



PROCEEDINGS OF THE GOVERNMENT OF HIS HIGHNESS  
THE MAHARAJA OF COCHIN

POST WAR RECONSTRUCTION DEPARTMENT

**Industrial Development Committee—Report—Submission of**

**No.—3**

Read again Government Proceedings P15-167/20, dated 28th September 1944.

*Order P15— 167/20 dated 21st December 1944*

The report of the committee appointed by Government to draw up a planned scheme for industrialisation of the State is published below for general information.

2. Government are pleased to place on record their appreciation of the services rendered by the committee.

(By order of the Government of Cochin)

**RAMA VARMHA TAMPURAN**

*Secretary to Government*

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**REPORT OF THE INDUSTRIAL DEVELOPMENT COMMITTEE  
CONSTITUTED BY THE GOVERNMENT OF COCHIN**

1944.

1. The Committee was appointed by the Government of Cochin in the following Order.—

*Government Proceedings P. 15-167/20, dated 28th September 1944*

“There have been representations more than once both in the Council and outside that Government should equip themselves with a planned scheme for the industrialisation of the State. Industrialisation plays a very large part in the scheme of Post-war Reconstruction also. Government consider that a plan of this type can be drawn up most effectively by an expert with considerable experience of industrial development in India. Through the kind intervention of Sir M. Visweswarayya they have been able to secure the distinguished services of Mr. Manu Subedar, B. A., B. Sc. (Econ) London, Barrister-at-Law, M. L. A. (Central) in the matter. He will be the Chairman of a Committee consisting of the following gentlemen.—

- (1) Kerala Varma Thampuran, M. A., R. A., President, All-India Manufacturers' Organisation, Kerala Board.
- (2) Dr. Rm. Alagappa Chettiar, M. A., D. Litt., Barrister-at-Law, Managing Director, Cochin Textiles.
- (3) Rao Sahib K. Achutha Menon, B. A., B. L., Retired Secretary to the Government of Cochin.
- (4) Rao Sahib A. K. Menon, Managing Director, Victory Chemicals and Pharmaceutical Works Ltd.

Mr. K. S. Raghavan, Deputy Secretary to Government (Post-war Reconstruction) will act as Secretary to the Committee.

2. The following are the terms of reference to the Committee.—

- (1) To advise how far the industries now established in the State are capable of development and on the measures necessary to secure that development.
- (2) To examine the possibility of starting new industries and to advise the Government how best they can encourage this development.
- (3) To consider and advise whether the Government itself should undertake the establishment of new industries or whether it would be wiser to provide facilities for private enterprise and in the latter case the nature and extent of the facilities to be provided.
- (4) To consider and advise whether the existing means of financing new industries are adequate and if not how the Government can help to secure better facilities.

3. The Committee will draw up its own programme of work and after due deliberation submit its report before the end of current year.”

2. The Committee met 20 times in all, 9 times at Ernakulam and 11 times at Trichur. The first meeting of the Committee was held at ‘Ram Mandir’, Ernakulam, on 28th September 1944. It was agreed that no written questionnaire need be issued, but that the terms of reference should be published in the State Gazette and in the newspapers with an invitation to those, who desire to give evidence or to give information and suggestions to this Committee, to communicate with the Secretary.

3. A letter inviting evidence and suggestions was accordingly published in the Cochin Government Gazette dated 7th October 1944 and the important

dailies of the State. Copies of the letter were sent to leading industrialists, commercial magnates, members of the Legislative Council and other gentlemen interested in the industrial development of the State.

4. In all, 50 written memoranda have been received. The suggestions contained in the memoranda were circulated among the members of the Committee.

5. During the course of its sitting the Committee has taken oral evidence from forty-two gentlemen.

6. The Committee considered the evidence given and the points contained in the written memoranda. A list of those, who sent written memoranda, and of those, who gave evidence before the Committee, is given in Appendix I.

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## CHAPTER I POSITION AND PROSPECTS OF INDUSTRY

### Area and population

7. The area of Cochin State is 1,493 sq. miles, of which 582 sq. miles are forests, and the position as to population is as follows.—

1901	8,12,025	1921	9,79,080
1911	9,18,110	1931	12,05,060
	1941		14,22,875

8. There are portions of Cochin State, which are very densely populated, the population per sq. mile in some Taluks rising as high as 2,744.

9. The area under cultivation in the State has gone up as the following figures will show.—

1938—39	4,73,547 acres	1940—41	4,73,994 acres
1939—40	4,71,294 ..	1941—42	4,77,781 ..
	1942—43		4,99,333 acres

10. Two factors have affected cultivation in the State during the war period. One is the increased prices, and the other is the shortage of food and the effort made by the State under the "Grow More Food" campaign. There have been marked increases in the area under cultivation of such crops as sugar-cane and tapioca, and Government have now issued orders that there should be no encroachment on existing paddy cultivation for crops, from which the cultivator may expect a higher return. This policy under the stress of food difficulty during the war may be justified, but, as a permanent measure, attempts should be made to secure the cultivation of those crops, which give a better return. In particular, we would like to refer to fruits and market gardening. We are glad that this objective has not been neglected. We understand that an area of about five hundred acres from the abandoned estate at Nelliampathi is being diverted to the growth of vegetables, potatoes and fruit trees. We invite attention to the suggestion with regard to sugar-cane cultivation in a compact area set out in paragraph 64.

### Progress of Industry in Cochin

11. The Government of Cochin appears at all times to have shared the enthusiasm in favour of increased industry, as measures taken during the last thirty years given by us in the form of a report in Appendix II would show. Mistakes and miscalculations were made in Cochin as they were made elsewhere in India, and yet a certain measure of progress was achieved, as will be seen from the following particulars of factories registered in Cochin State.

12. There are 102 registered factories in the State, as shown below, and in all they employ 11,750 operatives.

	Nos.		Nos.
Cotton Mills factories ..	3	Tea ..	2
Oil Mills ..	16	Rubber ..	6
Saw Mills ..	3	Engineering ..	5
Tile and Brick Works ..	33	Furniture ..	1
Rice Hulling ..	27	Matches ..	1
Coir Factories ..	3	Electroplating ..	1
		Manure ..	1
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### License for New Factories

13. Regarding industries now established in the State, as we have pointed out in paragraph 174, the statistics available were not complete. Some of the concerns being proprietary, no returns are available, as to the amount of capital engaged by them or the amount of profits made by them, or the amount of outside finance, which they are raising in order to carry on. We have been enabled to form a general idea and we may say that in one form or the other, Cochin has a considerable number of industrial establishments. The position, however, is by no means healthy as there is over-capitalisation, and competition has increased materially, particularly with regard to tile factories, oil mills and rice mills. War-time stimulus has brought a certain amount of prosperity to all concerns, but it has increased the difficulties in certain directions. If, as now proposed by the Government of India, a definite regulation has to be imposed in connection with post-war planning schemes, we would suggest that factories should not come into existence except under a licence by the State. On a closer enquiry it would be found necessary to withhold licences for new factories in certain directions, where there are signs of excessive competition and excessive capitalisation. On the other hand, factories in such lines could be helped by securing for them markets, which are not at present open to them, or in securing raw materials, which they need in order to keep full activity.

14. In contrast with this, it cannot be said that Cochin has exhausted the possibilities of development in certain other lines, such as textiles, saw mills, coir factories and engineering.

### Sympathy and Encouragement

15. It is by a careful study of the mistakes made in the past both here and at other places in India, that a sound policy could be formulated. We have taken into very careful consideration all these factors in reaching the conclusions set out in our report hereafter. Enthusiasm on the part of the people for industry and inspiration and drive on the part of the authorities for industrial progress are indeed useful and welcome, but they can never be a substitute for sound business judgment, on which alone successful enterprise can be based. We have proceeded on the assumption that the initiative in business enterprise must be left to private individuals, who have got business experience and who know how to provide themselves with the necessary technical and skilled advice. The principal thing which Government can do is, first, not to hinder or check through regulations and red tape the efforts of business men and, secondly, to provide suitable machinery readily available and accessible to the business community, by which the State will offer information sympathy and encouragement, and make available skilled advice outside the reach of the local factory owner, and help with their influence the procurement of material and equipment, if and when they are difficult to secure. In short, we want to see in Cochin an atmosphere of sympathy and encouragement towards industry, coupled with different forms of assistance, moral and material, based on sound principles derived from the experience and observation of State Aid to Industry in other parts of the world.

### Co-operation with neighbouring States

16. The whole world is trying to evolve plans of what can be done after the war, primarily for the preservation of what there is, for the restoration of economic conditions to normal, and then for the development of the areas concerned. In such plan it is recognised that international co-operation would be valuable and in some cases inevitable. The whole of the British Empire is asked to accommodate itself to international requirements. The whole of India, including the States, is asked to accommodate itself to the plan and requirements of the British Empire and, therefore, to some extent, whether we like it or not, any plans made by Cochin must fit in with the larger plans and programmes made not only for British India as a whole, but the major neighbours, *viz.*, the Province of Madras and the State of Travancore. The idea of economic self-sufficiency is one, which cannot be put forward even for India as a whole, except in certain directions. It is one, which must be, therefore, definitely discouraged so far as Cochin State is concerned, because it is relatively a small territory with a small population, and every variety of raw material is not found for manufacturing every variety of article which the population uses. The total amount consumed by the population in many cases would not justify the existence of a factory in certain lines. It would be therefore wrong and misleading to think of Cochin State by itself. This is more particularly the case, because excessive or any tariffs could not be put in to protect Cochin industry against imports from outside. All narrow ideas, which therefore isolate Cochin in economic matters, would tend on the whole to detract rather than to assist the best development of this area. All local exclusiveness and prejudice, which would seem to differentiate and discriminate between Cochin population and the population of Malabar and Travancore, would, in our opinion, not be helpful and in some cases prove an actual hindrance.

17. It is impossible to consider Cochin industries by themselves on the exclusive and self-sufficiency basis. The efforts of Cochin must be definitely therefore correlated with the efforts of Travancore on one side and Malabar on the other side. It would not be desirable to create unnecessary complication with, or duplication of equipments, which may be laid down in the neighbouring districts, and it should be the endeavour of Cochin, which is relatively smaller than the province of Madras or the State of Travancore, to create a bias towards ideas of co-operation rather than rivalry in the minds of the authorities of the bigger neighbours. Initiative may be taken in the first instance by Cochin State for such co-operation in all matters, wherever possible, because we believe that in the long run this policy would be better for Cochin.

18. There should be, as far as possible, parallel activity, but in co-operation rather than in competition. It is in the interests of these districts, whom Nature has endowed with the same climate and whose produce is similar, that they should co-operate in order to derive better prices as a whole from the rest of India. The tendency—and at first sight and on first thoughts, a natural tendency—to set up something, which the neighbours are setting up, must be therefore checked. What opportunities for co-operation and consultation there will be with these bigger neighbours, and to what extent they



will extend the courtesy and helpfulness, it is not for us to determine. But we believe that good results to mutual advantage could be secured if efforts were made in this direction and if they were successful. The basis for such co-operation does not exist in the basic fact of the port agreement, in which the three parties are interested. Industrial development on a large scale in the territory of each of the participants in this agreement is bound to bring down, in the first instance at all events, the revenue derived from this port (other factors remaining the same) and yet this consideration is not likely to deter any of them from pursuing a policy which involves the best utilisation of their resources and increased employment for their population, which is the principal objective of the growth of industry.

#### Preference to Cochin subjects

19. While we were unanimous with regard to the expansion of industry in Cochin without aiming at self-sufficiency and the need of framing a policy of post-war industry as far as possible in co-operation with the larger neighbours (*viz.*, the Province of Madras and Travancore State), there was considerable feeling amongst the members of the Committee that subjects of Cochin State should have "priority and preference" (words, which cannot have the same significance in regard to business, as they have with regard to service matters) in the matter of assistance from Government funds, when other conditions are the same. We have no doubt that the Cochin Government would like to encourage their own subjects to set up factories in Cochin territory. It is obvious that, when dealing with a resident of Cochin territory, Government would have fuller information about his resources and activities than in the case of a party who hails from outside. The intentions of Government and the objectives of their policy could be made known quicker in Cochin than outside, and we hope that advantage would be taken by Cochin people of the liberal terms and active encouragement that we have recommended. We shall leave it to Government to devise methods of dissemination of information relating to possible industrial projects and of determining the extent of response from the subjects of Cochin State.

20. But we are all agreed that, where a Cochin firm is not forth-coming to establish an industry recommended by us and the plan and particulars of which have been prepared by the State through the organisation proposed in paragraph 154, facilities should be granted and invitation extended to firms and companies located elsewhere in India. In some cases, these firms with prior experience of the particular industry may combine with Cochin people, or secure their co-operation by inviting them on the board. We wish particularly to emphasise that the establishment of branch or associate factories would be a very suitable form of expansion of industry, because then there is no possibility of technical failure, *i.e.*, failure to produce the article for which the company was started, and skilled personnel and even some workmen could be secured and progress would be assured on sound lines. There are certain large industries in which it would be idle to expect a local enterprise not merely because the capital required would be very large, but also because of the unfamiliarity of local businessmen with the technical details of that particular industry.

21. In short, while we do not rule out the possibility and desirability, in whatever way Government decides, of encouraging local businessmen,

we feel that if people with capital and with technical knowledge and skill are willing to establish factories in Cochin State, help and encouragement should not be withheld from them, but should be given freely and without stinting.

#### Shy local capital

22. We should like to say a word also about capitalists of Cochin. We are assured that there is plenty of money in the State, but that it is finding remunerative employment in rural and urban properties and in loans on such properties as well as on commodities. In short, those, who have control of finance, are averse to and suspicious about investment of their funds in industry even in a small measure. We trust that this description of mentality of the rich people is out of date and we hope that a new generation will strengthen the position of the people of the State as well as of themselves by partaking in enterprises, the possibility of which we have tried to indicate elsewhere. The prosperity of every country depends in the long run on the use of capital for productive enterprises and though some may thrive on a system of lending money at relatively high rates, the life of the people as a whole deteriorates. Growth of industry based on careful investigation of the project, careful planning, sound execution and sound management, brings wealth not only to those who promote and manage such industries, but also to the community as a whole. Some of the measures suggested by us for the initial preparation of schemes through a competent Industrial Development Commissioner assisted by an Industrial Advisory Board are calculated to reduce the shyness of capital, so far as the field of industry is concerned, and to arouse confidence which comes through greater and more precise knowledge. Our intention also is that vague, experimental, or purely enthusiastic projects may not come on the scene so as to block the way for bonafide and sound enterprise. It is better to achieve some results on careful lines than to launch out half-baked schemes, which not only involve losses to those concerned in them, but for the whole country, because, amongst other things, these failures discredit industrial enterprise as such and dry up the flow of capital towards such enterprise, which is essential for the well-being and prosperity of the people.

#### Help for existing industry

23. The starting point for the State with regard to industrial progress is to take steps to help and preserve existing industry. If the capital and labour now engaged are happy and fully employed and earn good return, a general atmosphere for the increase of such enterprises, or the establishment of new ones could be created.

24. In this connection we have to point out that contacts between owners of factories and State officials, who must not only have the willingness but the power to help, are, as matters stand at present, not yielding satisfactory results. The help required by owners of factories (a point which came up several times in the evidence before us) is with regard to their difficulties owing to the present war situation. There is a serious depletion of labour, but we think that care should be taken not to remove skilled men at least from industries, which are catering for war purposes. This discrimination has not been hitherto exercised, but we urge that the State authorities should do whatever is in their power to ease the situation. Under various controls established in India, it has become a problem for factory owners to secure certain essential materials,

such as lubricants, stores, fuels (coal, coke, kerosene and fuel oils), chemicals, pig iron and steel, wire gauze, cement, parts of machinery and additional equipment, and packing materials and empties. The policy behind the controls is one, which must be accepted, but the controls involve only a question of scrutiny and of essentiality and of priority for those concerns, which must be enabled to keep on producing. This is all done in British India when factory owners secure a licence. It could be done in the State also and should be done more energetically, if necessary through the appointment of a special officer, and this work during the rest of the war period should be regarded as having a very important bearing on the advancement of industry in the State after the war. We recommend that such an officer should get into direct contact with factory owners and ascertain from them their immediate and urgent needs and also their requirements during the few years in the matter of materials or equipment, and we hope that Government would do everything, which lies in their power in consultation with Government of India Officers, to secure them expeditiously for the factory owners.

25. If it is true that owners of factories have prospered on account of the war, it would be useful to secure a greater flow of capital towards industry by welcoming and encouraging such prosperity, rather than looking down on them as profiteers, and helping in their problems and difficulties grudgingly, or denying to them such help in an endless series of correspondence and red-tape. So long as they pay taxes and obey all the rules framed under the stress of war with regard to the control of prices, movement, etc., they deserve to be helped in every possible manner to keep up production.

#### Post-war employment

26. In pre-war times, relatively low cost of land and building and relatively lower wages in places like Cochin State compensated the businessman for the difficulty of recruiting skilled personnel and the facility with which stores could be secured at large urban centres like Bombay. Whether the world will ever reach normal pre-war conditions again, is extremely doubtful, and it is now recognized everywhere that a great depression and heavy unemployment must follow as the tide of war conditions and inflation abates. Preparations are made everywhere to meet this situation by providing in advance in a plan for work for such people as will be thrown out of work generally, and more specifically for the men who have gone out for war purposes either as combatants or as non-combatants.

27. The importance of launching half a dozen business enterprises is therefore not merely in securing progress of industry in the State, but also in creating work, which would have to be created to meet the difficult situation regarding employment some time after the war.

28. From all these points of view we urge that our constructive recommendations should be given effect to as early as possible and should rank prior to other objectives and reforms that may be brought forward for engaging the energies and finances of the State.

#### The Future

29. While there is no doubt now about the final outcome of the war in the victory of the Allied Nations, the end of the war is not yet in sight so far as the eastern theatre is concerned. The economic condition of

different nations, as they will emerge out of the war, remains very uncertain. The policies and intentions which will dominate the bigger countries of the world, are yet undefined, though some attempt is being made by means of international conferences to reach a common objective. In all these circumstances the picture with regard to the future is bound to be uncertain and dim. Cochin State will occupy its own place in this picture and share the prosperity or the adversity, in which the world may be thrown. Those who conduct industry in Cochin, as well as those who conduct industry in India all over, are at present worried with regard to conditions, which they will have to face in the future. Government can give an assurance that industries, which exist now and which have come into existence during the war, will be given such protection and such assistance as may be possible in the situation, which may develop them in the future, and that every attempt will be made to sustain them against a sudden collapse either from the stress of internal competition, or from the inroad of cheap material from abroad. For this purpose to some extent the industries of Cochin have to depend on the larger policy, which may be evolved and adopted for India as a whole, but, within the limited field of local surroundings, a reassurance from Cochin Government to existing industry is recommended in order that those, who desire to launch out hereafter, may work out their plans without misgiving and with confidence.

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## CHAPTER II STATE ENTERPRISE

### Public utilities

30. Whatever anxiety may exist in the minds of people with regard to the desirability of industrial progress in the State, it would be wrong to seek such progress through enterprises owned wholly and managed by the State. We have come to this conclusion after considering the experience of the State in this matter in the past and also the history and condition of ventures, which were started with State funds in other parts of India. To this general principle, however, there are exceptions. The undertaking by the State of water works, irrigation, power supply and communications does not come within this rule, because these constitute public utility concerns. In most cases, only the State will have the inclination and the resources and the power to undertake such ventures. Once erected under the advice of proper consulting engineers, the maintenance offers relatively small problems, the administration would be more of a routine character than in a purely business venture, and above all the actual experience both of this State and elsewhere in India points out to the desirability of the State undertaking works of public utility, the need for which has been established after proper investigation. Where the works are projected and there is the prospect of a fair return on the outlay, there should not be any hesitation in launching them, if the financial resources of the State permit the undertaking.

### Supply of electric power

31. Foremost in our recommendation comes the supply of power in sufficient quantity and at a cheap rate. We understand that the Poringalkuthu hydro-electric scheme has been under examination since 1917, the latest report thereon being from Messrs. Rendel Palmer and Tritton in 1932 and a review thereon from Sir Henry Howard about three years ago. We are informed that Government have already, in consultation with the Chief Engineer, approved of the scheme and taken steps to secure the necessary equipment after the war and to start construction.

32. Cochin is badly situated for coal, being a longer lead than many industrial centres for the first-class steam variety. The advantages and cheapness in the long run of hydro-electric power are now accepted throughout the world and we have no hesitation in saying that the difficulties and heavier costs with regard to power would constitute a serious deterrent to the growth of industry in the State. We, therefore, feel that it would be useful for the State authorities to inform industrialists both in Cochin and elsewhere with regard to the proposed undertaking. Not only will it help and stimulate those, who have plans and programmes for the future, but it will be useful for the State to estimate the probable requirements in order to arrange with the consumers as early as possible, so that their works may be erected in time to take the power from the day that it is made available. The elimination of anxiety over the head of power takes away much work from those, who propose to establish industries, and we feel that considerable stimulus would be given to industries, large and small, to be translated into concrete facts from the nebulous projects existing only on paper.

33. In particular we would like to point out how disappointing has been the result in this direction and the experience of industrialists, who set up industries in Cochin territory on the expectation and specific contractual promise of the supply of power. The most outstanding case, which has been brought to our notice, is that of the Tricbur Municipality, who, we were told, have not been able to give even a fraction (forty per cent) of the power, which they had agreed to give in the signed and stamped contract with the Mills at Pudukkad. Contracts of this kind should be respected and parties, who lay out large funds, who engage staff and who erect large plants, should not be left in the lurch in this manner. The State has thus, in the matter of power supply to industry, a leeway to make and we urge that Government should do everything in their power to ease the position of supply of power to existing industries even before the major power scheme at Poringalkuthu matures, but, after that scheme comes into operation, complaints from industrial users of power on the score of irregularity, lack of attention, or any other head, should not be permitted to arise.

#### Better utilisation of timber

34. There is another direction, in which we would recommend, as an exception to the general rule, the extension of State enterprise. Cochin has in the forests a rich heritage and it should be the aim of the authorities, while maintaining the forest wealth intact, by new plantings to realise maximum amount of revenue. For the development of the forests, the State has at an outlay of twenty-two lakhs of rupees constructed a tramway line extending over fifty miles. Over twenty miles of the Anamalai road has already been constructed, which would render other parts of the forest accessible. Altogether the State has shown commendable enterprise in respect of the forests. The felling of the trees and their transport is arranged by the State and, so far as the Forest Department is concerned, it is justified in regarding its work as completed when the logs are brought down to the terminus. These logs are sold as logs to private parties, who deal with them in their saw mills or export them. The total quantity of logs collected by the State during the year 1118 was 15,343 tons consisting of 2,823 tons of teak, 239 tons of rosewood, and 12,281 tons of jungle wood. But we feel that in selling the logs, as logs, the State is receiving relatively a small value and we have therefore recommended that a beginning should be made in turning the more valuable varieties into suitable goods required by the consumer. Our intention in making this recommendation is primarily to increase the value of the material disposed of and at the same time to bring into existence in the State an industry, that could be most advantageously established and which would give employment to carpenters and wood-workers already existing in the State.

35. Our suggestion therefore is that the State should have a small saw mill and wood workshop at Chalakkudi, where selected logs would be taken and cut into sections. From these sections doors and window frames and shutters of standard sizes could be constructed. Normally, the standard sizes would not vary, and therefore we think that the convenience of securing ready-made doors and windows would attract an enormous custom from large markets like Bombay and elsewhere, where a considerable amount of building work has been held up during the war, and there would be large permanent demand for doors and windows.

36. We had the benefit of discussing this with the Conservator of Forests. We pointed out that the demand for doors and windows for standard sizes would be very great in large urban areas, and a ready market could be found for them if they were prepared from seasoned wood. We also think that there would be scope for the disposal of considerable quantities of heavy furniture such as that required for schools, stations, public parks and other public places, as well as for industrial concerns. This also might provide a suitable outlet. Further, with regard to wooden sleepers for railways, it is true that there is a competition from iron and steel sleepers, but there is no reason why the proposed State enterprise should not prepare sleepers in standard sizes and offer them to the various railway administrations in India, nor again, with advantage introduce the same process of impregnation of wooden sleepers as is now employed in Canada.

37. We are assured that the workshop at Chalakudi is capable of starting on this activity. If the Conservator of Forests is given a supervisor under him for this work, we think it could be done by State agency without any difficulty, because it would be mostly standardised production in given sizes and practically repeat work from day to day. On a rough calculation we feel that the additional outlay to the State may be about Rs. 50,000 and the additional realisation may be anything from Rs. 1,50,000 to Rs. 2,00,000.

38. From the logs brought down, the best quality would naturally be selected for use by this State enterprise, but the question of seasoning should be gone into and a beginning should be made at once with about a hundred tons for this purpose. Kiln drying and other processes for expediting seasoning must also be set up. The most important consideration would be to secure a good name for the ready-made doors and windows and the other articles of furniture as well as sleepers from Cochin State forests.

39. Starting on a small scale this work is capable of expansion if the modest expectations set out here are realised. Cochin has a large number of carpenters and wood workers, who are capable of doing this work and as it will be standardised to relatively few sizes only, it would be largely repeat work, in which the likelihood of errors is reduced to a minimum.

40. The possibility of wood distillation, to which the raw material may be then supplied by the State free of cost from the forests as well as from the proposed saw mill enterprise, is set out in paragraph 76.

#### Pioneer factories

41. A suggestion was made to us that, if private individuals are not forthcoming in the State, the State should start some industries for pioneer development and then hand them over to private individuals. We are compelled to reject this suggestion, because, after considering some of the unfortunate results elsewhere in British India as well as in Indian States, we are convinced that it is not possible to turn State Officials into businessmen. Such officials have a permanent pensionable job and are anxious to retain it. In many cases they can give convincing explanation as to why certain results did not arise. They would normally lack initiative and not have the courage to take the risk of making decisions or following up the judgment, lest they should be blamed if the results did not come up to the expectation. The impetus, which a private businessman would have, could seldom be secured from

State officials and the inevitable delay involved in securing sanctions from the top has been known in many cases to have a very deleterious effect on the enterprise. The businessman makes a decision quickly and translates it into action. In the very nature of things, State officials would allow much time to elapse before a final decision is taken. These and other circumstances have been known to be fatal to State enterprises involving loss of capital and reputation to the State, and we cannot recommend the State's starting of a series of miscellaneous enterprises and private individuals looking on, waiting for the State enterprise to go into liquidation to buy it out. It is better for the State to confine itself to giving information and guidance, help and encouragement, even financial encouragement, to private enterprise, than to launch into ventures with neither the technical nor the business side of which the State authorities or any officials are familiar.

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### CHAPTER III

#### SCOPE FOR INDUSTRIAL EXPANSION

42. We have dealt in paragraph 30 with the question of public utilities, which it is the exclusive province of the State to undertake and which is not generally left to private enterprise. Over the resources of the State, such public utilities must necessarily have the first claim.

43. For the purpose of classification may be mentioned defence industries and key industries, such as the making of munitions, naval construction and ship-building, manufacture of locomotives and wagons, motor cars, tanks, aeroplanes, heavy chemicals, fertilisers, etc. Cochin State should welcome the establishment of any such industry in Cochin territory, if it fitted in with the All-India plan, and should give all facilities including free land, for such enterprises. But we trust that it would be obvious that Cochin cannot engage its time or resources in preparing schemes for such enterprises, which would cater for All-India. In all these matters, Cochin must take its share, if any comes to it, on account of its excellent location with a big all-weather harbour and with broad gauge railway connections.

44. Leaving aside thus what are known as major industries from an All-India standpoint, the industrial growth, which Cochin can legitimately look to, would be in two directions, *i. e.*, first, the sustenance of such large size industries, or handicrafts, or small industries as there are in existence, and their healthy growth within such scope as there exists for any expansion. There would be also the establishment of other and new types of cottage industries successfully carried on in other parts of India or elsewhere in the world to which the artisans of Cochin can adapt themselves and for which either the raw material, or the markets, or both, are to some extent available locally.

45. There remains the field of large industries from the Cochin point of view (which would be regarded from an All-India point of view medium sized industry), *viz.*, with a capital of from five lakhs to fifty lakhs of rupees. The more obvious industries of the major type, on which the attention of the State authorities must be devoted and which must be given absolute priority in consideration, are those, which aim at the utilisation of the raw material produced or capable of being produced in the State. The most important amongst these would be industries connected with rubber, cashew nuts, ground nuts, cocoanuts, tapioca, arecanuts, sugar-cane (when cultivation is extended) and cotton. There would further be the question of developing the fishing resources and industries based thereon. In so far as the forest constitutes the most important natural resources of the State, industries, which rely upon the use of timber and various kinds of woods as well as other forest products, would have to be considered.

#### Rubber

Area under cultivation	..	12,700 acres.
Production	..	15,00,000 lbs.

46. Miscellaneous rubber articles, such as rubber hose, insertion rubber, valves and washers, eraser rubber, tubing, rikshaw and cab tyre, rubber rollers, rings, sheet rubber, toys, ice bags and hot water bottles

rubber heels and soles, rubberised cloth for raincoats, buffers and numerous rubber requirements for railways, etc., could be made in a factory, which may be supplied with power and which may be conveniently located with reference to both the raw material and the markets. We think there is definite scope for a plant of this kind with a capital of about ten lakhs of rupees. Rubber shoes alone have provided elsewhere in India the basis of profitable industry in normal times.

#### Cashew-nuts

Area	..	7,500 acres
Production	..	5,100 tons

47. This is a valuable commodity produced in the State to the extent indicated above. It is a pity that the bulk of it is exported untreated from the State, while there is definite scope for its treatment in a factory for preparing it for export purposes to the richer markets, which consume this article both India and in U. S. A.

48. Our attention has been drawn to the possibility of distillation and of making alcohol from the fruits of this tree and it is recommended that a report should be secured by deputing some one to places where this is done in order to get the costs as well as the results. The oil yield from the shell of the nut is 25 lbs. per 168 lbs. and some oil is now exported to Calcutta as basic material for a paint factory. Oil derived from cashew-nut has been sent in the past to U. S. A. in large quantities and is known in the trade as "cardole" oil. It is reported that this tree bears fruit from the sixth year. The extension of the planting of this hardy tree, which flourishes even in areas where other growths are difficult, seems indicated and we recommend that the Agricultural Department should see where suitable areas are available and should make available for private parties free of cost, or at very low cost, the necessary seed. In times of trouble, cashew-nut would be a valuable food, but at all times it is a valuable commodity for export to secure the necessary exchange for the purchase of cheap imported rice, which the people of Cochin need.

#### Groundnuts

Area	..	14,000 acres
Production	..	5,976 tons

49. The cultivation of this valuable commercial crop is as indicated above. It is a pity that the bulk of this is not treated in the State. This is a commodity, which can keep for more than a year in the husk without any deterioration. Its treatment would provide considerable employment. A certain quantity of vegetable product is being consumed by the State at present. There is no reason to believe that, if the groundnut produced in the State was made available, it could not provide the foundation for another factory for the manufacture of vegetable product and for the subsequent use of the cake for certain types of biscuits, in the preparation of which we are informed that it is capable of being suitably mixed.

#### Cocoanuts

50. The estimated area under cocoanuts in the Cochin State is about seventy thousand acres. The annual production is estimated at 1,26,00,000 nuts. The export of cocoanuts from Cochin Port (which would by no means represent only the Cochin State output) has been as follows.—

For three years before the war.—

1936—37	8,797 tons
1937—38	4,709 "
1938—39	9,103 "

For the next four years.—

1939—40	9,106 tons
1940—41	11,670 "
1941—42	11,619 "
1942—43	7,429 "

51. The export of cocoanuts and cocoanut oil by land (by rail) from Cochin port was as follows.—

	Cocoanut mds.	Cocoanut oil mds.
1939—40	3,502	6,00,164
1940—41	18,285	5,37,821
1941—42	3,334	7,15,470
1942—43	2,822	6,14,868

52. The activities in connection with cocoanuts engage, it is said, between forty thousand and fifty thousand people. Everything coming out of the coconut is used. The copra is consumed or crushed for oil, or exported as such. Yarn is made of cocoanut fibre and it becomes the basic material either for mattings or for ropes. Cocoanut shell hitherto used as fuel deserves a better fate and a more economical utilisation. Apart from hooka shells, new uses such as for buttons and for watch straps have been developed. Several chemicals can be prepared by destructive distillation of shells and it yields an oil, which protects wood from the attack of white ants. Shell charcoal has been valuable as an absorbent of poison gases in gas masks. It was used by goldsmiths and laundry men before, but its use for refining sugar, decolouring liquids, or as a catalyst in chemicals, has not been developed in India. It is hoped that energetic efforts will be made to investigate the possibilities of cocoanut shells and to put them to the best uses.

53. The superiority of cocoanuts and their products in other places, such as Ceylon, were mentioned to us. We recommend that the Agricultural Department should immediately investigate and report into the question of the relative cocoanut production in Cochin State per acre now, as compared with the past, and now as compared with similar production in Ceylon. We were told that in Ceylon an acre produces five thousand cocoanuts as against on an average less than two thousand in Cochin. A deterioration has been noticed in the production in Cochin and the reason given to us by Mr. I. Raman Menon, retired Director of Agriculture, was that certain mineral elements taken out of the ground were not being returned. He pointed out that in the past the oil was used by human beings and the cake was used as cattle food. The number of cattle was larger than now and manure arising from cowdung and urine went back to land and kept up its fertility. Every part of the cocoanut is now exported because of greater value realised by such export, but the vicious circle, he thought, hits Cochin prosperity by a continuously reduced production per acre.

54. This picture is one, which is bound to cause apprehension. There is no manure within the resources of the cultivator of cocoanut and while he submits individually to his fate, if this situation is to be cured, bold and radical measures will be required, such as the State taking over all cocoanuts for

purposes of sale and the total prohibition of the export of oil-cake and subsidise manures of some other kind. These long-term measures do not fall within our reference and we are therefore content to merely direct attention to the problem, which we consider to be serious. If there was an improvement in the output of cocoanut of the seventy thousand acres under cultivation, the extra production would more than offset, after a year or two, the cost of any measures, which may be taken.

55. We are informed that in certain parts of the State there is over-plantation, which is one reason for less output per acre. The principal reason for smaller output is, however, the entire absence or dearth of manure and the restoration of mineral elements taken out of the earth back to it.

56. It was pointed out that more value could be realised for the kernel if it could be taken out as a whole piece. It is also clear that finer yarn could be spun if the fibre remained soft. These and other topics dealing with the quality and quantity of cocoanut and its various products, we commend to the attention of the Agricultural Department. We do not believe that the cocoanut grower in Cochin is so dense and so negligent of his own interests that he would not adopt measures, which were physically and economically within his powers for improving the value of what he produces. Having regard to the extensive area under cultivation and the numerous people, whose welfare is involved, we think that this matter deserves special attention and should be actively taken up. If there was even a five per cent increase in the quantity produced and a five per cent improvement in quality, the money value added would run into many lakhs and would more than cover the cost of any special measures that may have been taken.

#### Distress of coir-matting industry

57. Coming directly to the industrial question, we have to point out that the coir-matting industry established in Cochin is suffering at present from a disability arising out of an export duty on yarn imposed by Travancore State. It appears that yarn of this fineness is not spun in Cochin State for reasons, which require careful investigation. Cochin State cannot impose any duties on material coming in or going out. We therefore recommend that this topic should be taken up with the Travancore Government for an amicable settlement, failing which the established coir factories in Cochin may be given a subsidy, which will cover the duty imposed. The ideal thing is an amicable settlement to be reached between these two neighbouring States, whose interests in the matter of cocoanut and its products *vis-a-vis* the rest of the country and the world are identical and whose conflict of interests can only be, as is inevitable in petty matters at the frontier. Cochin is the smallest of the three High Contracting Parties to the agreement in connection with the Cochin port and as such would be entitled to much consideration and sympathy.

#### Rope factory

58. The immediate and important possibility of industrial development, which we see, is the establishment of a rope factory in Cochin. It is exports from the Cochin port (including the products of Cochin State) that provided the basic material for rope factories in Burma and Calcutta. Some of these ropes undoubtedly find their way back here in connection with navigation.

Hand-made ropes up to about sixty fathoms (1 fathom=6 feet) are at present being produced locally and recently, under the stimulus of the war, we are informed, they are producing up to about one hundred and twenty fathoms. We, however, think that the time has arrived when a more systematic production with suitable plant and equipment should be set up as a normal industry. Once such a factory is established in Cochin, it would not be unreasonable to expect that sisal, manilla fibre and other kinds of materials, from which also ropes can be made, would be imported and dealt with. We believe that the capital involved in the equipment of such a factory would be relatively small, but considerable moneys would be required as working capital to finance the stocks. There are many merchants, who have already engaged large funds in the trade of exporting coir yarn from Cochin to Calcutta and other centres, and if one of these merchants could be induced to set up such a factory, the additional capital laid out by him would be a very moderate sum.

59. We do not know whether the people at present engaged in producing ropes as a domestic and cottage industry would have the resources, business acumen and enterprise to go in for this industry, but we think the State should give a suitable site and a piece of land free of all cost in a perpetual lease at a nominal rent of one rupee per year as an encouragement and inducement for the establishment of an industry, which is one of the more important final products of coconut production. We believe that a factory in Cochin State would have better chances of survival in the post-war period than a factory located elsewhere in India.

#### Tapioca

Area	:	25,000 acres
Production	:	60,000 tons

60. The area under cultivation of tapioca has increased considerably and now covers 25,000 acres. Tapioca is a useful article of subsidiary food value. Its flour is now used for mixing in the making of biscuits. The starch for the textile industry could be made from it. When turned into flakes and pearls, it provides a valuable food material, whose vogue is considerable.

61. Owing to acute food condition, tapioca and its conversion as well as export, have been subjected to abrupt and rather strict regulation. Full and economic use is not made of all the tapioca grown so much so that it is feared that those, who fail to realise the prices, which they expected, may not re-plant tapioca, and the quantity produced may decline. Stabilising prices of an agricultural product is very important in the interests of the producer. We feel that the manufacture of starch from such quantity as would not be otherwise used for food should be permitted in order to bring into existence an industry, which will have a reasonable chance of survival after the war. We further recommend that tapioca in the form of flakes and pearls, which is capable of supplying the demand of All-India during war-time, should be encouraged and freed from restrictions. It should be mechanised in order that the cost of conversion may be reduced from the present high level so as to enable it to withstand the competition from Java and Malaya in the post-war period. This industry has grown in the State from the private enterprise of Cochin people and, based as it is on material produced locally, it deserves very sympathetic treatment at the hands of the State.

## Arecanuts

Area	::	23,155 acres
Production	::	13,731,450 lbs. of dry nuts.

62. Arecanuts growers have benefited with regard to the prices after the war. This is an indigenous cottage industry mainly localised in the Trichur and Talapally Taluks. It is estimated that at present there is an annual production of 1,25,000 cwts. of processed marketable commodity worth about fifty lakhs of rupees, the bulk of which is exported. The possibility of packing it with scented materials, as is being done elsewhere, deserves examination. Areca husks have proved, as a result of experiments, to be a valuable raw material for paper.

## Surgar-cane

63. The cultivation under sugar-cane, which was only five hundred acres at one time, has gone up to 1,076 acres, mostly in the Chittur Taluk, where water facilities exist. Sugar-cane is eminently an irrigation crop requiring about ten months to mature. The value of the yield per acre was in pre-war days reckoned to be much higher than any other crops. Apart from jaggery and sugar, it provides some cattle food and the refuse, which is at present burnt, is capable of superior use. Cane jaggery, which is imported from Coimbatore at present, is a basic material for State Distillery (as against molasses in other places) and would then be available from local production.

64. We recommend that at a suitable place an area of a minimum of three thousand acres should be cleared from the forest area. The decision as to where this should be done, should be taken at once and a plan should be made, by which activities of the Forest Department may be directed towards this purpose from now and the proposed area made ready without unnecessary delay.

65. Such areas should be given out for sugar-cane cultivation only. It is very important that the entire crop of sugar-cane grown here should reach a central factory located with reference to power, water and transport, not very far from or actually on this area. Cases are known in British India and some of the States, where the sugar manufacturer grows his own cane on land given by Government, subject to the payment of land revenue. He employs his own men for the purpose of cultivation, whom he houses. While this adds to the capital and working cost of the venture, there are counter-balancing advantages. The supply of sugar-cane is assured at a price represented by the cost of cultivation plus the dues payable to the State. The quality planted is by the definite selection from varieties, which have proved successful so as to yield a maximum percentage of sugar. In this way the foundation is laid for an enterprise, which while prospering in normal times, would be able to stand competition when depression sets in through foreign imports.

66. Having taken the above measures with regard to the cultivation of sugar-cane, we think this is a case where the State would be well advised to invite the attention of successful manufacturers of sugar elsewhere in India and to offer them suitable terms and conditions for the cultivation of sugar-cane and for the establishment of a sugar factory. We are sure that some of them would find it to their advantage to locate a factory on this side

of India, and they would bring the necessary capital and technical skill and experience to make the venture a success for themselves and a definite advantage for Cochin State. It may be possible for some Cochin parties to be associated in partnership or in other ways with such venture, in which case such a development would be appreciated and encouraged by the State, but we do not think that the matter should be held up on this account. We have already indicated that power from the proposed Poringalkuthu scheme should be reserved for sugar manufacture, and we desire to state definitely that sugar manufacture should be given a preference over any other industry to be established by private enterprise in the State in the matter of power and other facilities.

67. We lay special stress on sugar for the reason that the advantages to the State would be more considerable in the matter of the sugar industry than in the case of any other industry. This arises principally from the fact that, under present rules of Central Excise on sugar production, Indian States are expected to levy this excise duty at the same rate and under same conditions, but they are permitted to retain the whole of it. The prosperity of several States is based on the revenue, which they derive from the excise on sugar, the bulk of which is not consumed in their States. In the case of Cochin, where the population is considerable, there could be no question about the basic fairness in Cochin retaining the whole excise duty. As we have suggested various measures, which are going to cost money to the State, we wish to point out that this will be the principal measure recommended by us likely to bring also considerable revenue. We estimate that the State would get, according to the size of the factory, a revenue (in which the cost of collection would be very meagre) of anything between three and five lakhs of rupees a year.

68. The other receipts, apart from the excise duty, which this Industry is likely to bring to the State, are through land revenue payments, water charges, if the water is supplied from the State irrigation schemes, through power charges under the proposed Poringalkuthu Hydro-Electric scheme, and income and other taxes, which industries and their personnel would pay. We, therefore, suggest that a suitable area with reference to soil conditions and water be demarcated in the natural forest area as early as possible, that it should be cleared, that a scheme giving estimates, costs and other conditions of sugar manufacture be prepared and that negotiations should be undertaken with successful sugar manufacturers and other likely parties.

#### **Boat building and Ship building**

69. By many routes, we come to this important topic. We have recommended that, instead of the sale and export of logs, attempts should be made to see that as much of the timber produced is used up and fabricated as possible. Cochin timber has been found suitable for boat building in the

past and still offers the same advantage. In paragraph 89 dealing with fisheries, we have pointed out the need for more boats being built and made available to fisher folk on easier terms. Ships have been built in Cochin before, and during the war a considerable amount of progress has been made for war purposes. Most of the ferry boats now working have been built in Cochin and there are contractors as well as labourers experienced in the construction of boats and motor launches. There are also firms, who would engage such contractors, provide the necessary blue prints and supervise the work.

70. In order that a nucleus of the industry of boat building should come into existence and stay, we recommend Government to examine the possibility of placing an order with a contractor for four motor launches, which may be required by Government for their own purposes and for uses in connection with the encouragement of fisheries. Such an order would keep a firm in existence for a year and we feel that other orders for motor launches and tugs may then be secured by them. Some concession may be given in the matter of timber to such a firm.

71. The lay-out of the coast as well as the backwaters is such that, if the building of ships bigger than have hitherto been built, were attempted, suitable location could be found. Apart from the harbour and broad gauge railway connection, there is skilled personnel used to boat building available in Cochin, and this location for ship building on a larger scale is undoubtedly preferable to many in other parts of India, which may be suggested. In addition, we recommend that the State should give land free for the purpose of this industry and should make available finance within the scope of our recommendations contained in another part of the report.

#### Cotton

Area	9,887 acres.
Production	2,722 tons of seed cotton

72. Cotton is produced in the Chittur Taluk, in which part alone there is suitable soil for cotton production. The bulk of this cotton is going out to the mills in Coimbatore, as there is no ginning facility in the State. There is a definite scope for establishing a gin. Cotton seed, which is a valuable cattle food and which yields useful oil, would then be available locally. Some difficulty about seed cotton for planting by Cochin cotton growers was also mentioned. The textile mills erected at Pudukkad we are glad to say after inspection, will be considered amongst the best laid out cotton mills in India, having regard to the type and design of buildings, the cleanliness everywhere, the modernity of equipment and housing, hospitals, schools and general welfare activity for the staff and workmen. This, which is the biggest textile mill in the State is relying on imported African cotton and is working on fine counts. The establishment of one or two more textile mills on a successful basis is still possible, because of favourable factors other than local raw material.

#### Cotton textile mill for Ernakulam

73. The advantages of locating a fine count mill on the backwaters in Cochin territory have impressed themselves upon our mind. Such a mill



would be located with facility for receiving African cotton practically at its door. The humid climate of Ernakulam offers an attraction in itself. It can be connected on the land side with a siding on the broad gauge railway. Cochin labour is not unfamiliar with the textile industry. Even if it was a purely spinning mill, its output would find a ready sale in Cochin, but the facility of distributing all over the western seaboard and all over Southern India by rail would be valuable. We recommend that in such a case the State should not only give a piece of land suitably located on a nominal rent, but should give financial help in the form of ten-year debentures to the extent of ten lakhs of rupees, or in such other suitable form as is included within our recommendations elsewhere in this report. There is a tendency in India now to break away from the concentration in such centres as Ahmedabad, Bombay and Coimbatore, and a State like Cochin provides a favourable location. Apart from a new venture with a new and up-to-date plant, we have in mind also the possibility of a transfer of plant from over-crowded centres like Bombay, where the urban land, on which the mill is now located, has become too valuable. We think all these circumstances should be carefully considered and a scheme prepared and the attention of leading men in the textile industry at all centres drawn to this scheme.

#### **Bamboo and paper pulp**

74. Cochin State is rich in vegetation of all types. In our opinion there is adequate material for the manufacture of strawboards, paper pulp and paper. A careful investigation is called for of the different varieties of materials available, such as paddy husks, areca husks, banana fibre, different kinds of grass, different kinds of leaves and barks from the forest, and different varieties of soft wood and bamboos, all of which, by proper treatment, could be made use of for this purpose. The collection of waste material, such as paper and rags, is not well organized as it should be anywhere in India, but, if attention was given to this, it would also help in providing a small fraction of the raw material for such an enterprise. The wood, which is going to be made available, should be specifically reserved for this purpose and if an early report is secured on the quantities of material, which could be made available now, and the quantities which would be provided for in future by a specific provision in the forest policy of the State, it should not be difficult to induce capitalists, who have established paper factories in other parts of the country, to establish a branch factory here, unless Cochin capitalists got interested in the problem. It is now known that the manufacture of paper does not offer technical or any serious difficulties of any kind and according to the material available, there is a clientele for every kind of paper produced, such as rough, badami, brown paper, packing paper, etc. We would stress the importance of establishing a pulp mill through private enterprise immediately as an adjunct to the forest and power scheme of Government. The final production of paper from such pulp also offers some scope for cottage industry and for hand-made paper, but even the pulp would be in demand in other parts of the country as pulp. It is true that the war and the conditions created by it would make it difficult to secure the necessary machineries for some time, but there is nothing to prevent the project being investigated in the interval and proper estimates made as far as possible. It may be mentioned that Government themselves and the

educational institutions supported by Government are no small consumers of paper, and we are definitely of opinion that, from the point of view either of raw materials or the market, or an advantageous location for distribution, paper pulp and paper should be among the first few enterprises, which could be attempted in Cochin with very good chances of success.

75. We have seen conflicting reports with regard to the availability of paper pulp resources in the State in connection with a project, which was discussed some years ago. We had the benefit of detailed discussion on this subject with the Conservator of Forests, who now assures us that even if no other material except bamboo were to be used, there would be no difficulty in finding the quantity of material required, provided the internal communications in the forests are developed as a necessary adjunct. It has further been established that an unduly large unit need not be put in, because it would consume more power and require more capital. A moderate sized plant would meet the situation and would give reasonable return on the outlay. We recommend that the State should have the scheme prepared as early as possible and should give every encouragement to private enterprise for the establishment of this industry.

#### Wood distillation

76. Cochin has to import many articles from outside and it is necessary to pass out of the stage of being "hewers of wood" and to create value from local material and local labour with which to pay for what necessities have to be imported.

77. Emerging directly out of this is the question whether something more cannot be done with the waste wood in one form or the other, which would arise out of the process of turning out minor products from the logs. What is the best method of turning to good account about thirty per cent in the form of chips and saw-dust either wasted or used for fuel?

78. The small pieces, saw dust and waste, which would emanate in connection with the Government Saw Mill (in future when they are not needed as fuel and when power is available) could be offered free of cost to a company, which would set up wood distillation in Cochin State. Between 25 and 30 per cent is the wastage of wood from the logs. Besides, a variety of junglewood is being turned out in the State to the extent of about twelve thousand tons per year. Much of this is extracted for civilian use as firewood. Over and above the quantity of firewood that is being extracted for civilian consumption, the production of the commodity from outside the present economic zone of collection for civilian supplies could be utilised for wood utilisation purposes.

79. There are two wood distillation plants already functioning and there would be no difficulty on the score of securing skilled personnel. The capital required, though large, would be forthcoming, if the work was undertaken by parties with established reputation. The output can be absorbed in and near the State and its location inside Cochin would be justified not merely because of the facility of cheap raw material, but also because of transport facility on the main line and the availability of power from the proposed hydro-electric project.

80. Acetic acid is required by the rubber industry in and near Cochin State in large quantities. Methyl alcohol, which is a bye-product of wood distillation, is the basis for the formaldehyde and for the production of plastic glue used in the plywood industry. Acetone, another bye-product, is not only useful for munitions, but also as a solvent for cellulose paints. As two factories are already in operation in South India, neither the technique nor the personnel would be difficult to secure. The demand for these products is bound to grow as many of these products are intermediate and become the raw material for other industries such as bakelite.

#### Forest Resources and Timber

81. We suggest the deputation of the Conservator of Forests once a year to Dehra Dun to get into touch with the Government of India Forest authorities. The war has greatly stimulated the use of Indian woods, both hard and soft, for many purposes for which they had not been previously used. We fear that wood from Cochin forests is not at present being used with any definite system of organized or planned exploitation. We therefore suggest that all commercial uses for different varieties should be studied and the attention of the public drawn to the existence of such varieties. In particular, small parties in and outside the State should be encouraged to set up little wood-working workshops for mass production of articles such as brush handles, handles for pick-axes and powras, handles for hammers and screw-drivers, bobbins and spindles, coat-hangers, games and sports, toys, picture-frames, pen holders and rollers for various industries. In short, instead of waiting for a party to come along asking for a specific quality of wood for a specific purpose, we suggest that a special effort should be made with a list of the principal kinds of wood available in the State forests and the purposes for which they could be properly used, to approach respective users both in the State and outside. Other useful suggestions in connection with forests have come to us, some of them from the Conservator of Forests himself. One of them is for the cultivation of plants giving leaves for the preparation of "beedi". Material for disinfectant, insecticide and anti-mosquito powder must be there. In particular the cultivation of pyrethrum should be encouraged in a suitable area. Much research has been made elsewhere in this matter. This development is particularly important for Cochin and some one should be enabled to test out the possibilities of roots, stems and fruits of trees reputed to have these qualities. A more scientific utilisation of lemon-grass and other highly valued plants has also to be done. We understand that the Forest Department is conducting various experiments. We think it would help industrial development in the State if greater energy was spent and more staff engaged on these purposes.

82. Cinchona cultivation, as it has been reported to us, has succeeded in a small scale and the question of the extension of such cultivation is held up, pending the decision regarding a guarantee of the disposal of the output at a suitable price. Having regard to the nature of the climate in Cochin and the need for quinine for the population, we have no hesitation in urging that a suitable area should be planted forthwith with this tree. This particular pursuit will not be so much for the financial results thereof, but it has to be undertaken as a health measure and as an insurance, that at all times, an

essential anti-malarial ingredient would be available to the people in good quantity and at a cheap price.

83. To utilise to the best advantage that which exists should be the first task. To plan out plantation of trees, which would be useful to the future generations, is the next important stage. Neither of these two objects, we are glad to say, has been neglected by the State. We understand that about five hundred acres from the abandoned estate area at Nelliampathi is being diverted to the growth of vegetables, potatoes and fruit-trees. We have suggested in another part of our report the utilisation of about four thousand acres for sugar-cane. The exploitation of natural forest area gives land, which may under the stress of food distress be turned towards food cultivation. But as a normal rule and in normal times, we would suggest a strict maintenance of a definite ratio between forest clearance and forest plantation even for the natural forest area. For the other area, we are told, that such conditions already form part of the forest policy of the State. When cultivable land falls in the hands of the State, an attempt should be made to reserve it for crops of higher value wherever such land is suitable for such crops. Otherwise, it should be planted with valuable trees, which will maintain the teak and other useful forest resources of the State at an even level.

84. Amongst the most valuable resources of Cochin State are the forests. It is outside our province to examine whether the exploitation of the forests at present is on sound lines and the replantation of valuable varieties of trees is taking place at the required rate. But we assume that this has been looked into. Nor is it for us to deal with the important question of soil erosion or the consequences of the rate of depletion of trees in the State area.

85. We were disappointed that full information was not available as to a large variety of products from the forests, which are lumped under the head of minor products and which are dealt with by one contractor. The State ought to possess full information of what is taken out and what is found in order to plan further and better utilisation not merely from the point of view of forest revenue but of a possible industry.

#### Fisheries

86. The Fishery resources of the State are great, consisting as they do of fresh water fish and fish in the backwaters and the main sea.

87. Fish is a valuable food for Cochin population. It also created a considerable export trade before the war, particularly in the form of dried prawns for the Burma market.

88. The condition of the fisher-folk, as in other parts of India, is very miserable. They are indigent and in want. They have not got enough for equipment and as they generally have to borrow a certain amount on account, they have to sell off the catch secured by them to middlemen without realising full and adequate prices. The middlemen, while they are hard in their dealings with fisherfolk, are enterprising, if given an opportunity. The methods of fishing have not changed during the last hundred years and it can be said that much more of the bounty of Nature in the form of fish could be utilised for the service of man than at present.

89. We are informed that certain measures had already been taken to increase the supply of fish in the backwaters. Low lying areas were being utilised for fish culture. The State has also got into touch with the Fisheries Committee appointed by the Government of India, and when the survey proposed by the Fisheries Committee for the western sea-coast is received, valuable information will be at the disposal of the State authorities. But in our opinion there is scope for improvement immediately. The first direction, in which something is to be done, is to improve the economic condition and outlook of the actual fisher-folk, to relieve them from the dependence on the middlemen and to create a spirit of enterprise in them. The next step is the provision of bigger nets and the provision of country-crafts or boats and of tugs and launches. Advances for boat building, or the actual loan of boats to fisher-folk individually or in co-operative groups, with an option to become owners of the boat by paying up in five instalments the value of the boat without interest, ought to create bigger enthusiasm and bring in larger catches. It must be remembered that the population of Cochin State as a whole is interested in larger production, whoever retains the wages and profits of the trade, and we are glad that the officials concerned and the State authorities under the stress of food difficulty are already fully alive to the needs of the situation.

90. Fish is a perishable commodity. The further development recommended here is primarily for export purposes. What must be therefore done is not merely to procure more fish, but to either use it up locally or to despatch it under proper conditions to the consuming markets. There is another factor to be borne in mind and that is, that at certain seasons the fishing operations are seriously interrupted. Apart from this, at all seasons there is an element of luck as to the quantity secured. This factor creates the necessity for providing in various ways the use of surplus left on hand at any time before its decomposition.

91. The method used in Cochin so far is salt curing. We understand that prawns are boiled and sun-dried for exports. But other ways have been used elsewhere in the world and these must be introduced here. We are confident that in Cochin waters there would be fish which is capable of being tinned for export market. The Army has recently developed a process of smoking fish with a view to preserving it over a stretch of time and it is claimed that not only is the fish well preserved, but it is tasty and popular demand may grow in India and elsewhere for such smoked fish.

92. In addition to all this, everything left over and unsuitable for any of the above purposes could be used as manure of which there is a considerable demand in India. The use of such manure should be encouraged amongst Cochin planters themselves. There are certain kinds of fish, which give plenty of oil, but when tinning and other processes are introduced, there would be some quantity of the tails and heads, which, when boiled and pressed, would yield oil of great commercial value. Other varieties yielding oil may be found in the course of the extension of the operations recommended. The cake left over after pressing would still constitute a valuable manure.

93. Recent developments of shark liver oil in the West coast of India indicate another very useful and profitable side-line that would go far to recoup the outlay on extensive fishing operations away from the coast into the main sea. There are also other valuable products of the sea such as the porpoise, known as the sea pig. This fish is seen generally chasing crowds of small fish and is doubtless consuming a good quantity. Whether the reduction of these species would not lead to the increase of the smaller species is something, which only fishing experts can tell us.

94. A certain amount of export of fish has continued even during the war by rail to Bangalore and Madras in baskets, in which there is an alternate layer of ice and fish. This went up to about three thousand pounds daily, but has been recently checked owing to restrictions on food export. We feel that as soon as the food position permits, or as soon as steps are taken to increase the local supplies, this nucleus of export should be freed from all restrictions and a channel created for much larger exports as and when additional catches come in as the result of bigger and more extensive operations. It appears to work in a vicious circle, but it is not so. If there is a regular export market, private individuals and firms could be induced to undertake the operations; in other words, channels of export must exist before any serious extension of existing facilities could take place.

95. It would be seen that the central point in our recommendation with regard to fisheries is that more should be produced, that the best value should be realised for everything so produced, that whatever could not be consumed as fresh fish should be preserved, and whatever cannot be preserved should be turned into oil and manure; in other words, nothing should be wasted.

96. We see the nucleus for large business in this, sufficient to attract an enterprising firm. Such a firm would expect some assurances and some privileges, which we feel should be given, at all events for the first two or three years. The demand for fish in the Bombay City alone is so great that, if the whole of the additional quantity procured were sent to Bombay, it would be absorbed without the slightest difficulty. But procurement, the despatch under suitable conditions and the sale are business operations, which in capable hands would give a handsome return.

#### Plywood

97. The utilisation of the soft wood produced from the State forests for making plywood has started and two plywood factories are now functioning, capable of manufacturing large quantities. One of the factories is very well established (with a capacity for three million square feet) and has made available large supplies for Government of India. The smaller factory requires a more regular supply of soft wood and a machine that will enable them to produce the large sizes. The requirements of India in respect of plywood after the war are likely to grow and in competition with foreign plywood, which would have to bear heavy freight and insurance charges and to pay a duty, Indian plywood stands a fair chance, provided the conditions of production are overhauled and economical plant installed.

#### Glass

98. The existence of suitable raw materials for the glass industry in and near the State has been reported. As a matter of fact a glass factory has been

already established at Alwaye in Travancore State. The matter has been recently under examination by the Government of Cochin who have a report from the State Geologist on the subject. We understand that some tests are being made with the material and that it is the intention of Government to have a scheme prepared giving estimates of the outlay on glass plant and the cost per unit. The manufacture of caustic soda and soda ash in India on a large scale is being undertaken and we feel that in the post-war period, when the position of equipment and plant becomes easier, glass may offer an attractive proposition for some enterprising person.

#### Illmenite

99. Workable quantities of illmenite sand are found along the beach of Chellanam and Mundanveli area. These are seasonal deposits and would require to be collected in large quantity before a factory separating them by the electro-magnetic process could be established. India is one of the exclusive producers of this important article, from which are derived white pigment, titania and the metal titanium. Titania, the oxide of titanium, is used as a substitute for zinc white and white lead. These are valuable materials for paint industry and we trust that their exploitation will be started in Cochin on the same lines as has been done successfully in Travancore.

#### Cement

100. A recent geological report indicates the existence of lime stone and clay of suitable quality in sufficient quantity to justify the establishment of a cement factory in the State. A party, who has established cement factories elsewhere, has already taken interest in the favourable facts that have been brought to light, and we trust that the negotiations thus started will lead to the establishment of a cement industry in the State.

#### Pottery and ceramics

101. The Government potteries are on lease to a firm, which is producing glazed stoneware and acid and pickle jars. This factory is also producing fire-clay and fire-bricks. There is possibility in the State of producing earthenware glazed pipes for drainage purposes and all the necessary material exists for this purpose if some one would show the enterprise.

102. There are considerable deposits of china clay (kaolin) in the State, which arouse the hope that the manufacture of porcelain, superior pottery and sanitary ware may come into existence some time. China clay is a very useful material for several other industries, such as sizing in textile industry, talcum powder and anti-phlogestine, etc.

#### Salt

103. Salt manufacture on an experimental scale has been started by the State. The results as regards quality are reported to be very suitable. It is estimated that the cost of production in Cochin will not be higher than at some of the producing centres, if an attempt was made to produce the full quantity of four hundred thousand maunds required by the Cochin State population, but we were told that this would involve a further capital outlay of about three lakhs of rupees. It would then be utilising two hundred and fifty acres of low lying land for this purpose, engaging about a thousand

persons. The distribution of Salt in Cochin State is made by Government themselves and they are interested in the collection of the excise duty. The question whether Government should continue to manufacture as producers in the larger scheme, or, whether after the experimental stage, the actual manufacture should be given to a private individual, is one, which would have to be gone into by the State authorities in due course.

#### Spirits

104. Rectified spirit is being made to the extent of eight hundred gallons per year, much of which is used by the Maharaja's College for the manufacture of tinctures and by private pharmaceutical enterprises in the State. We have had complaints that adequate quantities required for the pharmaceutical enterprise were not forthcoming, and the Excise Commissioner mentioned to us that, in order to give larger quantities of rectified spirit, a new still would have to be installed. We think this is essential and that early steps should be taken towards this object, as most of the raw materials required for installation of such a still are available in other parts of India. For purposes of experimentation and for use as preservatives, pharmaceutical concerns in the State require some alcohol to be given to them at a cheaper rate, and we were told that this is being done in British India and some other States. This matter also deserves careful examination.

#### Brewery

105. The possibility of brewery is under examination by a well-known capitalist of Cochin, involving the use of local material and the production of beer to the extent of five hundred gallons per day.

#### Drugs and Pharmaceutical Industry

106. There are fair possibilities of utilising the indigenous raw materials for preparing pharmaceutical products. There is an abundant supply in the State of crude drugs such as Nuxvomica, ginger, pepper, cardamoms, Chalmugra oil (*Hydnocarus wightiana*) and several kinds of herbs, plants and fruits, which possess medicinal properties and which can be turned into good account in a properly equipped factory.

107. There is considerable scope for developing the shark liver oil industry in the State, provided Government undertake to arrange facilities for deep sea fishing, etc. The use of shark liver oil as a substitute for imported cod liver oil has become general in many parts of India, particularly in the Madras Presidency, owing to its high Vitamin A content. But the quantity now available is not sufficient to meet the growing demand. The oil is also consumed in large quantities by the Army and Medical Stores Depots of the Government of India.

108. We were also told by some witnesses, that there is great scope for cultivating herbs and plants, if lands to the extent of two hundred to three hundred acres are made available to them near the Anamalai Road extension which is well suited for this purpose. By raising these medicinal plants, etc., the factories will be in a position to get their entire requirements of genuine and dependable materials as against purchasing them in the market where there is the risk of adulteration with spurious and worthless substances.



109. Owing to the difficulty of transport, several of the medicinal preparations are not available in the market. Local factories will be able to meet the demand if adequate facilities are given to them by the Government.

110. Two factories are engaged in this industry and their progress should be watched with sympathy.

#### Ayurvedic preparations

111. The Government of Cochin have to their credit encouraged the production of Ayurvedic medicines and, from the accounts seen by us, the efforts have proved not only beneficial to the people but also commercially successful. We think there is considerable scope for the expansion of this industry. Private enterprise in other parts of India, it may be pointed out, is having a turnover of thirty lakhs of rupees, as against only one lakh of rupees in Cochin, per year. The advantage of the population getting medicines, which are certified to be what they purport to be and to be of definite strength and purity, is great and we suggest that this activity should be expanded.

#### Miscellaneous

112. There are various fruits in Cochin and more could be grown. Tinning these fruits and the making of jams are not outside the range of possibility and offer scope for a moderate sized industry, which would deserve the support of the State. We would like to mention that the world's demand for mango chutney is increasing and this would also be a basis of a small venture in Cochin.

113. The fact that other industries are not mentioned here prominently, does not mean that they cannot be established in Cochin either on a large or on a small scale. For example, a large number of canes are produced in the forests and there is scope not only for the manufacture of sticks, but for cane furniture of all description, for which there is an inexhaustible demand throughout India. If all the bones collected in the State were brought to a central place, we think there is scope for a bone mill and if more could be secured from the neighbouring territories, it would provide a suitable basis for a glue factory as well as a bone mill. It is said that in the cutlery manufacture at Shoranur, Cochin workmen are employed. There is no reason why such manufacture should not grow in Cochin territory if the Shoranur industry stands against foreign competition after the war. Many depots, which are working on army clothing, will be broken up after the war and an enterprising man could easily buy some of these machines and set up a plant for ready-made clothing of standard size, for which there is bound to be considerable demand. The manufacture of hardware doors and nails and hinges and various other items is possible, and the skilled labour now available in the metal trades could be easily put to this job. The demand for paints, varnishes and wood preservatives throughout India is great and in so far as Cochin offers a suitable location for distribution both by land and sea, we feel that a venture in that direction would also not be unsuitable. Buttons have already been made from cocoanut shells. We recommend that other uses of cocoanut shells may be gone into as a matter of research and experiment in order to see whether they

could not be put to a better use. We do not see any reason why soft wood from the State Forests should not be utilised in the manufacture of matches, which may be located at Ernakulam. Nor is the question of the manufacture of cigarettes and cigars at Ernakulam from imported tobacco ruled out, as it will be remembered that before the war, Hamburg was not only the greatest distribution centre for cigars for all Europe, but was also manufacturing cigars on a very large scale from imported tobacco.

114. On the basis of imported raw material, many industries could be developed in Cochin, particularly those like wire nails and wire netting and all kinds of products from wire.

115. Plants are working in India in many places for the manufacture of disinfectants, soaps, inks, boot polish and metal polish, and these can under good business management thrive in Cochin also.

116. When the life of steamers was finished, they used to be brought to Bombay for being broken up in order to take advantage of relatively cheaper labour in India. Ernakulam offers the same facilities and the scrap could be distributed both by land and by sea.

117. Sheet metal work including non-ferrous metals like brass and aluminium could be developed, if local businessmen could show the enterprise.

118. All over India it is now realised that there are certain industries of the factory type, which when they come into existence, displace a much larger number of men producing the same or similar articles from cottage industry. This is particularly the case with regard to, for example, a shoe factory or a utensils factory, or a textile factory. It is true to some extent that progress cannot be held up. On the other hand, as we have proposed that there should be a licensing of new factories, we recommend that care should be taken not to issue such licences in a way, which would produce intense competition amongst factories so far established in the State, and also not to issue licences without considering the effect on existing cottage industries whenever they are likely to be affected. Some special measures may sometimes have to be taken to help the cottage industry to tide over the difficulties, which arise, and to enable the skilled workers to be absorbed in the new industrial concerns, which may come into existence.

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## CHAPTER IV

## METHODS OF ASSISTING INDUSTRY

## Tariff protection

119. This is not possible under the Tripartite Agreement. Nor is it always desirable as a means of encouraging industry. The British Indian duties charged at Cochin on things imported from abroad are fairly high, and with the advantage of local material, local labour and local market, any industry ought to be able normally to stand the foreign competition.

120. It is a different story with regard to internal competition. Large companies with multiple factories can dump their goods at any particular point, when competition is offered, and destroy small ventures. If and when such a contingency arises, the only method of getting round the situation is to give a price subsidy to the factory affected, or to prevent the specific import by a system of import licences by shop-keepers and others. Both these measures are difficult, may prove costly and should not be lightly attempted.

## Subsidy

121. In the absence of tariff protection, it is not unusual that small concerns may require a financial subsidy. As a subsidy means a definite gift, it should be given only on the results, *i.e.*, not a fixed sum given away to a party, who proposes to set up something, but a sum given on the basis of the output. The subsidy would become due for payment, even if granted, only when definite results are produced. In no case such a subsidy should exceed the period of three years from the moment of production and as a rule a maximum amount should be fixed for such subsidy. Only moderate sized industries become suitable objects of such subsidy. Very large sized industries cannot be given subsidy, and other methods of helping them should be devised. A subsidy should not exceed a sum of ten thousand rupees per year except in very exceptional cases when the industry has not technically failed, but when its existence is threatened on account of unequal and temporary heavy competition from outside.

## Finance

122. There are three ways, in which financial assistance can be rendered to industries either in existence or those that are promoted hereafter. They are loans, debentures and shares.

123. The general principle is that State money should not be involved in the risk of the venture, which must be borne wholly by promoters of industry and share-holders. We were told that it would help many promotions if the promoters could tell intending subscribers that the State had taken up a certain number of shares. While there is some weight in this argument, it would be proper to eliminate the uncertainty and to lay down a general policy that the State will not take up shares of industrial concerns as a rule. If for any particular reason, merely by way of investment, the State authorities decide at any time as an exception to hold some shares, they could do so. But, for all and sundry promoters of enterprises in Cochin, it would be better to realise that this particular form of financial assistance, *viz.*, participation in the shareholding, is not recommended by us.

124. While expressing so definite an opinion on this subject, we wish to express an equally definite opinion with regard to loans and debenture financing for industrial concerns at the hands of the State. We think that from the surplus resources of the State a sum of fifty lakhs of rupees should be earmarked for the purpose of giving loans to existing industries and of promising finance by way of loans to industries, which may be established hereafter.

**By way of loan**

125. As the taking of any risks for its funds is to be avoided, the authorities of the State should give such finance with a full lien on the assets of the firm or the company with a margin, which in no case should be less than fifty per cent of the actual or market valuation of the bloc (whichever is less). The fact of this lien should be incorporated in the agreement at the time of making this loan.

126. While the State should make sure of the security of the moneys so advanced, they may be lenient with regard to the rate of interest. Cases may exist where the State may forego interest altogether for a year or longer, and in other cases interest charged may be less, *i.e.*, three or four per cent. Each case would be considered on its own merit and the sacrifice of even interest on the part of the State would not be justified except where the concern is a new one and is working under exceptional hardships or competition and is not able to earn anything. An existing concern may also come for finance and its case should be considered and, where it is undergoing hardship or excessive competition and is not able to earn properly, financial advances may be made, subject to definite scrutiny of asset values and margin, which should not be less than fifty per cent of the bloc, but may be actually more. Care should be taken that these moneys do not get frozen. The object of the State is to recover the money, but not to foreclose the plant and the assets. After a concern has taken a loan, it may sell off the assets and replace them with other assets, but a monthly statement should indicate any variations of the total, and some care would have to be taken that the moneys realised by the sale of assets are not diverted to purposes other than those concerned with the business itself, that liquid assets are replaced by other liquid assets, and generally the margin at the time of the loan does not fall below the percentage definitely fixed.

127. It should be further provided that the company and the directors or partners of the firm will not raise debentures or any other charges, which rank prior to the claim of the State.

128. In the case of large companies, the State authorities should be ready to take up debentures repayable in a stated number of years at such rate of interest as is mutually agreed.

129. While the possibility of some moneys being frozen or lost through any catastrophic events affecting industry are not altogether eliminated, we feel that the risk involved in such careful financing should be taken by the State. We have attempted to define conditions, which will reduce this risk very considerably, but we feel that a declaration of this policy would give an assurance to the investing public as well as promoters of industry in the State, and it will create a helpful atmosphere. We have no desire that the State should compete with banks. It is to supplement the work of the banks and to

eliminate the uncertainty about the availability of finances from the banks, that these proposals have been put forward. In some cases it may be useful for the State to give the loan to an industry, but to hold a guarantee for the repayment of this loan from an individual rich person of visible wealth and established in life. Such a guarantor would not take the risk without a reward, which may go to one or two per cent. On the other hand, having given this guarantee, such an individual may find it worth his while to keep watching the affairs of the enterprises and to safeguard himself and the State against fraud, misrepresentation or mismanagement.

130. There is another method of doing this effectively and that is by the State appointing two, three or more banks or lenders as "approved lenders". The approved lenders would lend to industries direct on their usual procedure and recover the moneys from the industries, but the State should give to such approved lenders a loan equal to the amount of money lent out by them. Such a loan should carry no interest at all and in those cases, in which the State directs that no interest should be recovered from the borrower, no interest would be so recovered. The approved lender should feel proud that he is called upon to do this work by the State with a view to helping the industries of the State, and we have ascertained that leading local banks would undertake this public duty and be content to cover themselves for administrative and out-of-pocket expenses by a grant of about one to two per cent. This charge should be borne by the State.

131. These details and other rules in connection with financing of industry would, however, be left to be worked out by the Industrial Advisory Board (Paragraph 154). The entire scheme of financing by the State is for financing the working capital and not for bloc. Where a party approaches the State for extending an existing enterprise already successful, a different method would have to be adopted. We have to state that the several ways of financial assistance suggested by us are for manufacturing companies only and not for banking companies, insurance companies, etc.

132. In the light of experience and representations from industrialists, the Industrial Advisory Board may devise methods of helping industries financially other than those mentioned by us, as we have by no means exhausted the forms in which such assistance can be rendered.

133. We are not mentioning such antiquated methods as the guaranteeing of interest by the State, not only because it has not been used to our knowledge anywhere in recent times, but because we think that it is essentially unsound that, if there is a loss, it should be borne by the State, while if there is a profit, it should go to the agents of the business. It would be better for the State to engage the whole capital and to run the enterprise itself than to guarantee the return on somebody else's enterprise for the purpose of assisting industrial development. But we have already rejected in paragraph 41 the undertaking by the State of commercial and industrial ventures, which could be left to private enterprises.

134. Another suggestion put forward was the exemption for the first three years from the payment of income-tax for a manufacturing enterprise started in the State. We cannot make this recommendation because some enterprises may be partly manufacturing and partly trading and in any case

even a good trading enterprise is helpful to the State and the people, and the discrimination would create a lot of heart-burning. Besides, this suggestion involves not only helping those who are in difficulties but those that may not need such help. This sacrifice of State finance would not be proper because it covers only new enterprises, whereas some small help may occasionally be needed by enterprises of long standing who are temporarily in distress on account of a change in the course of prices, trade, communications or any pressure of world events.

135. Whether as a result of such a declaration, many industries will be started in Cochin State is itself a matter of doubt. The inducement is not considerable. Income-tax is paid only when profits are made. The amount of profits, which a new venture would make for the first three years, would be necessarily limited. While the inducement may, therefore, not be adequate to bring about any marked development, it will attract undue notice outside the State. We think the aim behind this suggestion would be better carried out by what we are recommending in the matter of financial subsidies in paragraph 121.

#### Land

136. We recommend that for several industries proposed by us for being established in Cochin by private enterprise, a piece of land should be made available in a suitable location by the State, subject to such maximum limits of area as the State may fix and the case of each individual industry should be carefully considered. Such land should be acquired by Government from the proposed industrial fund and should be given to the industry on the basis of nine hundred and ninety-nine years with one rupee per year rent reserved. The land would become the property of the lessee for the specified purpose of locating the industry and the factories connected therewith on the land, but for no other purposes, and there should be a provision in the lease that, if and when the factory was removed from there, the land would revert back to the State. For an industry, that continues where it was started, this would be a material and serious help and we feel that, as a concrete inducement for certain types of industries, this method should be employed by the State. Our recommendation merely concerns with the requirements of land for the location of factories and for ancillary buildings such as warehouses. We also recommend that Government should assist the industry by acquiring additional lands for them for residential and other purposes, in which case the industry would pay for the land whatever is spent on acquisition.

137. In connection with ship-building, textile, rubber manufacture, paint works and other industries, which may be attracted to Ernakulam in order to take advantage of the harbour facilities and the broad gauge railway connection, we recommend that the most important advantageous sites on the backwater should be forthwith acquired and reserved for the location of such major industries and that no development, which will interfere with these scheme should be permitted on such lands, and no applications for minor industries for location on such land should be entertained. The Industrial fund suggested by us in paragraph 152 may be used for the purpose of financing such acquisition for about six large factories with an average land requirement of forty acres.

### Location

138. It is of great importance that the places, where industries are located in Cochin State, should be carefully selected, having regard to the climate, supply of water, communications and the availability of technical and other labour. It should not be too far away from Cochin Port, whose facilities may be used for importing raw material or for exporting finished products. It is desirable to concentrate several industries in one place so as to create an industrial township, in which workmen can live; subsidiary industries and repair industries can grow. The advantage of grouping new industries in one place would be, that the facility for a siding could be provided and waggons consigned to any particular concern could be loaded and unloaded as near as possible to their location.

### Technical advice

139. Most of the small industries as well as large industries suffer from the lack of technical advice for expansion or for initial project. They are not always in a position to get in touch with the best parties, or to fix an advantageous bargain as to fees of such technical experts. The best manner in which the State can help is therefore to spend a certain amount of money on technical experts either in British India or abroad, or even in foreign countries, who may be brought out at the expense of the State and whose advice and services may be made available to existing or projected new industries.

140. The State would, therefore, be a link for finding such experts, fixing their remuneration, and getting their advice.

141. Concerns, which receive advice in this manner and which pay more than six per cent dividend, may be called upon to recoup the outlay incurred by the State at any time within five years after the period when the advice was given.

142. General advice to all industries is desirable under the head of mechanical engineering and electrical engineering. If the State has superior officials with experience, they should be deputed on an application by any industry to look over their works, or to look into their projects and to give advice. If officials of this calibre and experience are not available, specific arrangements can be made with such men engaged in either large companies inside or in the neighbourhood of the State.

143. The State should also help industrialists in selecting and importing machineries required by them. This could be done through the State's agents outside the State, or through the technical experts engaged, or through the Government of India, who have their Purchasing Mission in America and who have Trade Commissioners in various parts of the world.

144. Another facility, which some of the industrialists may require, would be for the importation of essential stores, raw materials, chemicals, metals and other articles, which may be under control in British India, or which may be scarce, and therefore not only too dear, but not available at any price. It has been mentioned to us that the production of washing soap as a cottage industry in about thirty establishments has ceased on account of the difficulty of getting caustic soda. The individual producer in this case is obviously unable to reach out and to secure this requirement. It is in such

cases that the State should intervene and use its influence and secure these commodities in the bulk for distribution to these parties without any profit and, wherever necessary, at a small loss (not to exceed fifteen per cent).

#### State purchases

145. It should be the declared policy of the State to encourage enterprises inside its limits and to set the model to the public by patronising factories and handicrafts in Cochin State. In British India, a rupee tender for an article produced in India "if it is good for the purpose" is to be preferred to the extent of fifteen per cent, *i.e.*, even if such article costs fifteen per cent more than the imported article and even if it is not of the same quality, but would serve the purpose for which it is purchased by the State, it has been declared that it would be given preference. This is a very safe model to follow for Cochin State and enquiries should be made for all articles purchased by the State in every Department, and it should be ascertained which of these articles are produced in the State. Whenever they are so produced, full facilities to the parties producing them should be given, and their tender accepted. Even if they are not produced, the attention of parties capable of producing them should be drawn to the requirements of the State, and every encouragement should be given to local production for all articles, which the State purchases.

146. This is calculated not only to help the industries, but to enable the State to get closer information of the possibilities of production as well as of the difficulties of the industries concerned.

#### Marketing of goods

147. Another method, which has been used with success elsewhere, is to create facilities for the marketing of goods produced in Cochin State inside as well as in outside markets. The small producer is not always aware of the possibilities of the sale of his goods. The merchant class is not likely to give him an idea of the prices realised elsewhere. Where there are more than one producer of a commodity, they compete with each other and the weakest of them sells his goods cheaper, demoralising the whole market. In these cases a general depression sets in the industry as a whole. The situation should therefore be watched by the Director of Industries and, wherever such a situation has arisen, or is likely to arise, a system of co-operative marketing can be set up both inside the State and outside the State.

148. For the marketing of goods produced in the State or outside, the services of reliable selling agents should be secured, or a marketing depot should be set up departmentally on account of the Association, or, in the last resort only and when nothing else is possible, the State should set up a selling depot in principal markets such as Bombay City.

149. A scheme of marketing on these lines offers the opportunity to help these factories by letting them have about eighty per cent of the value of the goods at once on delivery of the product. This should be done as a rule through a bank, who will collect the money in due course from the agent or the selling depot.



### Labour Legislation

150. In some Indian States industrial progress has been sought and to some extent achieved by the advantage, which business enterprises and employers derive from the absence of certain labour laws protecting workers, or the administration of these laws being very slack as to hours of labour, payment of wages, employers' liability, fencing and protection of workmen, etc. We consider such method of stimulating industry neither legitimate nor desirable. We are informed that labour legislation in Cochin is parallel with such legislation in British India.

### Taxation System

151. Another method, which has been used very extensively by certain States for attracting industry to their territory, is the relatively lower taxes, which industrial profits have to bear. Both on the question of labour legislation as well as on the question of relative taxes as between British India and the Indian States, there is a very intense feeling in British India and British Indian Chambers of Commerce have carried on agitation. We think it is legitimate for Indian States to invite and encourage industrialists to set up and to give them all reasonable facilities, including the advantage derived from a simpler system of taxes on income. The grounds, on which a relatively lower scale of income-tax, super-tax, surcharges and excess profits tax, is levied, vary from State to State, but the State authorities must be presumed to know what is the right position. The suggestion from British India, that Indian State officials do not realise the importance of collecting taxes, where they could reasonably be levied, is not worth considering. Indian States must adjust their system of taxation to the surroundings and the general level of life of their own population. On a strict reckoning, incomes, which are derived by the sale of goods to the population of Indian States, are paying a heavy tax to the Central Government, and all the benefits of Central expenditure are not reaching the population of Indian States to the same extent as they are reaching the population of British Indian provinces, and there is no counter-part to the heavy subventions, which some of the provinces are now receiving from the Government of India, so far as the Indian States are concerned.

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## CHAPTER V

## FINANCE AND ORGANISATION RECOMMENDED

## Industrial Fund and Recurring Grant

152. For the accomplishment of the purposes set out in this report, it would be necessary to have finance, both recurring and permanent. We recommend that a sum of fifty lakhs of rupees may be ear-marked and set aside for the purpose of the Industrial development of the State as a fund separate from the normal State finances so far as the accounts are concerned. We further recommend that a sum of five lakhs of rupees a year should be given as a recurring grant for a period of ten years, the unspent balance of which, if unused for this specific purpose, would go to the credit of the above-mentioned fund. From sugar excise (paragraph 67), from saw mill development (paragraph 35) and from new excise duty on arecanut (yield about one lakh of rupees), we expect the State to recoup this money and, in its turn, the expenditure proposed will add to the income-tax returns, railway revenue and the Port revenue (in some cases). In other words, these outlays would not be at any time permanently lost. These provisions, amounting over ten years to a sum of one crore of rupees, will not be regarded by any one as extravagant in view of the fact that elsewhere in India plans are discussed, which run into hundreds of crores. But we think that the confidence of the people of Cochin as well as of people in India outside Cochin would be established in the intentions of the State to follow a stable industrial policy through the creation of this fund and the declaration of this recurring grant. The manner in which these funds could be used and the care, which would be exercised in their outlay, have been set out at other places in this report. We are confident that all persons engaged even in small industry, handicrafts and cottage industries would feel happy at the thought that so much money is being earmarked for industrial advancement, in which they are not considered unimportant. Insufficient finance, or finance on too exacting terms, has been the bugbear of this section and we are sure they would feel greatly relieved. In fact, without coming to the State, they would be in a better position to bargain with those, from whom they derive their financial accommodation at present. On the other hand, those, who are contemplating any one of the larger schemes, who have been collecting information and who have an ambition to launch out in one or the other of the schemes indicated, would feel that the State has at last taken the bull by the horns and provided the money for the technical and other advice on all schemes, which it has undertaken to offer, and the machinery by which private enterprise in Cochin State can receive the co-operation, which they were anxious to secure in the past.

153. Though a certain measure of progress in industry has been achieved during the last thirty years, there is a feeling all round that more should be done. A close examination by our Committee of problems relating to industrial expansion has indicated that the existing administrative machinery for dealing with industrial questions affecting factories is inadequate and must be radically changed. The nature of our recommendation in any case makes it imperative that the work must be handled quickly and efficiently. The large fund, which we are recommending the State to set aside for the purpose of industrial development, and the large recurring grant must be administered

by a competent body, whose judgment Government can accept without hesitation.

#### Industrial Development Commissioner and Industrial Advisory Board

154. We put forward two alternative suggestions for the State authorities to consider. One is the creation of an Industrial Advisory Board, who will have (subject to Government sanction for their budget and for all items outside their budget) the control of both the recurring grant and permanent fund referred to in paragraph 152 above. As the principal executive officer, in consultation with whom the Industrial Advisory Board will work, we recommend the appointment of a special officer, who may be called Industrial Development Commissioner. For this post we would recommend a person, preferably one who was engaged in business himself, who has had engineering training and/or who is experienced in the investigation of industrial propositions and the promotion to the productive stage of industrial enterprises. He will have a deputy, who may also have similar qualifications, or who may be an experienced State servant. The Industrial Advisory Board, in consultation with whom the Commissioner will work, should, in our opinion, consist of the Director of Industries, the Chief Financial Secretary, the Post-War Development Officer, the Chief Engineer of the State and the Conservator of Forests. There should be at least one non-official businessman interested in affairs in Cochin and there should be one non-official businessman, who has no vested interest in Cochin, but would not mind coming down at intervals of few months to advise the State, or sending his written opinions on schemes as they are prepared in Cochin and sent to him.

155. What we are anxious to indicate is that, outside experience and observation in the promotion of industry and the setting up of new propositions should be brought on the scene in order to prevent delays, overlapping and wasteful pursuit of propositions tried and abandoned elsewhere. If an experienced party could not be found as Development Commissioner, or if it is decided not to create such an appointment, the only alternative open to Government is to create a new post of Secretary to Government for Industries, whose business it will be, in consultation with the Industrial Advisory Board, to give effect to such of our recommendations as Government accept. We feel such an arrangement of working merely through a Secretary, however able he may be, while leading to closer administrative control, may not secure the results with regard to new industries, which we have in view, but these administrative details we leave to be decided upon by Government.

156. Perhaps it would be useful to indicate in rough outline the nature of the work in respect of factory type industries not done at present, which we are creating.—

(a) To administer the Industrial Fund (fifty lakhs of rupees) and the recurring annual grant of five lakhs of rupees.

(b) Attending to the immediate and the post-war needs of existing factories by contacting Government of India controls, Supply Missions and transport and other authorities.

(c) Conducting the census of production and census of wages referred to in paragraph 176.

(d) Disseminating information in Cochin and outside about the possibilities of industries in Cochin and the various forms of assistance, which Government would give.

(e) Fixing up scholars for post-graduate technological study and assigning to them suitable subjects.

(f) Contacting research organizations in India and securing the results of their work for persons engaged in industry in Cochin.

(g) Framing rules and deciding matters affecting the grant of subsidy to factory and short period loan or debenture finance for industrial concerns.

(h) Fixing suitable sites for major industries, which may be attracted towards Cochin in Ernakulam and elsewhere, acquiring the same and reserving them for this purpose.

(i) Preparing detailed schemes giving estimates of capital cost and cost per unit in connection with industrial possibilities disclosed in our report.

(j) Framing contracts between the State on one side and the industrialists on the other, defining their relative obligations both in the case of existing industries and new industries.

(k) Advising Government generally on all industrial issues, which may arise hereafter from abatement of war conditions, abatement of inflation, tariff and other changes in India generally, and any other events which may occur.

(l) Instituting a system of licences for new factories and fixing the terms thereof.

(m) Planning industrial progress and correlating it with availability of power and transport.

(n) Helping in marketing by preventing excessive competition inside and by helping in the organization of sales outside.

(o) Taking up issues referred to in our report in connection with forests and fisheries and seeing that definite progress is made within a given period of time.

(p) Correlating all these activities and securing co-operation from other Departments of Government without interruption or delay.

157. We have made our recommendations with regard to the machinery, which will carry out this work after considering all these details and we have, therefore, suggested the importation of an officer as Industrial Development Commissioner for a period of at least two or three years until all the proposals for new industries envisaged here could be prepared and until the organisation functions successfully for the purpose for which it is set up. We realise that it may be difficult for Government to find a party capable of doing all this even with the help of the Industrial Advisory Board, but every effort must be made by Government to establish this organisation, as most of the measures suggested are not isolated, and it is only the collective effect of all these measures, which will in a period of five years secure marked progress in industrial development in Cochin, which it is the intention of Government to secure.

## CHAPTER VI

### COTTAGE INDUSTRIES

158. Hand industry and cottage industry are not under direct reference to us. We are giving in Appendix III of our report a summarised statement indicating the position of different cottage industries in the State for the information of those who may be interested.

159. In the course of our work, however, some important trends relating to these were disclosed to us. More than three thousand and six hundred handlooms are at work in the State. Much work in connection with agricultural and forest products, including cocoanut, is done under cottage conditions. Cottage industry has also been affected by the war, as other industries have been. Their problems of finance and marketing are difficult, but they are being energetically tackled by the State.

160. The importance of cottage industry lies not merely in the utilisation of materials and in wealth production, but in the employment and financial help, which it secures to a very large number of people. We want the State authorities to keep in mind always that machine industry of the factory type employs a relatively fewer people, and the excessive emphasis on the expansion of industry of the factory type should not be permitted to cause neglect or discouragement of small industries of the cottage type.

161. The existing provisions of the State Aid to Industries Act are halting and have not been taken advantage of beyond Rs. 13,350 and by more than 24 small concerns. We feel that the State ought to have a definite policy, which should be clear. Where the State cannot give financial assistance, the parties ought to be clear about this in their mind, but provisions, which offer financial assistance hedged round with many difficulties, do not lead to much fruitful result. It has been brought to our notice that more loans have been taken under the Rural Reconstruction Scheme (loans amounting to Rs. 53,000) where the procedure and the formalities are less complicated than under the State Aid to Industries Act.

162. For small loans it is not desirable that the State should give the loan direct. We are not satisfied that the Act has been successful for the purpose for which it was instituted, and it was probably due to the fact that the process of securing the loan has been complicated and the provisions are too rigid and strict, that more parties did not seek the assistance of the Act. The object of such rigidity and strictness may have been the safeguarding of the funds of the State, but we think that this can be better done in another way.

163. All applications for loans from the State for the purposes of industry, which are less than Rs. 3,000 must, and all those, which are above Rs. 3,000 may be handed over to an intermediary or guarantor. The loan would be given to such a guarantor who, whether a bank or a private individual, when he is duly approved, would get the funds from the State. For the repayment of the loan to the State he would be responsible. The recovery of the loan from the person to whom the money is lent, would also be the guarantor's responsibility.

164. The reward for the intermediary or guarantor would be from one to two per cent on sums lent. In some cases there would be necessity to grant assistance free of interest. In these cases the one to two per cent reward to

the guarantor, who is taking the risk and who will have some kind of organisation for watching out the activities of the borrower, must be borne by the State.

165. Before advances are given to small and cottage industries and to handicrafts, the initial creditworthiness of the borrower has to be ascertained and after the loan is given, his activities have to be watched. A proper contract also has to be secured from him. It is these that safeguard the loans. The State officials would not be, in our opinion, always capable of judging these correctly. Our recommendation eliminates this work from the State officials. The banks and such other lenders, as may be approved as guarantors, would, on the other hand, use their existing staff for this purpose and without any additional capital of their own add so much to their income. They would, by this method, be enabled to lend larger sums than their resources permit and this would have the effect of bringing down the current rate of interest, which, we are informed, is fairly high in Cochin.

166. We recommend that detailed rules setting out the obligations and rights of approved parties, who will do this work, may be worked out in consultation with the locally established banks. Private bankers or lenders may also be given an opportunity to come into the scheme. Once this scheme is in operation, the existing loans under the State Aid to Industries Act may be transferred to the approved parties on such terms and conditions as are mutually satisfactory.

167. How the working of the State Aid to Industries Act, the Rural Development Scheme and the new procedure suggested herein by us in the matter of advances to small industries, should be correlated, is a matter to be considered by Government. We recommend that the necessary changes in the existing law or rules should be made after securing the recommendation of the Director of Industries, who is familiar with the conditions involved.

168. It was represented to us that the good reputation of Cochin products was going down on account of inferior output on the part of some manufacturers. This was stated to be the case particularly in the matter of tiles. But the complaint is also true with regard to a good many handicraft products. To meet the situation, we suggest in the case of tile factories that they should work under a licence, for which the fee should be nominal, and through an Inspector, who should try to enforce a certain minimum standard of quality. If after suitable warnings there is a party, who is unable to produce even standard quality goods, his licence should be taken away. We do not consider that this will impose any burden on manufacturers, which they are not in a position to pay up. But the unchecked production at present offers the temptation for deterioration in quality. This has also resulted in price competition of a very unhealthy nature, which has affected the prices of tiles in general. Both these tendencies must be checked in order that tiles produced in Cochin State may continue to maintain the same high reputation, which they had in the past.

169. It will be a little more difficult to enforce this with regard to handicrafts. Other means should have to be found in encouraging quality products. Amongst such means are periodical exhibitions and prizes for good quality material, outright purchase by the State of the best quality of goods produced

and their sale in outside markets by the State through sales depots or agents.

170. The deterioration generally comes not at the hands of the artisan, but through the middlemen offering reduced prices and putting down the quality in order to cheapen the prices. This has happened in other parts of India and in many places handicrafts have been completely destroyed. Individual craftsman is seldom in an economic position to buy the raw material and to hold out for a reasonable price all the finished goods. He becomes ultimately a wage-earner and works on the raw material given to him by the merchant for a small pittance. This does not encourage further recruitment into the craft. In some places in India enterprising merchants have set up factories where they engage such craftsmen by daily wages, getting goods of quality produced for sale in rich markets or cities like Bombay. In Cochin State on close observation every one of these phenomena would be found in one or the other handicraft.

171. The main solution of this difficulty which has been put forward, is the establishment of co-operative societies of artisans. But though this has been discussed for over forty years in India, very few successful co-operative societies are operating and it is difficult to get the individual artisan to enter into the spirit of co-operation, particularly as, amongst most of these sections, there is a very strong sense of individuality and jealousy and intolerance also. Real co-operation would be, when the management is in their own hands, unassisted, and business decisions are taken by one of them with full confidence of all the others, and the State only provides the finance.

172. Our Committee has not been able to make that extensive survey of each individual handicraft located throughout the State to enable them to make specific recommendations dealing with each craft. But we would like to give one general suggestion. Where a craft was once flourishing and where clever artisans still exist, we think the State ought to intervene and save these people from contact with the merchant section. Much time of a handicraft worker is lost in buying his raw material and in selling the finished product, and he is no match in bargaining with the merchant, who is cleverer than the worker in intelligence and has got the resources. We think the State should arrange for standard raw material to be advanced to artisans and to take over the finished product, giving them a fair remuneration for their labour. Under these conditions, quality goods could be produced and the sale of such quality goods, both inside and outside the State, would yield prices, that would more than cover the generous remuneration given. This will have the effect not only of preserving a craft, but of getting more recruits to it. As the purchase of raw material and sale of finished material through the State will not be compulsory, the normal trade in these articles might again grow up after some time through the stimulus and support given by the State in the manner above indicated.

173. We do not think the total outlay involved in such measures would be very large. If the scheme was worked out with sympathy for the craftsman, but with scrupulous care that the measures were not abused, we think the State could work such a scheme without any loss except for the administrative expenses involved. In some cases we feel that even this would be recouped. The State has got machinery for making purchases of all kinds of requirements for many departments, but where raw material is to be purchased

wholesale—and we hardly think mistakes or mishaps could arise in the wholesale purchase of raw material—for being given to the craftsman as indicated above, it may sometimes be necessary for the State to use the services of a buying agent. Such material can also be purchased by open tender from the biggest merchants in the line. This advantage in the purchase of the material itself would be no small gain and would contribute towards the scheme being useful to the artisans without becoming expensive to the State. The other element, which would make such a scheme attractive, is the fairly high prices, which discriminating buyers pay for good quality and fancy articles in popular centres like Bombay, Bangalore and Madras. There may be some cases where some of these goods may find a market in foreign countries.

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## CHAPTER VII MISCELLANEOUS

### Statistics

174. We are not satisfied with statistics and particulars of existing industry, as details have never been fully collected. We would emphasise the importance of statistics being maintained, because it would give the State authorities a correct picture, and the measures, which they take, would be apt and effective to achieve the object, which they have in view, if they proceed on known facts. Unexpected factors would not then destroy the value of the effort and expenditure, which may be made. We may mention that the cost of maintaining statistics is not heavy. In fact it is very small, but the use which the administration may be called upon to make of such statistics, would under certain circumstances be very great and far-reaching.

175. In other countries there are regular economic surveys of representative economic units. Very great details are sometimes collected and conclusions are drawn with regard to the whole group of which such unit was representative. This is done for a village with regard to problems of rural economy. It is done with regard to a factory with reference to efficiency, costs of production and wages. It is done with regard to a whole industry in order to ascertain conditions of employment or of unemployment during a period of depression with regard to a particular industry or particular class of people. The conclusions derived from proper economic surveys are not only useful for the time, but for comparison after a lapse of time, and are not only useful for the particular object, for which the survey was made, but, since a survey would disclose points of strength as well as weakness of the community in various ways, these results are likely to be useful for other objectives, which a State has, to strengthen the economic life of the people from every point of view.

176. In particular we would like the State to have a census of production and a census of wages. With what periodicity these should be taken, *i. e.*, whether these should be done every year or every five years, is a matter for Government to decide. But we recommend that the first of these should be undertaken as soon as convenient. In the census of production we would like industries of the factory type and all industries under cottage conditions to be gone into. The information collected would be for each unit (of the factory type), the date when the factory was started, the sources from which raw materials are secured, the number of people employed, the total amount paid in wages, the total amount spent in salaries and administration generally, the quantity of the output, the value of the output, and some particulars as to in which districts inside the State or outside the products of the factory are selling. In the case of rural and cottage industries, the points to get at are the amount and value of production, the sources from which raw materials are secured, the average number of the people engaged, the machinery for the sale of the product, and where the product is sold, with particulars of the average earnings per person engaged.

177. In the census of wages, different classes of labour would have to be specified, such as skilled, semi-skilled and unskilled, as also men, women and children, and the wages given to them would have to be noted in each indus-

trial unit with any special privileges, such as payment in kind, facility for purchase either of the products of the factory or of any other article, or food, being privileges in addition to the wages, and any obligations or penalties, or deductions, involving a material subtraction from the nominal money wages.

178. It is important in connection with the wages census that an index number should be maintained. Index numbers are maintained in Bombay, Calcutta and other important cities by the Government of India as well as Provincial Governments, and it is recommended, in the same style as they are maintained in the Labour Office at Bombay, from whom full co-operation and particulars could be secured, they should be maintained in Cochin State.

179. As there are no duties between Cochin and British India, as well as Cochin and Travancore State, the particulars of the movement of goods except those that arrive by railway, were neither complete nor reliable. Similarly, the particulars of exports except by railway were also unsatisfactory. We appreciate the difficulty of maintaining such particulars permanently. When goods move on road or by water, we appreciate the cost to the State and inconvenience to the public, and are not prepared to recommend that they should be maintained hereafter. But we should ask the State authorities to look into this matter and use such machinery as they have got for giving, for the period of one year, estimates, if not actual amounts, because we feel that, if this information were available, it would be of great value. Some information even by way of estimates is better than the present position, when it is just not known how much is moving into and out of the State by means other than railway bookings. It is a pity that we could not learn even what portion of the goods arriving in Cochin port was entering Cochin State, and what portion of that, which entered Cochin State, was retained in Cochin and what was re-exported.

#### Publicity

180. We recommend that very wide publicity by all possible means should be given to the favourable factors for industry in Cochin. The all-weather major port, the broad gauge railway connection, the equable and salutory climate of most parts of the State, the availability of power from the proposed Peringalkuthu hydro-electric scheme, the relatively lower wages and reputed skill of Cochin workmen, and the facilities with regard to land, siding, skilled advice and finance, which have been set out in other parts of this report, should also be known to people, who are looking out for a good location either for their major factory or for a branch factory. Every courtesy and consideration should be extended to such a people when they seek the co-operation of officials of the State. Information should be collected in advance with regard to some of the more promising enterprises and further information, which businessmen, who intend to use Cochin for locating their factories, seek, should be readily secured. At large centres of activity, such as Bombay, Madras and Coimbatore, there should be some machinery, by which both in the press and in other ways through Chambers of Commerce and other agencies full information about the possibilities of Cochin State, including the availability of raw materials, should be disseminated. A certain amount of expenditure for this purpose would be more than justified.

### Technological Research

181. The need for this was brought to our notice by many witnesses, but we are unable to recommend, for obvious reasons, the very large out-lays, which would be required for industrial research in many fields of technology—an object, which is not adequately achieved even by the Government of India with their larger resources. We recommend that the State should establish suitable contacts with technological institutes and research bodies wherever they exist. The planting of scholars in such institutes recommended in paragraph 186 below, would be one method of such contact. Problems, which arise in the course of investigation by the State about the usefulness of any particular materials, and problems, which arise for any industrialist regarding the substitution of one material for another, or in other ways, could be taken where such research is being made, and either through courtesy or through payment, replies to such problems could be secured. There is a tendency all over India now to pool the results of Industrial research and, while Cochin may not have much to offer, Cochin would not be prevented from sharing the advantages of the conclusions, which may have been reached elsewhere.

182. For some of the larger industries suggested by us, such as wood distillation, it is now possible to get the necessary technical advice in India. But we can imagine a situation, which may arise under certain circumstances when it may be necessary for this or some other industry to depute a man to Europe, or to import an expert from Europe for a short time. The possibility of the deputation of a Government official or a non-official technical man working for a businessman who intends to set up a large enterprise in the State, together or separately, to some parts of India where such industries are actually functioning, must also be kept in mind and we recommend that there should be no hesitation to spend some money on this purpose if and when the occasions arise.

### Technical Education

183. If the people of Cochin are to provide technical personnel in the industries, which may come to be established, both in the lower as well as in the higher grade, greater attention should be given to technical education and Government should have this question looked into at an early date.

184. In order to counterbalance the literary bias created by the present-day education, it seems desirable to us that every college student should acquire an elementary skill in the handling of hand tools of one particular trade in the course of the four years' study, and facilities for this should be given at a polytechnic in evening classes, which may be established, where others, who are not going to the college, can also come and learn the same thing. Which trade should be so selected and how this could be worked without adding unduly to the cost or the effort, which the pupil has to make, are matters for detailed examination by Government in consultation with Educational authorities. We have in mind trades like carpentry, wood turning, wood carving, sheet metal work, enamelling, polishing, sewing, weaving, masonry, foundry, printing and book binding.

185. It has been brought to our notice that in technological Institutes in Madras and elsewhere, boys from Cochin State find difficulty in admission

because the number of places is limited on the population basis. This is one of those matters for co-operation between Cochin and its larger neighbours, which have been referred to in paragraph 18 and we trust Government will make special effort if necessary, through the Government of India (Department of Education) to eliminate this disability of Cochin boys, who are willing to pursue technical education at the expense of their parents without any direct burden on the State.

186. We further suggest that at least four scholarships should be created by the State every year for a period of three years. These should be awarded to boys, who have graduated and who have stood high in the University Examination. These scholarships should be given for higher post-graduate technological studies in the Technological Institute at Bombay, or for similar studies which may be provided elsewhere in India. Every such scholar, who would be provided with all his expenses of studies boarding and lodging and travelling for a period of three or four years, should be under a contract with the State to serve the State for a period of five-years after finishing his course on a grade to be fixed by the State authorities for such purpose. We envisage a larger activity on the part of the State in industrial matters and technical matters in future, and we think the nucleus for a service, which would carry out the obligations of the State, must be formed from now. Under certain circumstances it should be open to the State to release an individual for an industrial career, if something suitable is being offered to him in an enterprise located in the State. But in such cases the expenses incurred by the State towards his scholarship should be treated in part at least as a loan and should be recovered. The subjects to be selected for such purpose should, as far as possible, relate to industries from amongst those which have been recommended in this report.

#### Communications

187. Our attention was drawn by various witnesses to the shortcomings of communications and the need for extensions and improvement in communications both by road, rail and by water. As this did not form a direct issue for our Committee and as we had no time, we have not been able to survey the whole of the State for this purpose. We recommend that early steps should be taken by the State to have this question looked into from the point of view of the carriage of goods for the agriculturists and for the industrialists.

188. We will illustrate what we have in mind when we wrote the above, by a single case. This is the interference with through traffic on the canal between Trichur and Mattancheri during the summer season. Many important trades rely upon water carriage for their goods being transported and, though Government may have had some definite reasons, which induced them to adopt this method of putting a bund across, we feel that some alternative should be found for achieving that purpose and through communication definitely restored and established between these two centres. It would be a very necessary fillip to development in and around Trichur, which is otherwise checked.

#### Prevention of fragmentation of agricultural holdings

189. The supreme need of Cochin State is the production of more food so as to be less dependent on out-side supplies and the production of more valuable commercial crops, which can provide exchange for those things which have to be

imported and also which can become the basis for industries that may be established.

190. One obvious measure, which will lead to this objective at an early date and without which this objective can never be reached, is an active and immediate step for preventing further sub-division of agricultural holdings and for the consolidation of such fragmented holdings, which are below five acres, in the first instance. We are not going into the details of such measure as it appertains to revenue and agriculture, but we think that it is in the interests of the general community in Cochin that such measures should be taken boldly and at an early date. We may say that such measures are a lot more needed in Cochin than they are in other parts of India for various reasons, which we shall not go into here.

#### Conclusion

191. We are not giving a summary of the recommendations at the end of this report, as is usual, because we have given in detail most of the points of an administrative nature, which will arise, at the end of Chapter V.

192. We must put on record our appreciation of the help and co-operation given to the Committee by Mr. V. K. Achyutha Menon, Director of Industries and Commerce, Cochin State, who sat with us throughout and who gave us the benefit of his experience and observation of development of industries in Cochin and local conditions. The thanks of the Committee are also due to Mr. K. S. Raghavan, the able Secretary, who not only made all necessary arrangements for the meetings of the Committee, but prepared preliminary reports, secured information from other departments and gave valuable help in drafting the report.

We are grateful to the State Officials and the witnesses who have given information to us and co-operated with the work of the Committee.

MANU SUBEDAR	(Chairman)
KERALA VARMA THAMPURAN	(Member)
RM. ALAGAPPA CHETTIAR	"
K. ACHYUTHA MENON	"
A. K. MENON	"
K. S. RAGHAVAN	(Secretary)

Guest House, Trichur }  
3rd December 1944. }

## APPENDIX I

**List of persons and institutions that have sent written Memoranda.**

1. The West Cost Electroplating Company Ltd., Ernakulam.
2. Mr. T. C. Iyyukutty, Pazhanji.
3. Sree Vilas Match and Plywood Factory, Nemmara.
4. Mr. T. S. Ramachandra Ayyar, M.L.C., Tattamangalam.
5. Mr. F. A. Cox, The South Indian Engineering Works Ltd., Cochin.
6. The Indian Cashewnuts and Plantations Ltd., Trichur.
7. Mr. Ambat Eachara Menon, M.L.C., Chittur.
8. Mr. N. Govinda Pai, M.L.C., Mattancheri.
9. Mr. N. V. Subbarayan Chettiar, M.L.C., Nalleppilli.
10. Mr. K. J. Vareed, Commercial Teacher, S.R.V.H. School, Ernakulam.
11. Krishna Bell Metal Works, Irinjalakkuda.
12. Dr. K. N. Menon and Mr. P. Narayana Menon, Professors, Maharaja's College, Ernakulam.
13. The Cochin Nayar Bank Ltd., Kunnankulam.
14. Mr. C. R. Narayanaswamy Chettiar, Yarn Merchant, Chittur.
15. Mr. P. T. Mathew, Panchayat Overseer, Chittur.
16. L. S. Subbaraya Ayyar (Retired Inspector of Schools), Proprietor, Cochin Pharmaceutical Co., Trichur.
17. Gosri Dairy and Farm Products Ltd., Vytilla.
18. Mr. P. Devaraja Ayyar, Proprietor, Kalyanam Tile Co., Pudukkad.
19. Mr. P. K. Dewar, Editor, 'Veera Kesari', Ernakulam.
20. Mr. C. K. Volayudhan, Cherai.
21. Kalpaka Oil Mills Ltd., Palluruthi.
22. Mr. T. Sudhakara Menon, State Geologist, Ernakulam.
23. The Navaratna Pharmacy, Manufacturing Chemists, Cochin.
24. The Director of Agriculture, Trichur.
25. Mr. I. I. Iyyappan, K. R. & O. Mills, F. E. & S. Works, etc., Trichur.
26. Kerala Tile Works, Trichur.
27. Mr. N. S. Rama Ayyar, President, Co-operative Society, Ltd., Chittur.
28. Mr. I. Raman Menon, Retired Superintendent of Agriculture, Trichur.
29. Mr. C. M. Paul, Science Assistant, Sirkar High School, Kunnankulam.
30. Mr. C. S. Subbarama Ayyar, Proprietor, Rice Mills, Nemmara.
31. The Pan Asiatic Commercial Syndicate Ltd., Trichur.
32. Mrs. Ittiam Mathew, Secretary, Women's Industrial Home, Kunnankulam.
33. Mr. T. S. Kalyanarama Ayyar, Merchant, Trichur.
34. Mr. K. T. Paul, Paper Mart Ltd., Trichur.
35. The All Cochin Vala Mahajana Sabha, Ernakulam.
36. The Cochin Chamber of Commerce, Cochin.
37. The Commissioner of Excise, Ernakulam.
38. Mr. Ambadi Narayana Menon, Advocate, Ernakulam.
39. Pooppalli Mills, Perumanur, Ernakulam.
40. The Comptroller of Finance and Accounts, Trichur.
41. Paper Expert, Government Industries Department, Trichur.
42. Sub-Magistrates of Chittur and Mukundapuram Taluks.
43. Mr. S. Madhavan Vydinar, Secretary, Lokamaleswaram Model Panchayat Co-operative Society Ltd., Cranganore.
44. The Cochin Central Co-operative Bank Ltd., Trichur.
45. All India Manufacturers, Organisation, Kerala Board, Ernakulam.
46. President, Chittur Land Holders Association.
47. The Cochin Pioneer Industries Ltd., Ernakulam.
48. Rao Sahib M. Nanu Menon, Municipal Chairman, Ernakulam.
49. Mr. Augustine Papali, Ernakulam.
50. Mr. C. Sankara Menon, Punkunnom, Trichur.

**Persons from whom oral evidence has been collected.**

1. Mr. Krishna Ayyar, Assistant Manager, Tata Oil Mills, Ernakulam.

2. Mr. K. P. Madhavan Nayar, B.A., B.L., "Ernakulam Mills", Secretary to the Mill Owners Association.
3. " P. Kesavan, Superintendent of Fisheries.
4. " D. Kesava Ayyar, Chemist, Kalpaka Oil Mills, Palluruthi.
5. " H. E. Day, "Day & Co.", Cochin.
6. " S. A. Sarrao, P. E. Sarrao and Sons, Mattancherri.
7. Dr. K. N. Menon, Professor of Chemistry, Maharaja's College, Ernakulam.
8. Mr. S. Venkiteswaran, Conservator of Forests.
9. " M. P. Varki, Anamalais Timber Trust.
10. " P. K. Muhamad, Iced Fish Supplier, Ernakulam.
11. " Bava Achenkuten.
12. " A. Madhava Prabhu, Diwan Peishkar.
13. " M. Sankara Menon, Director of Agriculture.
14. " B. M. Mulloth, Registrar of Co-operative Societies.
15. " I. Raman Menon, Retired Director of Agriculture.
16. " L. S. Radhakrishnan, Consulting Chemist, Cochin Pharmaceutical Works
17. " K. S. Rajagopalan, Consulting Chemist, Cochin Pharmaceutical Works.
18. " T. V. Kochuvareed, M.L.C.
19. " K. T. Paul, Paper Mart, Trichur.
20. " C. P. Lonappan, Chairman, Trichur Municipality.
21. " C. M. Paul, Science Assistant, High School, Kunnamkulam.
22. " I. I. Iyyappan, Trichur.
23. " Ambat Eachara Menon, M.L.C.
24. " Krishna Ayyar, Manager, Indian Cashewnut and Plantations Ltd.
25. " V. K. Nayar, Nemmara.
26. " J. Easwara Ayyar, Government Paper Expert.
27. " P. V. Subramania Ayyar, Retired Comptroller of Finance and Accounts.
28. " T. Sudakara Menon, State Geologist.
29. Dr. V. K. G. Menon, Superintendent of Ayurvedic Hospitals.
30. Mr. Vaidyanatha Ayyar, Salt Expert.
31. " P. K. Dewar, Editor, "Veera Kesari".
32. " Augustine Pappali, Retired Supervisor, Mechanical Equipment.
33. " C. R. Balasubramania Ayyar, Personal Assistant to the Excise Commissioner.
34. " P. V. Raphael, Comptroller of Finance and Accounts.
35. " F. A. Cox, Consulting Engineer, Cochin.
36. " B. S. Rao, Manufacturing Chemist, Navaratna Pharmacy.
37. Rao Sahib M. Nanu Menon, M.L.C., Chairman, Ernakulam Municipality.
38. Mr. Papatlal Goverdhan Lalan, M.L.C.
39. " Viswanathan, General Manager, Indo-Mercantile Bank, Ltd.
40. " Appu Menon, Manager, Pioneer Industries.
41. " K. Sreedara Menon, Assistant Director of Industries and Commerce.
42. " V. K. Aravindaksha Menon, Chief Engineer.

## APPENDIX II

### Industrial Progress of Cochin

There was a general awakening in industrialism throughout India early in the century. Cochin was not slow to catch up the spirit of the times as evidenced by the following remarks made by His Highness Sri Rama Varma, G.C.S.I., G.C.I.E., in the course of his inaugural speech delivered by His Highness at the First Agricultural and Industrial Exhibition, Trichur, on 18th February 1909:—

"Next in importance to agricultural progress is the Industrial Development of the State. Looking around we find industrial surveys are being conducted all over India with a view to study the existing industrial condition and suggest measures of improvement of Industrial Education \* \* \* \* We ourselves cannot be standing still in this important matter but must move with the times. There is a general awakening in industrialism throughout the country and so far as my Durbar is concerned they will soon announce their policy in regard to measures they propose to adopt for the development of indigenous industries and for promoting industrial education. \* \* With a growth of a higher standard of industrial education as well as manual training, to direct which experts are required, it would be possible to improve existing industries and start new ones for which there is abundant scope. I refer under the latter class to spinning and weaving, paper pulp, match and pencil factories, flour and rice mills, oil presses and factories (gingelly, groundnut, etc.), fibres (jute, plaintain, aloe, coir and hemp), cabinet-making (bamboo, cane), grass-mat industries, honey culture, tanning, fish oil, isinglass, edible fishery products, etc.

Before adopting any measures for promoting industrial development as foreshadowed in this speech, Government decided on conducting an economic and industrial survey of the State to gauge the possibilities of improvement. For this purpose, M. R. Ry. C. Achyutha Menon Ayl., was deputed and after a thorough investigation he submitted an "instructive and interesting report" on 13th August 1910 which furnishes a graphic account of the contemporaneous condition of the various industries then existing in the State.

The industries then existing in the State fell under the following heads—

- (1) Textile industries
- (2) Fibre industries
- (3) Mat-making and basket ware
- (4) Oil and oil seeds,
- (5) Stone and building materials
- (6) Wood-work and carpentry
- (7) Food-grains
- (8) Leatherwork
- (9) Metal work
- (10) Dairy produce
- (11) Artistic works, and
- (12) Miscellaneous industries such as pottery, rattan, etc.

Generally speaking, they were being carried on a cottage industry basis exclusively by certain particular communities. These industries were spread over the whole State unnoticed and entirely disorganised. Cotton weaving was then pursued by the hereditary weavers chiefly Chaliyans, Kaikolas, and Chedars. They were as a class extremely poor and their lot had considerably deteriorated owing to the advent of mill manufactured cloth. The cocoon fibre industries comprising manufacture of yarn, rope, rug and matting were confined to the tracts adjoining the sea and backwaters. This industry was steadily expanding. Mat-making and basketware, mainly localised in Talappalli and Trichur Taluks, were not then in a thriving condition.

The cocoon oil trade, the most important industry in the State, was steadily declining partly on account of the imposition of a protective duty on "copra" by the Travancore Government and partly by the increased export of copra to Europe. All the wood work in the State was in the hands of hereditary carpenters (Marasaries). Due to defective training, inefficient tools and implements, their profession was deteriorating. There was no tanning industry worth mention in the State. Leather industry as it then existed, mainly consisted of the manufacture of crude slippers and sandals by native cobblers—Tholkollans. Raw hides and skin used to be exported in large quantities to places outside the state. As regards metallurgical industries, the native black-smiths "Kollans" were manufacturing locks, bolts, hinges, knives and old-fashioned agricultural implements, but they could not compete with the imported goods in point of workmanship. No doubt, there were certain artisans whose workmanship in bell-metal was worth appreciation, but owing to the appearance of enamelled vessels in the market, the demand for such goods was getting slack. Artistic industries such as gold and silver work carving, etc., and the industries of a miscellaneous nature such as rattan, pottery, etc., were being carried on a small scale by certain hereditary communities but without any kind of organisation.

A few factories had, however, come into existence at that time. There were three textile factories, viz, (1) weaving Factory at Chittur started by Mr. C. V. Narayanaswami Ayyar of that place and Mr. K. S. Vaiteswara Ayyar of Palghat, (2) Pushpagiri factory at Trichur by Mr. T. S. Balarama Ayyar, and (3) Check weaving factory at Trichur started by Mr. Pallan Kunjuvareed. Of these, the Pushpagiri weaving factory was converted into a limited liability company with a capital of Rs. 120,000 in Re. 100 shares with a view to develop it into a power-loom weaving mill. Rugs and mattings of different textures, plain and coloured were being manufactured on a large scale in the factory started at Mattancheri by Mr. Premji Khetji which turned out on an average 20,000 rugs and 50,000 yds. of matting a year. Besides, there were about ten oil mills in the State. Of the fourteen tile factories then existing, 6 were in Mukundapuram Taluk, 6 in Trichur and 2 in Chittur Taluk and about 700 men, women and boys were employed in tile manufacture. Two saw-mills with up-to-date machinery established by European firms were working in the State, one at Ramanthuruthu and the other at Trichur, the former turning out Ilavu planks for tea-chests and the latter teak squares for the London market.



It is a fact that the state is not rich in mineral resources. To ascertain the possibilities of industrial development in the state on account of her mineral wealth, Government conducted two geological surveys during the period under review. Of these, the first was conducted by Mr. K. K. Sen Gupta, M. A., B. Sc. (between April 1910 and August 1913). His report was however condemned by Mr. Haydon, the Director of Geological Survey of India, as of little or no practical use. Hence Government was obliged to under-take another survey which was conducted by one Mr. Perry early in 1917. This report disclosed the existence of (1) magnetic bearing rocks in Keecheri, (2) magnetic sands on the beds of certain streams, and (3) deposits of kaoline mixed with certain amounts of bauxite. The first of these was found to be poor by the Geological Department of India to which it was submitted for examination. The second was found to exist only in very small quantities and not worth prospecting. The third was experimented upon by starting the Chalakkudi Pottery Works which is dealt with elsewhere in this report.

For the sake of convenience, the history of industrial development in the State can be traced under the following heads:—

1. Industrial Education and Organisation of the Department of Industries
2. Factory or large scale industries
  - (a) Government undertakings
  - (b) Private enterprises
- (3) Cottage or small scale industries

### 1. INDUSTRIAL EDUCATION AND ORGANISATION OF THE DEPARTMENT OF INDUSTRIES

Until the year 1908, the industrial education in the State was in a very backward condition. There were no institutions of any importance except five private institutions (industrial schools) in which instructions in shoemaking, embroidery, grass mat-making, lace-making, etc., were imparted. These were not well-organised and only three were aided. Mr. Pope, the then Special Educational Officer, after a careful study of the question of the introduction of agricultural and industrial education in the State, came to the conclusion that Government should open a Central School in Trichur to give teachers technical and industrial training and recommended that the Trichur National School of Arts and Industries should be amalgamated with the Dhandayudhapani Technical School and taken over to Government management. Government accepted the recommendation and in 1910 the Central Training School was opened in Trichur. The Industrial branch trained pupils in smithy, bell-metal, weaving, mat-making, bamboo and cane work, sloyd, carpentry, electroplating, gilding and lacquer work. Special classes for girls were held to give them instruction in embroidery and fancy work. With a view to draw in more and more pupils to these schools a system of stipends was introduced during the administration of Mr. (now Sir) A.R. Banerji Esq., M.A., C.I.E., I.C.S. Admissions were as far as possible restricted to the backward communities who had special aptitude for different industries. The ultimate policy of Government was to open a large number of rural industrial schools side by side with primary schools so as to allow the bulk of the rural population to pass on to the industrial section after attaining a certain standard of primary education. In course of time, industrial schools were started and trained students from the central institution were appointed as Head Masters in such schools.

In 1918, a minor department of industries was constituted, the object of which was explained by the Diwan Mr. (now Sir) J. W. Bhore Esq., I.C.S., in his administration report of the year 1918 as "on the one hand to introduce such new industries as may afford a subsidiary means of occupation to the labouring classes and on the other hand to improve existing industries by popularising improved methods; bringing produces into touch with good markets and improving the quality and cheapening the price wherever possible of raw materials". Since a full-time officer was not felt necessary to pilot the new department, the Head Master of the Government Trade School was made its Superintendent. This department was re-organised by Diwan Sir T. Vijayaraghava Charya in the year 1920, as by that time a fairly large number of industrial schools had been started in various parts of the State. The post of a full-time Superintendent was created and one Mr. G. Subbuswami Ayyar, a retired officer of the Mysore Government was appointed to the post. The principal aim of training men and women to take charge of Rural Industrial Schools was replaced by that of training boys as skilled workmen and the Superintendent of Industries introduced certain innovations which constituted chiefly in a liberal supply of tools, better stipends to pupils and longer continuous hours of work at school, so that pupils might get enough practice in regular industrial work. An Industrial Advisory Committee was constituted to discuss important industrial subjects connected with the State and make

recommendations to Government. On the recommendation of this Board a few technical scholarships were instituted to be awarded to deserving youths of Cochin to prosecute advanced technical studies outside the State. Accordingly, one or two students were trained in the mechanical and electrical engineering school, Bangalore, a similar number in Textile Industries in the Victoria Jubilee Technical Institute, Bombay, one in Sericulture in Mysore and one in dyeing and allied subjects in the Kalabhavan Technical Institute, Baroda.

In 1920, there were ten Government Industrial Schools, one Trade School at Trichur, one Government Girls' Industrial School at Trichur, and four Aided Industrial Schools. Four more rural industrial schools were opened during the administration of Diwan Rao Bahadur P. Narayana Menon (1922-25). The Government Trade School at Ernakulam was also started during this period. In the year 1925, the Industries Department was amalgamated with the Education Department and the Director of Public Instruction began to function the duties of the Superintendent of Industries also, with an Industrial Inspector under him. Moreover, handicrafts were introduced in the curriculum of studies in literary schools and the students of literary schools were sent for a few hours daily to the nearest Industrial School, if there was any, to give them some kind of practice in certain industries.

The cause of industrial education received further impetus during the administrations of Diwan Mr. T. S. Narayana Ayyar, M.A., B.L., and Mr. C. G. Herbert, I.C.S. and Sir R. K. Shanmukham Chetty. There were by the end of 1935 about 43 rural industrial schools in the State, of which 22 were Government institutions and the rest under private management.

Diwan Sir R. K. Shanmukham Chetty effected the bifurcation of the Industries and Education Departments and made the former a separate entity under an independent Director of Industries and Commerce. A separate Board of Examiners was also constituted for the Industrial Public Examinations of the State. The number of institutions imparting industrial and technical education in the State rose to 47 during this period (25 Government and 22 State aided). As it stood at the end of 1118 (1943), the total strength of all the schools together (both Sirkar and aided) including boys and girls was 1,867. The total expenditure on Industrial Education was about Rs. 86,000.

Of all the institutions imparting industrial education in the State, the earliest and most important is the Government Industrial School at Trichur. It works on three separate sections, *viz.*, Commercial, Arts and Industrial. The industrial section gives training in weaving, carpentry and cabinet-making including Thachu Sastrā, Rattan works, mat-making, electroplating, engraving, smithy, and bell metal work and coaches up the pupils for the Industrial Public Examination of the State in the lower and higher grades. Besides the regular pupils, it trains a select number of teachers of primary schools in the different industries with a view to introduce manual occupation in the literary institutions. There is also an electrical wire-man's course and motor mechanism and driving course extending to one year each. A machine shop is working attached to the Institution where practice in turning the fitter's work is given to a small number of students. The only Government Industrial Institution exclusively for girls is the Government Girls' School at Trichur and it imparts instruction in needle-work, embroidery, lace-work, crochet work, knitting, music, drawing, mat-making and rattan work. In all the Government rural industrial schools weaving is the principal industry and in some they have also one or two and even more of the following:—Mat-making, carpentry, smithy, bell-metal works, and rattan works. All these institutions are supplied with running advances, under the personal deposit system with a view to enable them to undertake orders from outside and to afford necessary practical training to pupils.

The main industries taught in the aided industrial schools are needle-work, lace-work, embroidery, knitting, crochet, weaving, mat-making, coir-works, silk-worm rearing, and silk-weaving. All these institutions present pupils for the State Industrial Public Examinations. Among the State aided industrial schools, the one attached to the Ollur Convent—St. Mary's Industrial School—is perhaps the largest, and it has made appreciable progress in silk-worm rearing, silk-weaving and all other branches of sericulture.

Except for half-a-dozen industrial schools within the Municipalities, all the others are located in the rural areas. Industrial education, as it is organised at present in the State, has for its aim the teaching of a subsidiary occupation to the agriculturist and the training of literate hereditary artisans, as also others in traditional callings, such as Carpentry, Smithy, Weaving, etc. In other words, the industries taught in the industrial schools of the State are mainly cottage industries. But even in this case, the boys and girls are not taught improved methods

or the use of modern implements, There is no provision for the training of men for organised industries or for teaching them to handle machinery to effect repairs, to stock and fit spare-Parts and to hand successfully improved and up-to-date types of machinery etc. It may be mentioned in this connection that under the Technical Training Scheme initiated to meet the war emergency, a civmil centre has been opened at G. T. School, Trichur, towards the close of 1942. There is now provision for the training of 200 technicians at the centre. Though the supply of a larger number of technicians with advanced training for the technical branches of the Army is the immediate objective, the ultimate aim of Government is to convert it into a full-fledged Technological Institute in the post-war period.

## 2. FACTORY OR LARGE SCALE INDUSTRIES

### (a) Government Undertakings

Government had taken up the initiative in the matter of starting and organising a few new industries in the State. Generally speaking, these undertakings have not been uniformly successful. The more important of them are dealt with below.

#### The Potteries

The existence of Kaoline (China clay) in several parts of the State disclosed by the geological survey suggested to Diwan Sir Bhore the possibility of developing the manufacture of earthenware and porcelain of all sorts in the State. After having got the matter examined by Mr. Fern, the Ceramic Expert of the Bombay Government, one Mr. K. V. Thamban was deputed to Bombay to undergo a special training in ceramic industry. The scheme submitted by him on his return for opening a factory at Chalakkudi for the manufacture of stone-ware pipes, glazed jars, wall tiles, etc., was got scrutinised by a Bohemian Ceramic Expert Mr. Kuchnel by Diwan Sir T. Vijayaraghava Charya. Government subsequently entertained this expert for organising the factory. The erection of the factory took about two years. To begin with, bricks required for construction of chambers were manufactured in the factory. Models of jars and pipes were made and glazing was experimented successfully. However, the progress of work was found unsatisfactory and during the subsequent administration the term of appointment of the Bohemian Expert was terminated on 1st October 1923, and thereupon Mr. C. V. Balappa, M. C. S. was appointed Pottery Expert on probation for six months with one Mr. V. K. Nayar as sales representative. Samples of jars, jugs, tea pots, plates, cups, pipes, etc., were made. But unfortunately perhaps owing to lack of expert advice, very slow progress was achieved and consequently Diwan Mr. Narayana Ayyar temporarily suspended the working of the concern and later on placed it under the management of the Chief Engineer. The total capital invested by Government was about 4 lakhs. The undertaking worked as a Government concern was a failure. For three years, the potteries continued to function under the Public Works Department and slowly its output earned general approval. Success induced Government to take up its reorganisation which was got investigated by Mr. S. Deb, the President of the Indian Society of Ceramic Engineers. His proposals however amounted to the starting of an entirely new factory with all its uncertainties and risks and as such Government did not proceed further. Diwan Mr. Herbert appointed a sales manager (Mr. Barton Wright) to push on the sale of pottery goods, and also an expert (Mr. C. A. Whatmore, late of Messrs. Parry & Co.) to investigate and effect improvement of its products. Two graduate apprentices were also taken for training in the industry. It was during this period that Shahabad Cement Company investigated the question of starting a cement factory as an adjunct to the Potteries; but as the prospect was not encouraging they abandoned the idea. Thanks to the improvements effected during the administration of Diwan Sir R. K. Shanmukham Chetty, the output of the factory began to increase. Fresh markets such as Bangalore, Shimoga, (Mysore), etc., were tapped and agents were appointed in those places. On the expiry of the term of Mr. Whatmore in 1937, one Mr. K. Auguir was appointed as the expert and under him the pottery worked for about 2 years. In 1939, the factory was handed over to the General Mercantils Corporation on lease. The term of lease has been subsequently extended for 17 years with effect from 1/1/43 (1943). Glazed earthenware like pickle jars, sten pots, acid jars, etc., are being manufactured in the factory on a large scale.

#### Cochin Tanneries

Another major industrial concern for which Government rendered substantial aid was the Cochin Tanneries at Chalakkudi. During the administration of the Diwan Mr. (now Sir) A. R. Bawerji, an industrial scholarship had been instituted for training in tannery industry and one Mr. K. Raghava Kurup of Cranganur was awarded this scholarship. On his return, Mr. Kurup

investigated the possibilities of starting a Tannery Factory and submitted proposals. Owing to the stringency of the money market, at that time due to war conditions, the scheme was shelved for a while. Diwan Mr. (now Sir) Vijayaraghava Charva revived the question and convened a conference of leading men of the State on 1st March 1920 to consider the ways and means of organising a Tannery. As decided at the Conference, a company was floated under the designation of "Cochin Tanneries" with a registered capital of 4 lakhs (40 thousand shares at Rs. 10) each. Government themselves subscribed 30 per cent of the shares and the balance was over-subscribed in a short time. The site for the factory at Chalakkudi was acquired by Government on behalf of the company and regular work commenced by the end of 1926. The enthusiasm which characterised the earlier stages waned soon and the company was reduced to a sad plight for want of sufficient capital. In 1927 Government advanced a loan of Rs. 15,000 but before the year was out, another loan of Rs. 35,000 had also to be granted besides disbursing excess land acquisition charges of about Rs. 15,000. Diwan Mr. T. S. Narayana Ayyar realised that this spending concern was gradually turning out to be a drain on Government and so when the company applied for an additional loan of Rs. 75,000 he got down Mr. Gruthrie, Principal of Leather Trade School to inspect the Tanneries. Mr. Gruthrie submitted a report embodying his proposals for the improvement of the concern, but these could not be given effect to due to the obduracy of the managing directors. Government had then no other alternative but to sue the company for the recovery of a lakh and odd rupees already advanced and this was done. Thus, the Cochin Tanneries ended in a fiasco. The suit was decreed as sued for and after reducing the factory to possession altogether a sum of Rs. 1,27,953 became irrecoverable.

### Coir Factory

Cocoon fibre industry is the premier industry of the littoral tracts of the Cochin-Kanayannur and Cranganur Taluks. The people engaged in the industry are as a class poor but hard-working. Lack of capital and labour rendered them easy victims of the middlemen. Realising the imperative necessity of encouraging the industry, Government during the administration of Rao Bahadur P. Narayana Menon (1923) sanctioned a scheme for organising a coir factory at Cherai equipped with the most up-to-date machinery and tools. An estimate amounting to Rs. 14,000 was passed for the construction of the factory. Though the factory soon came into being, it was found to be not prospering under Government management. Hence Government directed the Vijnani Vardhani Sabha of the locality to take up its management. Since they declined the offer, the concern was closed down, but in its place a coir work school was opened in 1925 for teaching coir work on improved lines. Unfortunately, the school also did not survive long on account of the accumulation of stock and insufficiency of sales. In the next year, the school was amalgamated with the rural industrial school there.

### Paper Factory

Though it did not materialise Government had also sponsored a scheme for the establishment of a paper factory in the State. As a result of the examination made by Dr. Quin Wortz of London, it was disclosed that the bamboos abounding in the State forests were well suited for the manufacture of high grade paper. Diwan Sir Bhore worked out a scheme for starting a factory on the basis of a limited liability company and negotiated with certain capitalists of Bombay to take up the initiative. In spite of the facilities held out by Government, no entrepreneurs came forward until 1922. In that year, Messrs. Mugaseth and Sons made an offer to organise the factory on certain conditions which were not quite acceptable to Government. After prolonged correspondence, the matter was dropped by Government in 1924. The question, however, was got re-investigated by Mr. Bhargava, Paper Export of the Government of India, and Mr. A. R. Beatty, an engineer, during the period of Sir R. K. Shanmukham Chetty, but neither of them gave any assurance that there was an adequate supply of bamboo available at that time.

### Hydro-electric Scheme

All along, Government have been alive to the fact that an ample and cheap supply of power is the *sine qua non* of industrial progress. They have therefore investigated a hydro-electric scheme for this purpose. During the realignment survey of the Forest Tramway line undertaken at the time of Diwan Sir Bhore, the Peringalkuthu water falls on the Chalakkudi river about 5 miles south of Kareparakutty, was discovered and its favourable location at once suggested to Government the possibility of successfully working out a hydro-electric scheme. Accordingly, a scheme was got prepared by the Br. Westing House Company in 1917 and in the next year, Mr. S. G. Forbes, then Chief Electrical Engineer to the Mysore Government, made an independent report

on the same subject. Sir Bhore had also worked up a scheme for starting an alkali factory. The paper scheme and the alkali factory scheme were connected with the power scheme which could not, however, be taken up then for want of sufficient finance. Government commissioned Messrs. Rendel and Palmer and Trotton of Westminster to prepare a revised scheme which they duly submitted in 1932. As the industrial development of the State had not then reached a stage to ensure a sufficient load the execution of the project was not, however, taken up. Lately, Diwan Mr. A. F. W. Dixon took up the scheme and got it re-examined by Sir Henry Hervard, C. I. E., M. C., M. Inst. C. E., M. I. E. E., M. Am. Soc. C. E., M. Am. I. E. E. The scheme as revised by him is designed to meet a demand up to about 10,000 K. W. This long cherished hydro-electric scheme is proposed to be taken up during the post-war period.

### (b) Private Enterprise

#### Weaving (Cotton Mills)

Of the large scale industries flourishing in the State out of private enterprise, the most outstanding is the Weaving and Spinning Industry. The Sita Ram Spinning and Weaving Mills at Pushpagiri, Irichur, is the oldest. Commencing with a small number of handlooms in the beginning of 1085 the Sita Ram Spinning and Weaving Mills Ltd., gradually developed into a full-fledged spinning and weaving mills now consisting of 15,204 spindles and 416 looms and the necessary dyeing, bleaching and furnishing installations. The mills generate their own power with an up-to-date 1,000 K.W. Turbine. There is a well-equipped workshop attached to the Mills. By the end of 1116, the Mills started working all the 24 hours of the day and are now employing on an average 2,800 people of whom about 1,000 are females. The Mills are now producing various kinds of mulls, dhories, towels, grey long clothes, shirtings and several other sorts of goods bleached and grey that stand very favourable comparison with the products of some of the best mills in Bombay and Ahamedabad. Cloth for War supply and Standard cloth for civil distribution form a good portion of the production.

The Cochin Textiles at Pudukkad is another important industrial concern. Dr. Rm. Alagappa Chettiar, M. A., D. Litt., Barrister-at-law, is its founder. The Mill was declared open in February 1938. It was started as a Joint Stock concern with an authorised capital of Rs. 10 lakhs under State aid and supervision. Government subscribed shares to the extent of 1½ lakhs, though the shares were subsequently disposed of. In 1940, the company approached the Government for financial help and Government accordingly advanced to them a loan of Rs. 1½ lakhs and purchased their debentures to the value of Rs. 1 lakh. Those sums were later on paid up. The Joint Stock concern was wound up and the factory is now owned by a private limited liability Company with a registered capital of Rs. 10 lakhs. In the beginning of this year, the Alagappa Textiles was registered. The two Mills are established in the same place. They have got about 40,000 spindles, though only less than 20,000 are now working. They have provided employment for 2,000 workers in and around Pudukkad. The monthly out put of these mills is estimated to be one lakh of lbs. of cotton goods yarn.

#### Oil Mills

The existence of large areas of cocoanut plantations in the State, has given prominence to the oil industry in the State. Of all the oil mills now in existence, the most important is undoubtedly the Tata Oil Mills at Ernakulam (the first oil mill worked by steam was started at Palluruthy also by a Bombay merchant). It was in January 1917 that Messrs. Tata Sons & Co. approached the Government with a proposal to establish a vegetable oil and fat industry at Ernakulam and prayed for help to acquire a suitable plot to locate the factory. Thanks to the negotiations of Diwan Sir J. W. Bhore, the company agreed to allot 2½ lakhs rupees worth of shares to the State and the people of the State. Soon afterwards, a site covering an extent of 50 acres adjoining the backwater was acquired on their behalf and handed over for the construction of the factory. By about 1920, the construction of the factory was completed and regular work begun. The mill has got 5 expellers with an approximate crushing capacity of 62,400 candies of copra per year. At present, besides oil and its by-products, soap, cocogem, hair oil, glycerine, etc., are being manufactured on a large scale with the help of improved machinery and sent to Bombay and other foreign markets. As a result of reorganisation effected in 1928, the company had a season of steady progress thereafter and its expanding business led to the increase of its capital from 47 lakhs to 75 lakhs in 1940. The factory is now equipped for research, for production

of aromatic chemicals and essential oils, for blending and producing perfumes required for soaps, etc., and for turning out perfumes for toilet purposes. The total annual turnover of the company amounts to Rs. 2½ crores. Their products are sold all over India through a net work of 12 Sales Depots situated at Ahamedabad, Allahabad, Bombay, Bangalore, Calcutta, etc. Altogether, the company has on its pay rolls about 4100 daily and monthly paid employees.

There are altogether 22 oil mills in the State, most of which are located at Ernakulam, Cochin and Trichur. They produce on an average about 66 thousand candies of oil and 37,000 candies of oil-cake per annum and employ in all about 2,400 labourers. It appears that at present all these mills are not working to their maximum capacity partly due to competition among them and partly due to shortage of copra available. In fact, the figures furnished by the State Oil Millers' Association go to show that while the maximum annual crushing capacity of all the mills together was 3 lakhs and 25 thousand candies of copra, only about one-third of this quantity was available for crushing in the last year. This has induced some of the mills to take to other seeds like sesame (gingelly), marotti, groundnut, etc. A few of the mills particularly the Kalpaka Oil Mills at Palluruthy have also taken to soap manufacture and are gradually expanding this business.

#### Saw Mills

The major produce from the Cochin forests is timber such as teak, rosewood, ebony and other common species of junglewood like Kunnivaka, etc. At the time the first industrial survey was made, there were two saw mills with up-to-date machinery owned by Europeans one at Ramanthuruthu and the other in Trichur. They were disposed of later on. There are at present two important saw mills in the State which are equipped with up-to-date machinery to convert big logs into required sizes, one at Trichur and the other at Chalakkudi. Of these, the Trichur Timber and Saw Mills came into existence more than twenty years ago. The two saw mills cut per annum about 20,000 c. ft. of timber and employ about 200 operatives. The war has given a fillip to the industries in general, but particularly to the industries connected with timber. Although, these saw-mills were having a busy time, as they were completely engaged in converting timber for the Defence requirements.

#### Plywood Factory

Recently, a Plywood Factory has been established at Chalakkudi by the Standard Furniture Co. Ltd., Calicut. The opening of this factory which was under negotiation for some time past materialised in the year 1118. A portion of the site occupied by the new defunct "Cochin Tanneries" belonging to Government was granted for locating this factory and an annual supply of 7,000 candies of soft wood was guaranteed. At present, the output of the factory is over 10,000 sq. ft. a day, all of which is being sold to the Supplies Department. There is also a small plywood factory at Nemmara.

#### Strawboard Factory

Very recently a factory for the manufacture of strawboard has been established at Ernakulam.

#### Tile Factories

Manufacture of tiles and bricks is another thriving large scale industry in the State. Most of the tile factories are localised either in Mukundapuram or Trichur along the banks of the Manali River especially at Pudukkad and Ollur. There are nearly thirty-three of them including small and big establishments and about a dozen of these are having power mills. The total annual output of all these concerns is estimated at nearly 20 million tiles and bricks of which a considerable percentage used to be exported both by rail and sea. Owing to war, these factories were of late having a very good time as almost all their production was in demand to meet Defence requirements.

#### Rice Mills

The antiquated method of husking paddy by hand-pound has all but disappeared in the State and in its place rice mills with mechanised power have been established, scattered all over the State. At the time of the first industrial survey, *i. e.*, in 1910, there were only three mills one at Palluruthy near Mattancheri, the other at Mattancheri and the third at Trichur. The chief centre of such mills now is Trichur which is centrally situated as a collecting centre for paddy and distributing centre for rice. Owing to unhealthy competition, some of these mills

were keeping closed even in the pre-war period and as paddy is now a controlled commodity, many of them have ceased to work. Those in existence are husking paddy for Government and it is estimated that in the year 1118 all the mills together husked about a quantity of 2,76,386 bags of paddy.

### Coir Factories

Coir industry is so-to-say the staple industry of the coastal regions adjoining the backwaters. Taking advantage of this, a few big factories had sprung up in Mattancheri for the manufacture of coir ropes, rugs, matting, etc. For their manufacture, these factories were mainly depending on the superior wheel spun yarn imported from Travancore. As Travancore has already imposed an embargo on the export of coir yarn produced in that State, these factories have been latterly shifting to Travancore or closing down their business. At present, the manufacture of coir mats and mattings cannot be considered as an important large scale industry of the State.

### Plantation Industries—Tea, Rubber and Coffee

The pioneers of plantations in the state were no doubt Europeans but native enterprise has also entered the field. The plantations, mainly rubber, tea and coffee, are centred in the highlands of the State such as Palappilly, Nelliampathy and Vaniampara. There are nearly 16 thousand acres under coffee, tea and rubber plantations of which twelve thousand and seven hundred acres are under rubber alone. The total production of raw rubber is about 1½ million pounds annually and all this quantity is being exported as sheets.

### Cochin Cashewnut Factory, Chiyaram

Cashewnut industry has assumed commercial importance only during the last 15 years. The total area under cashewnut plantation in the State is about 7500 acres where from there is a produce of 5,100 tons of nuts per year. Much of these produce used to be exported either to Quilon or Mangalore. A small factory has recently been started at Chiyaram in the suburbs of Trichur Town. It roasts about 225 tons of nuts annually.

### Engineering Workshops

Until recently, there was no engineering workshops worth mentioning in the State, excepting the one attached to the Tramway at Chalakkudi and another at Ernakulam. The increase in the number of mills and factories equipped with machines and worked by power necessitated the establishment of mechanical engineering workshops. There are a few of them at Mattancheri and Trichur, but the most important of them is the "South Indian Engineering Company" lately started at Palluruthy. They are manufacturing machine tools and spare parts of the various machines. Some of the machines installed in the Plywood factory are manufactured in this engineering workshop of the State. On account of the war and consequential difficulties in importing new machineries and requisite spare parts, most of these engineering workshops are now having brisk work.

There are 102 registered factories in the State as shown below and in all, they employ 11,750 operatives.

1. Cotton Mills factories	No. 3	8. Rubber	No. 6
2. Oil Mills	16	9. Cashewnut	
3. Saw Mills	3	10. Engineering	5
4. Tile and Brick works	33	11. Furniture	1
5. Rice Hulling	27	12. Matches	1
6. Coir Factories	3	13. Electroplating	1
7. Tea	2	14. Manure	1
		Total	102

Except for the textile mills, the Tata Oil Mills and Rubber Plantation Companies, none of the other industrial concerns has more than a lakh of rupees as capital.

### 3. COTTAGE OR SMALL SCALE INDUSTRIES—(see Appendix III)

## APPENDIX III.

## Cottage Industries

A number of people in the State are engaged in the cottage industries. While a good many of the cottage workers devote their full time on one industry or other as their principal means of livelihood, a greater number, especially women take to it, as an auxiliary occupation. Fully realising that their well-being contributed not a little to the general prosperity of the State, Government have been although striving for the improvement and organisation of these cottage industries. The progress of important cottage industries of the State is dealt with below.

## Handloom Weaving and Spinning

Handloom weaving has been and continues to be the main cottage industry of the State. As in other parts of India, so in the State also it has been for long a hereditary occupation of certain communities. They are largely distributed in the Cochin Kanayannur, Talappally and Chittur Taluks which are the most important Taluks for cotton handloom weaving. The Chetties in Kuthampilly, the Kaikkolans in Chittur and Tattamangalam and Chilians in Cochin Kanayannur and Cranganur Taluks were mostly engaged in this industry using generally pit looms, though fly shuttle looms were also becoming popular among them.

The deplorable condition of handloom weavers mainly brought about by lack of finance and organisation and the prevalence of cut-throat competition demanded special attention of Government from the very beginning and the ameliorative measures initiated by Government are briefly narrated below.

## Kuthampilly Weavers Society

To improve the condition of the weavers in Talappally Taluk, an industrial Co-operative Society under the name of "the Kuthampilly Weavers Co-operative Society" with limited liability was started by Government in 1920 (1096). Loans for the purchase of materials for distribution among the weavers were also sanctioned. The Industries Department was rendering necessary help in the purchase of materials, sales of finished articles and improvement of the looms. For the first five or six months, the society worked well, but soon differences arose between the President and the Secretary of the Society which resulted in gross mismanagement. Government were therefore obliged to overhaul the Society into an unlimited liability concern and subsequently transfer its supervision to the Co-operative Department.

## Vijayaraghavapuram Weaving Factory

This is another concern started on Government initiative. This was established as an adjunct to the Vijayaraghavapuram Colony with a modest capital of Rs. 500. On an average, seven looms are now working in the factory providing employment to eight depressed class workers a day. Its total output in the year 1118 was worth Rs. 2,165.

It is estimated that there are over 3,600 handlooms now operating in the State with a total consumption of nearly 6 lakhs lbs. of yarn annually. Their products range from attractive sarees in the higher counts to washing towels in the low counts. To enable the weaving community to hold on against the competition from the mill products, Government have been encouraging the organisation of Weavers Co-operative Societies in all the important handloom areas of the State. Altogether, there are eight such Societies in the State. They are—

1. Kunnathupalayam Weavers Society	Chittur Taluk.
2. Eravathody "	Talappally Taluk.
3. Kuthampilly "	Do.
4. Cranganur Pattarya "	Cranganur Taluk.
5. Kumbalam Grammeena Weavers	Cochin Kanayannur Taluk.
6. Perampilly Pattarya "	Do.
7. Kanjiramittam Pattarya "	Do.
8. Cherpu Weavers "	Trichur Taluk.

As it stood at the end of 1118, they have a total membership of 487 and the financial help rendered by them to the members in that year amounted to Rs. 91,123—6—9. These Societies are now finding it difficult to get sufficient quantity of yarn. Though the Department of Industries has lately begun to supply them yarn through the marketing society, their demands especially for the superior counts still remain only partially satisfied.



As a result of the propaganda carried on in the State by the All India Spinners' Association, a few spinning centres have been opened in the State and there are about 1,000 spinners. In order that more persons may take to Khadi spinning and weaving, Government have given a loan of Rs. 5,000/- to one Co-operative Society engaged in spinning. The institution has been given the services of an instructor and a peon besides a building free of rent for its location. The Society is now running regular classes on Khadi spinning and weaving and will be taking up printing work also in the near future.

### Coir and other Fibre Industry

The extraction of fibre from the husk of cocoanuts and preparation of yarn have been an important cottage industry particularly in the coastal districts of the State for centuries past. At present, nearly 40 thousand people in the littoral tracts are engaged in this industry exclusively which mainly consists in processing fibre into yarn. Formerly, Europe was a market for coir fibre; but with the increase in the manufacture of coir products in Cochin and Travancore, export of fibre has been decreasing corresponding to the increase in the export of the manufactured coir and coir goods.

During the depression period that followed 1930, the abnormal fall in the price of coconut produces hit hard those engaged in this industry. The industry was then mainly run by individual entrepreneurs who used to purchase retted husks, get them processed into yarn by engaging workmen and sell the yarn either to small local dealers or to exporters at Mattancheri. Owing to the activity of middlemen, the price of yarn was always kept down to the level of raw material price, so that the poor yarn spinner had to undersell it to the profiteer. For one reason or other, most of the coir dealers were closing down their businesses and thereby causing unemployment to the actual workers. Their lot called for ameliorative measures and Government in 1107 deputed the Superintendent of Government Trade School to study the conditions of the industry in the important coir centres of Travancore, Anjengo, Paruvur, to study methods of retting coconut husks, spinning coir yarn, etc. On his return, a coir school was started at Narakkal. A Central Coir Depot was established at Mattancheri in 1940 with the idea of eliminating the middlemen between the manufacturers and the exporters and to enable the former to hold on until the market becomes favourable. The Depot is to collect yarn from Co-operative Societies, small dealers, etc., by granting advances to the extent of 80% of the value and to dispose of the stock under favourable circumstances, charging a reasonable commission to cover up the expenses of its management besides a low rate of interest on the advances made. The Depot is now functioning successfully.

Side by side, steps have also been taken to organise the industry on co-operative lines. Five Co-operative Societies have already come into existence in the important coir centres of the State. They are:—

1. Kuzhuppilly Co-operative Trading Society	Cochin Kanayannur Taluk
2. Kerolpanna Co-operative Society	Trichur Taluk
3. Cranganur Labour Industrial Co-operative Society	Cranganur Taluk
4. Azhikode Sadhu Co-operative Society	do.
5. Cranganur Rural Trading Co-operative Society	do.

At the end of 1118, all of them together had a total membership of 388 and the financial aid rendered by them to the members aggregated to Rs. 13,106—11—0. It is worth mention in this connection that for some of these Societies Government have sanctioned the appointment of full-time Secretaries, besides advancing adequate working capital.

Rope making—an allied cottage industry—is also being carried on in the State. These are manufactured on twisting machines worked by labourers. The ropes are largely in demand from the steamers. There used to be a demand for these ropes from Rangoon, Penang and Singapore, etc., in the pre-war years, but now they are mainly exported to Calcutta. About 1500 persons in the State are engaged in the rope making industry.

### Other Fibre Industries

Kora mat weaving and screw pine mat weaving fall in this category of cottage industry. The plains and forests of the State abound in sedge grass with which are made mats of excellent quality which serve as cheap substitute for carpets. Attractive hand-bags and dining table bags made out of this are in good demand from outside. The Chittur Taluk is especially noted for

this, though coarser varieties are made in Trichur and Talappally Taluks. The industry is being carried on mostly by Kakkalans, a set of gipsies of whom there are over 100 families. They pursue the profession only off and on with the result that not more than 50 looms are working permanently in the State. The value of the production is estimated at about Rs. 6,000. A Co-operative Society—Chittur Industrial Co-operative Society—has been organised with Government grant for the purpose of organising the Kora mat weaving industry and it is now working satisfactorily.

Mats made out of screpine leaves and palmyra leaves are also meeting household and coarse packing requirements in and outside the State. About 4 thousand people are engaged in making these mats as a subsidiary occupation. The superior variety of leaves which are available in certain parts of Travancore are not available in the State. Necessary investigations are being made by Government regarding the possibility of cultivating this variety in the State. A few Co-operative organisations in Cranganur and Karupadanna localities have taken up the industry.

### Oil Pressing

This is a prominent cottage industry in the State from time immemorial and even today nearly 800 bullock-driven country mills (chakkus) are working scattered throughout the State. They are estimated to consume about 200 tons of copra and other seeds in a year. Besides copra, other oil seeds such as gingelly (sesame), castor, marotti, and groundnut are being pressed in the country mills. The import of cheap kerosene oil coupled with the advent of various oil mill factories in the State has crippled the indigenous industry to a great extent. Gingelly oil pressing carried on by the Vanian community has not, however, been affected much by these factories; but of late owing to its comparatively unremunerative nature, many of them are inclined to leave off their hereditary profession.

### Groundnut Decortication

About 14,000 acres in Kozhinjampara, Eruthempathy and other eastern villages of the Chittur Taluk are under groundnut cultivation with an estimated annual output of about 6 thousand tons of seeds. Though a main portion of the produce is being exported to Pollachi and Coimbatore, a considerable quantity is hower being decorticated in the two small mills situated in the locality.

### Soap-making

Though Tata Oil Mills and a few other smaller concerns have taken to soap-manufacture on a large scale, this is being carried on as a cottage industry. During the previous years, there used to be nearly 30 small establishments doing in washing soaps not with any big appliances or machinery. Their products were not of sufficiently good quality to be able to compete with imported soaps. At present, most of them have ceased functioning, as they are not in a position to get their requirements of caustic soda.

### Metal Work

The village blacksmith used to manufacture all kinds of agricultural implements and articles for domestic use. With the onset of cheap supply of foreign made articles his position has steadily deteriorated and his activities are now generally confined to petty repairs. There are at present 3,000 blacksmiths and other workers in iron and many of them are skilled workmen. Table-knives, razors, locks, penknives of the best variety are being manufactured by them. But they lag behind in organisation and consequently they are incapable of earning anything above the bare minimum of subsistence.

Bell-metal industry has not, however, suffered much owing to foreign competition. This is partly due to the convention of the Hindu religion which rigorously exclude all foreign wares during religious rites and ceremonies in temples. The bell metal vessels made in Chennamangalam, Cranganur and Irinjalkkuda are much appreciated and there is large demand for them both in and outside the State. There are 200 moosaries in the State who are engaged in this industry. A few enterprising capitalists have established foundries here and there in the State and engage the moosaries on a factory basis.

Precious metals such as gold and silver, are utilised for the manufacture of jewellery. This is the hereditary profession of the "Thattans" of the State. There are excellent craftsmen among them. There is no kind of organisation among them and hence they are often liable to the exploitation of a few entrepreneurs who trade in jewellery.

It may be stated in this connection that in order to improve the lot of metal workers, an Industrial Co-operative Society was organised by Government in 1096 at Ernakulam under the name of "Lakshmi Vilas Metal Workers' Co-operative Society" with unlimited liability. Loans for the purchase of materials and construction of workshop, etc., were granted and even agents were appointed in various centres for the sale of articles. The Society worked well for a while but soon the number of members decreased and the registration of the Society had to be cancelled.

### Wood-work Industry (Carpentry)

The hereditary carpenters—marasaries—were engaged in this industry from time immemorial. There are now over 8,000 persons in the State who have taken to carpentry as their profession. Of them, a few belong to communities other than marasaries who have studied the trade from Industrial Schools or elsewhere. Their main item of work has been house construction, but owing to the advent of ferro concrete this has lately been affected to some extent. Many of them have now turned to furniture manufacture which is assuming importance in the State. Several Furniture Marts have come into existence especially at Chevoor, Trichur and Ernakulam. The industry is however, well organised now, and there is competition between trader and trader. In spite of all these, the industry is, gradually expanding as evidenced by the fact that large consignments of furniture are now being exported to places all over South India. In some of the important places like Coimbatore, Madura, a few of the enterprising furniture traders have lately opened depots for sale. There are only two Co-operative Societies for this industry in the State, Ernakulam Industrial Co-operative Society and Cherpu Carpenters Co-operative Society.

### Carving and Toy-making

Carving and toy making were lingering all along as an auxiliary industry but recently there has been a marked revival of these indigenous arts in such localities as Cherpu, Oorakam and Trichur. There are excellent carvers among the carpenters in these localities. Originally their artistic genius used to find expression in the manufacture of kavadies, but now their latent talent has expanded in other directions also; particularly in the manufacture of toy elephants and miniature processions. In the past Government used to give them encouragement by arranging exhibition and sale of their artwares through the Industrial section of the State Museum. There is now a Government Carving Workshop under the Department of Industries which executes things to order. Many carvers are, however carrying on the industry independently leading to unhealthy competition and consequential deterioration in the quality of the products.

Manufacture of photo frames is a new industry established in the State. There is a good demand for the frames manufactured locally though their finish has yet to improve. Many small dealers are engaged in this trade.

### Match Manufacture

The abundance of raw materials such as splints and soft wood coupled with a high protective tariff on the imports made match manufacture a paying industry in the State. A few years back, ten match factories were working but all of them lacked technical guidance and hence could not stand the competition from "Wimco" and other factories outside the State. Government tried to help the growth of the industry by such measures as the abolition of licence duty for hawking matches in the municipal limits, etc. Except for two of the Match Factories which are now working in a hap-hazard manner, all the others are now closed. Constant removal of the same species has exhausted the stock of soft wood in easily accessible regions of forest and consequently cost of production has gone up. As a rule, the products of these factories were of an inferior quality which could not stand the moist atmosphere of the State.

### Paper Manufacture

Steps have been taken by Government to develop manufacture of hand-made paper with the aid of small machines. Two candidates were got trained in the art of paper making at the All India Village Industries Association Training School, Wardha. The industry is still in the experimental stage. One Mr. J. Iswara Ayyar is now carrying experiments under Government patronage to prepare a feasible scheme for developing hand-made paper industry.

### Bamboo Matting

There is an abundant supply of bamboos and reeds in the State forests. The manufacture of mats and baskets out of them has, therefore, been a thriving cottage industry especially in the hilly tracts of Talappalli, Trichur and Mukundapuram Taluks. It is estimated that not less than 11,000 persons mostly Sambavans (parayas) with a sprinkling of Kavaras in the Pattikkad area are now engaged in this industry. Government have been allowing the workers to take headloads of bamboos from the State forests, free of charges, which they convert into things of everyday use in all houses such as baskets, mats, brief-bags, etc. These are also exported by rail to foreign places like Salem, Madura, Trichinopoly, British Malabar and South Canara by wholesale stockists who purchase the basketware, etc., from the workers at low rates. Some of them have even opened depots in the important foreign centres of sale such as Salem, Madura, etc.

### Drugs

There is a luxuriant growth of medicinal herbs and plants in the forest and hilly tracts of the State which are generally exploited for pharmaceutical purposes. The manufacture of ayurvedic drugs and medicine is now a flourishing industry and there are already a number of small firms engaged in this. The Ayurvedic Department has lately taken up the preparation of pharmaceutical medicines on a large scale.

The distillation of lemon grass which grows wild in the forests is a cottage industry pursued by some on a part-time basis.

Among the cottage industries thriving on agricultural products the following deserves mention.

### Rice Hulling

Before the advent of mills, rice hulling was perhaps the most wide spread and popular of the cottage industries. The coming of rice mills has paralysed this business a lot but it has not suffered total extinction partly due to the existence of Hindu religious institutions with their insistence on hand-pounded rice and partly due to a portion at least of the middle class who always prefer handpounded rice to mill rice for their consumption. Nearly 200 tons of paddy are converted into beaten rice at Vallachira near Trichur and Trippunithura where some 70 to 80 families are engaged in this industry.

### Sugar and Jaggery Manufacture

Another industry based upon agricultural products is sugar manufacture. Raw sugar or jaggery is manufactured in the State from palms like cocoanut, palmyra and sago. The jaggery thus produced is mainly consumed locally and partly exported to Coimbatore, Pollachi and Chowghat. Detailed enquiries were made by Government a few years back. The services of a sugar Technologist, Government of India, were secured for this purpose and as per his recommendations, a leaflet was issued describing the process now employed, its evils and the changes to be introduced, etc. Investigations were also made about the possibility of manufacturing sugar out of sweet toddy, but the venture was found neither paying nor prospective.

### Nuts

Arecanut produced in the State is being cut, cured and largely exported. This is an indigenous cottage industry mainly localised in the Trichur and Talappally Taluks. It is estimated that at present there is an annual production of 1,25,000 cwts of processed marketable commodity worth about 50 lakhs of rupees.

### Building Industries—Masonry, Lime manufacture and Quarrying

Masonry has been the hereditary profession of a particular community—Kallasaries (Viswakarmala) in the State. Construction of buildings—both public and private and repair of old ones, keep them in constant employment except probably during the monsoon months. Laterite is the common building material for masonry structures and its quarrying gives occupation to many in the State. Similarly, burning of shells in country kilns for the manufacture of lime is also a widespread cottage industry of the State.

### Earthenware

For ages past, the manufacture of earthenware has been the hereditary profession of a potter community popularly called as "Kusavans". They are colonised in different localities and now number over 2,000. They make their wares in crude and primitive kilns which are highly wasteful. The increasing supply of cheap metalwares has no doubt affected the demand for their goods to a considerable extent, but it still continues to be a wide spread cottage industry as testified by the fact that large consignments of this indigenous output are exported to the coastal districts up to Alleppey.

### Fishery Industry

Of the industries of the State based on animal products, fishery is undoubtedly the most prominent. Fishing and fish curing have been an important means of livelihood pursued as regular industry by the fisherfolk community (Valans) that inhabit the coastal areas as well as the littoral tracts adjoining the backwaters. At present, not less than 10,000 people are engaged in the industry.

### Poultry and Bee Keeping

Honey and wax are still largely forest produces, though it is some time past since bee keeping has been introduced as a cottage industry on the initiative of Government. In 1105 or so, Government deputed a teacher to Marthandom in Travancore and also to Y. M. C. A. Ramanathapuram (Coimbatore) for training in up-to-date bee-keeping. On return, he was appointed as a full-time officer for the development of bee-keeping industry in the State. He has set up hives in various centres of the State and successfully demonstrated the methods of collecting honey on modern lines.

Poultry is still carried on as a home occupation all over the State. There have been two attempts to establish poultry farming on organised lines in the State, one at Thoosam and another attached to the Nayadi Colony near Kunnankulam. The total number of hens in the State is estimated at about 2½ lakhs. There are also about 85 duck farmers in the State, most of whom are distributed on the backwater border of Trichur, Mukundapuram and Cochin Kanayannur Taluks. They keep nearly 60,000 ducks. Ernakulam and Trichur are important egg collecting centres, wherefrom there is a large export of both hens and ducks egg. (48 lakhs of ducks egg and 26 lakhs of hens egg).

### Dairy Industry

Until recently, dairy farming in its modern sense of rearing superior breed of milch cows, canning of milk and other by-products and then organised marketing was practically non-existent in the State. Of late, a few dairy farms such as Gosri and Pioneer Dairies at Vyttila near Ernakulam have come into existence. Of these, the latter has been converted into a joint stock concern. Both of them are now in a thriving condition.

### Leather Industry

The industry is in the hands of indigenous cobblers, the Tholkollans of whom about 2,000 persons are employed in the manufacture of leather goods. Small capitalists have started workshops especially in the urban localities where the workmen are employed on daily wages and piece work system. Recently, a Co-operative Society has been organised by Government—Cherpu Leather Workes Co-operative Society—for the benefit of these workers. Besides advancing adequate funds, the institution has also been given the services of a paid Secretary.

Apart from the more important of the cottage industries dealt with in the foregoing pages, there are numerous other arts and crafts pursued in general throughout the State as regular cottage industries. Mechanical repairing, printing, binding, beedi-making and stitching engage large numbers especially in towns. Tailoring is also a popular cottage industry carried on individually in most cases but in towns where sartorial demands are heavy and pressing, bigger establishments have cropped up. Embroidery, the making of pillow and laces, knitting and tattering are thriving items of needle-work done mostly by women as leisure time occupation in homes and Convents. The State has already earned a name for pyrotechnics in which a small number of the people is engaged. The artificial stone cutting and polishing is another minor cottage industry which is largely carried on in Pudukkad. All these industries are, however, of a miscellaneous nature which have not yet become organised and important.

Besides organising rural industrial schools throughout the State for imparting training in the vocations detailed above, Government constituted an Economic Development Committee in the year 1926 on whose recommendation bonuses and honoraria used to be awarded to those who were earnestly working for the development of cottage industries. The Committee continued to function as an advisory body to Government in matters of economic importance until 1935 when it was dissolved. For the promotion of nascent and cottage industries, the State Aid to Industries Act, X of 1111, was passed by Government. As a result of the inauguration of the Rural Development plan by the Hon. Minister, rules insisting on fixed assets as security were relaxed and during the last five years, 91 loans to aid cottage industries have been granted of amounts extending from Rs. 50 to Rs. 5,000, aggregating in all to a sum of Rs. 53,000. In order to rehabilitate them in the face of unfair competition from the organised large scale industries, Government have initiated necessary legislative measures like "Merchandise Marks Act" which had the salutary effect of stopping the practice of short reeling of yarn adopted by the Textile mills of the State to the detriment of handloom weavers.

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