



CONSTRUCTION COMMITTEE
OF COUNCIL
SECOND REPORT
ON
RECONSTRUCTION PLANNING

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CONTENTS

PART I—GENERAL PRINCIPLES

	PAGES
I. PREAMBLE	1
II. CONSTITUTIONAL ASPECTS	1
III. THE TIME FACTOR	2
IV. GENERAL OBJECTIVES	2-4
V. URBAN DEVELOPMENT	4-5
VI. RURAL DEVELOPMENT	5-7
VII. LAND DEVELOPMENT	7-8
VIII. INDUSTRIAL DEVELOPMENT	8-10
IX. FINANCE	10-12
X. METHOD OF PLANNING	12-13
XI. PRIORITIES	13
XII. LIMITING FACTORS	14-15

PART II—SUMMARY OF DEVELOPMENT POLICY IN RESPECT OF CERTAIN MAIN SUBJECTS

1. FINANCE	15-16
2. RE-SETTLEMENT AND RE-EMPLOYMENT OF EX-SERVICEMEN	16-18
3. POST-WAR EMPLOYMENT	18-19
4. DISPOSALS, CONTRACTS AND UTILISATION OF ORDNANCE FACTORIES	19-22
5. TRADE AND COMMERCE	22-24
6. INDUSTRIAL DEVELOPMENT	24-27
7. ROADS AND ROAD TRANSPORT	27-29
8. RAILWAYS	29-30
9. POST-WAR SHIPPING POLICY	30-31
10. INLAND WATER TRANSPORT	31
11. CIVIL AVIATION	32-33
12. POSTAL AND TELEGRAPH SERVICES	33
13. ELECTRICITY DEVELOPMENT	33-34
14. MINING DEVELOPMENT	34-35
15. IRRIGATION, WATER-WAYS & DRAINAGE	35
16. FOOD	35-33
17. AGRICULTURE (INCLUDING KINDRED SUBJECTS SUCH AS ANIMAL HUSBAN- DRY AND ANTI-EROSION MEASURES)	38-42
18. FORESTS	42-45
19. FISHERIES	45-46
20. CO-OPERATIVE SOCIETIES	46-48
21. INSTRUCTIONAL PROPAGANDA AND RURAL UPLIFT	48-50
22. EDUCATION	50-52
23. PUBLIC HEALTH AND MEDICAL SERVICES	52-53
24. HOUSING, TOWN PLANNING AND URBAN ADMINISTRATION	53-55
25. LABOUR CONDITIONS	55-56
26. SCIENTIFIC RESEARCH	56-57

RECONSTRUCTION COMMITTEE OF COUNCIL

Post-war Development Policy

PART I.—GENERAL PRINCIPLES

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I. **Preamble.**—The first report on the progress of reconstruction planning described the progress which had been made at the Centre up to the 1st February 1944, and indicated some of the problems which the Government were examining in consultation with the various Policy Committees. The present report is a summary of the views of the Departments of the Government of India on the issues that arise in so far as it has been possible to formulate them with the material and in the time at their disposal. It is not however intended to convey specific approval to any particular measures. It is not possible for Government to arrive at final conclusions on matters of policy until a more definite picture of the plans of the Provinces as well as the Centre can be drawn. The report is meant to provide guidance to the Departments at the Centre as well as to the Provinces, on the lines on which they should proceed. It is also intended to invite the expression of public opinion and to enlist public support. When the proposals in the report refer to subjects within the purview of the Provincial or State Governments they are subject to the views of these Governments.

II. **Constitutional aspects.**—(a) There is no need to describe here the constitutional position as regards the respective responsibilities of the Centre and the Provinces. Provincial autonomy exists over a large field of subjects and in regard to their internal administration the autonomy of most States is of course complete. The plans for post-war development have been drawn up on the basis of the existing constitution, as it is not possible at this stage to anticipate what exact form the future constitution will take. It has been the experience of other countries with federal constitutions, the constituent states of which enjoy a measure of autonomy far greater than that enjoyed by the provinces in India, that for the purpose of economic development they have to come together and formulate a common policy in the general interests of the country as a whole.

(b) The proposals now made for post-war planning and development do not in any way affect the constitutional issue, as whatever form the future constitution takes, and whatever autonomy the future Provinces or States or India enjoy, they will all benefit by the measures of economic progress and development contemplated by the Plan. One of the fundamental principles of the Plan is regionalisation so that the different parts of the country benefit in as equal a measure as is compatible with the physical features and natural resources of each part. The ultimate political affinities of the different regions in the India of the future need not, therefore, stand in the way of their benefiting by the schemes of development hereunder proposed.

(c) Although most of the subjects of development are the responsibility of the Provinces, the present position is not as difficult as might appear. There is general agreement as to the measures necessary over a great part of the field and for a task of this nature and magnitude a pooling of all resources will clearly be desirable, if not necessary, and this will inevitably entail a considerable degree of co-ordination. Co-ordination is especially necessary in respect of such subjects as re-settlement, industrial development, electric power, irrigation, road transport and road planning. In certain matters requiring unified direction it may be possible to set up autonomous authorities with powers of an all-India nature in agreement with Provinces and States. In certain cases it may be desirable to set up regional authorities which extend over the territory of neighbouring Provinces and States somewhat on the lines of the Tennessee Valley Authority in the U. S. A.

(d) The need for planning for the whole of India and the exercise of far more initiative by the State than hitherto in matters of social reform and economic

development is widely recognised. There is also a strong demand for Government direction and initiative and this statement is an attempt to meet these views so far as is possible within the existing constitution.

(e) Even in the sphere of Provincial Government, there is a demand from practically all classes of the population, for more active intervention and more effective use of existing powers by Government. There is also a feeling, which will become stronger when the demobilised soldiers return to their homes, that Government should now give the requisite leadership and direction to a greater extent than ever before. It is, therefore, no longer justifiable to delay important reforms on account of the prejudices or ignorance of a small section.

III. The Time factor.—(a) It is desirable that Departments of the Central Government and each Province and State (of a suitable size) should now prepare a definite plan for post-war development over the whole range of subjects including finance. This plan should be in detail for a period of five years but there should also be a long term plan which may extend over a period of as much as 25 years or longer in such subjects as education, health, roads, etc.

(b) For the purpose of planning, it may be assumed that hostilities in the eastern theatre might cease by the end of 1945 and that it would be possible to begin development over the whole field early in 1946. It should be borne in mind, however, that immediately on the conclusion of hostilities there may be a large drop in employment, due to the cessation of war supply orders and military works, and to demobilisation. Schemes that will employ large amounts of labour should therefore be ready to be implemented at short notice. Even if the cost of such schemes may be higher than if they were delayed till a later date, it may be necessary to undertake them at an early stage both to prevent the distress and also the possible disorders that might result from widespread unemployment.

IV. General Objectives.—(a) The ultimate object of all planning must be to raise the standard of living of the people as a whole and to ensure employment for all. To that end, the purchasing power of the people must be increased by improvement in the efficiency and consequently the productivity of labour on the one hand, and a simultaneous development and re-organisation of agriculture, industries and services on the other. This must include stabilisation of the prices of agricultural products at an economic level. Agriculture is and will remain India's primary industry; but the present unbalanced economy has to be rectified by an intensive development of the country's industries, so that both agriculture and industry may develop side by side. That will enable the pressure of population on the land to be relieved, and will also provide the sinews of war and the means required for the provision of better amenities for the people in the way of education, sanitation, public health, housing, etc., which are absolutely necessary, if their living conditions are to be improved. To attain this aim will require initiative, bold planning and a liberal attitude in financial matters based on sound principles of public finance.

It is not feasible at this early stage of planning to lay down the objectives in a more concrete or definite form. The intention is to have a long term all-India plan drawn up on general lines with a more detailed phased plan for the first five years. While the long term plan might be based generally on a period of 15 years it will be necessary for different subjects to cover different periods. The Central Advisory Board's Plan for education, for instance, is a 40-year plan; the Plan for the development of roads and road transport 10 years; that tentatively proposed for agriculture aims at doubling the income from agriculture within a period of 15 years at a cost of Rs. 1,000 crores. In the case of industries, it has not yet been possible to formulate even a preliminary plan in the absence of information which has been called for from industrialists. As will, however, be seen from the note on finance, the finances necessary for the development of industries during the first five years are expected to be adequate for its expansion to the largest extent that is feasible, the limiting factors being the availability of the necessary technical personnel and capital equipment, as well as the willingness of the people to

submit to the necessary controls and taxation. If all factors are favourable, there is no reason why the rate of development of industries should not far exceed that of agriculture.

(b) Improvement in living conditions and increase in purchasing power will fail in their effect if they do not result in a more equitable distribution of the wealth that is produced. Planning as here contemplated will inevitably result in a better distribution of wealth. The provision of the various amenities, free or at reduced cost to the poorer classes, such as education up to the age of 14, medical relief, water supply, and other public utility services, including electric power, will have that result. The general improvement in the health and efficiency of labour will tend the same way. Positive measures to secure a fairer deal for labour, to ensure them a reasonable wage, together with such provisions as maternity and sickness benefit, holidays with pay, etc., will have the same effect. The industrial expansion that is contemplated includes a regionalisation of industries as well as a large extension of small scale and cottage industries, which will tend towards a dissemination of the means of production in the hands of a much larger number of people than at present. Even with regard to large scale industries, the need for the investment of a substantial portion of the profits of such industries for further expansion will imply controls and a measure of taxation which will remedy the anomaly of the existing concentration of wealth in a few hands. The ultimate effect of all these measures must inevitably be the removal of the existing glaring anomaly of immense wealth side by side with abject poverty.

Besides these general measures, the object of Government would be to take special steps to ameliorate the condition of the scheduled castes and the backward classes. Care must be taken to see that the social amenities, such as education, public health, water supply, housing, which are meant to be provided under the Plan, work especially for the benefit of such classes, and that the handicap of ignorance and poverty under which they now labour is offset by special concessions in the shape of educational facilities, land grants, scholarships, hostels, improved water supply, and similar measures. It should be the special responsibility of the Provincial Governments and Local Bodies to see that early measures are taken to remove the handicaps of these classes and to raise them to the level of their more fortunate fellow-citizens. The provision of full employment, as well as the various measures of social security contemplated under the section on labour would also tend automatically to benefit the backward and depressed classes.

(c) The main objectives may be divided into those of a short term and a long term nature. It is the first that may properly be termed reconstruction, but these must obviously be in line with the long term policy of development. They will include:—

(i) The re-settlement and re-employment of defence service personnel and of labour displaced from war industry, military works, etc.

(ii) The orderly disposal of surplus military stores and equipment, land and buildings.

(iii) The conversion of industry from war to peace.

(iv) The removal or adjustment of controls to suit peace conditions.

(d) Long term projects come more suitably under the heading of development and include the subjects set out in detail in Part II. Of these there are certain items involving large capital expenditure which can be singled out as being of basic importance to development as a whole. These are—

(i) The development of electric power as the basis of industrial development and to a lesser extent of agricultural development, pump irrigation and rural industry.

(ii) The development of industry with special reference to the production of capital goods and the consumer goods required by the bulk of the population, and also the maintenance and development of small-scale and cottage industries.

(iii) The development of road communications and transport services on a comprehensive scale, especially in rural areas.

(iv) The improvement of agriculture and with it the development of irrigation, anti-erosion measures, land reclamation, etc.

It is in these directions that large capital expenditure by the State or private corporations will be necessary and it will be by the increased revenue resulting from such expenditure that comprehensive social services on modern lines must eventually be financed.

(e) It should be understood that the foundations of improved education, health and housing must be laid at the same time, not only because these services are essential for the welfare of the community, but also because at least a substantial development of education, particularly of technical education, is a necessary pre-requisite for the development of industry, agriculture, etc. The expansion of these services must be based on a carefully thought out programme which will gradually gain momentum and eventually cover the length and breadth of India. It must be emphasised, however, that the recurrent costs of such services must sooner or later be borne out of revenue or out of recurring grants which can be relied upon over a period of years.

(f) In the case of Educational and Health Services, it may be necessary to overhaul the existing organisations and to place them where necessary on a sound foundation as well as to embark on a definite plan involving the provision of these Services on a comprehensive scale throughout Provinces and States. Owing to the heavy cost involved and the long term measures necessary in respect of the provision of buildings and staff, development in the first instance will have to be gradual. This should not however prevent urgent measures being put in hand such as anti-malarial measures, the provision of health services in rural areas, or town planning and the provision of decent living accommodation for workers in urban areas. In the case of education, special emphasis should be laid on the education of women, adult education on proper lines and the improvement of educational facilities for which there is a definite demand. Special measures will probably be necessary to provide technical training or to continue in a modified form the technical training now being undertaken throughout India. It is especially emphasised that education should not be construed in the narrow sense of increasing the number of literates or graduates but should be part of a general uplift movement, especially in rural areas.

(g) It will be convenient to deal with the broad aspects of social reform under two headings, urban and rural development for, although these have much in common, each has its own special problems.

V. Urban Development.—(a) Probably the most important objective here is the improvement of urban administration and while local self-government should be fostered in every way possible, efficiency must come first and foremost. If necessary, legal powers must be taken to enable action to be taken where required and it should not be necessary to wait until mal-administration becomes an open scandal or the waste of public money has assumed large proportions before taking effective action.

(b) The provision of adequate water supplies, effective public health measures, hospitals and schools should find their place in the programme of development. It is, however, equally important that the services which are already provided should be efficient and the provision of funds for development should be made dependent on this condition.

(c) Town planning is important and every town, even the smallest, should have its town-plan to control all development and re-building.

(d) The provision of suitable housing accommodation for the industrial population is very necessary. The development of existing industries and the location of new industries should be made conditional on the provision of adequate housing for the employees either by Government or by quasi-Government organisations consisting of employers, local health authorities and Provincial representatives. Alternatively housing can be provided by the particular industry concerned, subject to adequate supervision to ensure that satisfactory standards are maintained.

(e) The location of industry must primarily depend on convenient access to power, raw materials, transport facilities and markets but, subject to this condition, industry should, wherever possible, be located in rural areas or small towns where expansion is easy and labour can be obtained in close proximity to its village of origin. The creation of a large industrial population divorced from its villages of origin and living in squalor in large cities is at all costs to be avoided.

Industrial Development must not be confined mainly to a few Provinces and States but so far as conditions permit should be extended in a rational manner over the whole of India. Particular attention shall be given to those parts of India which are industrially undeveloped and every assistance given towards the establishment of industries in such areas. Industries depending on agricultural raw materials must be linked up with Agriculture and their location decided after due consideration of the availability of the raw material, facilities for transport, availability of power and the proximity of the market.

(f) Perhaps the most important matter affecting urban development is the improvement of the conditions of labour. If the worst features of industrialisation in Europe are to be avoided in India radical measures will be necessary. This is not only necessary for the welfare of the workers themselves but no superstructure of efficient industrial development can be built upon unorganised, inefficient, underpaid and unhealthy labour.

VI. Rural Development.—(a) Any plan for the general improvement of the social and material conditions of the people as a whole must pay special attention to the villages. This is especially necessary in India because a large proportion of the inhabitants of the town are migrants whose homes, or at any rate, whose roots, are in the village. The measures required for such improvement are many and include improved methods of agriculture, better livestock, organised marketing, the financing of agriculture, the relief of indebtedness, anti-erosion, irrigation and reclamation measures, and reforms in land tenure and the laws of inheritance. In addition, improved communications, medical and health services, and education are required and it is doubtful whether any real progress can be made without them.

(b) The various measures desirable under these heads are indicated in Part II of this memorandum and will be elaborated in detail in the statements of policy to be prepared by the Departments concerned.

(c) The important point to emphasise is that rural development must be dealt with as a whole and that the social and material advancement of the people must proceed simultaneously on all fronts. This requires not only money but also enthusiasm on the part of the administration combined with an intensive use of instructional propaganda, organised on modern lines. For this purpose, an extensive organisation making use of modern methods of transport is necessary and it must include the radio, cinema, loud-speaker, poster and the spoken word. Its programme must include all subjects, not excluding entertainment and education in the broadest sense of the word. Only in this way can the interest and enthusiasm of the people be aroused and maintained.

(d) Perhaps the most serious obstacle to advancement in the villages is the absence of any real leadership and self-help in the villages themselves. The fostering of panchayats, co-operative societies, etc., may do much to improve conditions and to ensure co-operation between the various classes. The ex-soldier, if used in the right way, may be invaluable and the village school-master should become in the East, as formerly in the West, the leader of village uplift and village society. His wife may well do the same as regards the women.

In many parts of India the presence in the villages of a minority belonging to the Scheduled Castes, village menials, etc., who have neither land nor settled occupations, and are subject to many disabilities, presents a problem requiring special treatment. Their standard of living is generally lower than that of other communities and greater efforts will have to be made to bring them up to the

higher standard aimed at for the country as a whole. This would require, among other matters, giving them special preference and attention in the matter of their settlement in new colonies, if available; the teaching of village trades and industries, or their migration to the towns to become workers in industry.

(e) Cultivators should be persuaded to adopt improved agricultural practices and should be organised for this purpose, co-operatively where possible. Where a particular measure is for the benefit of the community as a whole and is accepted as such by a majority, it may be necessary to provide that it should be accepted by all. A suitable organisation is required to handle common buying and selling, crop planning, the facilities for finance, etc. The organisation contemplated might take the form of a co-operative society or of a Trust, which could be made attractive by Government assistance in the form of provision of seed, manure, irrigational facilities (*e.g.* improvement of wells), elimination of middlemen and provision of school and medical facilities. A number of such schemes should be started on an experimental basis in each province in order to discover the basis of organisation and to demonstrate its advantages. All new colonies and land brought under cultivation should be cultivated on this system.

Special measures will have to be taken to provide expert co-operative and agricultural staff of the required quality and each Province should begin now to build up a service of high grade and well-paid personnel for this purpose.

(f) Pending the widespread introduction of the organisation suggested above, a more active intervention by Government is required in all matters of rural development. This is especially the case in respect of consolidation, anti-erosion measures, control of grazing, tree planting and the use of manure pits.

(g) Owing to the backward state of the agricultural population it is very difficult to get teachers, doctors and nurses of good education and standing to be willing to work in the villages and when they do so the lack of amenities and educated society, is a serious handicap. This applies especially in the case of women. It is suggested that better roads and transport facilities may do much to improve the situation but they will not remedy it altogether. A possible solution might be in the selection of centrally placed villages as cultural centres for a group of say four or five villages, at not more than say four miles distance from it. Here in a small settlement could live, under reasonable conditions, the doctors, nurses, school teachers and subordinate officials responsible for providing the necessary service for the group. Housing will have to be provided by Government and transport in the form of bicycles or tongas will have to be made available, especially for the women. In view of the fact that the provision of complete facilities for every village on the scale desirable is likely to take a great many years, this system is also a means by which some facilities can be placed within reasonable reach of every village. Each village should if possible have its own school to be conducted by school teachers coming daily from the centre; where however this is not possible, some at any rate of the children can attend school at the centre. Similarly, doctors and nurses will be able to visit villages in rotation and the sick can if necessary be brought to the centre for treatment.

(h) Throughout the whole of India, and especially in the rural areas, no real improvement in the standard of living will be possible until the education of the women has been taken in hand. This must be taken in the broadest sense as including primary education, domestic and health training, and especially training in hygiene and the care of children. It is not likely that much progress will be made until the well-to-do classes set the example in this respect.

It must be emphasised that many of the measures essential to rural development are quite simple and require comparatively little money but great enthusiasm, effort and co-operation. Such items as manure pits, proper latrines, protected wells, drained streets, good seed, anti-erosion measures, etc. etc. can be carried out in any village if the will to do so is there. This can be created by the personal influence of officials, land-owners, ex-soldiers, etc., and also by well directed propaganda.

(i) In order to enable the necessary impetus to be given to the Rural Uplift Movement it may be desirable that Special Development Officers should be appointed to assist District Officers and that they should be made responsible for the co-ordination and encouragement of the work of the Health, Education, Agricultural and Veterinary Services in the districts. The general enlightenment of the cultivator should be as much a function of the Education Services as that of teaching the three 'Rs' which are of less immediate importance to the welfare of the people. The officers of all these Services must therefore co-operate over the whole field of social betterment under the general supervision of the Development Officer. The selection of officers for appointments should be made with this object in view and it is for consideration whether special training in agricultural and rural uplift subjects should not be given to all new entrants to the administrative Services. The institution of special courses or tours to give officers information as to the latest ideas on these subjects and the work that has already been done in certain districts should also be considered.

(j) A question that greatly affects rural prosperity and contentment is the prevalence of excessive litigation. There is not only great scope for the development of arbitration and the simplification of legal procedure but also a need for a comprehensive review of the legal system as a whole.

(k) It is for consideration whether it is desirable to spread efforts at development over the whole of a Province or whether it may not be preferable to concentrate on certain areas to which picked staff can be appointed and, as more staff and funds become available, to take in gradually more areas until the whole Province is covered. If this method is adopted it might be advisable to start at both ends of the scale. *e.g.*, the more advanced classes who may be regarded as ripe for development at one end and the more primitive people who require to be brought up to the general average at the other. As regards the former the imaginative methods adopted by the Tennessee Valley Authority in the United States or the 'Shock troops' methods of Russia have much in them that might with advantage be imitated in India.

VII. Land Development.—(a) The most important factor affecting post-war development is the fact that the population of India, now about 400 millions, is increasing at the rate of 11 to 15 per cent. a decade. It is possible that, as has happened in other countries, the birth rate will eventually tend to decline owing to such factors as the growing desire for a better standard of living, later marriages, and education, especially of women. The decline, should it take place, is, however, likely to be offset in India, as elsewhere, by an improvement in the survival rate due to better nutrition, education in hygiene, medical and public health measures. It will be wise to assume therefore that the increase in population will continue at the present rate for two or three decades.

(b) The population at present employed in organised industry is officially computed as 2.16 millions in 1941 as compared with 1.75 millions in 1938 or an increase of nearly 25 per cent. in three years. The increase in 1944 as compared with 1938 would be of the order of 50 per cent. This does not of course include large numbers who are actually working in village industries, small businesses or various works employing unskilled labour. While no definite estimate can be given of the possible expansion of industry and other forms of non-agricultural employment resulting from post-war development, it would appear very doubtful if it can absorb the whole of the probable increase and, as emigration is likely to be more restricted in the future, it will be clear that the pressure on the land is likely to continue.

(c) Even allowing for far more intensive cultivation than exists at present, the present agricultural population in most parts of the country is too great for the land available and there is an urgent demand for new land or the irrigation of existing land. Although there are large areas which are not at present cultivated, or are only cultivated occasionally, on account of insufficient rainfall or lack of irrigation, it is often stated that most of the productive

irrigation schemes have now been carried out and that much of the area now classified as cultivable waste is not in fact capable of being cultivated on a paying basis.

(d) It is suggested that for the following reasons the position is not so hopeless as might appear:—

(i) It is possible to establish a large number of new irrigation schemes on an economic basis, even if the return is not comparable with what has hitherto been aimed at, and by this means to bring new land under cultivation and increase the output from existing cultivation.

(ii) There is a big scope for the installation of wells, tube wells and pumps to utilise subsoil water or to draw water from rivers below the general level of the surrounding country.

(iii) Tanks and reservoirs can be increased.

(iv) Enormous areas of land in the Deccan and Rajputana which suffer from a low rain-fall can be made productive by comprehensive contour bunding, afforestation and anti-erosion measures (e.g., regulation of grazing), combined with modern dry-farming methods.

(v) Considerable areas of water-logged or salt lands can be reclaimed in canal areas, and coastal lands drained or protected from flooding.

(vi) Badly eroded areas can be rehabilitated and eventually brought back into cultivation.

(vii) Mosquito control measures can often reduce if not entirely eliminate malarial infection.

(e) In order to carry out this work an expert organisation is required and as much of it falls outside the scope of existing Agricultural, Forestry and Irrigation Services, it is suggested that a Land Development organisation should be set up in each Province to carry out on a comprehensive scale such of these measures as cannot be better undertaken by the existing Services.

It is also necessary to arm the executive with the necessary legal powers in the form of Soil Conservation or Land Development Acts. Such Acts must not, however, be allowed to remain a dead letter but should be vigorously enforced.

(f) One of the most important subjects connected with land development is the question of erosion. It is not a matter merely of dealing with badly eroded areas but of ensuring proper anti-erosion measures and controls over the whole of British India and the States including forests, waste land and cultivated land. There is very little land in India that is not liable to suffer from erosion in one way or another—even if only on account of floods, silt etc., caused by erosion elsewhere. It is no exaggeration to say that millions of acres have already been rendered unproductive by erosion and that much land is going out of cultivation, or profitable use, every year.

(g) The measures referred to above are required not only to decrease the pressure on the land and raise the standard of living of the agricultural population but also to ensure the food supply of the non-agricultural population. It is true of course that it may be possible for India to import foodstuffs but it is not desirable either in peace or war that the lives of millions of the population should be dependent on such imports. In peace it may be sound economically to grow cash crops and import food but the area under cultivation should as far as possible be capable in emergency of supporting the entire population.

VIII. Industrial Development.—(a) That an intensive development of industries in India is necessary cannot be gainsaid. It is only by such development that a balanced economy can be achieved. Under modern conditions a country without highly developed industries has no political future, as the present war has demonstrated. It is only by the development of industries that the national wealth can be produced which will enable amenities contemplated elsewhere

in the report, such as education, public health, housing, etc., to be provided. The development of agriculture must, however, proceed *pari passu* with that of industry so as to provide the purchasing power for the products of industry.

The development of industries is at present a provincial subject, but the development of any specific industry can by means of federal legislation be made a central subject. Industrial development during war time is being regulated and controlled under the Defence of India Rules, but for post-war planning legislation will be required.

(b) The question of the priorities to be assigned to industries *inter se* will have to be determined as the Plan develops. In general, it can be laid down that power, which is the basis of all industrial development, should have priority over others. In the beginning, important capital goods industries, considered essential for national purposes, should also have preference over consumption goods industries. Among these may be mentioned the iron and steel industry, the heavy engineering industries, the machine-tool industry, the heavy chemical industry and fertilisers. If, however, attention is exclusively devoted to the development of capital goods industries, the additional purchasing power created thereby will not find an outlet in the consumption of goods, resulting in inflation of prices and hardship to consumers. A development of consumer goods industries, side by side, is therefore necessary. Many such industries which have grown up during the war and which will serve peace-time needs, will require to be looked after. Most of the small scale and cottage industries are also of this type, and should be encouraged as they require comparatively small capital investment but enable a large number of men to be employed. Priorities between the different industries will have to be assigned, as the Plan develops, on the above general principles and in conformity with the requirements of the different parts of the country.

(c) The general trend of modern thought is in favour of greater control by the State over industries, so that the profit motive is duly harnessed to social needs. State activity in relation to industries take three forms, (i) ownership or participation, (ii) control, and (iii) management. There are certain industries, such as armament and munitions factories, which in the national interests the State should both own and manage. There are other industries, which it may be necessary to establish in the national interests, for which private capital may not be forthcoming, because they are not sufficiently profitable. In that case, it would be necessary for the State to own them. The Ammonium Sulphate industry may provide an example of industries of this kind. In such cases where an industry is, wholly or partly owned by the State it is not always necessary that it should be managed by the State. Management by a private corporation or company may be more economical and more efficient.

The most usual form of state relationship with industries is that of state control. Such control may take various forms, such as nomination of Government directors, licensing, limitation of dividends, etc., extending up to the stage of almost complete control over production or distribution, or both. Industries for which some measure of State control is necessary include public utilities when they are not wholly owned or managed by the State, basic industries and industries utilising scarce natural resources, which are likely, in the absence of control, to transform themselves into monopolies. It is not necessary at this stage to lay down more specifically which industries should be controlled by the State and to what extent. Generally speaking, it may be laid down that, except where national interests require it, industries are at present best left to competitive, capitalist enterprise, the State exercising such control as to see that they are operated for the public benefit after providing a reasonable return on savings and enterprise. Where industries are left in private hands, Government control should interfere as little as possible with the actual management, so as to provide free scope to efficiency. There should always however be sufficient control over all industries to ensure that labour is not exploited and receives fair wages and decent conditions of living.

(d) While there is a natural and widespread desire that expansion should be on a 'national' basis it must be recognised that there is at present a shortage of qualified Indians to fill posts as managers and technical staff. This can be remedied by suitable arrangements for training both in India and overseas, by better conditions of service, and by a greater realisation of the advantages of a career in industry. In the meantime, it may be necessary in some cases to obtain the services of experts from overseas if industrial development is not to be retarded or handicapped.

(e) Where Government decides to enlist the assistance of firms from overseas to develop industries of a highly technical kind, or those which depend on patents, the following principles may be observed:

In such cases, the participation of outside interests may, if possible, be confined to the provision of technical assistance and of machinery and experts, the firm being remunerated for services rendered and by royalties on patents. In cases where participation in capital is required, care should be taken to see that the capital is issued in India, that the majority of the capital, as well as the directorate, is Indian and final control over policy rests in Indian hands. In cases where it is necessary to entrust the management of such industries to outside firms, provision should be made for the training of Indians in all the technical processes and the ultimate transfer of control to Indian management.

(f) It is necessary here to utter a warning against embarking on projects involving complicated processes without the assurance of really expert and reliable technical assistance or of entering into arrangements for the participation of foreign firms of doubtful integrity. In these matters the advice and assistance of Government agencies may be of especial value to industrialists.

(g) Various measures can be adopted by the Central Government to assist and encourage the promotion of private industry. These may include:—

- (i) Scientific and industrial research;
- (ii) Planning and technical enquiries undertaken in conjunction with the representatives of industry;
- (iii) Geological and mining surveys;
- (iv) The provision of facilities for training technical staff in both subordinate and higher grades, including, where necessary, training overseas;
- (v) Obtaining of technical experts from overseas;
- (vi) Allocation of priorities for machinery;
- (vii) Provision of power and transport facilities;
- (viii) Finance, either direct, or through some kind of National Development Corporation in which the public can participate;
- (ix) Organisation of internal and external markets, e.g., through an Indian Export Corporation;
- (x) Tariffs or other means of safeguarding industries;
- (xi) Statistics and commercial information.

(h) In general, there is great scope for exercise of initiative by Central, Provincial and State Governments in promoting the expansion of industry on sound lines. This expansion must be co-ordinated by the Centre in consultation with Provincial and State Governments and for this purpose controls will be necessary. These must not be such as to hamper legitimate development but it would be quite legitimate to use them to prevent schemes being launched which are unlikely to succeed and which may involve the loss of valuable capital and other assets to the community. Capital, even though in private hands, is a national asset and must be used to the public advantage.

IX. Finance.—(a) The finance of reconstruction and post-war development involves important measures, some of which should be taken now. The first of these is to build up during the war large public and private funds or savings which can be utilised for post-war development. This involves the expansion of the revenue by every means possible and the restriction of private expenditure to a minimum.

(b) Some of these revenue measures may be temporary expedients which can only be continued during the war period. Others should aim at laying the foundations of a permanent increase in revenue which can be utilised for development, for meeting recurring costs and maintenance, or to cover the service of loans.

(c) The provision of large capital resources at reasonable rates of interest in the post-war period will be essential to development. The resources available, though large, are limited in relation to the development required and it is essential that they should be utilised to the best advantage of the country as a whole. This may involve control over the flotation of new companies with a view to keeping interest rates low and ensuring that Government and private enterprise can obtain the capital resources required for approved schemes of development.

(d) Pending detailed investigation of the problem of finance, it is suggested that plans should be drawn up on the assumption that capital expenditure on electrical development, roads and irrigation should be financed out of loans, and in the case of industrial development out of private capital except where participation by the State is decided on. Recurrent expenditure by Governments on these services, including the service of loans raised on their account, and of expenditure on social services, should be financed out of revenue (which will improve almost immediately consequent on the discontinuance of special war time expenditure and then increasingly with the completion of the development of roads, irrigation, electrical schemes, etc.), or out of assured recurring grants from the Centre.

(e) It is in regard to the finance of social services that the greatest difficulty is likely to arise but it is common ground that their full development must eventually depend on an increase in the national income and consequently in Central and Provincial Revenues. While recurrent expenditure must be financed out of revenue or grants in aid, it is for consideration whether the capital cost of buildings should not be financed out of loans. Actually the sum that can usefully be spent on Health and Education is limited by the question of recruitment and training of staff. Apart from the capital cost of buildings, the Central Advisory Board of Education estimates the expenditure in the case of Education in British India to increase by some 10 crores at the end of five years or, say, a progressive addition of 2 crores per annum to the existing expenditure of 31 crores. The expenditure required on Health Services is not yet known. These figures are well within the possibilities of increased revenue and much of the capital expenditure in this period could probably be found from accumulated surpluses in Provinces provided loan money is available for the productive schemes such as electrical development. In this connection it is worth noting that in Great Britain expenditure on social services increased six-fold in the period from 1850 to 1900 and over ten-fold in the period from 1900 to 1934. On Education and Health Services alone the increase was also more than ten-fold. During this period the expansion of revenue was almost equally striking, *e.g.*, a five-fold increase from 1900 to 1934.

(f) It therefore appears that provided the development of industry and agriculture, and increase in taxation are on a comparable scale, there is no reason why the provision of comprehensive education and health services over the whole of India should not become possible within a period of forty to fifty years. It should be noted that much of the finance of social services in other countries has been provided from local taxation and private benefaction and it can be argued that the people in general are far more likely to welcome and avail themselves of such services if they have personally paid something towards them. Subject to the maintenance of agricultural prices at a reasonable figure and general prosperity in trade and industry, there is no doubt that in certain areas increased local taxation in the form of a cess on land revenue, or a house tax in the towns, is not only possible but would also be justified if it resulted in the provision of improved social services. This local taxation must, however, be placed on a sound basis.

(g) The principles of financial planning for purposes of post-war reconstruction and development and the order of the sums which the Centre is likely to find for the purposes of Centre and the Provinces in the first post-war quinquennium, subject to certain fundamental assumptions and conditions, are dealt with in Part II, Section 1.

X. Method of Planning.—(a) This must obviously be suited to each particular subject and the methods adopted will not be the same in every case. In general, however, it is intended that there should be an all-India Plan on broad lines for a period of 15 years, or for a longer period in respect of certain subjects. Except, however, in subjects which are a Central responsibility, it will be necessary for detailed plans to cover a definite period to be drawn up by Provinces and States in consultation with the Centre as regards ways and means. The result in effect will be—

(i) An all-India Plan in respect of Post-war Reconstruction and Development as a whole

(ii) A detailed 5-year plan for British India for Central subjects including finance.

(iii) A detailed 5-year plan prepared by each Province in respect of its own subjects also including finance.

(iv) A detailed 5-year plan prepared by each State of a suitable size, in respect of all subjects including finance.

The functions of the Centre will mainly consist in—

(i) Initiating plans and policies for those questions for which the Centre is responsible and elaborating them in detail, if necessary, in consultation with Provinces and States.

(ii) Providing expert advice to Provinces and States and endeavouring to ensure a common policy on important questions.

(iii) Insuring interchange of information and possibly of technical advice between Provinces and States

(iv) Co-ordination of plans and priorities.

(v) Provision of financial advice and assistance where considered justifiable or necessary.

(vi) Provision of assistance in respect of the procurement of plant or technical staff.

(vii) Co-ordination of scientific research and experiment, expert and technical investigations, training of technicians, etc.

(b) The method by which plans will be evolved is that for each subject a Development Officer will be appointed where necessary by the Central Government, together with such expert staff as may be considered necessary.

In respect of Central subjects these officers will elaborate a detailed plan in consultation with the other interests affected, *e.g.*, Provincial and State Governments, commercial interests, etc.

In respect of Provincial subjects, a memorandum will be drawn up stating the policy recommended by the Central Government as a basis for discussion with Provinces and States. Development Officers will obtain details as to the proposed plans or policies of the Provinces and States respecting their own subjects, advise them where necessary and effect the necessary co-ordination between them. In addition they must advise as to what assistance, if any, is required or can be given by the Centre. To carry out this work effectively, these officers must spend a considerable time visiting each Province and State, the main centres of industry and possible areas for industrial development.

(c) Planning will be greatly facilitated by the appointment by each Provincial Government of a Development Commissioner or the creation of a special Department devoted entirely to development planning, co-ordinating the activities of the various Departments and maintaining contact with the representatives of the Central Government. It will also be necessary for each Province or State to select suitable development officers and experts to work with the representatives of the Centre and to enable them to ensure co-ordinated Plans in respect of the various subjects. It will be understood of course that in some cases the Development Officers will find complete plans prepared which need little amendment. Furthermore, they will find in the plan of almost every Province and State certain features that can with advantage be adopted elsewhere or which may be of sufficient importance and general significance to modify the all-India plan as a whole.

(d) The appointment of these Development Officers will in no way absolve the Secretaries of Central Departments from the ultimate responsibility for planning. So far as their duties permit under war conditions, it is desirable that they should visit Provinces, and make themselves personally acquainted with the problems of post-war development. The meetings of policy Committees will afford an opportunity for official discussions with senior representatives of Provinces and should assist in resolving any difficulties that arise.

(e) At an early stage it will be necessary for the Centre, and each Province and State, to draw up a phased plan showing the proposed programme of development in terms of recurrent and capital expenditure over a term of years over the whole field for which they are responsible. This must be commenced at an early date in order that the financial plan may be kept in step with the development plan and in order that the latter may be drawn up on a practical basis. The phased plan will not of course be regarded as rigid but may have to be revised from time to time both on administrative and financial grounds.

XI. Priorities.—(a) There has been a good deal of discussion among the public as to priorities for post-war development. From the practical aspect it is quite obvious that an advance is required on all fronts both revenue producing, directly or indirectly, and those which involve expenditure on social services.

(b) The importance of the former is that they will eventually pay for the latter but the need is so great that the country cannot afford to wait for improved education and health services.

(c) In practice the considerations that will determine priorities will, it is probable, be such questions as availability of trained staff, materials and machinery, rather than finance, and a well balanced plan can only be drawn up after such considerations have been carefully examined. A beginning with the following measures should be made as early as possible:

(i) Arrangements for the provision of scholarships and studentships, both in India as well as overseas, for the training of scientists, technicians, educationists, doctors, administrators, etc.

(ii) The expansion of existing institutions and the provision of additional institutions for training in all branches of science, engineering, agriculture, veterinary, medical, forestry, etc.

(iii) Survey of the powers resources and industrial production and potentialities of Provinces and States.

(iv) A review of the administrative systems and methods with a view to reform where necessary.

It is not possible to lay down exact priorities for measures immediately following the cessation of hostilities, but such measures as the resettlement of demobilised soldiers, the development of irrigation, electric power and roads, will have to take precedence over others, although such precedence does not mean that the development of other activities like agriculture, industries, education and public health, should not be started simultaneously.

XII. Limiting factors.—(a) Apart from finance there are certain limiting factors which must be faced in planning and preparing for post-war development. The first of these is the need for an efficient administration.

(b) While this is a matter mainly for the Governments concerned, and for public opinion, it must be clearly stated that at a time when both the revenues and capital resources of the Centre are likely to be unequal to demands it will be essential to make these available only to such administrations as are judged capable of utilising them to good advantage.

(c) A specific point that arises is whether Local Bodies should be entrusted with the duty of developing communications, health and education services on a comprehensive scale. With certain notable exceptions, experience in the past has not been encouraging and it is for consideration whether their services cannot in some cases be more usefully employed in an advisory rather than in an executive capacity. There is also the problem of the Municipalities some of which are incapable of providing an efficient administration. It is clear that the whole situation as regards Local Government should be examined and that possibly a Local Government Board and Commissioner should be set up in each Province to supervise their administration, to prepare such Local Government Acts and Model Municipal Acts as are necessary, to draft standard rules and regulations for adoption where necessary by local bodies, to lay down terms and conditions of service and to select and appoint executive staff.

The organisation of local authority services, as for example veterinary, medical, public health and sanitary engineering services, on a provincial basis under the technical supervision and control of the provincial executive heads of departments is also a matter which will require consideration in Provinces where provincialised services are not already in existence. Another important matter requiring examination is that of the "provincialisation" of, or the assumption by the Provincial Government of responsibility for, maintenance and management of institutions such as district hospitals which local authorities are unable to maintain at a high level of efficiency.

(d) Very considerable increases will be necessary as regards both administrative and technical staff and new services or specialised branches may have to be created. Conditions of services must also, where necessary, be revised. It may also be necessary to reinforce the intermediate, and in some cases, the senior grades, possibly on a temporary basis, and where personnel with the necessary qualifications and experience is not available in India it may be desirable to obtain them from overseas.

(e) Special arrangements will also be required for training both administrative and technical staff. The former can no longer be entirely of a general purpose type and, while some interchanges may be desirable, a degree of specialisation and special training, possibly overseas, will also be necessary. This will affect both the Central and Provincial Services and should be the subject of early examination. Similar considerations arise to a greater degree in the case of technical services and it will be desirable to provide special initial and post-graduate educational facilities and also to ensure a degree of interchange between Provinces and between them and the Centre.

(f) It must also be recognised that present administrative methods which have developed over a long period of years may not be suited to modern times or be adequate for carrying out comprehensive development schemes. This is true not only of Government Departments at the Centre and in the Provinces but even of the work of the Patwari in the villages. It is perhaps most marked in the districts.

A comprehensive review of office methods and routine, of reports and returns, in fact of the whole system, is required. A better qualified and better paid subordinate staff should be provided, and when this is done it should be possible to secure a reduction in numbers. To carry out this work specially selected officers are required who have made a study of the subject; they should be

capable of analysing the work done by every individual and be able to distinguish between what is, and what is not, essential and what simplifications of method are possible.

(g) Finally, it is necessary to emphasise the need for a spirit of whole-hearted co-operation not only with the Centre, and between Provinces and States, but also between the various communities and commercial interests. Competition and the desire to further provincial or communal interests are natural and within limits desirable in the general interest. They must not however, prevent each industry so organising itself as to ensure co-operation and rationalisation and the ability to speak with one voice on matters of common concern.

PART II.—Summary of Development Policy in respect of certain main subjects

1. Finance

1. In the speech of the Hon'ble the Finance Member introducing the budget for 1944-45 it was made clear that the Government of India fully recognised that if any effective development was to take place in the post-war period large sums were bound to be involved. The magnitude of war time finance has taught both governments and the public to think in terms of figures which would have frightened an older generation. The main resemblance between war-time and reconstruction finance is that they both necessarily involve a continuously high level of taxation and of borrowing if the objective is to be attained.

2. It is impossible at this stage to work out precisely all the details of the schemes for raising the requisite finance for Governmental schemes. But it may be definitely assumed that the Central Government will explore every possible measure for raising money either by additional taxation or borrowing with a view to financing schemes sponsored by themselves or for assisting schemes sponsored by the Provincial Governments. It may be assumed further that the various Provincial Governments will likewise exploit every available source of fresh finance. Whilst regard must continue to be given to the constitutional allocation of financial responsibilities, it is recognised that the problems of post-war planning will, at certain stages, call for substantial contributions from the centre, if the ends in view are to be achieved. It is not the intention of the Government of India to regard schemes which, under the present constitution, fall within the Central sphere as in anyway competing or conflicting with those which fall within the Provincial sphere, but rather as complementary. The entire planning by the Centre and the Provinces will have to be carefully co-ordinated and harmonised so as to yield the maximum results to the country at large. Although the Government of India will pay special attention to the problem of the finance of post-war development, it is premature to formulate any precise financial plans much less to allocate the funds which may be available to the Centre. These must necessarily depend upon and await the preparation of detailed plans by the Centre and Provincial Governments, suitably divided into 5-year periods. At the same time all the Provincial Governments and the Central Government will have to forecast their financial position for the first quinquennium on the assumption that not only will an era of full employment and production as in war time be maintained, but also that every new source of revenue will be fully exploited. On the expenditure side also the various budgets will have to be adjusted so as to effect economies under headings which do not contribute either directly or indirectly to the new effort of development. It is then that final selection of the Central and Provincial schemes for the first five-year period can be made, and the allocation of the Central Government's own resources made not only for the Central schemes which have secured the necessary priority, but also for the various Provincial schemes in order to supplement the Provincial resources. The financial resources of the Centre are not of course unlimited: on the other hand, planning on a generous scale with reference to definite objectives, even though unattainable to the fullest extent in the first five-year period, will have the advantage of securing that nothing essential has been omitted and also of giving the country at large an idea of the magnitude of what is

ultimately involved and the necessary impetus to Governments and the public to strain every nerve to attain the final objective. It will doubtless be realised that it will be necessary especially in the first few years to ensure that a proportion of the schemes selected will add to the national income and the revenues of the Central and Provincial Governments so as to enable them to embark more vigorously on social services in the later periods of the development plans.

3. It may be found necessary to devise some special machinery to allocate the available resources after all the plans and resources have been impartially and comprehensively surveyed.

4. In the case of certain schemes it may be possible to proceed without waiting for the completion of the plans as a whole, *e.g.*, if there are funds specially earmarked or created for them, as in the case of Railway Development, or if it is found essential to make a beginning with special priority schemes in connection with necessary preparatory measures such as training, or the resettlement of ex-service men.

5. The Government of India have estimated, on the basis of certain fundamental assumptions, that a round figure of Rs. 1,000 crores might be available for the first five year period taking effect from the year 1947-48 and ending in 1951-52. Approximately half of the total will consist of revenue surpluses which would be available for financing such Central development projects as are not financed by loans and for making grants recurring or otherwise. The remainder, that is, about Rs. 500 crores represents the total loans representing new money, which it is felt might be raised by the Centre, and by Provinces, in the five year period. It will be noted that this figure of one thousand crores is exclusive of amounts which could be raised from the market for private investment. This may be of the same order as that estimated for Government borrowings.

6. The fundamental assumptions and conditions on which the foregoing estimate is based are:—

(i) That any constitutional or political changes which, may be introduced will not result in a radical departure from the present economic and financial arrangements;

(ii) That a reasonably speedy rate of demobilisation after the conclusion of hostilities proves possible and corresponding progressive reduction of the defence budget is ensured;

(iii) That world conditions in the early post-war period are such as to permit of full production and employment;

(iv) That in the interests of the future development of the country the Government of the day will be prepared to impose, and the public will be prepared to accept or submit to, full development and exploitation of the taxable capacity of the country. In other words, that a determined effort will be made to secure a sure and sound financial foundation for development and expansion by an all-out taxation policy, by deliberately working the Government commercial departments for profit, etc.;

(v) That Government control over the issue of capital is maintained and the borrowing requirements of Government are taken into consideration in its administration.

2. Re-settlement and Re-employment of ex-servicemen

1. The responsibility for the re-settlement of ex-service personnel is essentially civil as it is only in civil employment that they can be absorbed. It is possible, however, for the Service authorities to do a great deal to assist both the individual men and the civil agencies concerned either at the Centre or in the Provinces and States.

The problem of re-settlement as a whole will be solved only by a comprehensive all-India development policy but meanwhile much can be done by special measures initiated and financed either by Provincial and State Governments, or by the Centre.

It must be emphasised, however, that the success of such schemes will depend largely on the action of Governments of Provinces and States which will

in most cases have to administer them. Similarly the extent to which ex-service personnel are absorbed into employment as a consequence of development generally will depend on the selection of suitable schemes in the first instance, and the administrative measures taken by the Governments concerned to ensure the utilisation of ex-service personnel to the fullest extent possible.

2. Planning for the re-settlement of ex-servicemen must therefore to a great extent wait on the development of more general plans. Meanwhile, preliminary work has the following main objects.

(i) to adjust demobilisation so far as possible to opportunities for re-settlement;

(ii) to provide machinery to assist the ex-serviceman to find employment on his discharge;

(iii) to train him for the various kinds of employment which he may be expected or may wish to take up;

(iv) to promote such resettlement and welfare measures as may be appropriate for ex-servicemen as a special class.

The policy of reserving a percentage of permanent vacancies occurring during the war in the public services for candidates who have offered war service has been accepted by the Central and Provincial Governments.

3. Recruits have been drawn from a wide range of occupations and from almost every section of the people. The main line of division is between those who will look to the countryside for their future livelihood and those who will look for industrial or other employment in the towns. Some ex-servicemen will own or have an interest in land or businesses to which they can return, some will not; some will enter the army with special qualifications, or have acquired them since, while some have none. These are conditions of the re-settlement problem which have to be kept constantly in view.

4. Planning under the various heads mentioned in paragraph 2 is proceeding in the following directions:

(i) (a) The desirability of relating the date and time of demobilisation to opportunities for re-settlement has been borne in mind in preparing demobilisation schemes. Such schemes will be designed to secure that officers and men serving overseas get equal opportunities for re-settlement with those serving in this country.

(b) It is proposed that military units should be made available for productive development work whilst they are awaiting demobilisation. They will be offered to Provincial and State Governments who will only be required to bear costs additional to normal maintenance. It is hoped that if, as is expected, Governments find such assistance useful, they will consider the formation of civil labour and technical units which could absorb ex-servicemen.

(ii) (a) Employment exchanges (see para. 3 below) will give special attention to ex-servicemen, and special military sections will be attached to exchanges if necessary. Details of the qualifications, experience etc. of service personnel are being collected and systematically recorded to this end.

(b) Employers, Government and private, will be asked to reserve a percentage of vacancies for or give preference to ex-servicemen.

(iii) (a) Vocational training schemes are being worked out with the assistance of Provincial and State Governments. These will give training before demobilisation.

(b) It is hoped to secure special educational and training facilities and concessions for officers and men who have had their training interrupted by war service.

(4) As stated above, the ex-servicemen as part of the general population will take part in and benefit from general development schemes. It is however proposed to undertake special measures for his benefit to be financed by the Ser-

vices' Post-war Resettlement Fund and such other resources as may be available. The following indicates the matters to which special attention will be paid:

(a) The organisation of the Indian Sailors, Soldiers' and Airmen's Board and its subsidiary Provincial and District Boards to be developed and strengthened to promote the social welfare of ex-servicemen and assist them in maintaining the higher standards of life to which they have become accustomed during their service.

(b) The education of ex-servicemen's families to be assisted by scholarships and maintenance grants etc.

(c) As regards re-settlement on and development of land, efforts to be made to assist ex-servicemen.

3. Post-War Employment

1. The ultimate aim of Government must be the full employment of all those seeking work. But to ensure full employment in a vast country like India, at its present stage of economic development, must necessarily take a long time. As the Plan develops, industrial expansion will absorb larger numbers than at present. This will particularly be the case with reference to the small scale and cottage industries where the ratio of labour to the volume of capital employed is much larger than in the major industries. A large part of the population will also be absorbed in trade and other services, following increased production. The main problem of unemployment, however, arises in agriculture where the worker on the field has to be idle for long periods in the year. This unemployment will be remedied by the diversification of agricultural pursuits as recommended in the plan for the development of agriculture, such as dairy farming, market gardening, etc. The cultivation of more than one crop in the year with the help of better irrigation and manures and the provision of subsidiary cottage industries will provide work to the agriculturist and the labourer on the land in addition to the work on the farm.

2. Employment is therefore a product of economic and social development, and depends on industrial, agricultural, public works and financial policies. It will be for the Governments and Departments concerned to initiate these policies or to encourage private enterprise to do so. Taken as a whole they involve an efficient utilisation of natural resources and manpower, and the establishment of suitable relations with other countries. The success of these policies will depend largely upon the contentment, health and efficiency of labour. The responsibilities of the Labour Department include not only the establishment of these conditions but also of ensuring that suitable labour is available where required. This necessitates an efficient employment service and must include provision to deal with those now engaged in war-time vocations.

3. A beginning has been made in the setting up of an employment service by the establishment of Employment Exchanges, with Employment Committees attached to them, in some important industrial towns and cities, and by the opening of Labour Depots for unskilled workers. Through the experience gained in running these Employment Exchanges, which have at present been designed to facilitate the placement of skilled and semi-skilled labour, and in running the Labour Depots it is hoped that an efficient post-war employment service will be evolved. This service of Employment Exchanges and Labour Supply Depots will provide a valuable index to unemployment in post-war years, will help to adjust the timing of remedial measures, will facilitate the migration of labour from industry to industry, according to the rising tempo of industrial progress, and will give an index of the possible mobility of unskilled labour and of the areas in which labour is likely to be available if industry is established there.

4. The problem of "conversion" and "reconditioning" of the personnel now engaged in war service or industries, will receive special attention. The policy of readjusting the Technical Training Scheme not only to the needs of war-time industry in the country, but also to the requirements of post-war industry, has already been accepted. An Advisory Committee has been set up, to review the

existing methods and syllabus of training under the Scheme and to make recommendations as to how it should be adjusted to meet the needs of industry. A Committee of representatives of Provincial Governments and States will also be appointed to consider comprehensive plans with a view to fitting the scheme into the existing structure of technical and vocational training in the Provinces and States.

In this manner, the training will be so designed as to facilitate the conversion of demobilised technical personnel to useful technicians for civil industry in post-war years.

4. Disposals.

1. Surpluses for disposal, other than actual armaments which for obvious reasons will require special treatment, will fall broadly into the following classes—land and buildings, plant and machinery, motor transport, timber, textiles, innumerable items of general stores, and the produce of reclaimed salvage. The major part of the war material in India is the property of H. M. G. and will, therefore, have to be disposed of in consultation with that Government. A proportion of the material will be of lease/lend origin and under the terms of lease/lend aid it may be found necessary to return such material to the U. S. A. or to arrange for its disposal in consultation with the American authorities.

2. In order to provide the necessary machinery to dispose of these surpluses and to enable decisions to be taken on questions of policy arising in connection with the disposal of surpluses it has been decided to set up a Disposals Board which would be responsible for the general policy in respect of surpluses and allocations and which would control all disposals operations. The Disposals Board will consist of the Secretaries of the Supply Department, the I. & C. S. Department, the War Department*, the Commerce Department, the Planning and Development Department*, Defence Department* and the Food Department*, as well as the Financial Adviser, Military Finance, and the Director-General of Disposals. Those marked with an asterisk will be required to attend only when matters arise which concern their Departments. The head of the Ministry of Supply Mission in India will also be a member of the Board as the representative of His Majesty's Government in view of their very large interest in the material for disposal. A Joint Secretary of the Supply Department will be the Secretary of the Board.

3. The Disposals Board will be generally responsible for formulating policy on all matters connected with the Disposal of surplus stores in India, subject to the approval of H. M., Supply, on questions of high policy, and a reference by him when he considers it necessary, to the Executive Council, the W.R.C.C., or the proposed Tripartite Council, as the case may be. The Disposals Board will deal with all true surpluses of stores in India available for disposal and will be concerned with the policy governing the disposal of lands and buildings, factories, and foodstuffs. It will not deal with the details of the disposal of lands and buildings, food and livestock. Report of true military surpluses available for disposal in India will be made by the Military Surplus Stores Section of the War Department to the Directorate General of Disposals. Civil Departments of the Central Government and such Provincial Governments and Governments of Indian States and other Public civil undertakings as desire to utilise the services of the Disposals Board will similarly report to the D. G. Disposals their true surpluses of finished goods. The D. G., Disposals, will inform the Disposals Board from time to time of all available surpluses. Surplus stores which the United States Forces decide to make available for disposal in India will be reported direct to the Disposals Board which will convey orders regarding the method and manner of disposals subject to any decisions which may have been taken on high policy.

4. The Disposals Board will decide on the method and manner of disposal—whether to Government Departments or to the civil market etc., and these decisions will be conveyed by the Secretary of the Board to the Directorate General of Disposals who will be the executive agency through which the decisions and

policy of the Disposals Board will be implemented and who will be responsible for taking disposal action in all disposals matters. As a rule, available surpluses will be disposed of to Central Government Departments, Provincial or State Governments or public undertakings and only after their demands are satisfied in full, will surplus stores be released for the civil market. In the case of surpluses reported by Civil Departments these will first be offered to the military authorities before any other manner of disposal is considered. The Disposals Organisation will not be responsible for storage of surplus stores but such surpluses shall be stored by the reporting authorities until they are disposed of in accordance with instructions issued by the Disposals Board or the Directorate General of Disposals.

5. The Executive duties involved in disposal will be carried out by the Directorate General of Disposals who may employ an unofficial agency to assist in the disposal of any particular class of goods or material. The fundamental principle underlying disposals policy will be an orderly disposal of stocks having regard to the need to effect disposal quickly to prevent deterioration and release storage space and also to the equally important need that the economic and industrial life of the country is not unduly disturbed by sudden unloading of stocks. In effecting disposal of surplus stocks to the civil market this should be done so as to dislocate as little as possible the existing economy of the country. Distribution through the usual trade channels should, therefore, be the rule and not the exception. But in using trade channels, care should be taken that unnecessary middlemen are excluded, profiteering prevented and the ultimate consumer assured of supplies at a reasonable price. In order to carry out this policy, continuance of certain war-time controls may be found necessary and recommendations in that regard will be made by the Disposals Board to the Central Government.

6. The disposal of land and buildings and the relinquishment of those that have been requisitioned will be the responsibility of the Defence Department but any question of disposals policy which arises in connection therewith will be referred to the Disposals Board. Subject to any existing undertaking that any particular land or building will be returned to a specific party, all lands and buildings will, in the first instance, be offered to Departments of the Government of India and subsequently to the Provinces concerned. If any such land and buildings are not required by any of these Governments or Administrations they will then be disposed of to the public subject to the condition that the owners of lands and buildings from whom such property was acquired or requisitioned should be given the first option of repurchasing their property.

7. The disposal of surplus textiles and other surplus items for the procurement of which the Industries and Civil Supplies Department is responsible will be effected through the Directorate General of Disposals. Relations between the Directorate General of Disposals and the Industries and Civil Supplies Department will be precisely similar to those between the Directorate General of Disposals and other organisations of the Supply Department except that the Directorate General of Disposals shall invariably consult the Industries and Civil Supplies Department before making proposals to the Board with regard to textiles or other items for the procurement of which the Industries and Civil Supplies Department is responsible.

8. The Quarter Master General will form a separate section for reporting true military surpluses of food-stuffs, and an organisation for disposal will be worked out by the Food Department who will also be responsible for policy decisions in consultation with the War and Industries and Civil Supplies Departments.

9. It is hoped that Provinces and States will not only take a considerable proportion of the material which will be available but will also assist in finding private purchasers for them. The possibility of establishing a credit for each Province and State against which the value of stores, land, etc., acquired by them would be debited, will be examined as also the possibility of extending special credit facilities to industries where necessary.

Contracts

Government is at present the biggest purchaser of items of indigenous production and has been responsible for an extensive change-over from peace-time methods to a war basis of production of articles many of which have no peace-time value. The manner of Government's withdrawal, as the War draws to a close, from these markets, will therefore be of the greatest importance to the national economy. Government's major long-term contracts include a break-clause which will have to be operated at the appropriate time as reductions in demands are communicated to the Supply Department. The nature of the action under this clause will be a matter for individual decision in the light of such factors as Government's financial commitments in view of special raw materials already supplied and the extent of partly completed work, the speed at which a changeover to production for civil requirements can take place, and problems which may arise in connection with demobilization of labour. Meanwhile the Supply Department will undertake an examination of all such contracts with a study of the special problems which will arise on their cancellation so that prompt decisions may be possible when the question of applying the break-clause actually arises.

Utilisation of Ordnance Factories

1. A measure of preliminary investigation as to the future of the Ordnance Factories has already been carried out. This defines the potentialities of each factory, both in terms of production of munitions and of alternative production related to civil industry. We still, however, lack certain essential data, whereby their exact post-war employment can be determined. Nevertheless, much useful action towards this end can and should now be undertaken.

2. Broadly speaking, the problem is two-fold:—

(i) the utilization of the Ordnance Factories during the immediate post-war period—a period which for purposes of argument may be assessed at two to three years;

(ii) the end use of the Ordnance Factories, *i.e.*, the position when a portion of them will be devoted to the needs of the peace time defence services and when a portion can, if necessary, be thrown up for civil needs.

3. It will clearly not be desirable to close down the Ordnance Factories the day hostilities cease. The present purely military production should, however, merge as soon as possible into two major activities:—

(i) breaking down and sorting stores and material and subsequent processing into types of material acceptable by the trade;

(ii) filling the industrial gaps caused by the ravages of war in such directions as cannot conveniently be undertaken by civil industry.

4. There is obvious scope for the Ordnance Factories to contribute usefully to the process of "beating our swords into ploughshares". At this stage it will be possible only to estimate roughly the nature and quantities of stores and equipment which will lend themselves to this process at the end of hostilities. Nevertheless, a detailed examination of what is likely to accrue and how best to utilize Ordnance Factories capacity for the purpose should be undertaken at an early date.

5. The length and intensity of the campaign has led to a world-wide shortage of most commodities. India is no exception in this respect. We must fill these gaps in production as early as possible and at a rate of output far exceeding that subsequently required, when peace conditions have been restored. In short we cannot afford to have lying idle machinery which can contribute usefully to the economic rehabilitation of the world. In this direction the Ordnance Factories can assist. It is a matter for planning and such planning should be initiated at once.

6. The end use of the Ordnance Factories i.e., what proportion of them will eventually be concerned in maintaining our peace time defence services, is not so easy to assess. It must depend on the following factors:—

(i) The size of the peace-time Defence Services and their anticipated expansion in any emergency.

(ii) The share of munitions production on a British Commonwealth basis, which India may be asked to undertake.

(iii) The selection of the Ordnance Factories best suited to meet the requirements of (i) and (ii) above.

7. The size of the peace-time Defence Services to be maintained in India is under active consideration. Neither in this respect nor as to India's share in post-war munitions production can we expect finality for some time. Nevertheless, by making reasonable assumptions, it will be possible to formulate a plan for the post-war employment of the Ordnance Factories, which would readily be capable of modification to the conditions which emerge at the end of the campaign. Unless we undertake such an investigation now we shall again be caught unawares, when the time for action comes.

In this connection, it will be convenient to examine on the same lines the future of other Government controlled installations having at present a purely military identity.

8. A further aspect of the problem is the retention of adequate technical personnel in the factories once the war is over. Unless we take steps to ensure the retention of the present staffs or to find suitable replacements, we shall not be able to utilize our factories to advantage. After the last war the dispersal of the War Factories staffs in the U. K. was a source of real embarrassment.

Our planning must, therefore be directed to the solution of this problem also.

9. Since much of the planning hinges round the examination of our post-war Defence Services requirements, now being undertaken by the General Staff, planning in respect of Ordnance and other Factories should be a War Department responsibility, the actual work being undertaken by the M. G. O. assisted by a suitably representative committee, with the following terms of reference:—

(i) To examine the post-war employment of the Ordnance and other Government owned Factories and plants now concerned with Defence Services production with a view to submitting a plan to cover their use:—

(a) For the peace-time needs of the Defence Services and to meet their expansion in emergency and subsequent maintenance of the war effort.

(b) For reprocessing military stores and equipment into material acceptable to the trade.

(c) For assisting in general rehabilitation by manufacture of items of which there is a general shortage.

(ii) To make proposals for ensuring the retention of adequate technical staffs in the factories.

(iii) To make recommendations as to the responsibility for factories which are ultimately to remain entirely for Defence Services purposes and as to the measure of Government control necessary in factories or plants which will be required for expansion, but which in the meantime can be utilised for civil needs, and to make recommendations as to terms on which utilisation should be permitted.

(iv) To recommend the best method of utilising in the general interest factories and workshops not required for Defence purposes and whether they should be used by private industries or placed under the control of Civil Departments of the Central or Provincial Governments.

5. Trade and Commerce

General.—If industrialisation is to be one of the major aims of economic policy, a steep and even spectacular increase in India's import trade would be inevitable in the post-war era. Although India's capacity to pay for the imports has been greatly strengthened by the growing accumulation of sterling balances and by the reduction of the external debt, the financing of foreign purchases will still entail the maintenance of the export trade at the highest possible level.

Moreover, a higher level of trade and commerce would help to increase the wealth and purchasing power and to reduce the incidence of unemployment. But, international trade is not unilateral, and no country can lay down a commercial policy for itself in isolation from others. Although it would not be possible to bring the determination of a post-war trade and commercial policy for India to the stage of finality before the framework of the new order contemplated by the United Nations has been fashioned, an endeavour should be made to determine provisionally what policy is best suited to Indian conditions and interests.

2. *Export policy*.—As far as possible, export of raw materials should be replaced by export of semi or fully manufactured goods. Undue dependence on a particular market for the disposal of a particular class or classes of goods, should be avoided, but increased attention should be paid to the development of eastern markets. Standards of quality for export goods should be laid down and rigorously enforced and encouragement should be given to the formation of larger export units and to action directed towards an improvement in existing trade methods. State-owned organizations should be set up at the appropriate time for the purpose of trading with State-trading countries or in commodities produced or manufactured by State-owned enterprises.

3. *Import policy*.—Subject to what is stated in the succeeding paragraphs, it would be of considerable importance to avoid undue dependence on particular import markets and to consider whether action should not be taken to check the growing tendency for companies domiciled abroad, to establish branches or subsidiaries in India for purposes of both import and internal distribution in preference to employing Indian or other established agency houses.

4. *Future of trade controls*.—Export and import controls owe their origin to war-time conditions which include economic warfare, supply and availability considerations, difficult currency and shipping. These conditions, or secondary manifestations of them, are bound to persist for some period after the war which may be estimated at about three years. During this period, the present controls should be maintained with greater or lesser severity. But, it is clear that the general trend of international opinion is towards the complete abolition of these controls in all countries at the end of this period. To continue the controls when the present abnormal conditions have disappeared, would not be easy and might invite reprisals from other countries; but that should not blind us to the fact that if any comprehensive scheme of industrial development is undertaken in the post-war period, some form of trade control, particularly on imports, will be found inevitable.

It would be necessary to adjust war time controls in sufficient time to ensure that—

(a) orders could be placed for the import of capital and consumer goods from overseas and that the necessary priority of shipping could be obtained for the goods urgently required;

(b) contacts, and possibly contracts, are made with possible purchasers overseas to ensure the retention of pre-war markets and the creation of new ones;

(c) the necessary foreign exchange is made available to finance imports.

5. *Tariff policy—Export duties*.—India's policy in regard to the imposition of export duties should continue to be guided by the following recommendations:

(a) Export duties should not be imposed for the purpose of protecting industries.

(b) Export duties for revenue purposes should be employed sparingly and with great caution; they should be imposed only on articles in which India has a monopoly or a semi-monopoly; and in every case the duties should be moderate.

(c) There is no objection to the imposition of small export cesses, the proceeds of which do not go into general revenues but are devoted solely to the improvement of industries including agriculture on which they are based.

6. *Tariff policy—Import duties*.—The revenue tariff imposes a relatively moderate uniform rate of duties on all commodities subject to the levy of a

much higher duty on particular articles, mainly of the luxury type, and to exemption from duty or admission at low rates of other articles where the national interests require such concessions. This is a policy which has stood the test of time and might well be followed in the post-war period, though the actual content of the tariff schedules should be subject to review from time to time. One of the weaknesses of the fiscal system has been the extent to which Central revenues had been dependent on customs duties. The present trend towards the enlargement of the scope of direct taxation and excise duties is a wholesome development which should be further encouraged in the post-war period.

Protective duties are imposed in pursuance of the accepted policy of protection. The principles and working of this policy must form the subject of a detailed investigation. Meanwhile, the provisional view is that the economic interests of the country would be best served by the continuance of a policy of protection subject, however, to a liberalisation of the principles governing the selection of industries and of the procedure for the initiation and conduct of investigations into claims to protection. The grant of protection would not be confined to existing industries and investigations about the necessity for granting protection to industries yet to be established would be made.

While subsidies and bounties would be unsuitable for countries like India with limited revenue resources and might involve regressive taxation, they may have to be granted as a special measure in some cases.

The resuscitation of the Tariff Board should have first claim on the attention of Government as soon as normal competitive conditions are beginning to be restored, but before that stage is reached provisional decisions should be made as to the status, functions and the period of appointment of the future Board.

7. *Treaty Policy.*—The ultra-cautious and conservative policy of "do not enter into a trade agreement unless you *must*" should give place to a progressive policy actuated by an anxiety to enter into trade agreements whenever there appears a prospect of a commercial advantage being gained for India. In particular, if the proposals sponsored by the leading members of the United Nations, for a multilateral convention covering the principal aspects of commercial policy materialises, we may adhere to such a convention, provided our vital interests are safeguarded. If no such convention is accepted internationally, or, if accepted, to the extent permitted by it, we should endeavour to conclude commercial treaties or bilateral trade agreements on a most favoured nation or other suitable basis with our principal foreign customers or suppliers. At the same time, consideration should be given to the difficulties which have militated against India's adhesion to certain international conventions without awkward reservations, such as the position of Indian States and the treatment of claims to national, or most favoured nation, treatment with respect to internal duties levied for the benefit of local authorities.

6. Industrial Development

Certain fundamental considerations affecting industrial development have been dealt with in Part I and various matters such as employment, disposals, trade and commerce, communications, electricity, mining and geological survey, all of which affect industrial development, are dealt with in the appropriate sections of Part II. There is, it will be noted, practically no form of development, social or economic, which does not have its repercussions on industrial development.

2. The following paragraphs deal with the methods by which it is proposed to foster planned industrial development in India.

3. For the direction of planning an Industrial Adviser to the Government of India has been appointed. He will be assisted by a number of Deputy or Assistant Industrial Advisers. It is intended to set up a representative Industries Committee from among the foremost industrialists in India, together with representatives of Provinces and States. This Committee will be consulted from time to time on questions of policy pertaining to industrial development. For the actual development work, panels consisting of one or two industrialists

concerned with the particular industry, or group of industries, and assisted by experts and an officer from the Planning and Development Department, will be formed. Side by side with this, the Provinces and States are also being advised to set up industries committees of their own so as to see that their own special needs are not lost sight of. The recommendations of the industrial panels would be co-ordinated with those of the Provincial and States Committees before they are considered by the Government of India. This should not prevent the Provinces from going ahead with such schemes of industrial development as may be ready. Such proposals will be examined by the Government of India on their merits from the point of view of any controls that may be required and any assistance that may be desired.

4. In order to promote Indian industrial development and also to provide first-hand up-to-date information of what is happening in other countries it is proposed to arrange visits by leading Indian industrialists to Great Britain and if possible to U. S. A., and to give them all facilities possible under present circumstances to make contacts, exchange ideas and discuss mutual arrangements for implementing post-war plans. Arrangements are under way for the first group of certain well-known industrialists to leave as soon as they are ready.

5. Besides organised industry contemplated above the development of small scale manufactures and of cottage and bazaar industries will also be taken up. Panels for the development of small scale industries, particularly those which have grown up during the war, are also being formed in the Supply Department. The question of marrying cottage production with organised industry, as has been successfully done in Japan, is a possibility, but without the horrors of exploitation that the ruthless capitalist and military creed of that country brought into being. This work is especially the field of Provincial and State Governments and efforts will be made to give them every assistance and to work in the closest co-operation with them.

6. Another form of industry that requires planning is that connected with the processing of natural products and minerals. These may involve only the preliminary processes or be developed so as to carry right through to the finished product. The Agricultural, Forestry and Fisheries Departments, and the Geological Survey, combined with the Board of Scientific and Industrial Research, will be able to render great assistance in promoting development in this direction.

7. As far as it can be seen at present planning for post-war development falls chronologically into two different phases: (i) planning for the conversion from war to peace production and for ensuring the continued operation on peace time work of plants installed for munitions production, and (ii) long-term planning for the industrial development of India.

8. Regarding the first, it is very essential that plans be prepared immediately to turn over from war to peace; otherwise widespread unemployment and unrest will result as well as an unpardonable wastage of industrial potential. With this problem is also involved the question of rehabilitation of industry and the making good of war arrears in plant repairs and replacements. In order to prepare the ground for this work it is necessary to have as complete a picture as possible of Indian industries as they are today and of the position in which they are likely to find themselves at the end of the war. For this purpose a questionnaire was issued to the industry as far back as November last. The response so far has been poor; attempts are, however, being made to expedite the replies to this questionnaire as well as to collect this information by other means.

9. In the same connection, *i.e.*, rehabilitation, should be considered the question of any expansion that existing factories may be contemplating immediately on the cessation of hostilities. Some part of such expansion may fall under the purview of the long-term plan but most of it will be the legitimate extension which would have proceeded normally but for the war. There is

bound to be competition for such extensions as soon as hostilities cease and it is necessary to plan with this contingency in view. To this end a questionnaire was issued last October asking Industry to report its capital goods (machinery) requirements. Response here too has been poor.

10. A special problem arises in connection with the Government owned munition, food, clothing and other factories. One alternative would be to hand them over to private industrialists on suitable terms reserving only such as are required for the production of lethal weapons and special equipment. This might involve agreement to the maintenance of certain special machinery that might be required for war production.

Another method would be for Government to convert these factories to civil production under Government management, e.g., for machine tools, radio sets, scientific instruments, aircraft parts and maintenance, etc., whilst retaining their war potential. There is much to be said for this method provided the factories are managed on commercial lines. They might become valuable training grounds for highly skilled technicians and also produce goods which at this stage could hardly be profitably produced by private firms. They might also undertake the production of the more specialised equipment required by the Railways and P. & T. Department.

It may be noted that after the last war Australia procured valuable equipment at a low price from surplus munition factories in the U. K. and thus laid the foundations of her present munitions industry. It is possible that India might do the same especially as it is believed there is likely to be a surplus of machine tools in the U. K. as well as of specialised equipment for making munitions.

11. As regards the second phase, namely long term planning, reference has already been made to the All-India and Provincial Industrial Committees and the Industrial Panels through whom the Plan will be prepared.

12. The question of control has already been dealt with in part I para. VIII. The imposition of controls will require legislation with special reference to the licensing of industries, control of imports of capital goods and a control of capital issues. The question whether agreement can be reached with States as to the application of any of these controls will also have to be reviewed. These measures will have to be considered in conjunction with the Governments of Great Britain and the U. S. A. and it is to be anticipated that if they maintain any control over the manufacture and exports of capital goods, they will be ready to accept the recommendations of the Government of India in respect of priorities. It will also be necessary to take steps to ensure the grading, and guarantee of the quality of Indian products. The building up of India as a great industrial country may be seriously jeopardised by questionable methods, unreliable samples or inferior workmanship on the part of a few manufacturers and it may be necessary to devise machinery to guard against this and to ensure standardization of grades and uniformity of samples and manufactures.

13. The examination and review of industrial development will have to decide the following questions of policy:—

- (a) Whether the development is desirable and in what location.
- (b) What assistance, if any, is required from Government in the form of tariffs, finance, etc.
- (c) What agency should undertake it.
- (d) What priority should be given to the import of the capital goods required.
- (e) Whether suitable labour is available and whether suitable arrangements have been made for housing.
- (f) Whether adequate technical staff is available or can be obtained.
- (g) Whether coal and/or electric power are easily available.
- (h) Whether adequate transportation facilities can be provided.
- (i) Proximity to markets or to ports for export.

14. Industrial development cannot proceed according to artificial governmental boundaries; it must depend upon the geography of raw materials, power and markets. Planning will, therefore, have to be regional to a certain extent and the recommendations of Provincial and State authorities will have to be co-ordinated with the practical advice of industry. Development will, therefore, not only be a question of assistance by Government but also of direction, co-ordination and control.

15. The pace of development is likely to be governed more by the availability of imported machinery and technical staff than by considerations of finance. These are both matters in which government assistance may be necessary.

16. The most serious difficulty facing the expansion of industry will be the dearth of technical staff, especially for the higher technical and managerial posts. Efforts are being made to arrange for the despatch of promising young men to the U. K. for this type of training. It may be necessary to obtain a quota for Indian students at the Universities and technical colleges in the U. K. in view of the very large influx of British students expected at the end of the war.

17. The major industries will require examination in detail under the following heads:

(a) Technical—to determine if the industry can be efficiently established in India in the proposed location, or where it should be located.

(b) Scope—to decide on the range and variety of articles to be produced.

(c) Commercial—to decide if markets are available in India or overseas and what competition is to be anticipated.

(d) Strategic—to settle whether the industry is necessary on Defence grounds or is essential to economic development.

7. Roads and Road Transport

A good system of communications, including road communications, is necessary for the proper development of the country, industrially, commercially and culturally.

In this connection, the following recommendations (paras. 2 to 17) of the Technical Committee on Roads and Road Transport regarding post-war policy are being examined in consultation with Provinces and States and decisions will be taken as early as possible.

2. Apart from the maximum possible co-operation between the Centre and the Provinces, the road and rail transportation systems must be planned and developed as a correlated whole, for which purpose it is desirable that a Central co-ordinating authority should have by consent a controlling interest in framing the policy after full consultation with the Provinces regarding the alignment of both roads and railways and an adequate voice in the development and regulation of roads and road transport.

3. Development of roads and railways should be contemplated and embarked upon as part of the same transport system, if it is to be well-balanced and efficient and in order to secure that each means of transport can play its appropriate part and to prevent over-development of one to the prejudice of the other.

4. So far as roads and road transport are concerned, their development should be phased, regulated and closely co-ordinated by a Central authority, as without the one the other will be useless.

5. The existence of an alternative road is an important consideration in dealing with the question of restoration or dismantlement of branch line railways.

In order to prevent duplication and waste of public money and in the interest of public service, existing railway bridges might be decked to cater for road traffic and new bridges should be combined road and rail bridges wherever required or possible.

6. For uniform and co-ordinated development, roads should be classified as National Highways, Provincial roads, District roads and Village roads. The National Highways should be planned by the Centre in consultation with the Provinces and States, upon national considerations including defence, security and general policy. In broad outline, these roads will link Provincial capitals by the nearest reasonable routes at frontiers. It is important that the Centre, through the Central Road Board proposed, should direct the control over traffic on National Highways and their maintenance and development should be a charge on Central revenues. The other three classes of roads will have to be developed by the Provinces with particular reference to marketing and bringing every village within half a mile of a public road, but such development should be co-ordinated and controlled by the Centre. The Centre should also be responsible for the designing and siting of major bridges and for giving technical advice on the construction of all bridges.

7. For road development, skilled labour and technical personnel from the army might be kept on as complete units on demobilisation and re-employed either as units of the army or otherwise on a co-operative basis. Workshops established for the maintenance of road machinery now being used by the army should be continued after the war to recondition surplus machinery before disposal. The requirements of road-rollers and machinery for road making and maintenance should be standardized and procurement made on an all-India basis.

8. Road-making machinery and plant as well as the materials required for road construction and maintenance should be manufactured in India.

9. All plans and estimates for road development should be ready by the middle of 1945 at the latest. In planning development, the importance of localising and regulating ribbon development and the needs of the future should be borne in mind.

10. So far as motor transport is concerned, the main object should be to get it into the heart of the countryside and to prevent undue overcrowding and competition on the better developed routes. This, as already pointed out, should go hand in hand with road development, on the same lines. Motor transport should also be used to a greater extent than hitherto by the governments in India for administrative and "development" purposes.

11. The principle of maximum amalgamation of road transport operators to form substantial concerns on main routes and controlled monopolies on light traffic routes should be the basis of policy in regard to passenger motor transport. Railways should closely co-operate with road transport and ultimately acquire a commanding interest in it, but there is no advantage in State ownership of motor transport divorced from railways. Minimum fares for both road and rail should be stabilized by agreement. Subject to suitable safeguards, there should be no restriction in the range or number of passenger motor transport.

12. Although there is little prospect of motor transport being used to any appreciable extent for the marketing of crops and supplying village needs, it should be made to assist special forms of agriculture, such as market gardening and fruit-growing. Uneconomical road-rail competition for the long distance goods traffic should be prevented, except where long distance traffic by road is in public interest, by a system of regulation, combining expert judgment of the merits of each case, on the basis of public and economic need, with scientific zoning.

13. Motor vehicle taxation should be uniform and there should be reciprocal arrangements to obviate double taxation.

14. The development of pneumatic tyred carts should be pursued. The tyres and carts can be manufactured in India, a start being made from the salvage which would be available after the war.

15. The development of alternative fuels such as producer gas and alcohol mixed with petrol, should be encouraged. As an aid to petrol economy during and immediately after the war, the Central Government should declare a

moratorium for a reasonably long period during which countervailing tax on producer gas transport vehicles would not be imposed.

16. For the proper study and management of transport matters, reliable statistical information is essential. Steps should be taken to secure this.

17. To plan for the future, to give effect to the items of policy enumerated above and to regulate the development of roads and road transport as part of a general transport system for the country as a whole, it is essential that there should be a strong Central Road Board. Roads and road transport should be dealt with in the same Department and all forms of transport should be under one Member of Council.

8. Railways

Until the post-war plans of the Government in regard to Trade, Commerce, Industrial development, Agriculture, Forestry, Education, Roads and Road Transport, etc., mature, it is not possible to estimate even approximately the full extent of the improvements and general development which would be needed on railways to keep pace with other post-war development. All that can be and is being done is to prepare a plan for reconstruction on a basis which is practical enough to be put into execution without an excessive strain on the finances of the Government, and which would place railways in a position from which the basic plan could be enlarged or adjusted to keep pace with the post-war schemes being planned by the Government. The basic plan of the *Railway Board* provides for the following objectives:—

(a) Rehabilitation, repair and replacement of locomotives, wagons, coaches, track and other equipment which have been subjected to abnormal wear and tear, or whose renewal has fallen into arrears as result of the war.

(b) Establishment of workshops for the manufacture of locomotives, boilers and other railway equipment in India. Plans are in hand for commencing the manufacture of locomotive boilers as soon as possible during the war and of complete locomotives as soon as practicable after the war.

(c) Absorption of demobilised army personnel in railway services.

(d) A programme of annual replacements of engines, wagons, coaches, workshop machinery and other equipment, spread uniformly over a number of years, so as to assist materially the industries established or to be established in the country.

(e) Improved services for goods, parcels and passenger traffic.

(f) Financing the construction of new lines in undeveloped areas, replacement of lines dismantled during the war, and improvement of through communications by gauge conversions of selected portions of existing lines. This would be done in consultation with Provincial and State Governments according to a suitable order of priority fitting in with the road developments in their respective areas. The Railway plan provides for the present for a yearly construction of 500 miles of new railway for a period of 10 years. This programme will be capable of expansion according to requirements as they develop. Proposals will shortly be made to secure special consideration for lines required for the development of the country, even if they are likely to be run at a loss for some time to come.

(g) Regrouping of railways. The existing grouping will be reviewed in the light of State ownership so as to make such adjustments in territorial boundaries as would appear to be desirable and to provide for joint running powers where required.

(h) Extension of activities of railways to other transport services—road, air, etc., either through actual operation or by securing an interest in existing services. Co-ordination between railways and other forms of transport will be attempted with the co-operation of Provinces and States. The question of the use of railway bridges by M.T. or the construction of new combined bridges for road and rail will also be considered on the merits of each case.

(i) Development of staff welfare organisations to improve the conditions of railway employees, particularly in respect of welfare and efficiency. This would

include supply of drinking water, extensions to railway hospitals, additional dispensaries, training schools for staff, railway institutes, improvements to staff quarters and additional staff quarters, disposal of sewage, etc., etc., and also the elimination of corruption and pilfering.

(j) Providing special amenities for third class passengers, both in trains and at stations. This would include improvements to platforms, provision of over-bridges, latrines, additional waiting sheds, improved water supply, improved booking arrangements, provision of improved seating for the third class passenger, improvement in coaches and provision of additional coaches, etc.

(k) Evolution of a new rates structure in keeping with the post-war requirements of the country as a whole.

(l) Reduction in the number of classes on railway trains.

2. Under the basic plan now being worked out, railways will require, as shown in the statement below, an expenditure of Rs. 319 crores in the first seven years of the post-war period, out of which approximately Rs. 125 crores will have to be met out of the depreciation fund, leaving about Rs. 194 crores to be financed out of the additional capital to be raised.

Post-war years	1st	2nd	3rd	4th	5th	6th	7th	Total in crores
A—Rehabilitation	10	15	20	20	20	20	20	125
B—{ Improvements (1) Opera-	1	4	8	8	8	8	8	45
{ tive Improvements (2)	3	5	8	8	8	8	8	48
{ Staff Welfare.								
C—3rd class amenities	1	4	8	8	8	8	8	45
D—Construction of new lines	1	5	10	10	10	10	10	56
Total in crores	16	33	54	54	54	54	54	319

3. The programme planned above is for seven years as it is expected that the first year will cover the preparatory stage and that the target will not be reached till the third year of the post-war period. It is also expected that the expenditure out of the Depreciation Fund will not be less but may be considerably more in the succeeding seven or eight years. As the plans have not yet materialised and are only in an embryonic stage, the figures given in the statement above should be regarded as being only very approximate.

9. Post-war Shipping Policy

For a country of its size, the length of its coastline and its strategic position athwart one of the world's main sea routes, India possesses a distressingly small number of deep-sea ships, which at the outbreak of war stood at no more than 30 with a total of less than 150,000 tons gross. India's weakness in this respect has long been recognized, and the Government of India are pledged to a policy of assisting in the development of an Indian mercantile marine. So far, however, the action taken to implement this undertaking has been limited to the establishment of the "Dufferin" for the training of executive officers, the provision of special facilities for the training of marine engineers and to using Government's good offices to promote a settlement between the Indian and British companies operating on the coast with regard to the division of the available trade between them.

2. The vulnerability of India's position has been revealed by the stress of war time conditions, but by no circumstances more glaringly than by her inability to find adequate shipping from her own resources to provide for the transport of the food supplies required by her. The rectification of this state of affairs should be one of the immediate post-war objectives, not only for commercial reasons but also because the development of the Royal Indian Navy necessarily implies the concurrent development of the merchant navy.

3. The acquisition of an adequate share in the world's carrying trade should be the aim of our post-war shipping policy, and to this end steps should be taken to secure for Indian shipping—

(i) an increased share of the coastal trade, including trade with Ceylon and Burma. (The present share is estimated at between 20—30 per cent.);

(ii) a substantial share in the near trades, *e.g.*, Persian Gulf, East Africa, Malaya and Dutch East Indies; and

(iii) a fair share in the Eastern trades, especially those trades of which Japanese shipping will have been dispossessed;

(iv) a fair share also in the trade between India, on the one hand, and the U. K., the Continent of Europe and North America on the other.

(v) In order to give maximum relief to the railways, a number of steps have been taken to ensure the fullest utilization of country craft and to prevent wasteful competition between country craft and steamers. As India may have to look to all forms of transport to sustain her economy in the post-war era, the continued development of country craft will have to be considered. Co-ordination of steamer and country craft services is an essential part of this development, subject to due regard being paid to the different needs served by steamers and country craft.

Ports

Apart from the major ports, the Kathiawar ports and the Port of Mormugao, practically all the minor parts are open roadsteads where ships have to anchor two miles or more from the coast. These ports were used to a considerable extent in peace time by coastal and other steamers, *e.g.*, steamer routes from Negapatam to Malaya and from Tuticorin to Colombo. To cope with the increase of coastal shipping after the War, it is a matter for investigation whether more harbours should be constructed or whether it would not be a wiser policy to spend money on modernising and developing smaller ports. This is a question which would have to be considered by a body of experts with reference to physical possibilities, railway facilities and hinterland situations. War time developments of major ports will probably be more than ample for India's peace time needs at these ports.

10. Inland Water Transport

The decline in the use of Inland Water Transport during the last century was due partly to competition from the more speedy railways and partly to the deterioration of waterways which in some parts of India was itself a direct result of increased irrigation works. During the war, there has been a revival of various forms of Inland Water Transport, due to congestion on the railways and the consequent need to provide alternative means of conveying goods, but the main obstacle to any considerable development is the condition of the waterways themselves. War time developments of inland waterways, are however, by no means a measure of their economic importance and it would be difficult to base on them any definite conclusions.

2. The following points will have to be considered in connection with the post-war development of Inland Water Transport:—

(i) measures to be undertaken to improve the navigability of rivers and other existing waterways;

(ii) the possible use of the irrigation canals for inland traffic;

(iii) the construction of new artificial waterways;

(iv) the increased use of steamers, tugs and power driven barges;

(v) the development of countrycraft;

(vi) the methods of dealing with competition with other forms of transport and the co-ordination of all means of transport.

3. Inland waterways being a Provincial subject, the role of the Centre will be largely one of co-ordination and initiative wherever it is required.

11. Civil Aviation

1. (i) The policy of Government is to develop civil aviation with Indian capital and under Indian management and to afford training and opportunities for the employment of Indians.

(ii) The internal air services of India are the sole and exclusive concern of India.

(iii) It is recognised that subsidy for certain air transport services may be necessary in the earlier years of development.

(iv) The Government of India recognise their responsibility to ensure the provision of the ground organisation (*e.g.*, aerodrome, radio, meteorological, fighting, etc.) for the air services in and through India, and reserve the right to control the agency through which any such ground organisation is provided.

(v) In the matter of international services India will claim full reciprocal rights with other nations. In the case of India participating in any through international services on a co-operative basis, the policy will be to ensure that such participation shall be not only financial but technical as well as operational.

2. For the initial post-war period plans have been prepared for a system of trunk air services in India, which are considered necessary in modern conditions for the proper development of India as a whole—socially, commercially and industrially. These will link the principal administrative, commercial and industrial centres of the country and connect with the principal neighbouring countries. The services planned involve a route mileage of 10,500 and, with a frequency of at least one return service daily, will involve flying approximately 7.5 million miles a year. The services will carry mails, freight and passengers. It is intended that the air services shall be established on a higher level of technical standard and public service than pre-war air services in India. Stimulated by the existence of these services, there will undoubtedly come into existence, as a result of local or private initiative, a considerable number of feeder air services to serve local needs.

3. No decision has been taken as to the agency by which the air services will be established and operated. But the plans drawn provide for a system of controlled private enterprise, *i.e.*, operation by a limited number of commercial operators under Government control and regulation. The plans also provide for a system of financial assistance where necessary.

4. In order to ensure the rational and orderly development of air transport and to eliminate wasteful and uneconomic competition, it has been decided that no air transport services shall be permitted to operate without a licence issued by an Air Transport Licensing Board which will be set up. Legislation has been passed authorising the Government of India to make rules for the constitution of such a Board and for the licensing of air transport services.

5. Co-ordination between air and other forms of transport would be secured in consultation with Road and Rail interests, the Provinces and Indian States.

6. The system of air services planned will require a large and up-to-date ground organisation. Plans for the aerodrome and air route organisation and the staff necessary to man the organisation have been drawn up. These provide for additional runways, large hangars and workshops, administration and traffic buildings, aerodrome lighting, etc., at most of the existing aerodromes, besides the construction of new airfields. Plans have also been prepared for greatly expanded and modernised wireless and meteorological services.

7. Schemes have also been prepared for the training of technical personnel for aviation, including pilots, navigators, engineers mechanics, radio operators and aerodrome personnel. Trained demobilised personnel will be absorbed to the extent possible in the services and organisations proposed.

8. The air services and the air route and aerodrome organisations have been planned on an all-India basis—including the Indian States; it would be impossible to organise any rational system of air lines in India except on that basis. The representatives of Indian States have participated in discussion of the plans, which it is the intention should always proceed with the full co-operation of the Indian States.

9. In the international field, India has participated in informal and exploratory talks with countries of the British Commonwealth and Empire and with other nations. India will participate in and play her legitimate part in securing a satisfactory international agreement on Air Navigation and Air Transport.

12. Postal and Telegraph Services

1. The policy of the Indian Posts and Telegraphs Department has been to provide the most efficient service practicable and to make it available to as large number of persons as possible, the limiting consideration being whether the Department as a whole would pay for itself over a series of years.

2. The various developments in the post-war period now being planned in the industrial, commercial and educational fields are certain to create an urgent demand for a much expanded postal, telegraph and telephone system. The policy of the Department had been, even in pre-war years, to provide for a continuous expansion of its services. The pace of such expansion will have to be accelerated in the post-war period.

3. Under the stress of war conditions the postal, telegraph and telephone services have been expanded considerably, but this has been done with a view to meet war requirements. A considerable amount of redistribution and readjustment of these facilities will have to be undertaken immediately after the war with due regard to the demands arising in post-war conditions.

4. Plans are in preparation to provide for a continuous expansion of the services as well as for an increase in the quality of the services rendered. It is contemplated that the plan should provide for example for a post office in every village with a population of say, 2,000 or more, for a telegraph office in every town with a population of, say, 10,000 or more and for a telephone exchange with trunk connections in every town with a population of 30,000 or more. This would not, however, exclude the provision of post and telegraph offices or of telephone exchanges at other places where special conditions, such as the existence of trade or industry or cultural institutions may make it necessary to provide the facilities. Other planning to be undertaken will relate to the provision of more frequent postal deliveries in urban and rural areas, to the acceleration in the despatch of mails by utilising more trains, more motor transport on roads and more air services and by the opening of more local post offices in the larger towns.

5. The plan will also make provision for amenities to the staff as well as to the public, as for example, providing better buildings to ensure the staff working under hygienic conditions and the public performing their transactions with celerity and comfort. The provision of tiffin rooms, rest rooms and residential quarters in places where they are difficult to get and of recreational institutions for the staff will also form part of the plan.

6. The question will also be considered as to what additional activities the Department with its ubiquitous organisation all over India may suitably undertake for the public benefit, in addition to these services which it has been rendering so far.

13. Development of Electric Power

The policy of Government is to secure the development of electric power on a regional basis, to promote the maximum economic development and utilisation of such power, and to eradicate such factors in the present system as retard the healthy growth of such development. This policy may involve the development of electricity supply in India as a State or quasi-State enterprise.

2. In furtherance of this policy, Government have secured allotment of manufacturing capacity for additional heavy power equipment for several key electricity development undertakings in the country. They have also decided to set up a Central Technical Power Board for the whole of India.

3. The functions of the Central Technical Power Board will be—

(a) to initiate, co-ordinate and put forward schemes for electric power development throughout the country in consultation with Provincial and State Governments concerned;

(b) to set up a well-equipped standardising, testing and research organisation for electricity supply and problems connected therewith; and

(c) to undertake education and propaganda to encourage the accelerated development and utilisation of electricity.

4. Government have also accepted the policy of furthering the industrial use of electricity in the country, *e.g.*, by the manufacture of fertilizers, etc.

5. In order to implement the policy of large-scale development throughout India, schemes for the training of electrical engineers abroad, will be pursued. The scheme will provide not only for training in the commercial and administrative sides of electricity undertakings, but also for further advanced training of selected men in technical subjects.

14. Mining Development

As minerals are a wasting asset, the question of ensuring their maximum utility and minimum waste is most important. Regulation of mines and oil fields and of mineral development has, however, so far remained a predominantly Provincial subject. As a planned and uniform policy will be more and more necessary in future, it is proposed to make in so far as the constitution allows, a beginning in this direction by bringing under Central control all minerals of strategic or key industrial importance. The steps necessary to give effect to this policy are under consideration.

In order that the consolidation and development of unorganized mining industries may proceed on uniform lines, it is proposed to frame model rules for the prospecting of minerals and their subsequent exploitation in consultation with the Provinces and States.

In pursuance of their policy of assisting in the scientific and efficient exploitation of the mineral wealth of the country, the Central Government will be prepared to extend all possible assistance to the Provinces and States by the provision of expert advice and technical help, where such advice and help are needed.

(2) The whole question of the rationalisation of the Coal industry will be taken up, especially as regards production, distribution and use of the various grades of coal with the object of preserving as far as possible the limited supplies of cooking coal. Researches in the better utilization of coal, including the development of economical methods of producing soft coke and the recovery of the many bye-products in its manufacture, have been already initiated in collaboration with the Board of Scientific and Industrial Research. Further encouragement to research in all these directions is fore-shadowed in the schemes now under the consideration of the Central Government.

(3) The utilization of the mineral resources of the country for the production of finished products, in so far as such utilization is consistent with efficient manufacture and marketing, is part of the policy of the Central Government. A beginning in this direction has been made by an enquiry initiated into the possible development of the Indian mica industry. As is well known, the muscovite (high grade) mica has now become a mineral of great commercial and strategic value and India leads the producers of this mica in the world. The Indian industry is, however, in a very unorganized stage and much wasteful exploitation has been taking place within the last few years. A committee of Inquiry has been already set up to examine the conditions prevailing in the mica trade and industry and to recommend steps that should be taken to ensure that India's resources of this mineral are conserved and developed in the most economic manner.

4. The Geological Survey of India has done much work in the collection and dissemination of information regarding the mineral resources of the country and has built up a considerable body of knowledge about their utilisation and during war a Utilisation Branch with duties which carry the Survey somewhat further in the field of prospecting has been set up. The Survey as a whole, mainly owing to paucity of staff, is, however, working too slowly and a great deal of work remains to be done. For this purpose large numbers of geologists will be required and it will be necessary to arrange for suitable training facilities at the Universities. The functions of the Survey must be extended so that its services could be employed more widely by Provincial and State Government and industrialists. The question whether the Survey should be consulted under statutory compulsion before any mining enterprise is started or mining lease granted is under consideration. This would ensure that only the most suitable deposits are worked and investment is not allowed to be made in concerns which are likely to prove unremunerative.

15. Irrigation, Waterways, Drainage, etc.

The planning and execution of the works under this head rest primarily with the Provinces and States. The Central Government will nevertheless afford all possible facilities for the preparation and execution of the projects recommended by the Provincial Governments by arranging for priorities for the supply of the necessary materials and by the provision of technical assistance.

2. The Central Government will also be prepared to co-ordinate Provincial and State projects on a regional basis wherever possible. In certain deserving cases, they may be also prepared to give financial assistance to Provinces to enable them to carry out important schemes or parts of such schemes.

3. In order to assess the requirements of the Provincial Governments and States on these subjects, the Central Government have already addressed a detailed questionnaire to the Provinces and States. Much useful information has been already obtained, but the replies from a few Provinces are still awaited. When all the replies have been received, the Central Government will have the projects scrutinised by their engineering experts. In order to give effect to this policy the Government of India have decided to appoint a Consulting Engineer for Waterways and are now actively considering the question of the appointment of another Consulting Engineer for Irrigation, to work as a Development Officer in connection with the post-war irrigation, waterways and drainage schemes.

4. The question of the reorganisation of the Central Board of Irrigation so that it can function more efficiently not merely as a clearing house of ideas on irrigation, drainage and allied subjects, but also as a Board of Referees on all matters relating to them, is at present engaging the attention of the Government of India.

5. It is clear that in order adequately to increase food supplies and to bring additional areas under cultivation it will be necessary in the post-war period to embark on a number of technically 'unproductive' or marginal schemes of irrigation. It will also be necessary to make a greater use of pumps than hitherto and to increase the supplies available in existing canal systems. Waterlogging and the spread of 'Thur' will also have to be dealt with.

16. Food

There is probably no need to contemplate on a permanent basis such comprehensive measures for the procurement and distribution of food grains as exist at present. It may however be necessary to continue to exercise some degree of control for a suitable period after the war.

2. There are, however, certain important questions connected with food which will require long term planning and the exercise of initiative in the post-war period. These are outlined below :—

3. *Nutritional requirements of the individual.*—The question of the nutritional needs of the individual in India and nutritional education has recently been under review by the Nutritional Advisory Committee which has prepared a report for consideration by the Health Survey and Development Committee.

The drawing up of suitable schedules of requirements has been referred to a sub-committee which is expected to assess province by province the standard which should be adopted for the various important foods in common use, thereby providing data from which both provincial and all-India food requirements can be assessed and food policies considered.

It will be obvious that a great deal of educational propaganda will have to be carried out before the population, even those who can afford it, can be induced to improve their diet to conform to scientific requirements. This is especially necessary in the case of children and much eventually be possible through the medium of the schools where school meals, or milk, combined with instruction to mothers and the work of maternity and child welfare centres may eventually improve conditions. Industrial canteens are also a convenient medium for correcting dietary deficiencies and popularising the use of alternative foods.

4. *Prevention of adulteration and improvement in quality.*—An important aspect of food policy must be the prevention of food adulteration. Adequate legal provisions and effective administrative measures for the prevention of adulteration of foodstuffs have still to be created in India. Much of the necessary exploratory work has been carried out already under the aegis of the Central Advisory Board of Health which has published two reports on food standards and the legislative and administrative control necessary. These reports supply a basis for future action.

Positive action is also necessary to improve quality and maintain standards. This can only be done by grading or testing under Government control, and by the use of protected trade marks for the better quality articles. In this respect India has much to learn from other countries, especially Australia and New Zealand and the U. S. A.

The circumstances under which foodstuffs are exposed for sale also require attention in order that food is not contaminated by flies and filth whilst in the shops or markets.

5. *Calculation of requirements.*—It is clear that there are not, and have not been for many years past, sufficient cereals in the country to provide a meal of 1 lb. of cereals a day for every adult, and this bears out what is, in fact, generally accepted, that a large proportion of the population of India is chronically under-nourished.

It must also be remembered that a ration of 1 lb. of cereals per adult per day is only considered adequate by nutrition authorities when it forms part of a total diet of 2½ lbs. per adult per day consisting of supplementary protective foods such as minor millets, pulses, milk, vegetables, fish, meat. But poverty denies these supplementary foods, except in negligible quantities, to a very great number of people in India. We have no reliable production statistics of these foods, but clearly the gap between national requirements and supplies available of these supplementary protective foods is still enormous. As a long term policy it is clear that this gap must be reduced, but so long as it remains our calculation of cereal requirements should provide for a larger ration than 1 lb. a day.

As a rough idea of the all-India targets of production likely to be required to provide the ingredients of a balanced diet for India's present population, assuming that difficulties of transport, distribution and effective demand from the population did not exist, it has been calculated that the following increases on existing production are the minimum required:—

Cereals . . .	10%
Pulses . . .	20%
Fruits . . .	50%
Vegetables . . .	100%
Fats and oil . . .	250%
Milk . . .	300% and
Fish and eggs . . .	300%

To these must be added adequate supplies of foodstuffs for the animal population necessary for the extra work and the extra milk required to achieve this

aim. In those areas where meat forms a part of the normal diet of the people it is also very necessary that a system of fattening livestock before slaughter should be introduced.

6. *Production of Primary foodstuffs.*—This is dealt with in the Section on Agriculture. It cannot, however, be sufficiently emphasised that positive executive measures are required to increase production on the scale referred to in the previous para. It may be possible to achieve this by enlisting the co-operation of the cultivator and by giving him the assistance that he needs. It is necessary to recognise, however, that the problem is urgent and that if these measures do not succeed, others will have to be tried.

It is also obviously necessary to have some system of crop planning both in order to prevent deficiency in foodstuffs owing to over-production of cash crops and to prevent a serious fall in prices due to over-production of foodstuffs.

Production targets must include an increase in volume to overtake the increase in population, reduce dependence on external sources of supply, and make possible the holding of reserves. Production must be planned to ensure the best use of available resources, and that the product is what is required. The maximum insurance against climatic variations must also be provided.

7. *Statistics.*—No system of food supply can afford reasonable security, and no system of crop planning can be successful, unless adequate statistics are available. These must include acreage and yields and also some estimate of stocks—at any rate of those which are in the hands of the trade.

8. *Procurement.*—This is ordinarily governed by the laws of supply and demand but it has been found in many countries that these laws do not operate in war or at times of severe economic stress such as were experienced in Russia. It is now beginning to be realised that India's non-agricultural population, and many of her agricultural labourers, have lived in the past on that small margin which the cultivator may choose to bring to market to satisfy his needs for cash. There are few farmers in the western sense of the word who produce primarily for sale and retain only a small fraction for their own consumption.

There is, therefore, a fundamentally unstable element which governs the food supply of the non-agricultural population and it is questionable whether it will be safe to rely on a system of unco-ordinated subsistence farming to supply the growing needs of the industrial population.

Possible remedies are:—

(a) Some means of adjusting land revenue to prices.

(b) A reversion to the former system by which land revenue was paid in kind, subject to an option to pay in cash at prices notified from time to time. This would have the result that

(i) If suitable prices were fixed the bulk of land revenue would continue to be paid in cash;

(ii) It would ensure automatic relief for the cultivator when prices were low.

It may be noted that cultivators could be directed to deliver their grain to selected mandis which would pay the equivalent in cash to the Revenue staff and that it would not be necessary for the latter to actually handle the grain themselves.

(c) The gradual establishment of co-operative or collective systems of farming which will ensure that an adequate proportion of the harvest comes into the market under all conditions, subject of course to the actual needs of the cultivator.

These alternatives should be the subject of careful examination in order that a future emergency may not have the same disastrous results as that in 1943.

9. *Production of Processed foodstuffs.*—This is a matter which has been greatly neglected in India but has recently received some impetus as a result

of the war. It is desirable that encouragement should be given to such undertakings as will ensure the production of:—

- (a) canned or dried fruits;
- (b) canned vegetables;
- (c) dairy products including cheese, butter and preserved milk;
- (d) animal and vegetable ghee, and cooking oil of good quality;
- (e) dried and canned fish;
- (f) special foods such as shark liver oil, emulsions, etc.

In addition it is most desirable that refrigerating plant should be available for the storage and transport of both processed and fresh foodstuffs.

10. *Imports*.—For some time it will probably be necessary to import primary foodstuffs and this may well prove to be the most economic way of providing in peace the requirements of certain areas. It is necessary, however, that imports should be controlled in order to prevent undue depression of prices and to ensure adequate supplies. In times when unsettled conditions prevail which may interfere with imports it is most desirable that sufficient stocks should be acquired under Government control to cover the period until agricultural production in India can be adjusted and arrangements made if necessary for rationing.

11. *Reserves and storage*.—The first necessity is to ensure that adequate statistics of stocks are available. It is obviously desirable that there should always be reserves in hand sufficient to tide over a bad harvest and these may have to be under Government control. The provision of reserves by import is dealt with in para. 9 above. The holding of reserves necessitates the provision of adequate storage under proper conditions and this may not be achieved without some form of subvention from Government. The need for storage under suitable conditions is urgent as vast quantities of grain are wasted annually through storage under conditions where the grain may rot or be spoiled by rats.

12. *Prices*.—It will be agreed that a proper relation between prices of agricultural products, consumers goods and the rates of land revenue is essential. This can best be achieved by crop planning and control over imports together with arrangements for holding surpluses off the market when prices are too low. The question of guaranteed prices must also be considered.

17. *Agriculture (including kindred subjects such as animal husbandry and anti-erosion measures)*

The following are the broad aims of a national policy in regard to agriculture:—

(a) The securing of adequate nutrition to the country's growing population. India must produce in adequate quantity food of all kinds required for a balanced diet.

(b) The production of adequate raw material for the growing industries of the country allowing for the fact that industrial expansion would make increasing demands on raw materials such as fibres, sugarcane, etc.

(c) The production of raw materials for which, with or without processing, there is an export market. This will be needed in order to obtain the foreign exchange necessary for the procurement of capital goods required for the fulfilment of the country's programme of industrialisation.

2. On the basis of the aims explained above the master plan for the country would require the fixation of definite targets for the production of the various commodities for the country as a whole. The targets would be distributed suitably among the regional or provincial plans. They should not be fixed at levels beyond what the technological possibilities of agriculture and animal husbandry in Indian conditions would warrant. They should be modified according to indications available from time to time as the plan progresses. Dr. Burns, till recently Agricultural Commissioner with the Government of India, has made certain suggestions in respect of the targets. They are accepted provisionally as maxima, subject to such modifications as may be found necessary on detailed

examination, but it should be clearly understood that a simultaneous advance at equal pace towards all the maxima is probably neither possible nor desirable. The object of planning will be to secure the necessary advance from time to time in respect of each commodity or each branch of live-stock, as called for by the general condition of the population of India and its nutritional, industrial and economic needs.

3. Once the targets of production have been fixed, it will be necessary to define certain broad lines of policy to be adopted. These may be stated as follows:—

(i) *Price*.—The stabilisation of the price of agricultural commodities at an economic level is essential. (By economic level is meant the level of price which will ensure adequate production.) This will provide the necessary incentive for bringing additional land under cultivation and for the general upgrading of the means and technique of production.

(ii) *Crop planning*.—If the areas that can best produce the commercial crops necessary for India's industrial development and for export are to be free to develop such crops, their inhabitants must be assured of food from neighbouring areas and the latter must therefore produce food and fodder crops beyond their own immediate requirements. It is therefore implicit in any plan of development that crop planning in some form or another must be adopted for the country as a whole. The machinery by which this is to be achieved and the degree to which crop production will be regulated are matters for detailed examination, but the policy has to be accepted as a fundamental implication of planning for the country as a whole.

(iii) *Reform of land tenures*.—The pace and the form of development will depend on the conditions of different areas but it must be accepted as a policy that efforts will be made to secure in an increasing degree stability of tenure and freedom from restriction to the actual user of the land and to secure to him the benefits of his labour and investment in respect of land improvement.

(iv) *Arrangements for rural finance*.—Apart from the facilities and services which the State would provide in order to secure a higher level of production, much of the effort involved must come from the side of the actual user of the land and in order to enable him to secure a higher level of production he must be provided on easy terms with the required financial resources on both the short-term and the long-term basis. Not only must there be adequate provision for credit but it is also necessary that the supply of the credit should be wisely controlled. In this connection the role of money-lenders, Co-operative Societies, State and Commercial banks has to be considered. These are matters for detailed examination but the policy is accepted that adequate arrangements will be made for rural finance.

(v) *The role of the Centre*.—It is implicit in nation-wide planning that the needs and requirements of all co-operating regions should be viewed as a whole and it follows, therefore, that the Centre must have authority to initiate projects and to make arrangements for getting them executed where the interests of several governments are affected, if such projects cannot be taken up by individual governments. For instance in the matter of erosion, action has to be taken at the source of the trouble while the benefit may accrue to an area far removed from the source. In such a case the Centre must initiate action at the source of the trouble while arrangements may be made for the apportionment of the expenditure between the provinces which carry out the work and the beneficiary provinces. Another instance is of measures designed to control the diseases of plants and animals; in order to prevent the spread of diseases, it may be necessary to initiate control measures in one area in order to protect the neighbouring areas. Further instances of a similar nature are large-scale land reclamation schemes or large-scale afforestation schemes and the co-ordination of research.

(vi) *Compulsion in agricultural matters*.—Planning implies the conscious mobilisation of all available resources towards the achievement of the desired objective. It is therefore implicit in planning that where the progressive achievement of an aim is retarded by ignorance or recalcitrance of a small number of

persons and when educative propaganda and assistance both in the matter of advice and resources have failed to convert the recalcitrant element, some form of compulsion should be employed. The degree and the form of compulsion will vary according to local conditions but it may be accepted as a general policy that under certain conditions compulsion might be applied in such agricultural matters as are set out below:—

(a) compulsion on the minority to use only improved varieties of seeds in areas where the majority are already willing to do so;

(b) in the control of grazing;

(c) in the control of erosion and conservation of land resources;

(d) in the control of breeding, *e.g.* compulsory castration of scrub bulls;

(e) in compulsory vaccination of animals to control diseases;

(f) in accelerating the consolidation of holdings;

(g) in preventing further fragmentation;

(h) in marketing the produce.

(vii) The Centre must accept responsibility for providing a greatly increased measure of expert advice, equipment and finance to the provinces. Apart from undertaking certain new spheres of activity such as large scale erosion control and large scale land reclamation schemes, large afforestation schemes and the maintenance of central agencies for research, the development work in the provinces must inevitably take the form of an intensification of work on existing lines to which the principal impediment hitherto has been the limitations of provincial finance. The promising lines of advance are well known: the main limiting factor has been lack of finance. Any large-scale development will, therefore, require expenditure on a very considerable scale, *e.g.*, obvious developments such as the multiplication and distribution of improved seed require an enormous outlay and the setting up of great numbers of seed multiplication farms; provision of advisory services will require the setting up of a very large number of experimental farms and so on. If the required expenditure is beyond the resources of the Provinces, the Centre may provide financial assistance on a suitable scale. The means by which funds will be raised and the basis on which financial assistance will be given to provincial governments are matters for detailed examination but the general policy in respect of rendering financial assistance to approved projects is accepted.

(viii) *Machinery for planning.*—Agriculture is a provincial subject and the main function of the Centre would be to help, guide and advise provinces, so as to secure co-ordinated development and production throughout the country. There should be a suitable organisation at the Centre for the purpose of advising provinces and co-ordinating development. This organisation should have experts dealing with every branch of agriculture and animal husbandry and establish close co-operation with Provinces. It would be useful if parallel organisations were set up by Provincial Governments to ensure co-ordinated development in the various regions of the province and to maintain contact with the Central Organisation.

(ix) *Question of trained personnel.*—At all stages of planning, from the preparation of the plans to their execution, very considerable demands will be made for trained personnel. At present there is a very great shortage of such personnel and further development work is bound to be held up unless arrangements are made immediately to take up the question of increasing to a very considerable extent the output of trained personnel. At present there is an embargo on all new expenditure which is not directly connected with the active prosecution of the war. Since it is desirable that the machinery for the preparation of projects should begin to work now and that their execution should be taken up if not now, then as soon as possible after the termination of the war, it is necessary that the question of the procurement and the training of technical personnel should be taken up immediately and the required expenditure should be provided for.

4. The projects relating to reconstruction will fall under the following broad heads:—

(i) *Projects dealing with seed multiplication and distribution.*—For many crops improved varieties of seed are available. Provision will have to be made for their multiplication and development. The aim should be that in 15 to 20 years the entire cropped area should be under improved varieties. Simultaneously research should be undertaken to breed new varieties in respect of those crops in which good varieties are not available. The two aspects of the work should proceed simultaneously.

(ii) *Development of manurial resources.*—This will fall into three groups, viz.—

(a) projects for making artificial fertilisers such as Ammonium Sulphate or Nitrate, Superphosphate, bonemeal, etc.;

(b) development of composting and green manuring; and

(c) conservation of farmyard manure.

The requirements of Indian soils in nitrogenous manures are enormous. The object should be to provide adequate manures at least for all land commanded by irrigation; it is in these that manuring gives the highest result. The aim should be to secure adequate manuring within 15 to 20 years. At the same time experiments should be conducted at farms situated in representative tracts to find out the optimum manurial requirements, as related to soil, crops and water facilities, of the area commanded by each farm.

(iii) *Preparation of plans for erosion control.*—This has two aspects—(a) large-scale erosion in catchment areas and (b) the control of erosion of village lands. The former would require projects of a very large kind while the latter would require remedial measures like bunding and contour ridging which may also be on a large scale. In each there will be 3 stages of work, i.e., preliminary survey, preparation of specific projects and their execution.

(iv) *Preparation of plans for land reclamation.*—These plans will be drawn up on the same lines as (iii).

(v) *Preparation of plans for developing.*—(a) fuel and fruit plantations,

(b) vegetable cultivation.

(c) grazing areas,

(d) animal husbandry including pisciculture, poultry, goat and sheep breeding,

(e) dairy industry—this will involve on the one hand the upgrading of village cattle by breeding with superior bulls, better feeding and better management and in the other of setting up an organisation for the better distribution of milk and milk products in village and towns through co-operative organisations if possible.

(vi) *Minor irrigation projects—e.g.,* construction of tanks, wells and tube-wells, bunding and drainage.

(vii) *Development of Crop Advisory Service.*—This will involve the employment of highly trained personnel and the provision of a farm for each representative tract. The experiments conducted at the farms would indicate the best practices which the cultivator should adopt and the trained personnel will advise the cultivators in respect of these practices. Some work in this respect can be taken up even in the earlier stages of the plan.

(viii) Projects for the expansion of agricultural education in rural areas.

(ix) Projects for the production of improved implements.

(x) *Projects for the use of mechanised traction*—in certain areas enough bullock power is not available. Mechanised traction will be needed in those areas.

(xi) Projects for the development of consolidated farming.

(xii) Projects for the expansion of the co-operative movement.

(xiii) The provision of a preventive service against insects and pests both in the field and in storage.

(xiv) Development of the marketing of the produce and the distribution thereof among consumers.

(xv) Development of small handicrafts and industries auxiliary to agriculture and animal husbandry, *e.g.*, oil crushing, spinning and weaving, beekeeping, fruit and vegetable products, etc.

The list given above is not exhaustive. It is merely intended to indicate the type of reconstruction projects which will be prepared.

5. A special Committee of the I.C.A.R. has drawn up a Plan for the development of agriculture and animal husbandry with the object of increasing production by 50 per cent. in ten years and ultimately by about 100 per cent. in 15 years. The capital expenditure envisaged is Rs. 1,000 crores over the latter period with a recurring annual expenditure of Rs. 25 crores. The Plan deals with the improvements necessary for developing agriculture and lays down the general policy to be adopted on each subject of development or improvement. The Plan has been approved by the Advisory Board of the I.C.A.R. and is under examination by Provincial Governments.

18. Forests

Figures published by the Economic Committee of the League of Nations in 1932 show that at that time the percentage of the total land area of the Great Powers of the Continent of Europe maintained under forest, either Government, corporation or privately owned, was 44 per cent in the case of Russia in Europe, 24 per cent in Germany, 20 per cent in Italy and 19 per cent in France. Among the lesser Powers the percentage of forest rose to 74 per cent in Finland, 55 per cent in Sweden, 38 per cent in Austria and 34 per cent in Czechoslovakia. The average of all the European powers including flat countries like the Netherlands (8 per cent), Denmark (9 per cent) and including also Great Britain (6 per cent), was 26 per cent, with very varying distribution as between Government corporation and private ownership. Though British India is shown as having 175,000 sq. miles (20 per cent of her total area) under forests, Government or private, out of this area only 122,000 sq. miles (14 per cent. of the whole of British India) is Government forest and less than 100,000 sq. miles is under regular Forest Department management. Hardly less important, the distribution of forests in British India is far from ideal. Except for the Central Provinces, Bombay and Madras,—that is to say, roughly speaking north of a line from the Gulf of Cambay to Calcutta,—the forests under the Forest Department consist of a narrow strip in the north, in and along the foot of the Himalayas, the forests of Eastern Assam, the Sunderbans and some detached blocks down the Indus, in the south of the U. P. and in Orissa and Bihar.

2. The forests along the Himalayas are vital to India for many reasons, especially for the protection of the Ganges valley against the related dangers of erosion and flood: but the Ganges valley itself and indeed much of northern India plains are almost destitute of forests from which the villagers can draw fuel and small timber, while over much of Rajputana and Sind and part of the Punjab the absence of forests is leading to a gradual desiccation of the country.

3. Considering the Indian climate and the general demands of the agricultural villagers, the minimum area of properly managed forests in India, properly distributed for protective purposes and to supply the general consumer and the village consumer, should be between 20 and 25 per cent of the total area of the country, as against a nominal 20 per cent under forests of all kinds at present and 14 per cent for forests under Government control.

4. In the interest of the greatest good of the greatest number—a principle enshrined in the existing forest policy—Governments, Central and Provincial, will in future have to take a greater share in regulating the distribution, the management and the exploitation of India's forest wealth. A forest is a slowly maturing asset: there is little early return on the investment and the extension of the area under forest cannot with any confidence be left to private enterprise. Similarly

as regards exploitation: not every owner, incorporated or individual, can resist the temptation to exploit this asset for a temporary gain at the risk of its early extinction, a result from which not only the owner but the countryside is the poorer in many ways. Private forests were steadily disappearing in India even before the war. Under the pressure of war needs and high prices private forests have in some instances been so over-felled as virtually to have disappeared. It will not be possible for Government to take up as forest all the land that is ideally necessary, in quantity and in distribution, to give India an adequate and properly distributed system of forests: nor will it be possible to interfere to the extent which a purely forest point of view would render desirable in the management of private forests: but to the extent that the general well-being of the country is involved, the time has come for an extension of the land under forests of one kind or another and for an extension of Government control over private forest management and exploitation.

5. With this background, the general correctness of which will probably not be disputed, the Government of India are examining a post-war Forest Policy based on the following salient points,—the rehabilitation of Government managed forests to compensate for advance fellings during the war: the campaign against erosion: and the extension of afforestation, for its own sake and to make available fuel and small timber to the ordinary village agriculturist. The first of these is largely a technical matter and will presumably be taken up by Provinces and States as a matter of course. Of the matters calling for policy decisions, the most important aspect of post-war forest policy is correct land management to minimise run off, floods and erosion both inside and outside forest land and the afforestation, naturally or artificially, of the dry belt below the 30" rainfall line. The second, but almost equally important, problem is the provision of small timber and fuel for the "ordinary village agriculturist", free or at low rates, both to provide for his direct wants and to release cow-dung for manure. These problems are largely inter-dependent: to a large extent what solves the first helps to solve the second: to an even larger extent the solution of the second will help to solve the first. To these general ends a policy on the following lines is recommended,—

(a) Provinces should endorse and implement the existing forest policy as laid down in Circular No. 22-F of the 19th October 1894, with an addition, the need for which has become more fully obvious of late, that one aim of policy ought to be to increase the area under forest (and preferably under Government forest) up to the minimum requirements of the country.

(b) In particular the principle of a sustained and equal annual yield from forests, which has actuated the Indian Forest Department since its inception in 1865, should be endorsed. To uphold this, the working plan position should be carefully examined immediately after the war to rectify any overfelling. The possibility of introducing a special working plans circle, where such does not already exist, should be examined.

(c) The land in each Province necessary for the preservation of the general climatic and physical conditions (*e.g.*, land subject to, or necessary for the control of, run off, floods, erosion or desiccation) should be defined and placed under proper management,—probably in many cases forest management.

(d) It should be laid down as the aim of each province to have 20 per cent—25 per cent of its area under forest and so distributed that the agricultural villager can obtain his needs for agricultural timber and fuel within a reasonable distance of his home.

(e) To attain this ideal, control of private forests will be necessary in most Provinces. A Private Forest Act to legalise such control should be drafted. The Act should legislate for various degrees of control depending on local conditions, but where necessary it should permit full management of the forests by Government. The present powers under Chapter V of the Indian Forest Act XVI of 1927 are insufficient.

(f) In most Provinces the area of forest under Government control is less than the safe minimum of 20 per cent. In some provinces large areas are devoid of any properly managed forest land, and there the majority of the village population cannot obtain their requirements of small timber and fuel and, perforce, burn cowdung. But in all these provinces there appears to be plenty of scope for increasing the forest area up to 20 per cent or 25 per cent and land for this exists properly distributed for the wants of the agricultural villager.

The basis of all this work is a classification of the land on the lines of the tables for cultivated and uncultivated areas in the agricultural statistics of India. That classification, however, is not made from the forest point of view and there is no doubt that much of the land classed as "not available for cultivation" could in fact grow trees and, properly regulated, could provide for better grazing. The classification should show:—

Total area.

Cultivated area.

- (i) Area actually sown.
- (ii) Current fallow.

Forest land—

- (i) Under the forest department
- (ii) Under other Government departments.
- (iii) Private forest.
- (iv) Mango groves, etc.

Uncultivated land (other than fallow) capable of growing fuel and small timber forests.

Uncultivated land not capable of growing fuel and small timber forests

- (i) Urban areas.
- (ii) Roads.
- (iii) Completely barren areas.
- (iv) Railways, etc., etc.

Fuel and small timber can be grown on many areas often unproductive at present, like roadside land, canal banks, mango groves, railway land, etc., under quite short rotations of 15 years.

The above classification need not be particularly accurate for a start.

(g) The land management schemes decided upon must include the proper regulation of grazing. Excessive grazing is the cause of much land deterioration. Proper regulation increases the total available fodder and does not decrease it.

(h) The definition of the forest land recommended under (a) above, where land management must be such as to prevent floods and erosion, should be done for all other land in addition to forest land. It can be done concurrently with the classification of land recommended in (f) above. It is for consideration whether all Government land, the management of which is governed by the need to prevent run off and erosion, should be under the forest department. The answer to much of the flood and erosion problem in India is afforestation where possible together with proper control of grazing, or, at any rate control of grazing, where afforestation is impossible or undesirable.

(i) It is especially important to grow forests on a percentage of the desert or low rainfall areas where irrigation is available, and to extend proper forest management wherever possible throughout the low rainfall areas even where there is no irrigation. Forests can probably be grown without irrigation down to somewhere within the 10" to 15" rainfall belt.

(j) It is recommended that a soil conservation circle be formed in each province to deal with general land management and growing of trees in rural areas, whether it be to prevent run off, floods, erosion or desiccation or to supply the agriculturist with small timber and fuel. It is emphasised that, though it may take years before the full schemes are complete, the first results will be rapid. The full rotation of these minor forests will often be only 15-20 years and after

5 years the villagers will begin to get their first yield of fuel and grazing will be much improved. Where there is no serious frost, *Acacia arabica* (babul or kikar), is one of the most suitable trees except in very dry areas.

(k) It is recommended that the Central Government should appoint at once a Central Anti-Erosion Officer to investigate directly the problem of floods and erosion. He should be a forest officer working under the Inspector General of Forests. It may later be necessary to expand this to a full Central Soil Conservation service.

(l) The Central Government is taking up more actively the general research in regard to valuable Minor Forest Products, but it is recommended that provinces should themselves investigate the needs of all industries depending on Minor forest products within the province. The Burma Government has already sent an officer to the Forest Research Institute, Dehra Dun, to be trained for this work.

(m) It is recommended that each province set up a local forest committee to draw up a post-war forest plan and that representatives of these committees then meet to correlate those details of their separate plans which apply throughout India.

(n) It is recommended that provinces send their gazetted officers trained at Dehra Dun for a continental tour in Europe between their 2nd and 5th year of service. This recommendation is only a liberalization of a policy already existing in regard to selected forest officers.

(o) It is recommended that a commission be appointed as soon as possible to enquire into the best organisation of the Forest Research Institute and that someone familiar with the internal working of the Institute and of the forest department in general be a member of this commission. The attention of this commission should be called to the present anomalous organisation of the Utilisation branch and to the need for a small central statistical branch to advise all branches on the design of experiments and to analyse the data recorded.

(p) The importance of training the Forester grade is emphasised and the Inspector General of Forests should enquire into the existing position though it appears to be generally satisfactory.

(q) The present training of rangers is satisfactory and should continue as at present. It would be preferable, immediately it is possible to move the Ranger College out to New Forest but the old Ranger College should not be disposed of till the exact demands after post-war expansion are known.

(r) The Forest Research Institute should expedite investigation into the very valuable Minor Forest Products.

(s) It is recommended that the Central Government see that the release of Defence Department timber stocks after the war is controlled by the Disposal Board and that the forest department is adequately represented in any planning for such disposal. In connection with this it is also recommended that in consultation with railways, steps should be taken to stabilise sleeper prices after the war.

6. The foregoing, though written primarily from the viewpoint of British India, is applicable almost in its entirety to the Indian States.

19. Fisheries

Fish is an important article of diet, but at present only an insignificant proportion of the country's food supply is contributed by her fisheries. Indian fisheries can be developed to a very considerable extent if the main restrictive factors are removed. Broadly speaking these are:—

(i) Lack of detailed knowledge about Indian fisheries. On the basis of available knowledge it is possible to prepare small schemes for their development but large scale development must wait until the necessary knowledge has been obtained by survey and research.

(ii) Lack of trained personnel. Only a few Governments possess Fisheries Departments and those that are in existence are inadequately staffed. Large-scale development of fisheries resources would involve a large demand for trained personnel for organising the various aspects of fisheries development.

(iii) Both inland and marine fisheries have to depend on most primitive types of equipment and the men handling them do not possess the training required for handling more efficient but more complex kinds of equipment. Large-scale development of fisheries, whether inland or marine, postulates the provision of equipment of various kinds and of facilities for imparting training in its handling.

2. It is necessary that a Central Institute should be established as early as possible. This institute should have two sections—one for inland and the other for marine fisheries. Each section should have sub-stations situated at appropriate places. Apart from research and experimental work on the problems of fisheries and in addition to the surveys which must be undertaken with a view to collecting information on the basis of which large-scale projects for development can be prepared, the Central Institute will also have the duty of providing facilities for the training of personnel in the various branches of work.

3. At the same time arrangements should be made for the progressive development of the Fisheries Departments in the provinces so that by working in close co-operation with the Central Institute these departments can carry out complementary research and surveys, prepare plans of development and execute them.

4. Simultaneously with the action indicated above, small projects for development should be prepared. The preparation and the execution of these small projects will by themselves provide useful information for undertaking further development. They would fall under the following main heads:—

(a) Development of the supply of fry for stocking fresh water ponds, canals, tanks, etc.

(b) Location of breeding areas for the various types of fresh water fish and the protection thereof.

(c) Development of the practice of breeding fish in impounded water (whether used for irrigation or otherwise) and for the distribution and sale of the produce in markets within easy reach.

(d) Development of cold storage accommodation at the collecting and consuming centres and of cold storage transport from collecting centres to consuming centres.

(e) Development of air-transport or other means of quick transport for fish from collecting centres to consuming centres.

(f) Development of the industry related to the preservation of fish by canning, pickling, smoking, dehydrating, etc.

(g) Experiments with different designs of fishing craft and equipment in respect of both inland and marine fisheries.

(h) Development of the fish oil industry.

(i) Schemes for the protection of fish from excessive or improper exploitation.

20. Co-operative Societies

The co-operative movement has hitherto been a predominantly credit structure designed to relieve rural indebtedness and provide the agriculturist with cheap and timely finance. It has however only touched the fringe of the problem of agricultural credit and it is necessary to link it up more actively with production, marketing, distribution and consumption. The societies should also take steps to encourage thrift and savings amongst its members.

The Co-operative Society should in addition be a social organisation which will tend to promote better living and minor improvements in village conditions, and to eliminate feuds, litigation and friction. In this work, the ex-soldier should be trained so that he may be able to play a prominent part.

2. The credit given by co-operative societies should be controlled. Loans should be given primarily for productive purposes and in kind *e.g.*, in the form of improved seed, manure, implements etc. It should be a condition of the loan that the surplus produce is sold through the local marketing society.

3. The village society should teach its members to clean and grade their produce, so that it can be sold in bulk. This should then be sold to or through a marketing society. There should be such a society at each important trade centre, to which the village societies in the surrounding area should be affiliated. It should have the necessary godown accommodation and competent inspecting staff. The marketing societies should be grouped into regional federated societies on which in turn should be superimposed wherever possible, a provincial marketing organisation and also an all-India organisation at the top. These might be on a commodity basis.

4. Alongside this chain of marketing societies, there should be consumers' stores operating in all important urban areas and large rural centres. These stores should be banded together under district wholesale stores, which should deal with the regional producing and marketing societies on a wholesale basis. This linking of production and consumption through marketing of agricultural produce lends itself peculiarly to treatment by co-operative means.

5. In urban areas,

(a) Urban Banks should cater for the needs not merely of the local middle class but also of the local artisans and small industrialists;

(b) Housing societies and building societies should deal more and more with the problem of replacement of slums by cheap model houses of a modern type;

(c) Co-operative dairies and creameries for the collection of milk from rural areas and its processing and distribution should be fully developed.

6. Handloom weaving has already taken on a largely co-operative aspect. This should be developed (as in Madras) so as to become a live force federated under a provincial weavers' organisation. These societies should concentrate on scientific and adequate marketing though every effort should be made to improve quality and ensure the production of the goods for which there is most demand.

7. Areas brought under fresh irrigation, and all new colonies generally, should be laid out on a co-operative basis, wherever feasible.

8. Co-operative education should be properly developed and fostered by the State. It is not enough to have the mere repetition of a few platitudinous statements on the benefits of self-help, mutual goodwill, etc., by poorly-qualified men with little training. There should be trained workers in the various fields of specialised co-operative activity, including marketing. This should be carried out by the Provinces, though the Centre should give all the assistance and guidance in its power. Co-operative education should be given a distinctly realistic and "business" bias.

9. There is a great need for a well-trained high grade co-operative service sufficiently well paid and pensioned to ensure absolute integrity. The personnel must be trained in the finance and marketing aspects of farming and also in agriculture; a proportion should receive industrial training.

Administrative officers of Government, particularly in the Revenue Department, should have some practical acquaintance with co-operative activity in all its aspects as a part of their training.

10. As regards the necessity for statutory State control and inspection of co-operative societies, and power to intervene where advisable, expert opinion is by no means unanimous. It will be agreed, however, that unless an organisation is sufficiently strong and well-managed to enable its stability to be guaranteed, some supervision is desirable. At any rate, it will be recognised that for a number of years the average cultivator will need some protection and guidance if his interests are to be properly protected.

11. The feasibility of applying compulsion in co-operative societies or making the decisions of a society binding not only on members but also on a minority of non-members needs careful consideration.

12. Provincial Co-operative Departments should work in close liaison with the Departments of Agriculture and Marketing.

21. Instructional Propaganda and Rural Uplift

This is a subject that lacks a suitable name and is not specifically allocated to any Department of Government. The experience of the war in India, and of other countries before the war, has shown the enormous power for good, and evil, that is inherent in well-organised propaganda under Government control.

Directed towards good ends it is capable of completely changing the outlook of either an educated or illiterate population in the space of a few years. It is perhaps most important in the case of the latter which cannot be reached by the written word and is incapable of selecting the good from the bad amongst the contrary currents of public opinion and casual information.

2. The object of such propaganda must be to prepare the ground for social and economic development, to educate the public in the broadest sense of the word and more especially to awake a desire for better things. It should include everything that comes under the heading of rural uplift or better living, hygiene, health, cleanliness, education both of boys and girls, improvement in agriculture, co-operation, the avoidance of litigation and debt, thrift and in fact all the public and private virtues. It can be utilised to give a degree of education, in the wider sense, to those who are illiterate and to give some knowledge, both of India and the world at large, to those whose horizon is normally that of their own village or district. It can also be utilised to combat communal feeling and dissension. A feature of all educational propaganda should be to foster a sense of national unity and common interest, the value of the connection with the British Commonwealth, and the advantages of international co-operation.

3. The technique of educational propaganda is now well understood and considerable experience has been gained by the Information Departments or staffs of the various governments. The methods include:—

(a) Broadcasting.—In addition to All-India and regional programmes, a village Radio system is required. This will be expensive and must be built up gradually but a considerable proportion of the cost can be met out of local contributions collected through District Boards. Such contributions should, however, be directly related to the provision of facilities for the people paying the tax.

(b) The cinema and loud speaker.—Here there is scope for all-India films, records and programmes and also for those of especial local interest, prepared in conjunction with the Provinces.

(c) The exhibition.—These should be of several different types:—

(i) The big scale exhibition to visit Provincial capitals and large towns in rotation.

(ii) The small exhibitions to visit Taluka towns and thus reach individual cultivators. These must be on a Provincial basis.

(iii) The exhibition train to visit towns and villages served by rail.

(iv) The exhibition van, bullock cart or camel to reach the outlying villages.

(d) The poster and pamphlet.—These also should be on an all-India as well as on a Provincial basis.

(e) Song Publicity and Plays.—As for (d) above.

(f) The demonstrator.—These can be combined with the exhibition van but should remain long enough in villages to ensure that lessons learnt are taken to heart and applied in practice. Some follow-up organisation for this purpose is also essential.

(g) The local leader.—These require organisation on imaginative lines. Village Guides, boys scouts, school masters, zaildars, Honorary Development

Officers, etc., can all be pressed into service. The exact system adopted will depend on local conditions but a definite organisation with local leadership is essential if the propaganda is to be effective and produce results.

(h) The 'shock troops' method.—This has been tried in the form of agricultural Project schemes with some measure of success. (A project is a planned system of land use, involving the simultaneous or co-ordinated application of a variety of measures of proved value and is carried out on the land of a farmer, and often by him with the help or guidance of Government technicians.) Temporary Rural Developmental Headquarters have also been set up in selected areas and have achieved valuable results. The system adopted will depend on local conditions and if organised on suitable lines and carried out with enthusiasm and judgment, is capable of achieving remarkable results.

4. The responsibility for these measures is at present divided between the Centre and Provinces in accordance with the allocation of subjects, and between the various Departments according to the subject on which propaganda or education is desired. The results are not likely therefore to be very satisfactory unless suitable co-ordination of functions can be obtained. Furthermore, it is desirable that experience, expert knowledge and to some extent the apparatus of propaganda should be pooled.

5. It is suggested therefore that the Central and Provincial Governments should each set up Educational Propaganda and Information Departments and that attached to these should be selected officers of the expert Departments to assist in the organisation of propaganda on their own subjects. A certain proportion of the work can be undertaken by the Centre such as:—

- (a) Broadcasts on suitable subjects,
- (b) The preparation of films and gramophone records,
- (c) The organisation of the larger exhibitions,
- (d) The preparation of song publicity and plays,
- (e) The production of literature and posters.

There is much however that is better carried out by the provinces themselves than by the Centre to meet their special needs. In order to assist the Centre in the determination of the objectives, the planning of propaganda campaigns on suitable lines, and in co-ordinating the activities of the various propaganda organisations, both at the Centre and in the provinces, there should be an all-India board on which, besides the representatives of all interested Departments at the Centre such as Agriculture, Education, Health, Roads, etc., should sit representatives of the provinces and such States as wish to cooperate in this work.

6. A similar board should be constituted in each province which would not only advise the Central Board on the propaganda needs of the province but would also be responsible for determining and coordinating the propaganda objectives and activities of the provincial propaganda organisation.

7. In order that the organisations now in existence for war publicity and Propaganda may not be disbanded and their experience and equipment lost, and also to ensure suitable preparation for post-war development, it is desirable that the necessary changes in organisation should take place as early as possible. The propaganda plan should at the same time be gradually modified so that the requirements of post-war development find a place in its programmes and the necessary experience is obtained and staff trained.

8. A special feature of educational propaganda should be the dissemination of information as to what social and economic developments are in progress in different parts of India. At present the ignorance even of officials as to what is happening in other Provinces than their own, and in the States, is very striking. A serious and critical journal containing articles on such subjects is required as also popular articles in the Press or local journals combined with Broadcast talks on the more interesting developments. A very energetic editorial staff will be necessary but much of the information will have to be obtained through Provinces and States.

9. A Special Branch should be formed for organising the production of suitable literature for the villages and small towns both in the vernacular and in English. This will include simple books on farming, handicrafts, health, etc. It is no use educating people if there is nothing for them to read, and libraries should be attached to every village school.

22. Education

For the last five or six years the Central Advisory Board of Education has been examining the question of developing educational facilities to suit Indian conditions and has laid down the following minimum requirements of the country in respect of public instruction:—

- (1) Universal compulsory and free education between the ages of 5 or 6 to 14.
- (2) Reasonable provision of education before the compulsory age in the form of nursery schools and classes.
- (3) Efficient medical school service including regular medical inspection of scholars and provision of proper nutrition in needy cases.
- (4) Secondary or High School education for those who are likely to benefit from it.
- (5) University education for picked students—probably 10 per cent of the high school students.
- (6) Technical, commercial and arts education.
- (7) Adult vocational and non-vocational education for those who were not educated in boyhood.
- (8) Special schools for children suffering from mental or physical handicaps.
- (9) Recreational facility of all kinds to inculcate the spirit of corporate activity and for amusement.
- (10) Employment Bureaux for finding suitable employment.
- (11) Suitable facilities for training teachers in adequate numbers and on proper lines.
- (12) An efficient administrative system.

2. The Board has also estimated that the system proposed by them will cost Rs. 312 crores gross or Rs. 277 crores net per year when it has come into full operation after about 40 years. This figure does not include the capital cost of buildings and sites but only interest and depreciation. The approximate incidence of increased costs involved in the proposals will be as follows:—

	Rs. Crores
In the 5th year	10·0
In the 10th year	23·8
In the 15th year	37·4
In the 20th year	61·45
In the 25th year	106·00
In the 30th year	165·0
In the 40th year	312·0

3. How far the present system of education in India is from complying with these minimum requirements may be seen from a few simple facts. 85 per cent. of the present population is illiterate. Of the children who actually enter the doors of a school, less than 1 in 4 remain long enough to reach the earliest stage (class IV) at which permanent literacy is likely to be attained. Since the average pay of a primary teacher in Government Schools in India is about Rs. 27 p. m. and in private schools is actually much lower—in one of the largest Provinces the average is below Rs. 10 p. m.—it can hardly be said that the teaching service in India is likely to attract at the moment the sort of people who ought to be in charge of the nation's most valuable asset, namely, its children, during its most malleable stage. In the higher stages of education there is practically no selection, the main criterion for admission to high schools being ability to pay fees rather than intellectual promise, and apart from the passing of an admittedly easy matriculation, the same largely applies to University education. The provision of technical, commercial and

arts education is entirely inadequate to meet the expected requirements of a more highly industrialised India. In regard to the other main branches referred to in para. 1, the present provision is either non-existent or in such an embryonic stage that it can hardly be said to touch the fringe of the problem.

4. The plan prepared by the Central Advisory Board deals with all branches of education and endeavours to present an integrated scheme covering the entire field. As its central feature it prescribes universal compulsory and free education for all boys and girls from the age of 6 to the age of 14,—the shortest period and the lowest age within which an education can be provided that can be regarded as giving a minimum preparation for life or livelihood. It contemplates the provision of ten lakhs of places in nursery schools and classes for children below the age of 6. It sets out the basis upon which an efficient school medical service should be provided. In high schools, it aims at the provision of schools of various types, with, for example, an academic, a technical or an agricultural bias, suited to the aptitudes of the pupils. High Schools will provide for at least a fifth of the boys and girls in each age-group. It also emphasises the necessity of providing liberal financial assistance in the form of free places, scholarships and stipends so that no boy or girl of outstanding ability need be debarred by poverty from further education after the compulsory stage. It aims therefore at a very large increase in the provision of education at its higher stages, whether in universities or in technical institutions of university level. It also foresees the necessity for enlarging and making more practical the present provision for technical, commercial and arts instruction at all levels in order to provide India with the research workers, executives and skilled craftsmen which the expansion of her industrial, economic and agricultural resources will inevitably demand. It does not neglect the purely cultural and recreational side of education, as it attaches particular importance to the provision of the widest facilities for encouraging boys and girls, men and women, to fulfil themselves as individuals and to make a profitable use of their leisure.

5. Finally the Board makes suggestions for removing the obstacles in the existing administrative system which have militated against its success in the past and may be expected to put still graver obstacles in the way of any comprehensive development. The Board has made it clear that it will be for Provincial and State Governments to work out in detail the best way of applying in their own areas the general principles which have been laid down by it. It has also emphasised that the training of character must at all stages of education be regarded as not less important than the training of intellect and that physical, mental and moral instruction must proceed side by side. It has also stressed the importance of accelerating the provision of educational facilities for girls and women in view of the extent to which their claims have been ignored in the past. In fact, it has stated its conviction that whatever may be provided for boys and men, not less should be provided for girls and women.

6. Although for reasons explicit in the Board's Report and implicit in this statement it is of the first importance that any national system of education should be built on a broad and sound foundation in order that its higher stages may be supplied with students of proved capacity and with a good preliminary training and that for this purpose the structure in each successive area to which the plan is extended should be as complete as possible, the over-riding necessities of the post-war situation may require that special attention should be devoted in the first instance and in the near future to those branches of education which can make an essential contribution to immediate national needs. There can be little doubt that India's economic development, in both the agricultural and the industrial fields, will depend on a supply of skilled personnel in all grades, including research workers, which it is altogether beyond the powers of the existing educational system to produce. An immediate and important contribution in this respect may be expected from the skilled men now in the Defence Forces or engaged on war production. Plans are in hand,

in the Departments primarily concerned, for "reconditioning" these men, where necessary, for absorption in civil industry: but to maintain and enlarge the supply will remain a direct responsibility of the educational authorities. It is therefore urged that the National Council for Technical Education, proposed in the Board's plan, should be established without delay in order that, in consultation with Provincial Governments, which are to remain responsible for the lower stages of technical instruction, it may prepare plans as quickly as possible for developing higher technical education on a national scale. Special attention to the technical branch of education must not, however, be allowed to interfere unduly with the carrying out of the development programme as a whole: otherwise the sources from which suitable technicians may be drawn, so far from expanding, will tend to dry up.

7. It will be obvious that it will now be necessary for each Province and State to prepare a phased programme for the first stage of five years. This must include capital expenditure on buildings and must have regard to the practical limits of this programme and the availability of staff. The training facilities for teachers must be such as will allow of a yearly increase in recruitment and must be determined in relation to the expansion considered feasible in the second five year period.

However desirable the programme laid down by the Central Advisory Board may be considered to be, it is nevertheless possible that at some stage or other it may be necessary to slow up development on financial grounds. It is desirable, therefore that the stages should be logically devised and should be as far as possible complete in themselves. This is also necessary to ensure that each generation gets a reasonable share of the facilities available and that as far as possible those that so desire should be able to obtain education for their children.

8. In order to enable the benefits of education to be shared in an equal measure by all classes of the population, it is necessary that a strenuous attempt should be made by the Governments concerned, through special concessions, scholarships and other means, to improve the standards of education of all backward communities; otherwise the handicaps from which they are suffering at present will be perpetuated and may even be accentuated. For instance, in the selection of students for high school, university and technical education, it may happen that boys and girls of the advanced classes will secure a much larger share than is justified by their numbers, unless the standard of education of the backward communities is rapidly improved by means of concessions as suggested above.

9. The question of finance is discussed in Part I and it is only necessary to stress here the importance of a bold and comprehensive policy and the desirability of ensuring wherever possible contributions from local taxation towards the cost of these services. Such contributions should where possible be in direct relation to the services actually provided.

23. Public Health and Medical Services

The state of public health in India is reflected in the mortality and morbidity figures, a recorded death rate of 22 per thousand, and infantile mortality rate of 162 per thousand live births, an average annual mortality of 145,000 from Cholera, of 70,000 from small-pox, of 31,000 from plague, of 290,000 from dysentery and diarrhoea, of 500,000 from tuberculosis and of 3,667,000 from "fevers". Much has been done since the Plague Commission's report of 1904 to improve sanitary conditions in the larger towns, to establish a skeleton medical service for the people and to restrict outbreaks of epidemic disease. But it is true to say that the problem of raising the general standard of health is still largely unsolved. Moreover the health services available for the people over the greater part of the country are far below the minimum standard necessary for the relief of suffering and the maintenance of health and the development of these services in the past has been largely piecemeal and spasmodic. War conditions have brought into prominence the weakness and inadequacy of the present health organisation. Apart from the need for relief of

human suffering, the immense economic loss to the community resulting from premature death and disabling sickness makes a determined and co-ordinated attack on disease and ill-health long overdue. A programme of health development must therefore form an essential part of the wider programme of reconstruction and development for raising the standard of living.

2. A rational health policy must be comprehensive in scope. It must have as its objective nothing less than to secure the maximum attainable health of every member of the community. It follows that a health programme must provide not only for the treatment of the sick but for the prevention of disease and the promotion of health. It must have regard to all those aspects of administration which have a direct bearing on the promotion of health. It will be concerned with the fundamental conditions of environment which are essential for health, such as effective sanitary measures, a pure water-supply, good housing, and the protection of the food-supply, with the application of preventive measures against infectious and other disease, with the provision of an adequate medical service for every member of the community according to his need, with diet and nutrition, with the industrial environment of the worker, with the care of the mother, infant and child, with the provision of a school medical service, with the education and training of the medical practitioner and the public health official and of the auxiliary staff required for medical and public health organisations, with the health education of the members of the community, with research. A comprehensive programme for the promotion of health must necessarily deal with all these aspects of health administration. It must also ensure co-ordination of activities in the health field and provide against the loss of effectiveness and the waste of effort and resources which inevitably follow overlapping of services and lack of co-ordination. Plans for development must also be related to past experience and the present position and to the ultimate organisation contemplated. They should also take some account of priorities.

3. Executive and legislative powers in regard to public health and medical relief rest with the Provinces and the completion and implementing of detailed plans for post-war development in this field must be undertaken by Provincial Governments. The Government of India, however, consider that an all-India survey of the whole field of health organisation is necessary in order to provide Provincial Governments with the information and guidance which they require for carrying out an effective health programme. They accordingly appointed in October 1943 the Health Survey and Development Committee under the chairmanship of Sir Joseph Bhore to make a broad survey of the present position in regard to health conditions and health organisation in British India and to make recommendations for future development. This Committee has appointed advisory committees to consider questions relating to public health, medical relief, medical education, industrial health and research and sub-committees have set out on tours in the Provinces to elicit information and opinions.

4. The measures to be taken will be decided when the Committee's recommendations have been received.

24. Housing and Town Planning

The urban population has been increasing at a rapid rate and there has been a constant drift of rural workers into the cities and towns. In most of the towns, the problems of housing and town planning have assumed serious dimensions and a large proportion of the urban population is now living in insanitary and unhealthy conditions. On the other hand, the experience of some of the planned towns like New Delhi and Jamshedpur and of the Improvement Trusts in some of the older cities shows that much of the evil of congestion and overcrowding can be avoided if the authorities concerned exercised a rigid control over housing conditions and if they were alive to the danger of lop-sided and haphazard development. Town Planning Acts and Regulations are in force in a number of towns, but have been evaded in many cases.

2. The actual execution and administration of town planning, slum clearance and housing reforms must necessarily be the function of the municipalities concerned and little progress can be achieved unless municipal administration is improved both financially and in respect of expert personnel to deal with the question. The Local Self Government Boards proposed in para. XII of Part I might be able to strengthen the existing administration, but it will also be necessary to have at the Provincial Headquarters, as is the case in some of the Provinces, a small body of experts to help and advise municipalities, to draw up standard plans, to supervise local activities and to suggest new lines of development. It will be the duty of the Provincial Governments to see that the recommendations of this body are carried out, that the town planning regulations are actually followed and to afford financial and other assistance where required. Town planning schemes could in most cases be made self-supporting.

3. The measures required to secure an improvement in present conditions in respect of housing and town planning are too well known to need description in detail. Some of the principal directions in which an approach could be made to the solution of the problem however deserve mention and these have been indicated in the succeeding paragraphs.

4. The authorities concerned should remember that they are now planning and building not only for the present conditions but for those which will obtain fifty or more years hence. Inadequate planning and building may save a little money now but those concerned will be responsible for a repetition of present conditions and retrogression in coming years. It will be better to aim at the highest possible improvement town by town rather than attempt inadequate and ineffective progress in all of them.

5. The evil of ribbon development should be constantly borne in mind and guarded against. Experience in other countries has shown that this is often the precursor of chaos and squalor.

6. When new large scale industries are started, it would be better to locate them away from congested localities and build a new town around them. It would be much easier to start afresh than to attempt to fit in industrial expansion in congested localities and make a half-hearted attempt to improve living conditions. It will therefore be necessary to exercise very strict control over industrial expansion in crowded cities or their vicinity and if extensions are inevitable, to permit them only on condition that the promoters satisfy the local authorities and the Government that adequate housing facilities can and will be provided for the additional labour.

7. Slum clearance should be pursued with vigour and the cleared localities provided with suitable dwellings. Provincial Governments and municipalities should set the example and construct model dwellings for the working classes and let them at reasonable rates.

8. Government or municipal loans, recoverable in easy instalments, should be made on a wide scale, for the construction of model dwellings of approved design, to suit every purse, both in towns and villages. The question of making outright grants to meet the cost of modern dwellings, either in whole or in part, may also be considered in deserving cases.

9. Co-operative building and housing societies, which have been a success in some places in India, should be instituted and encouraged wherever possible. These societies will furnish credit for building model houses, but they cannot be a success unless they are strongly backed by the Governments and local authorities.

10. "Better living societies" would also be of immense use in the campaign against congestion, filth and insanitary surroundings.

11. A minimum percentage of each area should be set apart for parks and recreational facilities. This should be insisted on in all town planning and improvement schemes.

12. Finally, adequate provision should be made for drainage and the disposal of rubbish. In fact, the disposal of sewage and rubbish and the manufacture of compost and other manures from them could be made a source of profit to the authorities concerned.

25. Labour Conditions

Increased attention is already being paid to labour matters, and there must in the post-war period be a quickening-up of progress throughout the labour field. Labour policy must produce conditions in which labour can feel that it is a partner in industry and in the undertakings in which it works and which ensure to labour fair conditions both of work and relaxation.

2. There will be an increasing need for contact and co-ordination between Central and Provincial Governments, employers and workers and plans for a fuller utilisation of the newly created tripartite Labour Conference are already being made. It is only by the pooling of experience, by mutual discussion of proposals and by a direct common approach (in which in the words of the I.L.O. —“representatives of workers and employers enjoying equal status with those of Governments join with them in free discussion”) progress of labour policy on sound and uniform lines will be secured.

3. The matters to which attention will have to be devoted are briefly:—

(i) *Improvement in employment services.*—Not only will this be necessary during the transition period between War and Peace but also continuously in post-war India. A start has already been made. Employment Exchanges for technical personnel and labour depots for unskilled workers are already functioning, and showing the way to the establishment of a sound and knowledgeable employment service which is essential if a country is to be sure of making the best use of its manpower and of the opportunity for industrial development.

(ii) *Social Security Schemes.*—Though it may not be possible to frame schemes covering the whole population, consideration must be given to the subject and in particular to the requirements of the industrial population. A fact-finding Committee has already been appointed and as soon as their report is ready a Planning Committee will be appointed. A scheme of Sickness Insurance for industrial workers has just been prepared, and the possibility of implementing that scheme will be closely and quickly examined. But this by itself is not enough. Every aspect of Social Security needs careful consideration to see to what extent conditions in this country enable us to follow the lead of more advanced countries.

(iii) *Health of labour during working hours.*—There is scope for improvement in workshop and factory conditions together with improvement in health by regulation of hours and increase in and regulation of the number of holidays. Little has so far been done except possibly in the cotton textile industry in regard to scientific research on industrial health and much must necessarily be done and done quickly in this respect. Propaganda on health subjects must also be given its due place.

(iv) *Welfare.*—Improvement in welfare matters is essential. An Ordinance has been passed imposing a cess for the purpose of welfare in the coal mines areas and steps are already being taken to ensure efficient expenditure of the money so secured for improvement in the welfare of coal mine labour. Plans for improved housing must be considered; also setting up of canteens and all the various measures included in industrial welfare. The setting up of industrial canteens, if initial prejudices against them can be overcome, must lead to an improvement in nutritional standards.

Development of a housing policy is essential. Some employers have already done much to provide adequate and healthy housing, but taken as a whole the housing of industrial labour is deficient and unsatisfactory. A comprehensive policy is necessary, a policy fostered by the State which will ensure, at the expense of the employer, local authority and possibly of the State adequate and healthy industrial housing for all workers. Housing, health and happiness must be the key words of our welfare policy.

(v) Improvement in industrial relations between workers and employers must be secured. The encouragement of sound trade unionism is an accepted policy of Government, and its continued development must be assured so as to provide for adequate collective bargaining. But however good arrangements for contact between employers and workers may be, disputes will still arise and there is need for more widespread machinery for conciliation and arbitration. An improvement of the provisions of the Trade Disputes Act for this purpose is necessary at as early a date as possible.

(vi) A thorough overhaul of our labour code is necessary to ensure that labour throughout the country has fair conditions of work, minimum wages reasonable in the conditions of the country, and a fair chance of having its point of view discussed with those in authority.

(vii) *Statistics and Administrative machinery.*—Improvement is undoubtedly necessary. Something is already being done to improve collection of statistics and to increase the available staff, but much more is necessary and much more must be done.

4. The above programme outlined in very general terms means a large field of work—a large programme—considerable increase in staff and the co-operation of all.

26. Scientific and Industrial Research

Although there is no clear cut distinction between the several subjects of research and although a certain amount of overlapping is inevitable, they fall under five main categories affecting the welfare of the country:—

- (i) medicine and public health;
- (ii) agriculture, animal husbandry and forestry;
- (iii) industry;
- (iv) requirements of Defence Services;
- (v) surveys of national resources.

2. The Council of Scientific and Industrial Research established in 1940 has already done much valuable work and under its aegis and with assistance from both Government and Industry, the following national research laboratories will be set up:—

- (i) a national physical laboratory;
- (ii) a national chemical laboratory;
- (iii) a national metallurgical laboratory;
- (iv) a fuel research station;
- (v) a glass research institute.

The first three institutions can be established only after the war but work will commence immediately on the other two. The Council has also appointed a Committee of scientists and industrialists to survey the existing facilities for research in India, to recommend measures for the promotion of research by research organisations and private firms, and to suggest steps for the furtherance of industrial and scientific research after the war.

3. There are also a number of other research organisations under the various Departments of the Government of India, such as the Imperial Council of Agricultural Research, the Forest Research Institute, the Imperial Veterinary Research Institute, the Indian Research Fund Association (for medical and public health research), the Nutrition Research Laboratories, the Botanical and Zoological Surveys, the Geological Survey of India, etc. In addition, there are organisations under Provincial Governments, Indian States, Universities, industry and private enterprise. It is proposed to set up a consultative Scientific Committee at the Centre to deal with all matters common to science as a whole and to co-ordinate research. It will maintain close contact with official as well as non-official scientific institutions.

4. It is essential that the scientists in the various institutions run by Government, Industries and Universities should work in close collaboration with each other. Facilities should be provided for them to meet in periodical scientific conferences for a mutual exchange of views. These conferences might also

suggest methods of co-ordination between the various institutions dealing with similar problems and ensure that there is no duplication and overlapping of activities. Facilities should also be provided for the collection and distribution of foreign scientific literature through some central organisation maintained for the purpose and steps should be taken to encourage Indian scientists to go abroad for higher research and for establishing personal contact with overseas scientists and institutions.

5. It has been suggested by Professor A. V. Hill that Development Boards should be constituted, where they do not already exist, to deal with the five categories referred to in para. 2 above. They would consist largely of scientists in the employment of Government and distinguished non-officials working in private institutions. The Boards would periodically survey the organisation of research, in order to ensure that the "user" departments develop and popularise the results of original research through their own scientific and publicity organisations.

6. The planned development of national resources would need a large expansion of scientific personnel of all kinds. Much excellent material is available in India itself, but it would be necessary to provide advanced or specialised training facilities both in India and abroad, importing experts, where required, for the preliminary work.

7. As regards finance, some estimates of expenditure on research in the U. K. and the U. S. A. may be of interest. The amount spent by 566 British firms on research and development in 1938 was £5.44 millions (about Rs. 7 crores). The pre-war research expenditure in the British universities was £7 millions and that in the American universities was £70 millions (or Rs. 93 crores). In addition, Government Departments in both these countries were directly responsible for the conduct and subsidy of research on behalf of their governments. Compared with these figures, the expenditure of India on research and development is very small. Although it will not be possible for India to spend money on the scale of the more advanced countries, it is obvious that very large sums will have to be made available for such research and development as are considered essential for post-war development.