..	11,505 12 0	
Less proportionate depreciation of buildings and masonry equip- ments 5 per cent of Rs. 7,800 (1/8th of total cost) ..	390 0 0	
Less proportionate depreciation of machinery 7 per cent of Rs. 3,000 (cost of sole leather rolling machine and disintegrator) ..	210 0 0	
	<hr/>	12,105 12 0
Estimated profit net (Vegetable Section full tanning) .. ..	.. ..	<hr/>554 4 0

APPENDIX XVI(a)—contd.

	Rs. a. p.	Rs. a. p.
(X) Vegetable Tanning Section (half tanning)—		
Capacity—700 pieces cow hides and 500 pieces calf skins per month.		
(a) Cost of hides and skins (annual)—		42,600 0 0
Cow hides $700 \times 12 = 8,400$ pieces at Rs. 4 per piece	33,600 0 0	
Calf skins $500 \times 12 = 6,000$ pieces at Rs. 1-8-0 per piece	9,000 0 0	
Total	42,600 0 0	
(b) Cost of Chemicals—		16,620 0 0
Lime—275 maunds	206 4 0	
Boric Acid— $14\frac{1}{2}$ cwts.	356 7 6	
Avaram bark—2,946 maunds	13,072 14 0	
Myrobalan—1,022 maunds	2,044 0 0	
Til oil—37 maunds	888 0 0	
Miscellaneous	52 6 6	
	16,620 0 0	
(c) Labour (annual)—		2,100 0 0
2 fleshers at Rs. 20 each per mensem	480 0 0	
2 setters at Rs. 15 each per mensem	360 0 0	
5 workmen at Rs. 12 each per mensem	720 0 0	
1 half tanning mistry at Rs. 45	540 0 0	
	2,100 0 0	
Proportionate cost of power— $\frac{1}{20}$ th of Rs. 3,325	166 4 0	
Proportionate cost of general establishment, $\frac{3}{16}$ th of Rs. 15,528	2,911 8 0	
	2,077 12 0	
Total—Cost of production (Vegetable Section half tanning) .. ..	..	64,397 12 0
Estimated receipts from sale of leather (Vegetable section half tanning)—		
From cow hides 8,400 pieces at 5½ lbs. each .. ..	..	48,300 lbs.
From calf skins 6,000 pieces at 2 lbs. each .. ..	..	12,000 lbs.

APPENDIX XVI(a)—*contd.*

Classification of yield—

				£	s.	d.
Cow 2nd quality 7 per cent	3,381 lbs.					
24½ d.	..	..	..	345	2	10½
Cow 3rd quality 30 per cent	14,490 lbs.	22 d.	..	1,328	5	0
Cow 4th quality 35 per cent	16,905 lbs.	20 d.	..	1,408	15	0
Cow 5th quality 20 per cent	9,660 lbs.	17½ d.	..	704	7	6
Cow 6th quality 8 per cent	3,864 lbs.	14½ d.	..	233	9	0
Calf 2nd quality 10 per cent	1,200 lbs.	30½ d.	..	152	10	0
Calf 3rd quality 20 per cent	2,400 lbs.	28½ d.	..	285	0	0
Calf 4th quality 25 per cent	3,000 lbs.	26½ d.	..	331	5	0
Calf 5th quality 25 per cent	3,000 lbs.	28½ d.	..	256	5	0
Calf 6th quality 20 per cent	2,400 lbs.	15½ d.	..	155	0	0
Total ..				£5,199	19	4½
at 1 s 6½ d. per rupee ..				Rs. 68,854-12-0.		

Estimated profits—

Gross estimated receipts from sale of leathers		68,854	12	0
Less estimated cost of production ..	64,397	12	0	
Less proportionate depreciation of building and masonry equipment (5 per cent of Rs. 23,400—½th of total cost)	1,170	0	0	
Less cost of freight, etc., to reach the half-tanned goods to U. K. ..	2,512	8	0	
Total ..		68,080	4	0

Estimated profit net (vegetable section—half tanning)	774	8	0
---	-----	---	---

APPENDIX XVI(a)—concl'd.

Summary of capital required—	Rs.	a.	p.
Block capital—			
I. Land	2,500	0	0
II. Buildings	60,000	0	0
III. Equipment (Masonry pits)	2,400	0	0
IV. Machines and Drums	54,000	0	0
V. Tools and Accessories	1,100	0	0
	<hr/>		
Total	1,20,000	0	0
	<hr/>		
Working capital (annual)—			
VI. Establishment (general)	15,528	0	0
VII. Power plant establishment including fuel, lubricating oils, etc.	3,325	0	0
VIII. Chrome Tanning Section—			
(a) Raw hides and skins	1,10,700	0	0
(b) Chemicals	15,140	0	0
(c) Labour	4,104	0	0
(d) Advertisement and propa- ganda, including travelling allowance for the market inves- tigator	500	0	0
IX. Vegetable Tanning Section (full tanning)—			
(a) Raw hides and skins	7,110	0	0
(b) Chemicals	2,550	0	0
(c) Labour	708	0	0
X. Vegetable Tanning Section (half- tanning)—			
(a) Raw hides and skins	42,600	0	0
(b) Chemicals	16,620	0	0
(c) Labour	2,100	0	0
(d) Freight	2,512	8	0
	<hr/>		
Total	2,23,497	8	0
	<hr/>		
Say	2,23,500	0	0
(XI) Replacement of tools and machine parts from the 2nd year of the operation of the scheme	1,500	0	0 (annual)

APPENDIX XVI(b).

In planning a factory for the manufacture of rubber goods, there are many points which must be taken into consideration. The most important are the following :—

1. *Fuel and water.*—If the works are far from a colliery or railway, the cost of fuel will increase owing to the heavy haulage charges, while the consumption of water is so very great that it is advisable to have a supply other than the town mains to draw upon. Provision for water must be made by selecting a site near a river or by boring wells. The locality of the works should be free from dust and dirt as these are extremely detrimental to the finished material.

2. *Power.*—The best power to use is electricity, because taken all round it is cleaner and more economical for driving machines than steam or gas. It is advisable to drive each machine by a single motor.

3. *Transport.*—The factory site should be near the industrial centres and shipping posts, as the demand from customers in these places is usually more urgent.

Factory plans.

The plan of a proposed factory capable of an output of the value of Rs. 10,00,000—Rs. 13,00,000 is supplied herewith. In drawing up this plan, careful consideration has been given to curtail unnecessary labour charges for transporting materials from one department to another; for instance, the washing department, drying rooms, powder, drug and batch rooms are situated together and as these usually come under one foreman supervision is easy. The punching department which feeds the beet department, adjoins the mills as does the mechanical department. The latter and the tyre department communicate with the vulcanizing shop at one end and the finished stores at the other. All the buildings are one-storeyed with the exception of a second storey extending over the whole length and breadth of the stores, mechanical, tyre and vulcanizing departments. Communication to the ground floor is by a lift. The boilers are placed in a building which forms part of the engineer's shop and is near the vulcanizing department in order to save steam condensation. As much inflammable material is used in connection with the spreading department, this is placed away from the main building but within easy distance of the stores and mills.

A machine repair section with the following appliances is necessary :—

- (1) One 15"–17" centre back geared, surfacing, sliding and screw cutting lathe.
- (2) One vertical drilling machine to drill holes up to 2".
- (3) One milling machine with platen 18" × 24".
- (4) One planing machine to take about 10' × 4'.

APPENDIX XVI(b)—*contd.*

- (5) One screwing machine, complete with dies for pipes and bolts up to 2".
- (6) One circular saw.
- (7) Band saw.
- (8) Emery grinding wheel.
- (9) Grindstone and trough.
- (10) 12—15 H. P. motor for driving the above machines

Washing Department.

In this department the equipments required are as follows :—

- (1) A cutting machine for cutting up raw rubber into small pieces, the bench being 2'—9" × 1'—6" and having a fixed spindle suitable to carry one 6"—9" knife cutter running in a water trough. The speed of the pulleys, 4"—5" in diameter, should be about 900 r. p. m. and the machine would require one H. P.
- (2) Two galvanized iron tanks, 6' × 4' × 4' fitted with cold water, steam connection and outlet pipes at the bottom.
- (3) One breaking up or masticating mill, fitted with two grooved rolls 24" long and 10" in diameter, revolving inwardly at unequal speeds, the back roll, 12—16 r. p. m. and the front 6—8 r. p. m.
- (4) Another similar washing mill, the rolls being geared to work with greater friction the back roll 15 r. p. m. and the front 5 r. p. m.
- (5) Washing mill, similar to above, both rolls having a smooth surface, the back 15½ r. p. m. and the front 5 r. p. m.

All the machines should have cold water connections fitted above the centres of each pairs of rolls and a collecting tank and sieve fixed underneath. The machines are driven through a line shaft by a motor 15—20 H. P. at 600 revolutions per minute.

Drying Department.

Vacuum drying is usually employed. The plant consists of a pump, condenser and stove, driven by 2½—3 H. P. motor. The drying chamber should be about 4½' × 4½' × 4½' and should contain 12—15 layers of steel steam heating pipes, on which the trays are placed with the materials for drying. Vacuum and steam pressure gauges should be fitted and it is better to have two sets of trays, so that one lot may be filled while the other is in the chamber.

APPENDIX XVI(b)—*contd.*

FACTORY MACHINERY.

Mixing, Warming and Grinding.

These machines correspond in principle to the washing rolls already described but of larger dimensions, 16"—18" in diameter and 50"—60" in length. The rolls work at friction speeds, the front roll rotating at 22½ r. p. m. and the back one 15 r. p. m. For the purpose of removing the compound from the rolls, a scraper is fixed on a steel rod, so that it can be moved along the face of the rolls. The warming up machines are placed in close proximity on the feeding side, so that a continuous supply of material may be at hand. The warming up machines are but another name for the mixing mills, the speeds of the rolls being the same.

The grinding machines are very similar to the mixers in construction but to tear the rubber into shreds, the rolls are so geared that the friction is much greater and the revolutions of the rolls are 24 : 8. All the mixing, grinding and warming mills are fitted with steam and cold water connections. Four large mixers are usually necessary and each is driven by 35—40 H. P. motor. To save floor space the motors are usually placed below the floor level.

Calenders.

The calenders are the most important machines in a rubber factory and are now made with four rolls. Two three-roll calenders will be sufficient for most purposes. Fabrics which have been proofed on a calender are much superior to those prepared by the spreading process. Modern calender rolls run at even speeds and in addition each of them carries a lengthened journal on which are fixed two gears; by inserting a steel pin, the rolls are changed over from even speed to friction speed. Probably the most useful size of the calender is that having three rolls 60" wide on the face and 20" in diameter. At the front of the calender, not the feeding side, apparatus for winding the fabric is fixed at a distance of 5'—6' for the rolls. The best and most suitable form of drive is by means of an electric motor and worm reducing gear; a 30 H. P. variable speed motor will be best while the gear should be such that the calender has a delivery speed of 8—20 yards per minute.

Spreading shop.

There are various kinds of fabrics which cannot be treated on calenders and the proofing of these must be done on spreading machines. The standard width of the proofed fabrics is 72"—84"; three machines are necessary for these widths. In the most modern machines, a spreading roll is provided and over it is placed an adjustable knife or "doctor"; directly in connection with this is fixed a steam heated steel plate which is of the same width as the spreading roll but 12'—14' long. In

APPENDIX XVI(b)—*contd.*

line with the spreaders, a machine for doubling the proofed cloth is installed, the operation being carried out by two rollers which press the two surfaces of the cloth together while passing between them.

Three dough mills with rolls 3' by 16" will be sufficient to keep the three spreading machines going. As para strip is one of the principal articles to be manufactured, a water tank must be provided for the stripping of the rubber from the faced sheet and it should be of galvanized iron 7' x 4' x 4' fitted with steam pipes, water connections and outlet pipes.

Solution machine.

A solution making machine of the beater type, the lid of which should fit very tight to prevent the escape of solvents must be provided. A tank for storing naphtha outside the spreading shop is also necessary. A 40 H. P. motor will be required for driving this set of machines. To remove inflammable vapours good draught fans must be provided at suitable points.

Cloth drying machine.

In connection with the spreading department, a cloth drying machine, consisting of three drums 24"—30" in diameter, 30" long, made of stout sheet tin capable of withstanding a pressure of 20—30 lbs. per square inch steam enters through bearings and steam gauge is fitted reading up to 30 lbs. No power for winding is necessary this being done by hand.

PRINCIPAL RAW MATERIALS.

Para rubber.

The finest and foremost rubber is Hard Fine Para, from South American forests. It is suitable for all classes of goods where strength is an essential requirement. It is one of the cleanest of wild rubber and the washing loss rarely exceeds 5 per cent.

Plantation rubber.

Plantation rubber is exceptionally clean of very good nerve and strength and comes on the market in many cases ready for use. The most reliable plantation rubber is that prepared by smoking for which special plant has been introduced. The rubber coagulated by acetic acid or any other acid process is unreliable as it would appear that the acid cannot be washed out completely which proves detrimental to the goods in which it is used.

Para second grades come on the market under various trade names, such as Scrappy Negroheads, Cameta, Sermanby, etc., the washing losses of these run up to 20 per cent.

APPENDIX XVI (b)—*contd.**Peruvion Ball.*

Peruvion ball, another South American rubber, probably comes next to the Para and Plantation grades in point of quality and is used for the manufacture of high grade goods and proofings. Other raw rubbers which are extensively used, generally being classed as 'medium' grades, are Massai, Borneo, Upper Congo Bell, Malay, Ceylon, etc.

Reclaimed rubbers.

Reclaims which are made under alkali and acid processes, appear to possess more nerve and elasticity than those prepared by other processes. In purchasing it would be an advantage to ascertain the rubber content, free sulphur and specific gravity.

The general class of reclaims are rather unsuitable for proofing purposes as they do not disintegrate in naphtha but acid reclaims are more suitable than alkali grades.

A list of other essential raw materials is given below. A large and up-to-date firm would have to keep a stock of these articles to manufacture different varieties of manufactured goods.

Vulcanized waste.

Floating waste.	Common black waste.
Red waste floating.	Red inner tube waste.
Common red waste.	Grey „ „ „
Common drab waste.	Cab or bus tyre waste.

Fillers, etc.

Zinc oxide.	Lithophone.
Magnesia.	Pumice.
Magnesium carbonate.	Glass powder.
Whiting.	Vegetable black.
Barytes.	Coloured pigments.
Lime	Graphite.
Litharge.	Zinc white.
Zinc sulphide.	Talite.
French chalk.	Asbestos powder.
Red lead.	Antimony sulphide.
White lead.	Ultramarine blue.

Reclaims.

Floating reclaim.	Dark reclaim specific gravity 1.5.
„ red reclaim.	Drab and red reclaim.
Dark reclaim specific gravity 1.25	Cheap dark and drab reclaim.

APPENDIX XVI (b)—*contd.**Vulcanizing ingredients.*

Sulphur.	Vermillion.
Crimson antimony.	French antimony.
Golden antimony.	Black hypo.

Other ingredients.

Dark floating substitute.	Rosin oil.
Light floating substitute.	Paraffin wax.
Shellac.	Ceresine wax.
Ground mica.	Creosote oil.
Red ground substitute.	Linseed oil.
Rape oil.	Glycerine.
Mineral rubber.	Camphor.
Vaseline.	

With reclaims, it should be insisted that all deliveries must be of uniform quality. Sulphur content should not vary for if it does to any considerable extent, trouble is bound to ensue owing to over or under vulcanization of the articles into which the reclaim enters.

Washing, drying and mixing operations.

Raw rubber, on its arrival at the factory, should be stored in a moderately cold, dark room. Before passing on to the washing mills, rubber is usually softened by soaking in hot water for 6 hours. After this softening operation it is immediately passed to the first pair of washing rolls, previously described, a stream of cold water being allowed to flow on to the rubber in order to wash away dirt and impurities, while the process of tearing the rubber up goes on. Moderation at this stage is essential, otherwise the material deteriorates.

It is now put into another tank of cold water and after rinsing is passed to the second pair rolls, where it is broken up into still smaller pieces, a flow of cold water being kept on it the whole time. In this second operation, the rubber is broken up and foreign matter is completely eliminated. It is now transferred to the third pair of rolls and run out into a long sheet, 12" wide, and put on a bench to allow the water to drain off.

Drying washed rubber.

Washed rubber is sometimes dried in a current of hot air. It is advisable, when this is adopted, to raise the temperature slowly to 60°—70°C. Para and better class of rubbers should be thoroughly dried in two days.

APPENDIX XVI (b)—*contd.*

For vacuum drying, the raw rubber is run into very thin sheets, and placed on trays which fit into the shelves of the chamber, the door being closed and the apparatus put into operation, as described before. Care must be taken that the pressure and temperature do not fluctuate very greatly. The drying temperatures for high grade rubbers may be as high as 75°C. Average time of operation—1 hour.

Selection of mixings.

Pure rubber is never employed for the manufacture of rubber goods. It is always mixed with reclaims, fillers, etc. before the final curing operation is undertaken. The principal points to be taken into consideration when making up a compound may be set down as follows:—(1) the use to which the article is to be put whether it must be acid resisting, possess wearing qualities or any other special quality, (2) the specific gravity of the finished product, (3) whether for tubing, machine moulding or open vulcanization, (4) colour desired. If the article is to resist the action of acid and alkalis, French chalk, barytes, talite and sulphur would be suitable fillers in conjunction with good class raw rubber. Should the above be required in a dark or black colour, this can be obtained by use of velvet black, graphite, etc. For imparting toughness to rubber goods, nothing can beat magnesia, white lead, zinc oxide and in the case of dark goods, litharge.

The mineral matter to be incorporated in the mixings must be in a fine state of division. When wax of any kind forms a constituent, it should be melted in a pan and evenly incorporated with the mineral matters.

In the case of gas tubes, etc., which must have a smooth finish waste rubber of any kind cannot be used, as it produces lumps on the surface. Care must also be exercised in the use of reclaims, as some of these are stringy and contain bits of foreign matter. In the latter case the difficulty is got over by suitable additions of lime and magnesia in small quantity.

The actual mixing operation requires a good deal of care and attention. It is well known that raw rubber deteriorates rapidly by overworking on the mixing rolls and by applying too much heat. As regards the actual process of mixing, the rolls are set in motion, sufficient steam being passed through them to facilitate the mixing, and thus obviate prolonged working. When raw rubber, reclaims and minerals form the ingredients, it is advisable to ground the rubber and reclaim separately until they are plastic, when they are mixed together and the mineral added and mixing continued until the whole forms homogeneous mass. As rubber during mastication becomes heated, even if the rolls are cold, allowance must be made for this by having cold water connections fitted to the rolls.

APPENDIX XVI (b)—*contd.**Vulcanization.*

In this process the vulcanizing plant should be conveniently near the boiler, so that dry steam is available and condensation loss in pipes is reduced. Good ventilation is essential for the health of the workmen and a good draught fan is therefore important for this department.

A list of pans necessary for the manufacture of various classes of goods is given below:—

- (1) Two horizontal pans to take the 'insertion' drums, 5'—6' long and 3'—6" in diameter and fitted with carriages, so that the wrapping drum containing the insertion can be run in and out.
- (2) Two vertical pans 3' diameter and 4' deep to take clamp d moulds, etc.
- (3) One horizontal pan 2½' in diameter and 6' in length, having a tray for chalk and fitted with a run out.
- (4) Two pans 3½' in diameter and 3½' in length for washers, etc.
- (5) One pan 4' × 8' for rollers.
- (6) One pan for motor car inner tubes, 5' in diameter 12' in length and fitted with a run out on which a special stand is erected for holding a large number of tubes.

All these pans should be well insulated. The steam inlet pipes might be connected to a large steam supply pipe from the boiler and if the latter is working at high pressure a pressure reducing valve is necessary. Exhaust steam should be condensed, the pans should be tested to stand a pressure of 100 lb. per sq. inch and fitted with steam pressure gauges. The steam required for these pans may be generated in a boiler about 7½' in diameter and 30' in length, working at 175 lb. per square inch and capable of evaporating 7,500 lb. of water per hour.

There are several methods by which the curing of the rubber goods can be carried out, the most important being steam vulcanization. This method can be divided into four different operations:— (1) Open cure or goods made to shape, embedded in chalk and vulcanized. (2) Articles made to shape generally on a mandrel or similar support, being wrapped in cloth and vulcanized in the pan with steam circulating throughout. This is known as the 'wrapped method' and is used in the case of washers, insertions, sheet, etc. (3) Goods wrapped as in (2) but suspended in a vulcanizing pan containing water, the temperature being raised to the required point by admission of steam. This process is not used to any great extent. (4) Goods pressed to shape in presses, the necessary temperature being obtained by steam circulating through the chambers between which the mould is placed. This is known as 'press-cure' and rubber heels, buffers, motor tyres, motor cycle belts are made by this process.

APPENDIX XVI (b)—*concl'd.*

Under all the above processes, sulphur is the only medium of vulcanization. Sulphur combines with rubber at a temperature of 240° F. For all soft rubber goods, it is advisable to use 5—15 per cent sulphur, on the amount of raw rubber used in the mixing. For the harder class of manufactured goods, a larger proportion of sulphur is necessary, 25—60 per cent.

The time of curing varies with the different articles vulcanised. The following times of curing are recommended for the different classes :—

Open cure for gas tubing, cab tyres, etc.

- | | | | | | |
|-----|------------|----------------|------------|------------|-------------|
| (1) | 15 minutes | rise to 40 lb. | (286·6°F.) | 30 minutes | at 286·6°F. |
| (2) | 30 | " | " | 60 | " " |
| (3) | " | " | " | 90 | " " |
| (4) | " | " | " | 120 | " " |

These times of curing would be applied to wrapped goods, a different pan being used.

Press cure for all moulded goods, rubber heels, etc.

- | | | |
|-----|------------|-----------|
| (1) | 10 minutes | at 290°F. |
| (2) | 10 | " " |
| (3) | 60 | " " |
| (4) | 75 | " " |
| (5) | 90 | " " |

CHAPTER XVII.

PHARMACEUTICALS.

Pharmaceutical preparations may be divided broadly into the following groups :—

- (1) Extracts or tinctures of indigenous drugs.
- (2) Preparation of synthetic drugs.
- (3) Preparation of vitamin products.
- (4) Extraction of alkaloids like strychnine, morphine, etc., from raw materials available in the country.
- (5) Preparation of inorganic or organic compounds used in medicine in large quantities, like ether, chloroform, sodium benzoate, sodium salicylate, sodium citrate, sodium sulphate, magnesium sulphate, etc.

Extracts or tinctures of indigenous drugs.—The methods employed in these cases simply consist of boiling the plants in steam heated pans with water to extract the active principles. Very little attempt is made to obtain an extract with uniform strength or concentration and after the addition of some preservative like p-hydroxy benzoic acid, etc., the liquids are clarified and bottled. The cost of a steam jacketed pan capable of holding about one maund on the average is about Rs. 350 and one cooly can attend to 5—6 of these pans at a time. So the labour charge is six annas for six pans of this type.

In the case of tinctures, the solvent employed is alcohol and the loss of this solvent must be prevented by suitable condensing arrangements. A better plan is to employ an extraction plant built on the principle of soxhlet extraction apparatus, holding 2—3 maunds of raw materials. The loss of solvent in this method is reduced to a minimum. In the next stage, the alcoholic extract is evaporated down in vacuo and the residue is dissolved in a definite volume of alcohol to give a tincture of the required strength. The cost of a plant of this type with vacuum evaporator is about Rs. 10,000 and the wages of workman in charge of this would be about Rs. 1-8-0 per day. The loss of solvent generally is less than 5 per cent.

Synthetic drugs.—The preparation of synthetic drugs can be easily undertaken in Bihar. Although all raw materials have to be imported from abroad, the great difference between the price of the raw materials and the finished product will always leave a fair margin of profit for the manufacturer.

Organic arsenicals like atoxyl, neo-salvarsan, sulpharsenol, stovarsol can be manufactured in fairly large quantities by an experienced chemist at from 4 to 6 annas per gram whereas the present market price is about Rs. 3 per gram. These figures as to cost of production of these drugs have been actually worked out from the result of extensive laboratory experiments at Calcutta.

The Government of Bihar has recently started a campaign against Kala-azar and from reports available, it appears that a large sum of money will be spent in fighting this disease in the next few years. Up till now the most successful specific for the treatment of Kala-azar is urea-stibamine of Sir U. N. Brahmachari. Our Secretary Dr. Neogy has worked for a number of years on organic compounds of antimony, similar to urea-stibamine. If necessary the preparation of this compound may be taken in hand immediately the cost of production being about six annas per gram. As the Government of Bihar will have to pay twelve to fourteen annas per gram for buying this product from the Calcutta firms it is necessary that the attention of the proper authorities should be drawn to this aspect so that the Government of Bihar may effect a large saving on urea-stibamine.

A local anaesthetic of the type of novocaine can also be prepared easily. The starting materials for these are very cheap. Toluene on nitration will give nitrotoluene which when oxidised gives p-nitro-benzoic acid. From this, with phosphorus pentachloride, p-nitro-benzoyl chloride is prepared. Another starting material is ethylene which, on bromination under suitable conditions, gives ethylene bromohydrin. Diethylamine is prepared from diethylaniline, a cheap material, by a process which is well known. Diethylamine with ethylene bromohydrin gives diethyl-ammino-ethanol which on condensation with p-nitro-benzoyl chloride give p-nitro-benzoyl-diethylamino-ethanol. Reduction of the nitro group gives novocaine. According to Dr. Neogy the cost of production of novocaine is about one rupee per gram whereas the price of the imported material is very much higher.

Another important synthetic drug which has been introduced within the last few years, under the trade name prontosil, sulphonamide, etc., can be easily manufactured locally. The chemical formula for the substance is p-amino-benzene sulphonamide. The process of manufacture is simple and the materials are easily obtainable. The cost of manufacture is said to be eight to ten annas per gram.

The above list does not exhaust the list of pharmaceuticals that may be prepared in the province. It merely indicates some of the lines of manufacture.

PREPARATION OF VITAMIN PRODUCTS.

Vitamin A preparation—Trade name Cod-liver oil.

Halibut liver oil.—It contains 120,000 I. U. The product on the market is always associated with vitamin D. Ordinary cod-liver contains per c. c. 2,400 I. U. of vitamin A and 200 I. U. vitamin D.

Indian source.—Fish liver oil like Ruhit, etc. Ruhit liver oil contains about 13,000 I. U. per c. c. Hence it is richer than ordinary cod-liver oil in the market. Method of preparation is simple. The oil can be liberated from the raw liver either by steam heating or saponifying with 5 per cent sodium hydroxide. Yield—20 per cent of the weight of raw liver.

Vitamin B.

Indian source.—Rice polishings obtainable from rice mills. Extraction with water followed by alcohol and absorption by Fuller's earth and elution with acetic acid and finally concentration gives vitamin B concentrate.

Uses.—For beri-beri and respiratory diseases.

Vitamin C.

Indian source.—Fruit juice, e. g., pineapple, guava, etc., is extremely rich in this vitamin. It is used as prophylactic agent against infectious diseases, intestinal diseases, rheumatism, etc.

Alkaloids.—The total quantity of morphine imported into India during the last two years is given below :—

1935-36.	1936-37.
769 oz.	587 oz.
Rs. 23,931	Rs. 18,540

Morphine.—Although India produces a fairly large quantity of opium from which morphine may be extracted yet the extraction of this important medicinal product has not yet been undertaken. The process of extraction is well known and involves no costly plants. An experienced chemist can easily undertake its preparation on a semi-commercial scale.

Strychnine.—The export of nux-vomica seeds from India during the last two years amounted to 17,093 cwt. and 32,763 cwt.

valued at Rs. 94,000 and Rs. 1,95,000, respectively. The total quantity of strychnine that is imported into India cannot be stated with any certainty. The percentage of alkaloid in the seeds is about 2—2.5 per cent of which 70 per cent is strychnine. If instead of exporting raw nux-vomica, it is found possible to extract strychnine and brucine, a very profitable export trade may be set up in the country.

Atropine and Hyocyamine.—The manufacture of these two valuable alkaloids may prove to be a very paying proposition as the plants from which they are extracted are indigenous in India. Although the process of manufacture is somewhat complicated and tedious, yet there is no insurmountable difficulty in attempting the extraction of these alkaloids. A fair return on the capital invested may be safely expected if these industries are taken up by employing experienced hands.

Preparation of inorganic and organic compounds used in medicine.—The manufacture of the products included under this heading will require the establishment of a chemical works. Many of the substances like ether, chloroform, sodium benzoate, sodium citrate have a very large sale in the market. The raw materials for many of these have to be imported but in that respect, Bihar is at an equal disadvantage with all other provinces which have also to depend upon the importation of raw materials. If the coal-tar distillation industry is established in Bihar, we may have a cheap supply of toluene from which benzoic acid and sodium benzoate may be manufactured. Similarly starting from phenol, we may manufacture sodium salicylate which has also a large market. The manufacture of citric acid from citrus fruits may also prove to be a profitable concern. In any scheme for the manufacture of sodium sulphate and magnesium sulphate, a large supply of sulphuric acid is necessary. Unless a sulphuric acid plant is set up it would not be possible to compete with well-established firms in other provinces. The total capital expenditure for starting a chemical factory of this type will be about Rs. 5,00,000 including a 5-ton sulphuric acid plant and Rs. 2,00,000 for working expenses. Allowing Rs. 25,000 per month for the cost of raw materials and Rs. 25,000 for wages, working expenses, power depreciation, etc., and another Rs. 10,000 for office expenses, canvassers, advertisements, etc., the monthly sales may be expected to reach Rs. 65,000—70,000 leaving a margin of Rs. 10,000 for profit. Even with borrowed capital, with 9 per cent interest per annum, the net profit will be about Rs. 1,00,000 per month.

CHAPTER XVIII.

MATCH INDUSTRY.

During the last three decades, several attempts were made to start match factories in various provinces of India. None of these attempts survived, the main causes of failure being—

- (a) want of proper technical guidance,
- (b) want of sufficient capital,
- (c) under-estimates in the cost of machinery and equipment,
- (d) faulty choice of factory sites,
- (e) wrong selection of match machines,
- (f) difficulty in obtaining proper kind of wood for matches,
- (g) inefficient management,
- (h) under-selling by the foreign combines which have now practically the monopoly of the industry in India.

The present time is very favourable for the match industry because the duty imposed by the Government of India has practically stopped the import of foreign matches into the country. The prejudice of the dealers in handling Indian matches has disappeared and the consuming public have grown less fastidious and exacting.

The first essential raw material for the successful working of a match factory is the supply of suitable varieties of wood at a reasonable price. A list of trees which may supply suitable wood is given below. The details have been supplied by the Proprietor, Calcutta Match Factory, to whom our best thanks are due :—

- (1) *Anthocephalus Cadamba*—(Kadam).
- (2) *Caseari Glomerata*—(Barkholi).
- (3) *Callicarpa Arborea*—(Geoblo, Bormala).
- (4) *Holarrhena Antidysentrica*—(Khira).
- (5) *Prunus Persica*—(Aru).
- (6) *Sapium Eugenifolium*—(Siplikhan, Pipalpati).
- (7) *Trema Orientalis*—(Kuel).

- (8) *Elaecarpus Robustus*—(Bepari).
- (9) *Machilus Sp.*—(Mawla).
- (10) *Michelia Sp.*—(Ghogay Champ).
- (11) *Symplocos Sp.*—(Kholme).
- (12) *Acer Sikkimense*—(Lahara Kapasi)
- (13) *Excoccaria Agallocha*—(Genwa).
- (14) *Macaranga Sp.*—(Mallata).
- (15) *Betula Cylindrostachys*, Wall—(Sauer).
- (16) *Michlia Cathcarti*, K. H. F.—(Titechamp).

Most of the species mentioned above have no value as timber and many of them are jungle trees which should be obtainable very cheaply except for transport difficulties.

For practical purposes types of match factories may be divided into six classes :—

- (a) Factories which manufacture splints only.
- (b) Factories which manufacture box veneers or complete boxes.
- (c) Factories which manufacture both the above items.
- (d) Factories which buy ready-made splints, make their own boxes and finish the matches.
- (e) Factories which buy ready-made splints and boxes and make finished matches.
- (f) Factories which are self-contained manufacturing all their requirements in their factories.

The factories classed under (a) should be situated near the supply of wood in the forest area and (f) class factories may have their splint-making department in or near a forest area, the remaining manufacturing processes being carried out in a place close to a commercial centre having means of easy transport to different parts of the province.

Suitable woods for the manufacture of matches are not wanting in the province. What is needed is a definite forest policy that would remove all doubts and difficulties in the way of supplying match wood. It has been represented to our Secretary that Government could forward the cause of the

industry and practically help interested parties in the following way :—

- (1) By securing the rights to obtain match wood from Government forests at reduced royalty.
- (2) By obtaining concession on freights from railway companies for raw materials and finished goods.
- (3) By granting loans.
- (4) By buying local products for Government use.
- (5) By reducing the import duty on chemicals and other raw materials for matches.
- (6) By general technical help and direction.

In view of the competition of the Swedish combine and the failures of the Indian concerns in the past no fresh attempt to establish the industry in the province is recommended without a careful consideration of the causes of previous failures.

Additional information on the subject is given in the appendix.

APPENDIX XVIII

Additional information regarding Match Industry.

Capital outlay.

Items.	1,000 gross.	500 gross.	300 gross
	Rs.	Rs.	Rs.
Match machines	2,50,000	1,00,000	75,000
Equipment and fittings ..	40,000	20,000	10,000
Power and transmission ..	50,000	25,000	20,000
Working capital	2,00,000	1,50,000	1,00,000
Buildings	50,000	30,000	25,000
Preliminary expenses ..	30,000	20,000	10,000

Labour and power.

	1,000 gross.	500 gross.	300 gross.
Labour { Men	60	50	30
Boys	100	80	70
Total	160	130	100
Power	100 B.H.P.	50 B.H.P.	30 B.H.P.

APPENDIX XVIII—*contd.*

Match machines.

Name of machine.	Production per day.		
	1,000 gross.	500 gross.	300 gross.
Cross cut saw	1	1	1
Circular saw	1	1	1
Unbarking machine	1	..	..
Splint and box veneer peeling	4	3	3
Splint chopping	1	1	1
Box veneer chopping	1	1	1
Splint drying chamber	2	1	1
Splint polishing drum	3	2	2
Splint cleaning	1	1	1
Splint levelling	2	1	1
Paste mixer and boiler	1	1	1
Outer case pasting	6	3	3
Inner case pasting	6	3	3
Box closing and labelling	6	3	3
Box drying chamber	3	2	2
Frame filling	12	6	6
Filling frame for splints	3,500	1,800	1,200
Frame trolleys	175	100	60
Chemical sieving	2	2	2
Ball mill	1	1	1

APPENDIX XVIII—*contd.*Match machines—*concl'd.*

Name of machine.	Production per day.		
	1,000 gross.	500 gross.	300 gross.
Composition grinding mill, conical	4	3	2
" " " " eccentric	3	2	2
Frame heater and reheater ..	2	2	1
Paraffining apparatus ..	3	2	1
Hand dipping apparatus ..	3	2	1
Frame emptying	3	2	1
Box filling	3	2	1
Box painting	3	2	1

Cost of production.

—	1,000 gross.	500 gross.	300 gross.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Match wood	0 3 0	0 3 0	0 3 0
Chemicals, paper, labels, etc. ..	0 6 0	0 6 0	0 6 0
Power	0 1 0	0 1 6	0 1 6
Packing	0 1 0	0 1 0	0 1 0
Labour establishment ..	0 2 0	0 4 0	0 6 0
Miscellaneous	0 1 0	0 1 6	0 1 6
Total ..	0 14 0	1 1 0	1 3 0

APPENDIX XVIII—*conold.*

The above are costs of production per gross of boxes of 60 sticks for different sized factories. These figures have been arrived at in the following way :—

- (1) The price of match wood is taken at 9 annas per c. ft. and one c. ft. will produce 3 gross.
- (2) The price of chemicals, paper, etc., has been calculated at the present market rates, to be imported in bulk.
- (3) Electric motor or steam engine is to be used for motive power. A boiler will be necessary for supply of steam. In forest areas wood fuel is to be used and coal in other places.
- (4) Wood required for 100 gross packing cases is 6 c. ft.
- (5) Labour has been calculated at rather high rates—12 annas for adults and 8 annas for boys ; in Bihar this figure will be considerably lower.

CHAPTER XIX.

ELECTRO-CHEMICAL INDUSTRIES.

The very high range of temperatures attainable in electric furnaces has opened up a large field of chemistry which was previously not accessible. In the case of processes, in which electric current merely acts as a heating agent and is dissociated from any electrolytic action, products such as artificial graphite, highly refractory metals, a large series of compounds known as carbides, artificial abrasives and high temperature and acid resisting substances like fused alumina, have been successfully manufactured.

It is unfortunate that in India no attempt has yet been made to utilise the electric current for the manufacture of products mentioned in the previous paragraph. As indicated in Chapter II of this report, the province of Bihar is fortunate in having within its boundaries many of the raw materials from which these valuable and important commodities may be prepared on a large scale, when the electrification scheme developed by the Government of Bihar is put in operation. With cheap electric current and abundant raw materials, Bihar's position for the development of electro-chemical industries is unassailable and steps should be immediately taken to collect all the necessary informations about the industries discussed in this Chapter. In the limited time at our disposal it has not been possible for the Committee to get in touch with firms abroad for quotations of machineries necessary for the processes but every attempt has been made to give a fairly accurate idea of the cost of production of the articles at suitable sites in Bihar.

It is frequently assumed that the large supplies of electric energy, necessary in electro-chemical processes, cannot be economically generated from steam power and that this class of industry must be confined to large water power centres. However, the position with regard to the generation of electrical energy on a large scale from steam power has undergone a very rapid development within the last 20—25 years and it is now possible with cheap fuel to produce electricity as cheaply as in the most highly developed hydroelectric plants.

Calcium carbide.—The manufacture of calcium carbide was first carried out at the Wilson Aluminium Works, United States of America, in 1891 and later at Meriton and may be regarded as the pioneer of electro-thermal industries. The chemical reaction proceeds smoothly at high temperature in accordance with the equation $\text{CaO} + 3\text{C} = \text{CaC}_2 + \text{CO}$.

The following types of furnace have been employed for the manufacture of calcium carbide at various times :—

- (1) *Intermittent furnace.*—In which blocks of carbide are built up during the operation and are removed after cooling by dismantling the furnace.
- (2) *Continuous operation furnace.*—In which the molten carbide is tapped at intervals, without interrupting the process and allowed to cool and solidify in a separate vessel.

The main disadvantage of intermittent method of working are the uneconomical utilisation of heat and loss of material by dispersal through evolution of vapour. The conversion of the charge is incomplete and the yield is sometimes as low as 50 per cent. Advantages of the intermittent method are that the product is of a better quality and the furnaces can be run to suit the power supply.

Continuous operation furnaces.—These furnaces are rectangular in form, with open top for admission of the charge. The electrodes consist of two or three blocks of carbon, according to the nature of current employed, suspended adjacent to each other above the furnace charge. The molten carbide collects on a common hearth underneath and is removed through tapping holes at the base of the furnace enclosure. The opening is usually stopped by a cone of clay or solidified carbide.

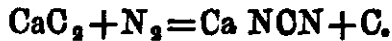
Difficulty is often experienced in opening the tapping hole on account of the high melting point of carbide. In any case, it is necessary to employ an excess of lime in the charge to lower the melting point. Consequently, the product gives a smaller yield of acetylene than the pure product. A further disadvantage with this form of furnace is the accumulation of slag and impurities which cling to the sides and gradually fill up the furnace.

Furnaces now constructed are from 3,500—6,000 K. W. H. capacity and work with three phase alternating current of 25 cycles and with a power factor of 0.9. The consumption of energy per ton of carbide produced is from 4,000—4,250 K. W. H. for a large scale plant. Electrodes of good quality carbon or artificial graphite are generally used. With good quality coke electrodes, the electrode consumption is 33 per cent ~~less~~ than with anthracite. In the latter case, the consumption amounts to 0.02—0.03 ton per ton of carbide.

The raw materials necessary for 1 ton of carbide are the following:—Limestone 1·7 tons. Coal—0·2—0·3 tons for burning limestone, coke or anthracite—0·62 per cent.

A cost sheet for the production of calcium carbide is given in the appendix XIX.

Calcium cyanamide is prepared by the passage of nitrogen over powdered calcium carbide at a temperature between 900°—1200°C.



The discovery of the fertilizing value of this product led to its manufacture on a large scale and in this connection calcium carbide has found its largest application.

The reaction is effected by passing pure nitrogen, under a slight pressure, into a furnace containing powdered calcium carbide at 900°—1200°C. The preliminary heating is effected by internal electric heating and the reaction being exothermic, no further heating is necessary when nitrogen is passed in. Use is made of the addition of certain reagents, like calcium chloride, flourspar, to facilitate the absorption of nitrogen at a lower temperature. The furnaces, now usually employed, work continuously and have a capacity of 15—18 tons of finished product. Time of operation 30—40 hours.

The product is in the form of a solid mass consisting of 63 per cent calcium cyanamide, 2 per cent calcium carbide, 13 per cent lime, 1 per cent calcium sulphate, 11 per cent carbon and smaller quantities of other impurities. The product after cooling is pulverised in an atmosphere of nitrogen to a fineness of 200 mesh. It is then treated with sufficient water to decompose carbide and hydrate the lime and the remaining cyanamide is conveyed to autoclaves for ammonia production.

With this process of manufacture, giving a product of 19·5 per cent nitrogen, the quantity of carbide required for 1 metric ton of nitrogen fixed is about 3·62 metric tons and the power requirement is 8100 K. W. H.

Ferro-alloys.—The growth of ferro-alloy industry is contemporaneous with that of steel but considerable advances have been made in recent years by the application of electric furnace to this branch of industry. Ferro-alloys were formerly prepared in the blast furnace, crucible furnace and to a smaller extent in open-hearth furnace. The limitations imposed in,

these furnaces are that sufficiently high temperatures are not attainable and large quantities of carbon used in the charge do not permit of low carbon alloys to be prepared.

The preparation of ferro-alloys in the electric furnace is free from these drawbacks and no special type of furnace is necessary for the purpose. The temperatures necessary for the manufacture of these alloys vary between 1200°—1900°C.

Ferro-silicon is manufactured in electric furnace from iron ores of high silica content or after admixture with a silicious mineral or by smelting a strongly acid slag from Bessemer or Siemens—Martin furnace. Furnaces of the resistance type are generally used for this purpose. These are lined with fire bricks, sometimes lined with a carbon composition and the exterior of the furnace is usually braced with iron stays. The voltage ranges from 40—75 and the current from 10,000—15,000 amperes. To ensure continuity of working, several electrodes are placed in parallel any one of which may be renewed without stopping the furnace.

Originally the charge was composed of a mixture of (1) iron pyrites or other iron ores, (2) sand or quartzite, (3) carbon in the form of coal or coke with lime as a flux. Owing to the presence of impurities, sulphur and phosphorous, scrap-iron or steel shavings are preferred to iron ore.

Ferro-manganese.—The mineral generally used for the manufacture of ferro-manganese is pyrolusite which, as stated in Chapter II, occurs in Bihar. The difficulties to be guarded against in the electro-thermal production of ferro-manganese are the volatilisation of the metal at high temperatures and its combination with carbon. Generally the alloy is protected from electrode contamination by maintaining a layer of slag on the surface.

Ferro-chromium.—A standard grade alloy, with 6—8 per cent carbon and 60—70 per cent chromium, is generally prepared by smelting a mixture of chromite and carbon in electric furnace, the average power expenditure being 7,000—10,000 K. W. H. for one ton of alloy of the above composition.

Ferro-titanium.—In the electric furnace, the alloy is manufactured with 15·18 per cent titanium and 6 per cent carbon, the ore used being titaniferous iron ore which occurs in Bihar in many places.

Ferro-Vanadium.—Iron ores containing workable quantities of vanadium oxide are found near Chaibassa. In the manufacture of ferro-vanadium, vanadium oxide or vanadate of iron is reduced by smelting with silicon or high grade ferro silicon together with iron, lime and flourspar. An alloy with 33 per cent vanadium is used for steel manufacture.

Carborundum is the name adopted for crystalline silicon carbide manufactured in electric furnace. With smaller units, the consumption of power is excessive, 17.6 K. W. H. for one kilogram of silicon carbide. In a certain experiment with larger units of 746 K. W. H. or 1,000 H. P., a production of 3,150 Kg. of carborundum in 36 hours was obtained, which corresponds to a power expenditure of 8.5 K. W. H. per kilogram.

The charge is made up of the following :—

Sand	..	..	..	52.2 per cent.
Coke	..	..	..	35.4 "
Salt	..	..	..	1.8 "
Saw dust	..	..	..	10.6 "

Saw dust is added to confer porosity and enable the escape of gases while the salt facilitates the removal of iron and alumina as volatile chlorides. The raw materials should be as pure as possible and ground to a fine state of division. The carbon used is in the form of anthracite, petroleum coke or the best furnace coke with less than 10 per cent ash.

During the progress of heating, the resistance of the furnace falls considerably and a regulation of voltage is necessary. Each furnace consumes about 800 K. W. H. with a maximum current of 10,000 amp. and produces about 8,000 Kg. of crystalline carborundum. The transformers receive the primary current at 2,200 volts and 25 cycles and are provided with regulators which vary the secondary voltage from 200—75 volts. It has been calculated that 42 per cent of the electrical energy is consumed in raising the materials to the temperature of reaction and 34.5 per cent in the endothermic chemical reaction, giving a thermal efficiency of 76.5 per cent. 23.5 per cent represents the loss due to radiation and other causes.

Alundum, or artificial corundum, is extensively used as an abrasive to replace natural corundum. The process is to fuse alumina in an electric furnace, allowing the melt to cool slowly. The material is then ground and moulded to form grinding wheels.

The furnace crucible consists of an iron shell, fitting into a base ring which is mounted on the hearth or base. The electrodes, two in number, are suspended from above and are fixed. The base of the furnace can be raised or lowered, according to the position of the molten charge. The operation of the furnace consists in first raising the base plate until contact is made with the electrodes and an arc is formed. Alumina is then fed into the furnace and the base gradually lowered as fusion proceeds until the cylindrical case is filled, when the furnace content is removed from the electrodes. The crucible is 4 feet in diameter and 5 feet high and gives an ingot weighing 2.5 tons.

Graphite.—The pioneering work in this line was conducted by Moissan and the present methods for the manufacture of artificial graphite are based on his researches. Three methods of preparation were discussed by Moissan :—

- (1) Heating carbon in electric furnace.
- (2) By separating from solution in metals on cooling.
- (3) By dissolving carbon in molten iron and then throwing out as graphite by the addition of silicon. Of these, only the first is employed in industrial practice at present.

In an exhaustive investigation by Acheson, it was found that the presence of oxides of silicon, aluminium, iron, calcium and magnesium played a very important part in the process and indicated that reaction took place through the intermediate formation of carbides of these elements.

For the preparation of bulk graphite, the furnace, of 800 K. W. H. capacity, is 9 metres long and 50 × 35 cm. in cross section. A core of granulated coke or carbon plates extends along the furnace, makes contact with the end electrodes and is surrounded by the charge of anthracite coal with 5 per cent ash. The walls of the furnace are constructed of stones lined with carborandum to protect them from fusion. The charge is covered with a layer of sand and coke to prevent oxidation. The resistance of the furnace is high at the outset and as the heating and graphitisation proceed, falls gradually. A quantity of carbon monoxide is generated which burns with a flame coloured yellow by volatile impurities and afterwards with a blue flame. At a later stage, the flames diminish and again become yellow, indicating the decomposition of carbides and volatilisation of silicon.

Moulded articles, such as electrodes, crucibles, dynamo brushes, etc., are prepared by taking finely divided carbon, mixing with suitable oxides and a binding material such as tar or sugar molasses. After incorporating to form a thick paste, the mixture is compressed into a mould of the desired form and then forced from the open end by hydraulic pressure. The articles are then heated to a moderate temperature which renders them compact and are arranged in rows on the hearth of the electric furnace described in the previous paragraph. On the bed of the furnace, a layer of granulated coke is spread and on this the electrodes are arranged transversely to the horizontal axis of the furnace. The space between the layers of electrodes is $\frac{1}{2}$ th of the breadth of each electrode and is filled with granulated coke.

At the beginning of the heating the resistance of the furnace is high. With a 1,000 H. P. unit a voltage of 200 is applied and a current of 14,000 amperes is passed. With the progress of the heating, the resistance falls rapidly at first and later on slowly. When it finally remains constant it is indicated that the transformation is complete. At this stage the current passed is about 9,000 amperes at 80 volts. Duration of run 12—24 hours.

Units of 1,000 H. P. in a run of twenty to twenty-four hours gives 6 tons of bulk graphite from anthracite; with formed articles, the yield is 3—3½ tons. 82·5 per cent of the energy supplied is consumed in raising the charge to the temperature of reaction and 17·5 per cent radiated during the run.

Electrolytic processes with fused electrolytes.—Up till now all the industries which have been discussed may be classified under the name of electro-thermal industries because the electric current is employed for raising the temperature of the materials to a point when chemical reaction, if any, sets in. The production of alkali, alkaline earth metals and aluminium, is brought about by the electrolytic decomposition of their compounds in the fused state. Of these, the production of aluminium is very important as India is importing about 3,000 tons of this metal every year, although there are suitable deposits of bauxite available and electric power may be obtained very shortly at a very low price. But as the proposal of starting an aluminium factory which will be able to supply the entire requirement of this metal, is well advanced, it is not intended to go fully into this question in this report.

Indian bauxites on account of their low silica content are very suitable for the production of aluminium, as in the preliminary process of purification of bauxite by Bayer's process, about 2.5 parts of the alumina are lost for every one part of silica present in the ore. From actual experiments conducted at Calcutta, it has been demonstrated that pure alumina, suitable for electrolytic process, may be manufactured at a price not exceeding Rs. 90 per ton. The only serious difficulty in this enterprise is that no deposits of cryolite are known to exist in India but in this case, India is at an equal disadvantage with every other aluminium producing country of the world, because the only workable deposit of cryolite is in Greenland. It is true that attempts have been made by various parties to prepare cryolite synthetically, starting from flourspar. It has been reported that a good deposit of flourspar exists in Alwar State and serious attempts should be made to utilise this for the manufacture of synthetic cryolite. Suitable petroleum coke for the manufacture of electrodes may be obtained from Messrs. Assam Oil Company and Burmah Oil Company.

Turning now to the question of electric energy, it is almost certain that with coal at Rs. 2 per ton or less, no serious apprehension should exist about the supply of electric energy at a price suitable for aluminium manufacture.

The types of machineries and furnaces for the metallurgy of aluminium are well known and the various stages of the process have been fully worked out at Calcutta. According to the most recent reports available, the current efficiency in aluminium metallurgy is 75—85 per cent and the average output is 0.4—0.5 tons per K. W. Y. or 8760 K. W. H. or about 17,520 K. W. H. for 1 ton of aluminium. The net anode consumption amounts to 0.75 ton per ton of aluminium manufactured.

At present the consumption of electro-metallurgical products, described above, is not very great. But with cheap electric power, the manufacture of these commodities could be taken up as soon as their requirements in the country are sufficient to justify it.

APPENDIX XIX.

Production cost of calcium carbide per ton.

	Rs.	a.	p.
Lime 950 Kg. at Rs. 10 per ton	10	0 0
Anthracite 620 Kg. at Rs. 20 per ton	8	5 0
Electrodes 25 Kg. at Rs. 220 per ton	4	0 0
Repairs	3	4 0
Labour and supervision	14	0 0
Depreciation at 8 per cent	3	6 0
Interest at 5 per cent	2	1 0
		<hr/>	
		45	0 0
Power 0.5 K. W. Y. at Rs. 50 per K. W. Y.	23	0 0
Packing	10	0 0
		<hr/>	
		78	0 0
		<hr/>	

CHAPTER XX.

COTTAGE INDUSTRIES.

We have been asked to deal with such cottage industries as come within the scope of the subjects dealt with by us in this report.

In the first place we should like to explain the meaning which we attach to the expression "cottage industries". S. C. Mitter in his book "A Recovery Plan for Bengal" defines cottage industry as follows :—

"An industry which is carried on by the worker in his own house and mostly with the help of the members of the family".

We accept this definition. We note that it is of the essence of a cottage industry that no large capital or equipment is necessary. Now what is small capital and small equipment in one country may be large capital and large equipment in another. The result is that what would be regarded as a cottage industry in one country would be regarded as a small-scale industry in another. This difference in outlook which arises from the relative value of things has to be borne in mind in making a comparison between the cottage industry of Bihar with that of certain industrially advanced countries.

The usefulness of cottage industries to an agricultural province like Bihar cannot be over-emphasised. This province is rich in natural resources but the pressure of population on the soil is immense. The density of population in some parts of the province is as high as 642 per square mile. The vast agricultural population is unoccupied for the best part of the year. As soon as the sowing and harvesting season is over the villager has no occupation except gossip, quarrel and litigation. His placid contentment has become a bye-word, his penurious existence a habit second to his nature. He is perpetually in debt which he tries to clear off by contracting more debt or by starvation instead of by finding an additional source of income. If cottage industries of the province could be made attractive to him he would be saved from the evil of laziness at least and from mischief which is never wanting "for idle hands to do". This in itself would be of the greatest value educationally and culturally even though the cottage industry may be proved by expert examination to be "uneconomical".

From the above it will be clear that apart from the question of establishing cottage industries an essential item in the programme should be social and educational propaganda for banishing idleness. As long as one member of a large family continues to consider it his social duty to feed a large number of adults in the family who do not consider it a shameful thing to eat their bread without the sweat of their brow but think it below their dignity to engage in manual labour, so long will poverty continue to dog our foot-steps and to render the establishment of cottage industries more difficult than it would otherwise be.

While we stress the need for the encouragement of cottage industries and of social and educational propaganda in Bihar, we regret to note that considering the backwardness of the heavy chemical industry in India there is very little the chemical industry can contribute at present to the solution of the problem. The manufacture of sulphuric acid, caustic soda, glass, wood pulp, modern plastics, etc., do not lend themselves to treatment on cottage lines. On the other hand their establishment on a large scale is essential to the success of many cottage industries. The encouragement of these basic major industries is therefore one way to encourage small-scale and cottage industries.

That without the establishment of large-scale basic industries cottage industries even if established cannot be truly indigenous will be easily seen from the following costing account of some of the cottage products supplied to us by the Chemical Adviser to the Director of Industries, Bihar :—

Shaving Soap.

Cost of foreign materials	..	..	62 per cent.
„ „ Indian	„	„	38 per cent.

Shampoo.

Cost of foreign materials	..	..	42 per cent.
„ „ Indian	„	„	58 per cent.

Hair oils.

Cost of foreign materials	..	..	56 per cent.
„ „ Indian	„	„	44 per cent.

Face cream.

Cost of foreign materials	..	..	60 per cent.
„ „ Indian	„	„	40 per cent.

Tooth Powder.

Cost of foreign materials	..	..	14 per cent.
„ „ Indian	„	..	86 per cent.

Boot cream.

Cost of foreign materials	..	...	68 per cent.
„ „ Indian	„	..	32 per cent.

Inks.

Cost of foreign materials	..	..	66 per cent.
„ „ Indian	„	..	33 per cent.

It will appear from the above that in the manufacture of boot cream, for instance, as much as 68 per cent of the cost is that of imported goods manufactured on a large scale in up-to-date factories. Face creams, hair oils, shaving soap, inks etc., all show the same tendency. Unless the manufacture of bottles, containers, card-boards, fancy labels, fancy wrapping materials, not to speak of such things as alkalies, acids, dyes, waxes, synthetic perfumes, are started in India the cottage industries based on them will not be of much economic value.

As we have remarked before, many of the chemical industries, although of help in starting other industries, are themselves unsuitable for cottage scale production. There are a few industries, however, which due to certain natural advantages are very suitable for this purpose. These industries were carefully considered by the Bihar Unemployment Committee whose recommendation on this point we quote below :—

“ There is scope for the manufacture on a cottage or small scale of selected chemical products like soap, hair oil, etc., of which there is a local demand and for which most of the raw materials are available in Bihar. Manufacture of washing soap, in particular, has distinct possibilities. Under the present arrangement the Industrial Chemistry Section attached to the Science College trains a few educated young men every year in the manufacture of soap, besides giving advice to those who wish to prepare other chemical products. As a result, a number of small factories manufacturing mainly washing soap have sprung up all over the province, and they are reported to be doing satisfactory business. The Benares Hindu University has also introduced a section for teaching the manufacture of soap, oils, face cream, perfumery, disinfectants, boot polish, heel balls, sealing wax, cork tops, carbon paper, etc., with a fair amount of success. The Bekar Bandhab Samity of Bengal has also taken up the manufacture of

some of these products on cottage lines by unemployed young men, and their local representative stated to us that the sale of these goods on a commission basis was providing a small income to some educated Bengali youths who had no better occupation. While there is a fair prospect of some of these industries being developed in this province and providing subsidiary or whole-time occupation for some of our educated young men, we consider that it is necessary to proceed cautiously in view of the difficulties that they may have to face in the matter of marketing. There is a danger to health in using impure chemical products, and the consumer will naturally be suspicious of using articles produced by the small manufacturer. Mr. Hussain suggested the formation of a central institute for controlling the manufacture and marketing of these articles, but we are of the opinion that such a step would be premature. It is necessary to be sure of the demand before starting an organization of this nature. It would be better to encourage individual students trained in this line to begin on a small scale in the larger towns of the province. We recommend the expansion of the Industrial Chemistry Section under the Department of Industries for training boys in the manufacture of soap and other selected chemical products which have a ready market. To meet the objection that people without some scientific knowledge are not expected to be able to ensure the purity of articles manufactured, the standard of admission to these classes should be raised, if suitably qualified candidates apply in adequate numbers. We consider that the present arrangement, by which the Industrial Chemistry Department forms part of the Science College is of great advantage to all concerned. It helps to give an industrial bias to the students of the Science College and induces the professors and research workers of the college to direct their attention to the solution of industrial problems and to the application of science to the more practical problems of life. The Department of Industries can make use of the facilities provided at the Science College for obtaining scientific advice on industrial matters. The small manufacturers also benefit as they can obtain scientific advice for the improvement of their processes, and can have their products tested. We recommend that this association of the Science College with the Department of Industries should be maintained and developed. Chemistry of oils fats and sugar should continue to be taught at the Science College, for which a proper staff should be appointed, and the college should also, if possible, provide necessary accommodation for the expansion of the classes in small chemical industries."

We agree entirely with the above recommendations of the Unemployment Committee. We understand that Government have already taken steps to give effect to the above recommendation regarding the teaching of soap making and toilet preparation at the Science College and we think that the result of these experiments should be carefully watched before any further steps are taken in that direction.

There are a number of other industries not strictly chemical which are either already well established but in need of help or are suitable for establishment. These are food canning, jam making, syrups, aerated water manufacture, oil pressing, *dahi*, *ghee*, butter and cheese making, dyeing, calico printing, dry cleaning, baking, sweets making, condiment manufacture, indigenous perfumes manufacture, etc. Most of these are farm industries and most suitable for Bihar. The difficulties in their way are (1) non-establishment of the basic large-scale industries in India, (2) want of knowledge and technical advice, (3) want of marketing control which leads to the widespread practice of adulteration and (4) lack of co-operation amongst the workers which produces such evils as the middleman and *mahajan*. It is not easy for us to suggest remedies for these evils but we note that Industries Department is tackling these problems in various ways and if these efforts are continued improvement is sure to result. We would also recommend marketing control to check the evil of adulteration. Perhaps this could be done by co-operative marketing and standardization of the products which could then be sold under the guarantee of a Marketing Board. Financial assistance on co-operative lines might obviate the *mahajan* nuisance. A central testing laboratory would be very helpful in standardization and control of the quality of products and thus inspiring public confidence in the articles marketed.

Recommendations.

(1) Educational and social propaganda in favour of individual responsibility for one's own well-being and for the dignity of labour, is an essential part in the programme for the advancement of cottage industries in this province.

(2) Certain basic chemical industries should be started to help cottage industries

(3) The recommendation of the Unemployment Committee regarding chemical industries should be given effect to.

(4) There should be some sort of marketing control to check adulteration, keep up the quality of products and lay down standards and specifications.

NOTE BY MR. C. K. JAIN, M.L.A.

I owe an apology to the Government for not being able to attend the meetings of the Committee due to unavoidable circumstances.

I have carefully gone through the various chapters of the draft report and, as asked by Mr. A. S. Khan, am submitting my memorandum on the same. The members are quite frank to admit that the figures are merely illustrative and I also would like to emphasise that the report has been prepared with a view to disseminate information about chemical industries rather than to form a basis for industrial enterprises. Any capitalist wishing to take up the industries recommended should first obtain thorough and comprehensive details from experts.

Now that the electrification of Bihar has been decided upon, the omission of the Committee to deal with some of the important electro-chemical industries cannot go unnoticed*. Bihar can have monopoly in the manufacture of calcium carbide, ferro-chrome and ferro-manganese the raw materials being all available near the coal-fields in Bihar. The Committee has done well to recommend the establishment of ammonia industry. I, personally, have been advocating the establishment of this industry in the province since I am in the Assembly; but this can only be safely done as a part and parcel of the electrification scheme whether this be undertaken directly by the Government or handed over to any limited concern. The process most suited to Indian condition is the one in which hydrogen is generated by electrolysis of water and as the consumption of current in this process is very considerable a permanent co-operation and possibly united management of the two industries is desirable. A constant supply of 6,000 K. W., which would be necessary for 20,000 tons of ammonia per annum, will be the greatest asset possible for the power generation scheme. Ammonia industry is not an asset only in the sense that we can produce and distribute fertilisers to the cultivators at a cheap rate, but forms the basis of the explosive industry so necessary for the defence of an independent country. Personally, I would never recommend to the Government to resort to borrowing for financing industrial schemes. For the bigger industries the utmost they can be expected to do is to guarantee a dividend and have direct control of the limited concern by appointing their nominees as Managing Director or Secretary.

*A chapter has since been included on this subject in the report as chapter XIX
—A. S. K.

The utilisation of the national waste of various products in the shape of gases in the coal industry is very necessary. The only possible means is to experiment on the plant designed by Dr. H. K. Sen and the Government should contribute at least half of the amount necessary for putting up a 60 ton a day retort to a reliable firm intending to carry on the experiment. It is only after the success of such small and cheaper retorts that the industry by itself will adopt this method and the province would be able to conserve all these wastes.

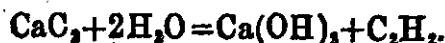
Glass Industry is another industry that can thrive on the soils of Bihar and Dhanbad and its suburbs have ideal sites for the enterprise.

Before concluding, I would like to give below some information about carbide and the allied industries.

Calcium Carbide.—It is made by the interaction of lime and carbon at the high temperature of the electric arc :—



The commercial calcium carbide is dark coloured, but in the pure state it is colourless and transparent. When calcium carbide is treated with water, acetylene is formed :



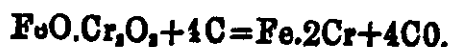
The acetylene is used for illumination, for cutting and welding by oxyacetylene torches and as a starting point for the synthesis of organic compounds such as acetic acid, acetone, and methanol. Calcium carbide is also used for the fixation of atmospheric nitrogen as cyanamide.

The materials used in the manufacture of calcium carbide are carbon, in the form of coke, coal, or charcoal, and lime and to which may be added carbon from the electrodes.

Data on operation of carbide furnaces and their yields for European practice are as follows :—

For the production of 1,000 lbs. of 85 per cent carbide there are required in the aggregate 980 lbs. of lime, 650 lbs. of coke and 20 lbs. of electrode. Furnaces are built in sizes up to 25,000 KVA and over, producing about 17.5 to 20 lbs. lime carbide per K. W. day.

Ferro-chrome.—Ferro-chromium or as it is known by steelmen, ferro-chrome, is made by reducing chromite with carbon in an electric furnace, according to the reaction.



Furnaces are of three phase design with capacities of 2,000 to 5,000 K. W. operating on 90 to 120 volts.

Ferro-chrome is used for the production of chromium steels noted for their hardness, but it is not used very much by itself in alloy steels. Together with nickel and vanadium it is extensively used for armourplate, projectiles, gears and high speed tools and auto parts. It is widely employed in the production of heat-resisting chromium alloys and corrosion-resistant alloys.

Ferro-manganese is employed as a deoxidiser and as an alloying agent in the production of special steels. Steels containing 12 to 14 per cent manganese are very hard and tough. Manganese is also used to the extent of 1 to 2 per cent in engineering steels. The raw materials are manganese ores containing 45 to 50 per cent manganese, carbonaceous reducing agents, iron or iron ore, and in some cases a slag-forming agent.

The furnaces are of the arc resistance type, three phase, with capacities up to 9,000 K.W. using 90 to 110 volts.

N. B.—All these three industries are allied and the furnaces used are, more or less, the same with some modifications. The import of calcium carbide in India is 60,000 cwt. valued at seven lakhs of rupees, out of which the share of Bengal is 35 to 36 thousand cwt. ; these being mostly consumed in the coal areas. The manufacture of ferro-chrome and ferro-manganese will lead to the manufacture of high class steels which are all being imported at present.

NOTE BY DR. V. S. DUBEY, M. SC., PH. D.

While agreeing with all the recommendations of the Committee I feel that the report does not discuss in sufficient detail the practicability of the schemes and the procedure to be adopted for bringing them into practice. A report is of not much use unless it has got prospect of being immediately adopted for practical working. It is with this end in view that this supplementary note has been written.

The first point is that instead of scattering its energy on all industries the Government should take up two or three most important industries and concentrate all its energy to make them a success. When within a period of four or five years these industries are firmly established the Government should take up two or three other industries. Till now the impression in the public mind has been that the Government cannot run an industry and that it should be left to private enterprise. The reason for this belief in the public mind is that in the past majority of the schemes sponsored by the Government have been failures. In order to remove this impression it is absolutely essential that any industrial scheme recommended by the Government should be on such solid foundation that there may be not the least chance of its failure and no factor should remain unstudied. It is preferable to wait for some years for industrialisation and make a thorough study than to start in haste without proper study which may prove to be a failure in the end.

In the report we have recommended two major industries of all-India importance to be taken up by the Government :— (1) Synthetic Fertilisers and (2) Low Temperature Carbonisation of coal. These two industries can only be started in Bihar. The manufacture of 1½ lakhs tons of synthetic fertilisers, distributed among the agriculturists, will increase the agricultural production by more than ten crores of rupees. The second scheme that of Low Temperature Carbonisation of coal will stop a great national waste in the form of gases which are being wasted daily when coal is carbonised in the open for making soft coal. Besides this, a large amount of liquid hydrocarbons will be produced which are very important to the nation as a source of motor and aeroplane fuel, explosives, and as raw materials for manufacturing aniline dyes, etc. The possibility of the fertiliser industry has been studied by the writer up to the minutest details and from the study it is clear that these fertilisers can be manufactured at about one-third the cost at

which they are imported at present. Once this industry is established it has got a tremendous chance of expansion in the agricultural country like India. The writer feels that these two industries are more than enough to occupy the whole attention of the Government for the next five years. Among smaller industries of provincial nature glass is the most important one for Bihar, as here the manufacturing cost will be the least and if the Japanese competition is to be faced and Japanese goods are to be displaced by the goods manufactured in India, it is essential to produce these goods at the lowest cost which can only be done in Bihar. This industry, though not of all-India importance, is still of great importance to the country as it is by the cheaper goods manufactured in this province that Japanese import can be stopped.

After recommending these three industries the writer also thinks it necessary to examine the financial implications of the recommendations, the organisation to be set up to carry out these recommendations and to supervise their working.

No doubt the schemes submitted in the report for these industries have been studied in detail, still the writer feels that before being taken up by the Government they must be examined by a committee of experts who have actually set up such plants and are working them.

For working out these details three expert committees should be appointed—one for Synthetic Fertiliser industries, the second for Low Temperature Carbonisation and the third for Glass Industry. In the case of the first two committees it will be essential to have foreign experts, as these industries have not been started in India till now and so there is no experience available in the country about them. The committee for Low Temperature Carbonisation will also have to study the feasibility of starting this industry at some such centre so that the interest of present manufacturers may not suffer and it will also have to study the question of legislation necessary to supplement the present system making soft coke in individual collieries by the system of having central plants for this carbonisation. These committees should be composed of foreign experts and some Indians having local experience about raw materials and markets, etc. The local members will be able to supply all the local data, while the foreign experts will work on that data, added by their own observations. The committee should submit its report in such detail that on the basis of that report the Government or any industrialist may be able to start the industry immediately. The writer does

not advise the Government to take up these big schemes costing crores without the fullest scrutiny by some of the best experts of the world. Though the process may be costly, but it is the only way to start on a solid foundation.

In the case of the Glass Industry as it already exists in India it will be possible to find all the experts in the country itself. The preliminary expenses for all this detailed investigation may amount to about Rs. 50,000 as these experts will cost quite a lot even though they are called for a few months. It will be worth while to spend this money before taking up such responsibilities of investments of crores of rupees as capital. Convincing details have been given in the report to show that the industries have got the best chance for development, hence the money spent in these investigations will not be a waste.

After this stage the question arises to find capital for these industries. The writer feels that under the present conditions the Government has neither got time nor industrial experience to take up these industries itself by floating a loan. Such a procedure may prove to be disastrous in the end. On the other hand it will be difficult to attract enough private capital to start these industries without some kind of Government help or guarantee. Besides this, it is also not desirable to entrust these key industries to private capital without some kind of real control. The view of the writer is that if the Government after carrying out the detailed investigation at its own expense offers a dividend of about $3\frac{1}{2}$ to 4 per cent on the investment for a period of ten years or so, ample capital shall be coming forward. The condition for the guarantee of the dividend should be that the Government is to participate in the profits over a certain fixed percentage, such as 9 or 10 per cent, and will have some nominees on the Board of Directors. From the talk with several big capitalists the writer is sure that many industrialists will be coming forward to take up these industries on these terms. The total capital required for these three industries is about Rs. 160 lakhs, and the guaranteed dividend at 4 per cent will amount to about $6\frac{1}{2}$ lakhs. This much amount of money will have to be included in the budget. But the 99 per cent chances are that this money will not be required at all, because if the industry is properly investigated it is bound to yield more than 4 per cent of profits. So this $6\frac{1}{2}$ lakhs of rupees allotted in the budget will only be in name and will not be used up at all or at the most a very small fraction of it may be used in any particular time. On the other hand the chances are that the Government may

gain some revenue by this profit-sharing system. If the Government wants to be still more cautious and may not like to allot these 6½ lakhs out of its present revenue some kind of cess on the well-developed industries of the province like those of sugar, cement, coal, refractories, iron and steel and copper may be charged to provide this guaranteed dividend for starting new industries. When once the industries are started and found to work well this sum may be utilised for starting other industries. Thus within each five years it may be possible to start two or three basic industries on a solid foundation. Looking to the importance of these two industries to the nation this amount of 6½ lakhs, to be provided in the budget, is nothing especially when it is seen that there is little likelihood of its ever being used.

It will be difficult for the Government to take up the work and to keep watch over it without providing some kind of organisation of some technical experts. So it is essential that the Government should constitute a permanent board of technical advisers which may meet periodically and advise the Government on all technical matters about these industries. Besides this, it is also desirable that the work of execution of this plan should be entrusted to a paid Government officer with wide commercial experience, who may be either a Deputy Director of Industries or some other independent officer appointed for the purpose.

Besides this advisory board, it will also be essential to have an organisation for research on problems connected with these industries with well-equipped laboratories and competent staff. But such a scheme will prove to be very costly as it will require large amount of capital and recurring expenditure which probably the provincial revenues may not be able to pay. In the opinion of the writer it is possible to take the help of the existing institutions, which may agree to take up all this research work, if given some grant, for example, the Department of Glass Technology of the Benares Hindu University, which is also the headquarters of the Glass Technologist of the Government of the United Provinces. Half a lakh of rupees is being spent every year for research and the development of Glass Industry by the Government of the United Provinces. It will be more economical for the Bihar Government to give it some grant and to entrust all its research work to it than to create its own organisation for this industry. The same thing holds good for fuels, for which there is also a qualified staff and well-equipped laboratory for research work in the Hindu University, Benares.

In short, in order to give practical effect to the recommendations of the Chemical Industries Committee, the writer's recommendations are :—

(1) A sum of about Rs. 50,000 should be allotted in the budget to carry out a very thorough and detailed study of these above-mentioned three industries by the experts.

(2) Three committees—one for Synthetic Fertilisers, the second for Low Temperature Carbonisation of coal and the third for Glass Industry—should be appointed immediately to submit a very detailed report within a period of two or three months. The members of the first two committees should be selected from the best experts of the world in the line. For selecting the personnel of these technical committees the Government may consult such persons as in the Government's opinion may have made a thorough study of these industries.

(3) For carrying out the executive work of this industrial plan the Government should appoint a technical officer with wide technical and commercial experience. This officer may be either a Deputy Director of Industries or some other independent officer.

(4) If after the submission of the report of the expert committee it is found that these industries have got a very good chance in the province, the Government should allot about 6½ lakhs of rupees in the budget to guarantee a minimum dividend of 4 per cent on the investment of Rs. 160 lakhs and should work out in detail the conditions on which this guarantee is to be given. The writer is sure that the capital will be easily forthcoming on these terms.

(5) Every kind of facility should be given to the industry and if necessary legislation should be passed by which it will be made impossible for any foreign company to start this industry in the province ; and the co-operation of the other provinces should be sought to effect the marketing of the products of these industries.

(6) A permanent non-official technical board should be constituted to keep a critical watch over these industries and to advise the Government on all technical matters connected with these industries. It should periodically meet three or four times a year and submit the report to the Government about the progress.

(7) Some arrangement should be made for providing technical aid to solve all the problems in connection with these new industries and for the sake of economy it is better that for these major industries help be taken from the existing institutions in that line by giving them certain grants than to provide a separate organisation and staff for the research work. For the glass and the coal utilisation industries, the Benares Hindu University will be prepared to help the Government.

All these are practical suggestions and it should not be very difficult for the Government to give effect to these recommendations.

NOTE BY MR. A. S. KHAN.

Please see Chapters III and IV of the report.

1. I agree with my colleagues that it is very necessary that the present wasteful method of soft coke manufacture should be stopped; but I feel that before legislative action is taken Government should test the possibility of the process of Low Temperature Carbonisation recommended by the Committee by setting up a commercial scale experimental plant of at least 60 tons capacity per day. The cost of this plant according to Dr. H. K. Sen's experiments will be about Rs. 60,000. This cost could be met partly by Government and partly by voluntary contribution from the Soft Coke Cess Committee and from proprietors of coal mines. If the success of the process can be demonstrated on this scale there will be little reluctance on the part of colliery owners to instal this type of plant near their collieries and to give up the wasteful process of coke-making which they are using now. Any results obtained on a laboratory scale are not likely to create the necessary confidence in manufacturers of soft coke and should not be made the basis of legislation which will be unpopular with small colliery owners and will commit Government to large liabilities for the purchase of tar.

2. As regards nitrogen fixation I share the optimism of my colleagues regarding the prospects of this industry but lest the difficulties are lost sight of I make the following observations on this part of the report :—

In the case of nitrogen fixation the raw materials are really air and water which are available everywhere. Coal is important from the point of view of power production. This is very cheap in India. The next item is plant and machinery.

There is reason to emphasise that great care has to be exercised in its selection. The question of depreciation and the covering of risks is more difficult in this industry than in any other. To this must be added that of want of skilled staff with necessary experience in this line of work. That this subject is of vital importance will appear from the following well-authenticated incident. It is said that in 1919 when members of the British and French Committee attached to the Allied Control Commission visited Oppau where the Haber-Bosch process for nitrogen fixation was being worked successfully they were told by the German chemists that even if they could erect a plant identical with that at Oppau they

would still be unable to manufacture ammonia successfully for lack of the specially trained workers who were absolutely essential to successful operation. That this was not said in a spirit of boastfulness will be amply clear from the difficulty which England had to surmount before the nitrogen fixation industry was successfully established in that country. The plant at Billingham was put into successful operation after many failures and the expenditure of very large sums of money on investigation and research. The chemical control and the most efficient supervision of every operation, which are so necessary in all industries, are indispensable in this industry as the slightest want of skill or efficiency may lead to the utter ruin of the whole plant by a terrific explosion. Since the Haber-Bosch process regime, however, much progress has been made. Plants have been designed which are much simpler to operate and can be placed in charge of engineers without long experience of the process. Also smaller units are now operating than was formerly considered possible. It is said that the Haber process is not likely to be a commercial success with plant capacity much lower than 20,000 tons of nitrogen per annum whereas Casale plants of 5 tons of anhydrous ammonia per day are said to be working successfully in some parts of the world.

The great simplicity of the latest synthetic units has led to the installation of synthetic ammonia plants in most of the nitrogen consuming countries of the world and there is no reason therefore why ammonia synthesis should not succeed in India. But before it can do so very careful consideration of the problem is necessary. Perhaps the resources of Bihar alone will not be able to finance the entire cost of investigation and in my opinion this is a problem in which all the provinces should interest themselves. I accordingly suggest that the Bihar Government should invite the co-operation of other provincial Governments to finance the cost of preliminary investigation which in my opinion is most necessary in this case. This investigation is likely to cost a lot of money, but the importance of the problem is so great that it should not be too much for the combined resources of all the provinces of India to find the necessary funds.

One of the questions to be investigated by the committee, if appointed, should be whether a stand-by plant is essential. If it is, the cost of manufacturing ammonia will be very much higher than is given in the report.

SUMMARY OF RECOMMENDATIONS.

CHAPTER III.

Coal—

- (1) The present wasteful method of soft coke manufacture should be prohibited by legislation and the manufacturers should be asked to instal Low Temperature Carbonisation plants for the purpose. The Government of Bihar should supply technical advice if necessary.
- (2) Tar obtained in the Low Temperature Carbonisation process should be purchased by the Government at a fixed price and utilised for the manufacture of road tar and other products.
- (3) The possibility of establishing a State factory for Low Temperature Carbonisation, in conjunction with the Electrification Scheme, should be explored.

CHAPTER IV.

Manures—

- (1) *Nitrogen fixation.*—The establishment of a nitrogen fixation plant for the manufacture of cheap fertilizer is desirable.
- (2) The Committee recommend that the question of the selection of suitable plants, etc., should be gone into by a special committee of experts appointed for the purpose.
- (3) The suitability of nitro-chalk for Bihar soil should be investigated by field experiments, conducted by the Agriculture Department.

CHAPTER V.

Phosphatic manures.—As a large quantity of bone is available in the province, the committee recommend that the manufacture of superphosphate should be encouraged.

CHAPTER VI.

Heavy chemicals and Sulphuric acid.—The Committee are of opinion that to initiate a heavy chemical industry the manufacture of sulphuric acid, linked up with the production of synthetic fertilisers, is essential.

CHAPTER VII.

Alkali industry.—This industry is feasible in Bihar as a provincial industry only. As two or three firms in different parts of India are contemplating to start alkali factories and a 3-ton plant has already been set up at Dehri-on-Sone the Committee are of opinion that any special efforts on the part of the Government of Bihar in this direction are not necessary. For future development the matter may be left to private enterprise, assisted by such aid which Government may be able to give under the State Aids to Industries Act.

CHAPTER VIII.

Glass ceramics and refractories.—These are important key industries. They are feasible in Bihar on a provincial scale for the present.

CHAPTER IX.

Paper, pulp and card-board.—As there is one factory already erected in Bihar the Committee consider that the existing factory should be encouraged in all possible ways so that a strong paper and pulp industry may be established in Bihar.

CHAPTER X.

Artificial silk and celluloid.—This industry is not feasible at present in this province.

CHAPTER XI.

Belting for machinery.—Two existing factories at Calcutta can supply nearly the whole of the demand of the country. In these circumstances, the establishment of a new factory is not recommended.

CHAPTER XII.

Oil-crushing.—The industry is already fairly well established in Bihar both as a small industry and as a cottage industry. Further expansion is desirable but real improvement is not expected in the near future. Marketing control to stop unbusiness-like methods and adulteration of products will be of some help in putting the industry on a more satisfactory basis.

Soap industry.—Soap is a feasible industry in Bihar and, in the opinion of the Committee, should be encouraged. Its production as a cottage industry should be actively assisted by continuing to give training and technical advice as is being done at the Science College at present.

Tallow, stearine and glycreine.—Raw materials are not available at sufficiently cheap prices and as there is no local demand for the finished products considerable difficulty will be encountered in marketing them.

CHAPTER XIII.

Paint, varnish and lacquers.—The production is feasible in Bihar but as the total consumption of paints in Bihar is not known, the Committee is of opinion that for the present only a small factory capable of further expansion can be recommended for exploitation by private parties.

CHAPTER XIV.

Industrial solvents.—Unless the coal-tar industry and other allied industries for the manufacture of benzol, alcohol, acetone, acetic acid, higher alcohols, etc., are developed, there is little chance of this industry making any great progress in this province.

CHAPTER XV.

Lac industry.—The committee recommend that the industry should be aided by encouraging the establishment of a moulding industry based on shellac, with the assurance that Government requirements would be purchased exclusively from such factories if the goods come upto certain minimum standard. The manufacture of shellac moulding powders should also be encouraged as there are a number of moulding factories in India which can easily utilise this powder.

Synthetic resins.—Government should encourage research work in suitable laboratories on synthetic resins so that when the coal-tar industry and heavy chemical industry are sufficiently developed, the manufacture of synthetic plastics may be undertaken.

CHAPTER XVI.

Rubber industry.—As the raw materials are not available in the province and the large consuming centres are at a distance, any special attempt to establish this industry is not recommended.

Leather industry.—Hides and skins, as also tanning materials are available in the province. The manufacture of leather goods, in the opinion of the Committee, is quite feasible but competition from neighbouring provinces will be very keen. The manufacture of these goods on cottage industry scale deserves encouragement.

CHAPTER XVII.

Pharmaceuticals.—The establishment of a pharmaceutical works will be a profitable industry in the province. It may be left to private enterprise.

CHAPTER XVIII.

Match industry.—In view of the competition of Swedish combine and the failures of the Indian concerns in the past, the question requires to be very carefully considered before a new attempt is made to start this industry.

CHAPTER XIX.

Electro-Chemical Industries.—At present, the consumption of electro-metallurgical products except aluminium is not very great. But with cheap electrical power, the manufacture of these commodities could be taken up as soon as their requirements in the country are sufficient to justify it.

CHAPTER XX.

Cottage industries.—Cottage industries deserve encouragement not only for industrial reasons but also for cultural reasons. As regards chemical industries on cottage lines the Committee is of opinion that the best way to encourage this is to establish the basic large-scale chemical industries. The recommendations of the Unemployment Committee regarding chemical cottage industries should be implemented.

CHECKED
2002-04