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**Planned Economic  
Development for India**

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**S. R. S. RAGHAVAN**



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KITABISTAN ALLAHABAD

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# Planned Economic Development for India

WITH SPECIAL REFERENCE TO  
INDUSTRIAL DEVELOPMENT

*By*

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KITABISTAN  
ALLAHABAD

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## CHAPTER I

### NEED AND OBJECT OF PLANNING

It is now recognised on all hands that planned economic development of India should take place in the post-war period. The country has become "planning-minded" since the beginning of 1944 when the Bombay Plan was published. The Government of India have set up a separate "Planning and Development Department," which has been entrusted to the care of Sir Ardeshir Dalal, one of the authors of the Bombay Plan and a noted industrialist of long and wide experience. Various tentative expert reports have been issued for official consideration on several aspects of planning, like road and railway development, and development of agriculture, education and civil aviation. Official planning is gathering momentum under the impetus of the new Department. Many Provincial and State Governments, too, have prepared their own plans. On the non-official side, besides the Bombay Plan, the Indian Federation of Labour has brought out a "People's Plan for Economic Development of India." This is popularly known as the Roy Plan, since it was produced under the inspiration and guidance of Mr. M. N. Roy, the General Secretary of the Organisation. Lastly, we have Sir M. Visvesvaraya's Five-Year Plan, which has been issued by the All-India Manufacturers' Organisation, Bombay. The author of this plan has been well known for his forceful advocacy of Indian industrialisation and formulated, as early as in 1934, a scheme of planned economic development for India, with particular emphasis on industrial development.

That there should be planning for economic development in the future needs no great emphasis, since the necessity for it has now found general acceptance in the country. The development in the past, though substantial, has been haphazard and has not been able to solve the central economic problem of India, viz., the poverty of its people. No doubt the country has become the eighth great industrial nation of

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tion is recognised by H. E. the Viceroy also when he says that the object of planning should be "not to increase the wealth of the few but to raise the many from poverty to a decent standard of comfort." The Bombay Plan, too, realises that the problem of distribution "is vital to any scheme for raising the standard of living," but promises to deal with the question in a subsequent report.

Leaving aside the problem of distribution for the present (which will be dealt with later in this article), let us examine the question of raising the living standard. How much should this be raised to ensure a comfortable standard to the common man? The Bombay Plan points out that the present per capita income falls short of the barest essential requirements of an individual, like food, clothing, housing, medical aid and education, by at least Rs. nine. It, therefore, aims to bring about a doubling of the per capita income to Rs. 135 per year by trebling total income in a period of fifteen years; thus leaving a substantial margin over the minimum standard of Rs. 74 per individual which it has worked out. It allows for a growth of population at the rate of five millions a year during the period. In its opinion, this substantial margin over the barest minimum is necessary since the deficiency of Rs. nine per individual from this minimum should be much more in the case of the lowest income groups, who constitute by far the greatest number and who actual income is probably much below the per capita figure of Rs. 65 per head per year. "It is, therefore, necessary," it says, "to increase our national income above the present level by a substantial margin even if we aim at nothing more than to secure for our people their bare requirements as human beings."

The Bombay Plan figures may be examined in the light of the data on minimum wage requirements furnished by certain labour inquiries in the main industrial centres of Bombay, C. P., Bihar and U. P., just prior to the outbreak of the war and by the Railway Court of Inquiry. As all the reports pertaining to these inquiries have come to more or less similar conclusions, I take my stand mainly on the Bombay Report. According to it, the minimum requirement of a family of three units (husband, wife and two children) is Rs. 50 p.m., in Bombay City, Rs. 45 p.m., in Ahmedabad and

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Rs. 40 p.m., in Sholapur, or an average of Rs. 45 p.m. for the big industrial cities of the Bombay Province. The amount required in the smaller urban areas, in order to maintain the same standard of comforts, will be lower and substantially so in many cases, as prices and rents are not uniform throughout the country in India. But, taking the higher average figure as applicable to the entire urban area, since it is difficult to calculate for each urban centre, we arrive at Rs. 15 as being the minimum amount required every month by each individual in an urban area in order to ensure for himself the barest necessities of life, like adequate food according to nutrition standards, fuel and light, housing according to health standards, adequate clothing, and miscellaneous elementary needs like education and medical aid (the barest rudiments), travel, social requirements, etc. If the State (with or without the co-operation of the employer) provides, as it should, free education, free medical aid and proper housing, the amount thus saved may be used up for additional comforts or for participation in any social insurance scheme that may be devised for the benefit of labour.

I have already referred to differential price and rent levels in India. Although at the end of the planning period economic conditions may—and should—become equalised and stabilised throughout the country, the fact of the existing differential conditions, which cannot be eliminated in the near future, renders it possible to maintain in the rural areas the same standard of comforts as in the urban at about two-thirds of the cost in the latter. On this basis, it should be sufficient for a rural worker to meet his essential requirements on an income of Rs. 10 per month, as against Rs. 15 required in the cities. As the proportion of urban to rural population is 1 : 7 at present, it would appear that a per capita income of Rs. 132 a year is absolutely necessary. It should be really much more than this figure so as to ensure that the lowest income groups actually get at least this much. Any economic planning should take note of this basic consideration in working out a scheme of agricultural and industrial development. Allowance for the growth of population should be, as in the Bombay Plan, at the rate of 5 millions a year.



the world; but, in spite of the impetus given by the war, only about three million people are at present employed in organised factories. Three-fourths of the population still continue to be mainly dependent on agriculture, the pressure on which is continuously on the increase with the growth of population at the rate of five millions a year. All the while, the industrial potential, which is very great, remains still to be exploited to the full. On the eve of the war, the per capita income was only Rs. 66 a year, as compared with Rs. 65 in 1931-32, i.e., an increase of only one rupee in a period of eight years. This period, it must be noted, accounts for the growth of about 45 per cent in the large-scale industries for which statistics of production are available. In spite of this, the result is miserable, as reflected in the stationary character of the per capita income figure. The country continues to be predominantly agricultural, deriving a low level of subsistence income. The war has further revealed serious lacunae in our economic structure. Although our war effort has been substantial, we could have done much more had we planned and developed to the full the economic potential of the country. The war-time scarcity of consumer goods and deficiency of foodgrains, and the consequent inflation, could have been avoided or at least the bad effects of the resulting situation considerably minimised.

Planned economic development for India has an international aspect too. The poverty and the low standard of life of this country—and of China also—constitute a serious menace to the economic well-being and development of the entire world. The strength of the world economic chain should be judged by its weakest links, viz., India, China and the Eastern countries; and if these links snap, world economy is bound to be thrown out of gear, resulting in disequilibrium and set-back. On the other hand, if these countries develop into strong economic units, they will have more to give to other countries and can take in more from them, thus augmenting the material happiness of humanity throughout the world. If the purchasing power of the 40 crores of people inhabiting this country increases by even a small fraction, exporting countries can send more of their goods to India, i.e., more of such goods as this country needs and can-

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not produce herself. Thus, Eastern industrialisation should receive sympathetic consideration and active support at the hands of the great and highly developed industrial nations of the West like the U. K. and the U. S. A., as this process will contribute directly to their own prosperity and indirectly to that of the entire world.

The fundamental objective of planned development has been generally accepted to be to raise the standard of life of the people by exploiting to the maximum the available resources of the country. H. E. the Viceroy, for instance, has stated in his speech to the Central Legislature in February 1944: "Our task is to use rightly and to best advantage her (India's) great economic assets, not to increase the wealth of the few, but to raise the many from poverty to a decent standard of comfort." Giving expression to the same idea in a more picturesque language, he said: "Our aim must be to plan for economic and social development so as to raise our standards of living and general welfare. We must lift the poor man of India from poverty to security, from ill-health to vigour and from ignorance to understanding. And our rate of progress must no longer be at the bullock cart standard, but at least at the pace of the handy and serviceable jeep." The Bombay planners say that their scheme "has the modest aim of securing a general standard of living which would leave a reasonable margin over the minimum requirements of human life."

The Roy Plan, however, while recognising the need to raise the standard of life, rightly stresses the necessity of equitable distribution of what is produced. "Increased production and equitable distribution," it observes, "are the cure for the evil of poverty." Explaining this statement, it says: "An increase in national income, it is true, is essential for any improvement in the standard of living of the people. But it is possible to imagine a manifold increase in the national income with a considerable deterioration in the living conditions of the people. The important thing, therefore, is not for a planned economy to start with saying that it will lead to an improvement in the standard of living of the people, but to show actually how it will achieve that very laudable result." The importance of equitable distribu-

tion is recognised by 'H. E. the Viceroy also when he says that the object of planning should be "not to increase the wealth of the few but to raise the many from poverty to a decent standard of comfort." The Bombay Plan, too, realises that the problem of distribution "is vital to any scheme for raising the standard of living," but promises to deal with the question in a subsequent report.

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I have already referred to differential price and rent levels in India. Although at the end of the planning period economic conditions may—and should—become equalised and stabilised throughout the country, the fact of the existing differential conditions, which cannot be eliminated in the near future, renders it possible to maintain in the rural areas the same standard of comforts as in the urban at about two-thirds of the cost in the latter. On this basis, it should be sufficient for a rural worker to meet his essential requirements on an income of Rs. 10 per month, as against Rs. 15 required in the cities. As the proportion of urban to rural population is 1 : 7 at present, it would appear that a per capita income of Rs. 132 a year is absolutely necessary. It should be really much more than this figure so as to ensure that the lowest income groups actually get at least this much. Any economic planning should take note of this basic consideration in working out a scheme of agricultural and industrial development. Allowance for the growth of population should be, as in the Bombay Plan, at the rate of 5 millions a year.

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The paramount importance of proper agricultural planning is obvious in a country like India whose population is mainly dependent on the produce of the soil. The land must, in the first place, produce enough to feed the vast and growing population of the country. In the second, it must grow all the raw materials it can to feed the industries in a manner which will enable them to provide the home market sufficiently and then export the surplus to foreign countries. In the third place, agricultural production must be on a scale which, while enabling it to meet internal needs, will permit the maintenance of at least the pre-war standards of exports of agricultural raw materials. It should be possible eventually to increase these exports. It goes without saying that, in order to achieve these objects, agriculture must be remunerative, instead of being precarious to many as at present. With this object in view agricultural holdings should be consolidated and made more economic, fragmentation avoided, the yields of crops substantially increased through proper manuring, better seeds, and the adoption of scientific methods of agriculture, and stable and remunerative prices ensured for agricultural products. Above all the existing pressure on land should be substantially relieved by providing for the surplus population (surplus to the need of ensuring remunerative agriculture) alternative avenues of profitable employment; and herein it is that industrial development is bound to play a prominent role. The raising of the standard of life of the agricultural population by a substantial margin by these and other methods is of supreme importance since they constitute the main market for the products of Indian industries. Without agricultural prosperity, therefore, the industrial prosperity of the country cannot be assured. (The converse also is, of course, true, though not to the same extent, since it is only a prosperous industry that can absorb every agricultural raw material adequately and at remunerative prices.)

The truth of this statement has been recognised by the Roy Plan, though I do not agree with some of the methods it proposes for implementing it. "It is an indisputable fact," it says, "that the main difficulty in the way of development of large-scale industries in India has been the all-too-meagre purchasing power in the hands of a large majority of the

people. That alone constituted an explanation of the phenomenon of over-production in a country so full of want as India. Any attempt to increase the purchasing power of the people will have largely to concentrate on agriculture, which affords the main channel of employment to a majority of the people. Agriculture should, thus, form the foundation of any attempt to plan the economic life of the country." The scales would appear to be slightly tilted in favour of industrial development in the Bombay Plan, though its authors have stoutly denied that such is implied in their proposals. But the following passage from the report is significant in this context: "At first sight the percentage increase in industrial income which this plan involves might appear to be disproportionately large as compared with the increase in agricultural income. But it has to be borne in mind that our industrial potentialities have to a great extent remained unexploited so far and adequate provision to make up this lag in industrial development will naturally mean a large percentage increase over the present level. On the other hand, as the demand for food crops which form the bulk of our agricultural products is comparatively inelastic, even after taking into account the probable increase in population and the higher level of income which the plan will bring about and the larger demand for industrial raw materials, it is not likely that more than a 130 per cent increase will be absorbed within the country."

The first object of industrial planning will be to draw off the surplus population from agriculture and thus redress the unequal balance between agriculture and industry that now exists. This fundamental disequilibrium in Indian economy should be corrected if the country should be enabled to reach a more prosperous state of existence. The Bombay Plan has taken cognisance of this aspect of the problem. It proposes, by planned development, to change the present percentage to total income of the income derived from industry, agriculture and service from 17, 33 and 22 to 35, 40 and 20, respectively. "This will not change the essentially agricultural character of our economy," it says. "From the point of view of employment, agriculture will continue to employ the greater part of our population."

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This stress on the necessity to rectify the present want of balance in the economy of India is a recognition of the vital link that exists in India between agriculture and industry. Therefore, it is of the utmost importance that industrial and agricultural planning should be harmoniously correlated. The one must be made the complement of the other if a balanced economy should be developed. It should, therefore, be clearly recognised and definitely laid down that one of the important objects of industrial development is not only to absorb the population which is surplus to profitable agriculture, but also in the main to give a remunerative outlet to the products of agriculture by making the fullest use of the raw materials produced by it. Agriculture, in its turn, by thus becoming more remunerative to the people depending on it, will increase the purchasing power of the rural people and thus supply a vast and profitable market for the consumption goods produced by the industries of the country (and also for such capital goods as are employed in the process of agriculture and in the agricultural industries).

It should, therefore, be a first principle of industrial development to make the fullest use of the agricultural raw materials produced in the country, thereby increasing the standard of life of the agricultural population who, in turn, will consume the products of Indian industries. Among other things, industrialisation is mainly required to make agriculture more prosperous and raise the standard of living of the agricultural population who, in turn, are capable of sustaining large-scale industrial development.

The main problem of agriculture, as has already been indicated, is the increasing pressure on land. About four millions are added every year to the rural population, in consequence of which agricultural dividend has failed to register any appreciable increase. Therefore, side by side with increasing the area and yield of crops and other measures of agricultural improvement, the increasing pressure on land must be arrested, so that the increased aggregate income may be divided between a smaller number of people than would otherwise be the case. It is mainly through industrialisation that such a consummation is possible. In other words, industries and services should absorb between themselves

a major portion of the growth in the rural population, leaving to the land only that much as it can profitably sustain. This is what is meant by establishing a balance between agriculture and industry.

An indication of how this balance should be aimed at in any scheme of planned economic development may be given. Assuming that a fifteen-year plan is to be worked out, the total rural population—i.e., that part of the population mainly depending on agriculture—will have increased, at the present rate of growth, by 100 millions and urban—i.e., that portion mainly dependent on industries and services—by 25 millions by the end of the planning period. If this kind of development were to be permitted, then the pressure on agriculture would increase so much as to lower the standard of life of the rural population and make agriculture unremunerative. If, on the other hand, a balanced economy is planned, then favourable conditions will be created by which at least half of the growth in rural population may be expected to be absorbed by industry and services. The remaining half may be anticipated to be absorbed profitably by agriculture, provided planned development takes place here too. It is estimated that about 100 million acres of new land could be brought under cultivation and that, with the adoption of technological improvements, the yield of crops could be increased many times. These prospects and possibilities of agriculture may be expected to sustain on a far higher standard of life than at present the present agricultural population *plus* 50 per cent of the growth during the planning period. In order to ensure this, industrial development must take place on a vast scale, leading to conditions of full employment.

If planning aims to achieve these results, the present lop-sided development of Indian economy will be corrected to a considerable extent. The present ratio between urban and rural population is 1 : 7, i.e., 7 out of every 8 are directly or indirectly dependent on agriculture. With a balanced economy worked out in the manner indicated above, this proportion at the end of the planning period is likely to be 1 : 3. Still the predominance of agriculture will be maintained; but it will be the predominance of prosperity and not of poverty.



Another important reason as to why India should be industrialised is that industrialisation is required because potentialities in the direction are very great—immense raw material resources, a great labour population awaiting to be fully and profitably employed and a vast internal market ready at hand and capable of absorbing, under favourable conditions, the products of a vastly expanded industry. Industrialisation is required, not only to correct the balance in the economy of the country, but also to create conditions of full employment which would absorb those who are at present unemployed or under-employed. It will help the raising of the standard of life of both the rural and the urban population; and, with a rising standard, it is needed to supply to the population all those manufactured goods which the demands of a higher standard of life will call for.

The strategic aspect of industrialisation should also be borne in mind. As a recent writer on industrial planning rightly points out, "in this war India is a valuable base as well as an arsenal, but one that would have been twice as valuable had the country been more advanced industrially than she is at present." The present war has shown the serious deficiencies of the war economy of the country as well as its war potentialities. Therefore, from the point of view of the vital needs of the defence of the country also, industrialisation is of paramount importance. From this aspect of the problem, the development should embrace not only the armament industries but also those which will be in great demand in a period of war, either by the defence authorities or by the civilian population. Neither war effort nor civilian morale should be allowed to suffer for lack of an adequate supply of industrial products. Certain essential commodities of civilian consumption have been in short supply—e.g., cloth, paper, drugs and chemicals, etc. This contingency could have been avoided if India had been better industrialised in the pre-war period. Considerable as has been India's war effort, it has not, however, been as great as the record of some other countries, more fortunately situated regarding industrial structure and development, although this country possesses vast untapped human and material resources which could have been used to show a similar record had similar favourable condi-

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tions as in those countries prevailed here too at the outbreak of the war. Witness, for instance, what has been accomplished in Canada and Australia. If India's resources had been properly developed, its war effort could have been easily so much as to have materially shortened the war at least in the Far East. Further, it has been strikingly demonstrated how highly organised peace-time industries could be switched over to war production in the quickest period of time. Such a kind of industrialisation had not taken place in India and, therefore, this country has not been of as much use as she could have been if her industrial structure had been properly developed and organised from the defence point of view indicated above. Future industrial planning should, therefore, see to it that development takes place along such lines as will enable this country to play as great a part as America is playing now in a period of war.

## CHAPTER II

### THE ECONOMIC SET-UP AND POTENTIAL

In order to plan properly for the future, the progress made in the past, the present economic set-up and the economic potentialities of the future should be clearly comprehended. The survey for this purpose will naturally relate to the normal peace-time period before the war, although the extent of influence of the war factor will also have to be assessed and taken note of in so far as it has changed the economic structure and tendencies of the country. The war has exerted a profound influence on Indian economy in various directions. It has shown its strong and weak points at a period of severe international crisis. The economy has gained in several directions during the war period: expansion of old industries; the setting up of new industries or new industrial processes; the training of technical personnel on a mass scale; the building up of the machine tool industry and some basic chemical industries, and heavy industries like aircraft and shipbuilding; and the capture of near-by export markets, mainly for manufactured goods; these are some of the gains which will have to

be consolidated and made use of for planning for the future.

The pre-war economic set-up may thus be briefly summarised. On the agricultural side, the area under cultivation has not shown any considerable expansion, consistent with the large growth of population. On the other hand, there was a distinct tendency to switch on cultivation from food to commercial crops. The yield of crops has increased to a slight extent, which cannot be considered satisfactory on any account. There has been a distinct tendency to cultivate improved varieties, but progress has been, generally speaking, slow and not commensurate with the needs of a modern economy. The period of depression, starting from 1930 and continuing with a slight break in 1936 and 1937, right up to the outbreak of the war, led to a collapse of agricultural prices, leaving in its trail a tale of intense suffering to the agricultural classes. The war, with its increased demand and higher prices, came to the rescue of these classes, who are now better off than at any time since 1930. Exports of Indian produce—mainly agricultural—declined very considerably and the balance of international accounts had to be kept up by exporting about Rs. 500 crores worth of gold from India during the depression period.

The tale is not so bad on the industrial side—it is, on the other hand, encouraging. Deposit low prices, large-scale industrial development took place during the period. There was rising production in almost all the industries. The sugar industry was built up during the period practically from the start. Various minor industries sprang up, like the manufacture of gold thread, soap and toilets, matches, miscellaneous electrical goods, ceramics, etc.

On the eve of the war, India's place in world economy can be summarised as under:

1. Among the industrial nations of the world, India occupied the eighth place.
2. She was the second largest producer of cotton in the world.
3. She stood first among world's tobacco growers.

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4. Her rice crop was more than a quarter of all the rice grown in the world.
5. She produced—and produces—all the world's jute.
6. She produced nearly a quarter of the world's tea.
7. Her mica production ranked only next to that of Russia.
8. She was the largest producer of oilseeds in the world.
9. India possesses 205 million cattle— $\frac{1}{3}$  of all the world's cattle. There were 87 millions of sheep and goats— $\frac{1}{7}$  of the world's total.
10. She leads the world with the production of 20 million cattle hides a year, in addition to producing vast quantities of goat and kid skins.
11. She produced most of the world's supply of lac.
12. India became one of the greatest sugar producing countries of the world.

The above brief enumeration would appear to present a rosy picture of India's economic set-up against the international background. But the position, in order to understand it in its proper perspective, has to be viewed against the background of India's teeming millions and their requirements and her economic potentialities. Considered from this point of view, the present set-up is not as encouraging as it appears to be on a superficial examination—on the other hand, the feeling left is one of depression when the problem is examined in its proper perspective. The extreme poverty and low standard of life of the people has already been noticed. The per capita income (before the war) was Rs. 66 a year in India, as against Rs. 1,406 in U. S. A., Rs. 1,038 in Canada, Rs. 980 in U. K. and Rs. 792 in Australia. There is increasing pressure on land, on which 75 per cent of the people depend, and a vast majority of the population is below the subsistence level. Mortality rate, though coming down during recent years, is still very high, particularly infant mortality. The expectation of life in India is 27 as against 59 in Canada, 62 in U. S. A., 60 in Germany, 62 in U. K., and 65 in Australia. India has the highest infant mortality in the world. These distressing indications are the result of insufficient and mal-

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nutrition. Towns are over-crowded and people are living amidst dirt and squalor. The agriculturist is eternally indebted, although the prosperity arising from the war has retrieved the situation to an appreciable extent. The average consumption of cloth is 16 yards per year per individual in India—against 64 in U. S. A., 38 in Canada, 36 in Sweden, 34 in Germany and 30 in Denmark. The labourer in the fields has only a loin cloth and a towel to wear; his brother in the factories may have a *banian* in addition; that's all. The consumption standard is thus very low in every respect—too low to ensure a healthy and comfortable existence.

But yet the economic potential of India is very high. There is in the first place, the human factor—both an asset and a liability, according as we view and use it. As material resources are plentiful—both agricultural and non-agricultural—the enormity of the human factor need not frighten us. If there are more mouths to feed, there are certainly more hands to work—clever and deft hands, traditionally skilful and, as the war has shown, capable of being turned to good account even in work of the greatest intricacy and demanding the highest degree of technical skill. Thus, in planning to develop Indian economy to the full, particularly through industrialisation the ready availability of an adequate labour force is a factor of advantage—both unskilled and skilled labour, the former straightaway, and the latter after due training. There is a vast army of unemployed and under-employed—the extent of which it is not easy to calculate, as we have no relevant statistics—awaiting to be absorbed. (The war, it should be noted, has temporarily eased the situation to a considerable extent by increasing the scope for employment).

The very vastness of the human factor is in itself an advantage from the market point of view. Here we have ready at hand a very big market for the producers—particularly to the manufacturers—capable of considerable expansion, provided living standards are raised through judicious planning and development. For instance, even at the present rate of consumption, the Indian people are capable of absorbing all the cloth that is produced in the country. If the consumption level is doubled—as it should be, if the ordinary Indian is to have sufficient clothing—then the cotton mill industry

has the opportunity to expand to twice its present size. If every Indian becomes literate—as he should—instead of the meagre 15 per cent literacy as at present, then the paper manufacturer can expand production to many times its present capacity. Instances can be multiplied; but these two are enough to show the advantages of the human factor, provided it is handled properly.

The industrial deficiency of India is strikingly brought out when we compare the output per head in this country of the key industries of coal, steel and electricity with that obtaining in some of the advanced industrial countries of the world. The output of coal is 5 tons per head in the U. K., 3.5 tons in Belgium, 3 tons in the U. S. A., 2.33 tons in Germany, 2 tons in Australia, 1.1 tons in France and only .07 ton in India. That of steel is 650 lbs. per head in Germany, 605 lbs. in the U. S. A., 600 lbs. in Belgium, 500 lbs. in the U. K., 380 lbs. in Australia, 330 lbs. in France, 168 lbs. in Japan, 131 lbs. in Italy, 100 lbs. in Poland and only 6 lbs. in India. Electricity used works out to 980 KWH per head in the U. S. A., 976 KWH in Belgium, 602 KWH in the U. K., 560 KWH in Australia, 520 KWH in S. Africa, 433 KWH in France, 368 KWH in Japan, 343 KWH in Germany, 341 KWH in Italy and only 5 KWH in India. These particulars show the industrial backwardness of India against the international background. The eighth place which it is stated to be occupying among the great industrial nations of the world must be considerably qualified in the face of the serious under-consumption in the country and in the face of the very low per head production figures in the three key industries just indicated.

Yet the economic potential of the country is very great. The human factor has already been explained. So far as agriculture is concerned, one hundred million acres of land now classed as 'cultivable waste' still await to be brought under the plough. These may be, under present conditions, marginal or even sub-marginal lands which it may not be profitable to cultivate; but with the provision of irrigation facilities and the adoption of modern methods of cultivation and measures to improve the fertility of the soil, they can be made to be sufficiently remunerative. The yield of crops

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can be substantially increased, as the present yields are comparatively very low. For instance, in 1939-40, the yield per acre of rice was 1.01 tons in the U. S. A. and 1.61 tons in Japan and only 0.35 tons in India. In respect of wheat, the U. S. A. produced 0.37 ton, Canada 0.52 ton, Australia 0.42 ton and India only 0.35 ton. The same was the case as regards sugarcane: Java produced 54.91 tons, the U. S. A. 20.06 tons and India only 12.66 tons. The position was unsatisfactory in respect of raw cotton too; while Egypt produced 515 lbs. per acre and the U. S. A. 246 lbs. per acre, India produced only 100 lbs. per acre. With better seeds and manuring and the adoption of scientific methods, there is no reason why the yields of foodgrains and commercial crops in India should not be made to reach the levels attained in the highest producing countries of the world. Thus, the potentialities of increased production of foodgrains and agricultural raw materials are very great.

The mineral resources of the country are also great, with certain important exceptions. While iron and coal are plentiful and a number of other metals are being produced, there is considerable deficiency in petroleum and non-ferrous metals like copper, tin, lead and zinc. This estimate is based on available information. A comprehensive and scientific geological survey of India is yet to be undertaken; and when such is accomplished, then only will we be in a position to know exactly what treasures lie in the bowels of the earth in India. As it is, it is estimated that iron ore deposits, consisting of high grade ores, amount to 3,000 million tons—the largest deposits in the world—distributed in contiguous areas. Coal deposits are estimated at about 60 million tons, enough to last for more than 200 years at the present rate of extraction. Vast deposits of good bauxite have been lately discovered in many parts of India, which will go to build up a good-sized aluminium industry in the country in the post-war period. India produces very many other minerals of industrial importance, like chromite, ilmenite, magnisite, manganese, mica, and monazite.

As the availability of cheap and abundant hydro-electric power will facilitate rapid industrialisation (and agricultural development too), it is encouraging to note that, according

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to a recent expert investigation, the potentialities of development in the direction are enormous. It is estimated that less than a tenth of the definitely ascertained and practicable sources of hydro-electric power has yet been exploited. India generated in 1941-42 2,665 million units of electrical energy. The potential capacity remaining to be exploited is at least 20,000 million units.

Thus the economic potential is great, though the present achievement is comparatively small. There is, so to say, starvation in the midst of plenty in India. Thus is one of the economic paradoxes of this country. Planned development alone can resolve it, by making the plenty available for consumption by the starving millions.

Let us now give a few statistical particulars regarding the present economic set-up of the country, mainly relating to the year 1938-39. This will give us an idea of what has been achieved and enable us to have an idea of what can be achieved.

The following table shows the progress of agricultural production between 1931-32 and 1938-39.

Yield of principal crops	1931-32 (1)	1938-39 (2)	% of increase (+) or decrease (-) of (2) over (1)
Rice 000 tons .. .. .	28,799	23,962	- 17
Wheat 000 tons .. .. .	9,024	9,963	+ 10
Tea 000 lbs. .. .. .	394,083	451,861	+ 15
Cotton 000 bales of 400 lbs. each	4,644	6,875	+ 48
Jute 000 bales of 400 lbs. each ..	5,542	6,819	+ 23
Linseed 000 tons .. .. .	416	442	+ 6
Rape and Mustard 000 tons .. ..	1,025	923	- 10
Sesamum 000 tons .. .. .	446	396	- 11
Groundnut 000 tons .. .. .	2,151	3,219	+ 50
Castorseed 000 tons .. .. .	146	111	- 24
Raw Sugar (Gur) 000 tons .. .. .	3,975	3,387	- 15
Coffee 000 lbs. .. .. .	33,614	40,111	+ 19
Rubber 000 lbs. .. .. .	11,671	31,066	+158

A study of the above figures shows that rice production shows a drastic reduction over the period. Wheat shows a



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slight increase. Tea, cotton and jute have increased. Under oilseeds, linseed shows a slight increase, rape and mustard a slight decline, sesamum a decrease, castor seeds also a decrease and groundnuts a substantial increase. Raw sugar has decreased, while coffee and rubber have increased—the latter remarkably too. On the whole, however, agricultural production did not substantially increase during the period. And when appropriate weightage is given to the different crops, from the point of view of their importance in Indian economy, it will be found that the improvement was very slight.

The war has given an impetus to the cultivation of food crops. New land has been brought under cultivation and cultivation has been switched over, under the stress of a drastic war-time reduction of export markets and the influence of the "Grow More Food" campaign, from commercial to food crops—a reversal of the process which was seen in the pre-war years.

The following table shows the growth of Indian industries between 1931-32 and 1938-39:

Commodities	Production in		% of increase of (2) over (1)
	1931-32 (1)	1938-39 (2)	
<i>Cotton spun and woven:</i>			
Yarn (million lbs.) .. ..	966	1,303	34·9
Woven goods (mill. yards) .. ..	2,989	4,269	42·8
Jute Manufactures (ooo tons) .. ..	903*	1,221	35·2
Paper (ooo Cwts.) .. ..	814	1,184	45·5
Petrol (million gall.) .. ..	17·24†	19·8	14·8
Kerosene (mill. gall.) .. ..	33·01†	38·7	17·2
Wheat flour (mill. mds.) .. ..	15·08*	16·48	9·3
Paints (ooo Cwts.) .. ..	..	577	..
<i>Iron and Steel:</i>			
Pig iron (ooo tons) .. ..	1,070	1,576	47·3
Steel ingots (ooo tons) .. ..	602	977	62·3
Finished steel (ooo tons) .. ..	450	736	61·3

\* For 1932-33.

† For 1935-36.

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Commodities	Production in		% of increase of (2) over (1)
	1931-32 (1)	1938-39 (2)	
<i>Heavy Chemicals:</i>			
Sul. acid (000 Cwts.) .. ..	484*	512	5.8
Am. sulphate (000 tons) ..	8.00*	14.86	68.3
Other chemicals (000 tons) ..	112.0*	242.2	116.3
Cement (000 tons) .. ..	583	1,000	71.5
Sugar (000 tons) .. ..	478	766	60.3
Distilleries and breweries (R. Sp. D. Sp. 000 L. P. gall.) ..	1,930	2,656	37.6
Matches (million gross boxes) ..	18.84*	21.06	11.8
Coal (000 tons) .. ..	22,714	24,815	9.2
Average increase (unweighted arithmetic mean) .. ..	..	..	42.3

There has been an all-round increase in industrial production during the period, the average (unweighted arithmetic mean) for all industries being an increase of 42.3 per cent. The highest increases were under woven goods, paper, iron and steel group, heavy chemicals, cement, sugar and distilleries.

The war has given a further impetus to all these and other industries, besides to the starting of new industries. Substantial increases have been registered in all directions, mainly resulting from war demand for industrial products. Civilian demand for consumption goods has also increased, so much so that some of the essential commodities have been in short supply, necessitating special measures to step up production, rationing and price control and control over the entire range of production and distribution. Cotton mill production during last year reached the high water mark of 4,800 million yards and paper of 100,000 tons. Owing to war-time restrictions, statistical particulars are not available to the public in other directions; but it can be confidently stated that substantial increases have been registered by all the industries, particularly by the iron and steel, cement and chemical industries.

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The following table shows the production of the chief minerals of India in 1938:

Coal .. .. .	(000 tons)	28,343
Gold .. .. .	(000 oz.)	321
Petroleum .. .. .	(000 gall.)	87,082
Salt-petre .. .. .	(000 Cwts.)	163
Chromite .. .. .	(tons)	44,149
Copper ore and matte .. .. .	(000 tons)	288
Ilmenite .. .. .	(000 tons)	252
Iron ore .. .. .	(000 tons)	2,744
Magnisite .. .. .	(tons)	25,611
Manganese ore .. .. .	(000 tons)	993
Mica .. .. .	(000 tons)	123
Monazite .. .. .	(tons)	5,221
Silver .. .. .	(ozs.)	22,295
Wolfram .. .. .	(tons)	10
Zircon .. .. .	(tons)	1,450

Generally speaking, mineral production has been on the increase during the pre-war years—and the production of those vital to the war has been further stepped up during the war period. Coal production increased to cope with the needs of the increasing industrial production of the country. The production of gold increased—as in the chief gold mining countries—under the influence of higher prices for gold obtaining after England went off the gold standard in 1931. Petroleum products were naturally in increased demand, with the growth of motor transport and small factories dependent on the motive power of oil. As steel was in greater and greater demand both for civil and armament needs, the production of iron ores naturally registered an increase. So also other minerals which were in great demand for armament purposes.

An important fact to be noted in connection with the minerals is that a large part of most of them was exported,

instead of being used to further industrial development within the country. Coal was the main exception, of which only 5 per cent was exported. Of the other minerals, the percentage of export to production was as follows: Saltpetre 83, chromite 33, iron ore 15, magnisite 20, manganese ore 46 and mica 100.

After advancing to high levels in the pre-depression years of 1926-27, 1927-28 and 1928-29, India's foreign trade declined from 1930-31, the lowest levels being touched in 1932-33. Thereafter there was a slight recovery, which was increasingly maintained up to 1937-38. On the eve of the war there was, however, a slight recession. With the outbreak of the war, the fortunes of the different commodities which had prominently figured in the export and import trades of India varied from time to time. With the occupation of Western Europe by Germany from the middle of 1940, almost the entire European continent was closed to trade with India. Oilseeds and cotton were the chief casualties in the export list of India. By the middle of 1942, the Far Eastern countries were also out of the picture, and raw cotton was again the chief sufferer as Japan and China were consuming among themselves more than 1½ million bales of Indian short-staple cotton. Altogether, raw cotton lost markets which were consuming nearly 3 million bales a year. Raw jute also suffered. Imports too declined owing to the elimination of Germany, Japan, Italy and other enemy or enemy-occupied countries of the West and the East and the concentration of industrial capacity of the U. K., the U. S. A. and other allied nations on the production of war materials. Shipping space for the carriage of foreign trade became also extremely scarce.

As a result of these and other factors connected with the war, India was able to make greater use of her own raw materials to step up local industrial production, which was necessitated by increased defence, civilian and export needs. Exports of piecegoods, in particular, increased to about 1,000 million yards as compared with 200 million yards before the war. (Owing to greater local civilian needs, a ceiling of 600 million yards has since been placed on textile exports).

The following table gives the main details of the foreign trade of India in 1938-39:

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<i>Particulars 1938-39</i>	<i>Value in crores of Rs.</i>
Exports of Indian merchandise (private) .. .. .	162.79
Re-exports of foreign merchandise (private) .. .. .	6.42
TOTAL EXPORTS,	169.21
Imports of foreign merchandise (private) .. .. .	151.83
Balance of trade in merchandise .. .. .	+17.38
Balance of transactions in treasure (private) .. .. .	+11.89
Total visible balance of trade .. .. .	+29.27

The following table gives a few particulars regarding the exports and imports of specific commodities in 1938-39:

<i>Exports of Indian merchandise:</i>	<i>Crores of Rs.</i>
Grain, pulse and flour .. .. .	7.74
Tea .. .. .	23.40
Hides, and skin (raw) .. .. .	3.84
Oil seeds .. .. .	15.09
Cotton, raw and waste .. .. .	24.67
Raw jute .. .. .	13.35
Jute manufactures .. .. .	26.22
Others .. .. .	48.48
TOTAL .. .. .	162.79
<i>Imports of foreign merchandise:</i>	
Provision and Oilman Stores .. .. .	2.48
Oils—Vegetable and mineral .. .. .	15.62
Raw cotton .. .. .	8.51
Chemicals, drugs and medicines .. .. .	5.63
Cutlery, hardware, etc. .. .. .	5.81
Dyes and colours .. .. .	4.04
Machinery of all kinds .. .. .	19.72
Iron and Steel manufactures .. .. .	6.66
Other metals manufactures .. .. .	4.16
Paper and pasteboard .. .. .	3.90
Vehicles (excl. locomotive) .. .. .	6.68
Cotton yarn and manufactures .. .. .	14.15
Other yarns and textile fabrics .. .. .	7.08
Others .. .. .	47.39
TOTAL .. .. .	151.83

## THE ECONOMIC SET-UP AND POTENTIAL

This brief survey of the economic set-up and potential shows what we have to build on, what are the deficiencies and to what extent development is possible and necessary. If full-scale development is planned and executed, in accordance with the needs and conditions of the country, there is no reason why India should not eventually become as great economically and industrially as, for instance, the U. S. A., and the U. K. are at present. The grand achievements of Russia are an illuminating example for other countries to follow. A generation ago, conditions in that country were as bad as, if not worse than, those obtaining at present in this country. Agriculture was the mainstay of the people, the plight of the peasantry was extremely miserable and large-scale industrial development had not taken place though the potential was very very great. Old time Russia too was an example of starvation in the midst of plenty ! But all that is changed now. By successive and successful planned development, Russia has emerged as one of the strongest economic units of the world, ready to compete for world supremacy with Britain and the United States. Every bit of cultivable land has been brought under cultivation. Big irrigation projects have been constructed. Large-scale scientific methods of cultivation have been adopted. The tractor was as common a sight in Russia before the war as the tank is at present. The hidden wealth below the surface of the earth has been discovered and made use of to build up the industrial might of the country. The construction of big electric projects received the first and foremost attention of the Russian planners, so that adequate and cheap motive power might be available for industrial development. The development of heavy, key and basic industries also received their first attention. As a result of these and other planned undertakings, the Russians have become a prosperous nation and their standard of life has increased enormously. Some of the methods adopted by Russia and the ideologies governing them may not be necessary in India or suited to Indian conditions. But India can very well emulate Russia in planning for adequate development and executing the plans with methodical perfection. If that is done, we can confidently expect this country to be, say at the end

of fifteen years, materially prosperous, economically strong and industrially great.

CHAPTER III

EXISTING PLANS EXAMINED

During 1944, public attention in India and abroad has been focussed to a considerable extent on the Bombay Plan. The Roy Plan has received some attention. On the Government of India side, two Progress Reports on Planning have been issued, the first giving an account of the various expert reports under examination by Government and the second elucidating the policies governing certain major aspects of planning like finance, agriculture, industries, trade and commerce, employment, transport and communications, housing, labour welfare, etc. Let us briefly examine the plans, as well as the proposals and policies tentatively formulated by or to Government.

The Bombay Plan is an ambitious programme of post-war development of India in a period of 15 years, to be achieved in three stages of five years each. The aim is to treble the total national income or double the per capita income, after making allowance for the growth of population. It is proposed to achieve this by a capital expenditure of Rs. 10,000 crores, based on 1931-39 average price-level and distributed as follows: industry Rs. 4,480 crores, agriculture Rs. 1,240 crores, communications Rs. 940 crores, education Rs. 490 crores, health Rs. 450 crores, housing Rs. 2,200 crores and miscellaneous Rs. 200 crores.

The scheme plans for industrial output to be increased five-fold and agricultural output a little over double (130 per cent), which would still leave Indian economy mainly agricultural but would provide what the planners describe as a better balance in the national income between agriculture, industries and services.

Under industries, it is proposed to develop such basic industries as power, mining and metallurgical, engineering, chemicals, armaments, transport and cement. Consumer goods industries are also to be developed, the important groups

being textiles, leather goods, glass, paper, tobacco and vegetable oil.

The scheme aims at providing every man a balanced diet able to give 2,800 calories per day, at least 100 square yards of living room and 30 yards of cloth a year; and every village with a doctor, two nurses and a primary school so that every person above the age of ten should be able to read and write.

The targets set by the scheme include an increase of 50 per cent over the existing railway mileage in British India and improvement of small natural harbours along sea-board for the development of coastal shipping.

The sources of finances are as follows: External Finance Rs. 2,600 crores, consisting of sterling assets Rs. 1,000 crores, hoarded wealth Rs. 300 crores, favourable balance of trade Rs. 600 crores and foreign borrowing Rs. 700 crores; and Internal Finance Rs. 7,400 crores, made up of savings Rs. 4,000 crores and created money Rs. 3,400 crores.

Foreign capital is welcomed, provided it is not accompanied by political influence or interference of foreign vested interests. In order to check any likely inflationary tendency arising out of financing production through created money, the authors propose a vigorous control of every aspect of economic life by the State.

The Plan has been generally welcomed, though criticisms of one or the other aspect of the scheme have also been made. The proposal to finance development through created money has been an important target of attack. Answering the criticism, Mr. G. D. Birla, one of the authors of the Plan, stated in a speech that "whether you call it favourable balance of trade or savings or created money, ultimately it comes out of our own production and thus the whole sum may as well be called a saving. The question, therefore, is: Is India in a position to save Rs. 8,000 crores in 15 years or 533 crores per year? I say 'yes. . . . There is no reason why India should not be able to save without lowering her present standard at least 16 per cent of her total income for the purpose of reinvestment'." He estimates that during the planning period, to implement the proposals, 4½ per cent extra labour of the population would be required. He thinks that this is possible,



in view of the large-scale unemployment and under-employment prevailing in the country and must not be considered "too big a price to pay for this gigantic constructive work." "In utilising 4½ per cent extra labour of our population for the new job," he says, "we are simply employing the unemployed. The question of inflation hardly arises." This view may be theoretically plausible, but practically unworkable. It may be that ultimately created money may be replaced from the savings of the people. But what about the immediate consequences of the making use of created money for development purposes? Rigorous and gigantic control measures may be necessary as a counter-measure; but notwithstanding these, inflation may raise its ugly head with all its adverse consequences on the economic structure. My own view is that post-war financing can be done without the aid of created money in any shape or form, provided the execution of the plans is strictly correlated to the capacity of the people to save and reinvest, even with a sacrifice. This capacity will increase in geometric proportions with the successful completion of every definite stage of the main plan.

The question of distribution has not been dealt with by the authors, though they have promised to issue a supplementary scheme later dealing with this point. Critics have pointed out that this question is more important from the point of view of the have-nots than even production, as the vast majority of the population of India are on the borderline of subsistence and their condition will not be bettered if only a few top people grow immensely richer as a result of the operation of the scheme. Though the Plan has estimated the requirements of an essential minimum standard of living at Rs. 74 at pre-war prices, no scheme has been formulated by which this minimum is guaranteed to every individual. No plan similar to the Beveridge Scheme of social security, it is pointed out, has been considered with reference to India. While I admit the weight of this criticism, I would like to defer comments on the Bombay Plan from this aspect of the problem until the promised supplementary report is issued.

Again, the important question as to what should be the scope of the State in relation to private enterprise in the post-war period as regards ownership and control, has not been

elucidated by the scheme. It only states that control would be necessary for successfully implementing the Plan. Will the instruments of production become State-owned and State-controlled, it is asked, and if so to what extent? The authors have promised to elucidate this question too in due course.

Finally, the Bombay Plan makes the existence of a National Government in India an important condition precedent to the successful implementation of its proposals. If that was so, it has been asked by critics, why was the Plan propounded at all when no such Government was in existence and there was no immediate prospect of such a one coming into existence? Was it not putting the cart before the horse? The answer to this criticism has been supplied by one of the authors of the Plan—Sir Ardeshir Dalal—taking upon himself the responsibility, as Planning and Development Member with the Government of India, to guide, initiate, evolve, organise and execute planning on the official side. This is a tacit recognition that the country cannot sit in vacuo with folded hands until a National Government came into existence. As Sir Ardeshir himself has pointed out, the preparatory work is enormous and must be handled immediately and properly, so that any government of the future, whether National or otherwise, may have the stage ready set for immediate action.

The Roy Plan is frankly anti-capitalistic in its outlook and based on socialistic principles. It condemns capitalism as being responsible for the economic maladies of the country, particularly the poverty of the masses, and opines that any plan of economic development with the profit motive as the basis would not be able to benefit the masses. It pleads for production for consumption as opposed to what it calls production for exchange. It advocates compulsory nationalisation of lands and mines (with compensation) and compulsory liquidation of agricultural debt (also with compensation). As regards industrial development, it says: "All the new industries to be started during the period of the Plan will be financed by the State. Industries financed from the public funds will naturally be owned and controlled by the State. This will also have to be accompanied with rigid control over the industries in which private capital have already been inves-

ted. It is not at all intended to suggest the expropriation of private interests in the industries, but it is absolutely essential to control rigidly the operations of the profit motive."

The Plan aims at achieving in a period of ten years a 400 per cent increase in agricultural production and a 600 per cent increase in industrial production. The standard of living of the masses, it estimates, will rise by 300 per cent during the period, "exclusive of the services such as health, education and housing which will be provided for them."

The Plan has been calculated to involve an expenditure of Rs. 15,000 crores in ten years, distributed as follows: agriculture Rs. 2,950 crores, industry Rs. 5,600 crores, communications Rs. 1,500 crores, health Rs. 760 crores, education Rs. 1,040 crores, and housing Rs. 3,150 crores.

How to finance this stupendous expenditure in a period of ten years? The Plan visualises an initial capital expenditure for a period of three years of Rs. 1,600 crores. "With this investment into the economy in the first three years of the Plan," it says, "the Plan can be expected to finance itself." It is thus stated to be "self-financing." After the third year, it is estimated "agricultural production will increase to such an extent as will leave a substantial surplus for the financing of the subsequent stages of the Plan."

The Roy Plan is impracticable, if not largely Utopian. It is ambitious and aims at achieving too much in a short period of ten years. Its execution is based on certain political postulates which may or may not find general acceptance in the country. Its revolutionary proposals, based on socialistic ideology, may not also be generally acceptable and may even be unsuitable to the conditions of India. The financial aspect of the Plan is its weakest link. After having postulated expenditure to the tune of Rs. 15,000 crores, it rather naively suggests that an initial investment of Rs. 1,600 crores in the first three years would make the Plan self-financing! An explanation is attempted how it would be, but it leaves one unconvinced. The final impression left on one's mind, after carefully going through the scheme, is that it is largely Utopian in conception. It promises too much at too short a time and at too little a sacrifice. It aims, as it were, to build a paradise out of practically nothing—the Utopia of its

conception is probably to rise by the mere wave of the magician's wand!

The Plan, however, is not without its good points. The emphasis it lays on agriculture and the need to control the profit motive in the interests of the nation at large, are salutary principles which should underlie any good plan of post-war economic development.

Of the expert plans under official consideration, first mention must be made of the agricultural plan. This plan envisages the ultimate possibilities, in a period of fifteen years, of one hundred per cent. increased agricultural production at a capital cost of Rs. 1,000 crores and an annual recurring expenditure of Rs. 20 crores on organisation. The main object is to increase the production of food to the level required to provide adequate nutritive diet to the existing population and the annual additions to it and of industrial raw materials to meet the growing needs of industry as well as the requirements of exports. The minimum quantity of food needed to have a balanced diet for the existing population of the country would appear to indicate the necessity to increase the production of cereals by at least 10 per cent, of pulses by 20 per cent, of fats and oils by 250 per cent, of fruits by 50 per cent, of vegetables by 100 per cent, of milk by 300 per cent and of fish and eggs by 300 per cent. This goal of self-sufficiency in food and of increasing the purchasing power of the masses through a proper balance between food and cash crops is to be achieved through the optimum utilisation of all national assets and their maximum exploitation by all means known to science and technology, like making the maximum use of every source of water supply, bringing under cultivation such of the 170 million acres classified as culturable waste and fallow as is economically suitable for crop production and improving the yield of crops through proper manuring, use of improved varieties of seeds, consolidation of holdings and adequate protection of crops from pests. The possibilities regarding improving the yields have been examined and the conclusion is that it is possible to raise the yield of rice by 30 per cent, of irrigated wheat by nearly 100 per cent, of *jowar* by 20, *bajra* by 25 per cent. Similar improvements in yield are also

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possible in the commercial crops like cotton, jute, oilseeds, etc.

In order to increase the yield of crops, proper manuring would be necessary. For this purpose natural manures must be conserved and more artificial manures produced. The report estimates that India would need at least five million tons of sulphate of ammonia every year; the Government of India have already under way a scheme to produce at an early date 360,000 tons at a capital cost of Rs. 9 crores. Under forestry development, proposals have been made for the raising of new forests, distributed throughout India, so as to supply villagers with fuel and small agricultural timber. Thereby it is hoped to save for manuring 160 million tons (dry weight) of cowdung every year (equivalent to 800,000 tons of nitrogen) now being wastefully burnt as fuel.

It is estimated that, through proper feeding, breeding, management and disease control, the output of milk could be increased by 70 per cent. It is also proposed to develop fisheries suitably.

As industrial and agricultural development depends on the supply of cheap and abundant motive power, a tentative scheme has been formulated for the creation of ample hydro-electric power, for which, as has already been explained, potentialities are very great. It is proposed to expand the industry at the rate of 12 per cent per annum. The prospects of utilisation of electricity on major schemes of post-war development are visualised in four main groups, viz., industrial expansion, rural electrification including lift irrigation and dewatering, electro-chemical and metallurgical industries and production of inorganic fertilisers. Rural electrification, which will be one of the main objects of this development, will ultimately have a profound influence on village life in general and agricultural economy in particular.

The preliminary Railway Plan, called the Basic Plan, provides for the construction of 5,000 miles of new lines at a cost of Rs. 100 crores spread over ten years. This, it is expected, will bring all important centres within 25 miles from a railway. The Basic Plan is for seven years and involves a capital expenditure of Rs. 319 crores: Rs. 125 crores on rehabilitation, Rs. 45 crores on operative improvements,

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Rs. 48 crores on staff welfare, Rs. 45 crores on the provision of amenities to third class passengers and Rs. 56 crores on the construction of new lines. It is proposed to establish workshops for the manufacture of locomotives in India. Arrangements are being made also to manufacture boilers in the country. The productive capacity of the wagon building industry will be stepped up to meet the increasing demands of the railways. Re-laying and new track mileage are expected to consume the entire capacity of rolling mills in India, which is estimated at 140,000 tons a year. The replacement requirements of workshop machinery have been calculated for the first 20 years of the post-war period and these are expected to give a great fillip to the machine tool industry.

The Basic Plan is capable of expansion in the subsequent five-year period according to the economic needs of the country. The Railway Board Member in charge of Railway Planning estimates that if Indian economy becomes developed as visualised by the Bombay Plan, the Indian Railway Plan would cost Rs. 1,200 crores in the first 17 years of the post-war period (including a preparatory period of two years).

The Bombay Plan proposes the construction of new railways of 21,000 miles at a capital cost of Rs. 434 crores and an annual maintenance charge of Rs. 9 crores.

The Road Plan, which anticipates needs for the first 20 years after the war and aims at the completion of the development programme in 10 years, proposes a national highways system, which will traverse several Provinces and States and be of national importance for strategic, administrative and economic purposes. By a network of Provincial, district and village roads, in addition to the national highways, it is proposed to connect the main villages with one another and bring them, in thickly populated areas, within two miles of the nearest district road. It is further proposed to get motor transport into the heart of the countryside, which will be of great benefit to the rural population economically and socially, as well as to the trade, industry and general prosperity of the country as a whole. At the end of the planning period, it is hoped to have a total of 400,000 miles, as against 242,000 miles at present, at a capital cost of Rs. 450 crores.

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and an annual maintenance charge of 16 crores after the scheme is completed.

The Bombay Plan proposes to increase road mileage by 300,000 at a capital expenditure of Rs. 448 crores.

The Civil Aviation plan aims at developing a system of air transport which is necessary under modern conditions for the proper development of India socially, commercially and industrially. Such a system would link the principal commercial and administrative centres of the country and also connect with the principal neighbouring countries. India will also participate in through international services.

According to the Plan, the "trunk services" and "essential links" will cover a route mileage of 10,500 miles and, with a frequency of one return service daily, involve flying about 7½ million miles a year. For this purpose, it is proposed to acquire and maintain a fleet of moderately large civil aircraft at a capital cost of Rs. 100 lakhs. Besides carrying mails, the air services are expected to carry on an average 500 lbs. of freight every day in the fifth year of operation; 110,960 passenger seats will be operated per annum. The development of an extensive ground organisation, spread over ten years, has been proposed at a capital cost of Rs. 1,554 crores.

The total expenditure involved, in a period of fifteen years and on the basis of prices 50 per cent or more above the pre-war levels, is Rs. 4,266 crores, including capital and maintenance charges, in respect of all the expert schemes detailed above, distributed as follows:

	<i>Crores of Rs.</i>
Agriculture .. .. .	2513
Railways .. .. .	1,200
Roads .. .. .	530
Civil aviation .. .. .	23
TOTAL ..	4,266

The finances available with the Central Government in the first effective quinquennium of the post-war period for development purposes is estimated by the Hon. Sir Jeremy Raisman, Finance Member to the Government of India, at

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Rs. 1,000 crores—Rs. 500 crores through taxation and Rs. 500 crores through borrowing. The resources of the subsequent five year periods could be correlated, according to him, to the actual results of the first quinquennium in a sort of geometric proportion. Therefore, total resources with the Central Government in a fifteen-year period would be Rs. 7,000 crores (Rs. 1,000 crores + Rs. 2,000 crores + Rs. 4,000 crores). These estimates exclude direct private investment and the resources of Provincial and State Governments. Private investments have been estimated at another Rs. 1,000 crores in the first quinquennium. Assuming a geometric proportion rate of increase in this case too, total resources from this source would amount to another Rs. 7,000 crores in fifteen years. Provincial and State resources have not been estimated; assuming half of the Central resources and again a geometric rate of increase, the total of these resources would amount to yet another Rs. 3,500 crores in the same period. The aggregate of all these resources will amount to Rs. 17,500 crores in a fifteen-year planning period, distributed as follows:—

	<i>Crores of Rs.</i>
Resources with the Central Government .. .. .	7,000
Resources with the Provincial and State Governments .. .. .	3,500
Direct private investments .. .. .	7,000
TOTAL ..	17,500

As against this, the total expenditure visualised by the expert schemes so far issued and under consideration by the Government of India amounts to Rs. 5,005 crores (including Rs. 739 crores under the Educational Plan). Thus, a balance of Rs. 12,500 crores is still available to frame schemes of investment or expenditure, as the case may be, in respect of industrial development, public health and medical relief, housing, development of cottage industries, labour welfare (including social security), etc.

The Planning Member considers that finance will not be the bottle-neck of economic—particularly industrial—development. After elucidating the financial aspect of planning in a recent Bombay speech, he said that “if these estimates



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materialise even approximately, it seems to me that the real bottle-neck will not be finance, but the availability of capital goods and of trained personnel and the ability on the part of the country to spend the money in the most effective manner." I endorse the above observation regarding financial prospects. With a proper system of planning and development assured, post-war finance of the requisite magnitude can be effectively managed without resorting to such unsound methods as 'created money' and the like.

The second Government of India report on planning is important in that it elucidates the main policies underlying the major schemes of post-war development. While not embodying the financial decisions of Government, it represents, in the words of the Planning Member, "the common denominator of agreement so far arrived at the Reconstruction Committee on materials already at their disposal." Regarding the ultimate object of planning, the report says:

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

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The report rightly stresses the importance of the equitable distribution of what is produced, for it says that "improvement in living conditions and increase in purchasing power will fail in their effect if they do not result in a more equitable distribution of the wealth that is produced." How this is proposed to be accomplished, is explained in the following words:

"Planning as here contemplated will inevitably result in a better distribution of wealth. The provision of the various amenities, free or at reduced cost to the poorer classes, such as education up to the age of fourteen, medical relief, water supply and other public utility services, including electric power, will have that result. The general improvement in the health and efficiency of labour will tend the same way. Positive measures to secure a fairer deal for labour, to ensure them a reasonable wage, together with such provisions as maternity and sickness benefit, holidays with pay, etc., will have the same effect. The industrial expansion that is contemplated includes a regionalisation of industries as well as a large extension of small-scale and cottage industries, which will tend towards a dissemination of the means of production in the hands of a much larger number of people than at present. Even with regard to large-scale industries, the need for the investment of a substantial portion of the profits of such industries for further expansion will imply controls and a measure of taxation which will remedy the anomaly of the existing concentration of wealth in a few hands. The ultimate effect of all these measures must inevitably be the removal of the existing glaring anomaly of immense wealth side by side with abject poverty."

All these measures will no doubt lead to a lessening of the inequalities of income and better and more employment, which will considerably minimise the chances of unemployment or under-employment. But more positive measures are called for, for an effective solution of the problem. In a way the Roy Plan is right when it stresses the need to produce for consumption and not for exchange. Either what is

produced must be equitably distributed in the socialistic way—each according to his needs—or, every individual must be assured of so much purchasing power as to enable him to acquire what is produced to an adequate extent. I prefer the latter course and the State must come forward to see that, while the producer gets a fair return, the essential needs of the consumer are satisfied in a reasonable way. No hoarding or withholding or cornering of stocks with a view deliberately to push up prices should be permitted; the State must intervene in those cases, get hold of the stocks and distribute them properly where they are most needed, through a net-work of organisation throughout the country to purchase and sell commodities. The primary producer—the agriculturist—should, of course, be guaranteed fair prices for his produce, through the State undertaking purchases where prices show a tendency to decline below what are considered remunerative levels.

The crux of the whole problem is that the vital importance of labour in the scheme of production should be recognised and properly provided for. There should be a minimum wage standard for the entire labour world, both agricultural and industrial, permanent and seasonal, organised and unorganised, employed in the factories or in the cottage industries. For this purpose, all the wage-earners, of whatever character and complexion, must be brought within the ambit of effective organisation, without which schemes to bring about equitable distribution will not succeed. There should be a social security scheme for all kinds of labour—comprising of unemployment benefit, sickness insurance—for which purpose too an effective labour organisation is necessary. Above all, an effective scheme must be devised by which labour will be assured of its due share in the higher profits—over and above what is determined as standard profit—of both agriculture and industry.

If these measures are adopted, I am confident that the problem of equitable distribution will be satisfactorily solved—far more satisfactorily than in the socialistic way. Combined with large-scale agricultural and industrial development, which planning necessarily implies, unemployment and under-employment will become practically non-existent. The

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minimum wage legislation will guarantee the minimum essentials to every labourer; and the social security scheme will attend to the needs of those who are temporarily disabled.

### CHAPTER IV

## AGRICULTURAL PLANNING

The importance of agricultural planning has already been stressed. The major aspects of this plan will be: improving irrigation facilities; bringing more land into cultivation; control of erosion; river training and prevention of floods; increasing the yield of crops through better manuring and better seeds and through the adoption of improved methods of cultivation; improvement of land tenure so as to give stability to the actual cultivator; eradication of agricultural indebtedness; prevention of uneconomic or fragmented holdings; improvement of livestock; organisation of rural industries; conservation and utilisation of forest resources; development of fisheries; and a net-work of agricultural organisation, including agricultural education, training and research, spread throughout the country and based on an extensive system of model farms.

The expert plan under official consideration—known popularly as the Kharegat Plan—makes provision for all these lines of development.

The question of improving the land tenure is a most delicate and complicated problem, baffling of solution. Yet it must be solved to satisfaction if substantial improvement is to be effected in the social and economic conditions of the actual tillers of the soil. It would be an ideal thing if all the land were owned by peasant-proprietors, there was no absentee landlordism, the ryotwari system of land tenure prevailed throughout the country, and there was no intermediary between the cultivating land-holder and Government. Unfortunately, such is not the case at present. It has been estimated that out of the total area of land surveyed, viz., 575 million acres, more than half, i.e., 385 million acres, falls under the classification of permanently or temporarily settled Zamindari tenure.

One solution of the problem is to buy out the Zamindari rights compulsorily by paying reasonable compensation. That is what the Roy Plan proposes, basing itself for this purpose on the Flood Report of Bengal on land tenure in that province. The report observes: "There is a clear majority on the Commission who are convinced that, in order to improve the economic conditions of the cultivators, the permanent system and the zamindari system should be replaced by a ryotwari system, under which Government would be brought into direct relations with the actual cultivators, by acquisition of all the superior interests in agricultural land." The rate of compensation which received more support than any other proposal made in the Commission was ten times the net profit. The Roy Plan suggests seven times the net income which is calculated at Rs. 146 crores; on this basis the amount of compensation would be Rs. 1,022 crores. It also provides for a compensation of Rs. 400 crores for acquiring the rights of non-cultivating owners in ryotwari areas.

While I would admit the need ultimately to abolish the Zamindari tenure and substitute it by the ryotwari, I would not go to the extent of compulsory acquisition straightway, albeit on the basis of a compensation, for the simple reason that this age-long custom is so inextricably woven into the fabric of the country's economic and social system that any violent disturbance of the arrangement may tear it to shreds, and thus harm the very society which is sought to be improved. At the same time, realising as I do the advantages and superiority of the ryotwari tenure, I would suggest in the first instance a plan of voluntary acquisition based on the rate of compensation suggested by the Bengal report. Active encouragement and inducements should be given to sell out Zamindari or non-cultivating owner's rights; what advantages and benefits are given by Government should be confined to the actual cultivators, which would be an active inducement for those who have no actual cultivating interests in the land to sell away their rights. The voluntary method may be tried for a period of about ten years, after which the situation may be reviewed and remedial measures adopted in the light of the success achieved by the voluntary scheme and the actual situation then obtaining.

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The problem of uneconomic and fragmented holdings will also have to be solved satisfactorily if Indian agriculture is to improve. The average holding is three acres and less in most parts of the country and even this in many cases is so scattered as to be unremunerative for cultivation. Subinfeudation of land is mainly the result of the law of inheritance prevailing in this country; and unless it is suitably changed, it is not possible effectively to deal with this evil. Fragmentation of holdings stands on a slightly different footing. In many parts of the country, an appreciable amount of consolidation has been effected through voluntary effort. Some such scheme may be tried on a large-scale throughout the country, with a definite inducement offered by the State, before any compulsory system is thought out. Joint farming on a voluntary basis, with the whole village as one cultivating unit, may also be actively encouraged.

It is in respect of the new lands that are to be brought into cultivation that all the measures to improve agriculture may be tried more or less on a compulsory basis. Lands, in single economic blocks, should be given only to the actual cultivators. One of the conditions of the grant should be that they should neither be alienated nor subdivided through partition between sons, grandsons and so on and so forth: the law of primogeniture may be insisted upon for purposes of inheritance. Another condition should be that the lands given should be made available, if required, for joint farming and management under Government supervision and control. In that case large-scale cultivation may be resorted to and modern agricultural machinery employed. If joint farming on these lands proves successful—as I have no doubt it will—this will be an inducement to the cultivators of the old order to adopt similar methods with advantage.

The liquidation of agricultural debt will be another problem to be tackled. The Debt Relief Acts adopted by different Provinces and States before the war and the higher agricultural prices secured during the war period have solved the problem to a considerable extent. It will not be such a serious menace to agricultural progress as it was at the time of the Agricultural Commission report twenty years ago and the Central Banking Inquiry Committee report fifteen years

ago. All the same, the problem will have to be tackled; and the right method would be to universalise the principles of the Debt Relief Acts of the pre-war period. A positive solution to the problem will be the provision of adequate finance for agricultural operations through co-operative societies, which will prevent the agriculturist from relapsing into indebtedness.

The problem of agricultural finance will have to be solved mainly through the organisation of a net-work of multi-purpose co-operative societies throughout rural India. The co-operative movement has so far failed to make much headway in respect of financing of agriculture not because of any intrinsic defect in it as such, but because it was not organised and developed properly to subserve the end in view. But, in spite of the not very encouraging results of the past, that way alone lies the solution. Co-operative finance must help the cultivator (1) to liquidate his debt, (2) to secure improved seeds, (3) to undertake agricultural operations effectively in all its stages, (4) to acquire the necessary capital stores required in agriculture, (5) to maintain himself comfortably during the interim period, (6) to pay up his dues to Government and (7) to market his produce at remunerative prices. For this purpose, I suggest the starting, during a planning period of 15 years, of one multi-purpose society for a group of ten villages, i.e., about 70,000 societies in all, with a working capital of Rs. 50,000 each to start with, or Rs. 350 crores in the aggregate. These societies will constitute the pivot of the entire structure of agricultural finance from ploughing and sowing to reaping and marketing and be able to elevate socially and economically the entire rural life of the village community.

Better irrigation facilities are the crying need of the hour. At present only 25 per cent of the land is irrigated—half through Government projects at a capital cost of Rs. 150 crores and half through private efforts. The remaining 75 per cent are rain fed, i.e., they are dependent for their prosperity on the vagaries of the monsoon. The whole aspect of the problem must undergo a revolutionary change, by which it should be possible at the end of the planning period to have 75 per cent of the cultivated land provided with irrigation

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works—canals, tanks, wells, tube-wells and the like. This is estimated to involve a capital expenditure of about Rs. 500 crores during the planning period.

A net-work of agricultural organisation, based on model farms, is necessary to work out agricultural planning to success. The Kharegat Plan suggests an experimental farm in each division and the Bombay Plan 65,000 model farms at a cost of Rs. 325 crores. The agricultural organisation proposed by the former will cost a recurring expenditure of Rs. 20 crores per annum.

Let us now deal with the question of planning agricultural production during the planning period (15 years), taking into account the growth of population during that period. At the end of the period, the population of India is likely to be about 500 millions; to support that population on an adequate nutritive basis, enough of food production is the first desideratum. Before the war, India was a net food importing country; the war has shown the disastrous consequences of that position. Thus, the first object of post-war planning of agriculture should be to make India self-supporting in the matter of foodstuffs—self-supporting now and self-supporting with the additional growth of population during the planning period.

Planning on this basis, at the end of the planning period India must produce 100 million tons of foodgrains (55 million tons), 42 million tons of milk (23 million tons),  $10\frac{1}{2}$  million tons of sugar (including *gur*) (5 million tons), 9 million tons of vegetables ( $3\frac{1}{2}$  million tons),  $10\frac{1}{2}$  million tons of fruit (6 million tons) and 8 million tons of fats and oils (2 million tons). (The figures in brackets give present production). Thus, in a period of 15 years, there should be a two-fold increase in the production of foodgrains, a like increase in milk production, so also in the case of sugar and *gur*, an increase of  $3\frac{1}{2}$  times in vegetables, two-fold increase in the production of fruits, four-fold increase in regard to fats and oils, and a six-fold increase of meat, fish and eggs.

In framing targets for the production of agricultural raw materials, two main criteria should be borne in mind. Production should be stepped up in the first place to meet the demands of Indian industries, having in view the volume of



the industrial products concerned needed for internal consumption and for possible exports. In the second, export demand for India's agricultural raw materials should also be kept up—at least to the pre-war levels. Production should satisfy both these needs.

Judged by this standard, raw cotton production should at least be doubled in the course of the next 15 years, if the cloth supply should work out to 30 yards per head of the population at the end of the planning period. Cloth requirements 15 years hence will amount to about 16,000 million yards. To produce this quantity, about 9 million bales of raw cotton will be required (in addition to 1 million bales of long staple cotton to be imported as at present). Before the war, about 3 million bales were exported every year; to maintain this export, an additional 3 million bales will be required. In other words, Indian raw cotton production will have to be doubled in the first 15 years of the post-war period. Production will thus increase from 6 million bales now to 12 million bales at the end of the planning period, efforts, of course, being made on the production of finer varieties of cotton. The calculations herein made admit of the maintenance in the post-war period of the pre-war level of piecegoods imports of about 1,000 million yards every year.

No such estimate is possible in respect of the future requirements of raw jute, since that is governed by incalculable international factors. This material, either in the raw or manufactured state, is almost entirely exported; and export demand is governed by factors which cannot be controlled by the producing country. Jute products have enjoyed in the past the reputation of being the packing material *par excellence*. Post-war economy, it can be confidently expected, will be expansionist, both internally and externally. But with the growth in the methods of bulk storage and transport of foodgrains and the development of alternative fibres and packing materials (for instance, cotton in the U. S. A. and papers in some countries), the future of jute cannot be determined with any degree of accuracy. For the purpose of maintaining its pre-eminence in the international market, this material will have to see to it that it continues to be the cheapest packing material. Alternative uses will also

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have to be devised. All told, therefore, it is safe to assume that there are no prospects for any substantial increase in the production of jute—at best it may be possible only to reach the highest levels attained between 1930 and 1940 (prior to the introduction of the compulsory jute restriction scheme in Bengal).

Sugarcane production will have to be doubled in the next fifteen years. No allowance has been made for any possible exports of sugar, since under the International Sugar Agreement India was precluded to export to any country except Burma.

The vegetable oil industry and the soap industry have made marked progress during recent years. India produces about 5 million tons of oil-seeds, of which about one-fourth the quantity is exported. The scope for increased production is very great—at least more than double the present level—as a four-fold increase is required in the consumption of vegetable oils in the next 15 years.

I think India produces as much tea as she possibly can. Production of tobacco is enormous—491,000 tons a year—Although exports constitute only 6 per cent of this quantity India can start and maintain a good-sized cigarette industry both for internal consumption and export purposes. (Cigarettes are being produced at present in this country, but only of inferior quality. Indian cigars are well known throughout the world, but the higher grades are made out of foreign leaves). All told, therefore, it is safe to plan only for a moderate increase in tobacco cultivation, efforts being mainly concentrated on improving the quality of the leaves cultivated, rather than expanding quantity to any considerable extent.

I do not see great prospects for large-scale increases in the production of rubber and coffee, as other producing countries are far in the forefront in supplying world's needs (including India). So far as coffee is concerned, India should be satisfied with meeting local needs and export demand for blending purposes, for which Indian coffee enjoys a reputation in the international market.

A word on agricultural industries before I conclude the subject of agricultural planning. These are in the main:

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1. Egg and poultry growing.
2. Cattle rearing for milk, manure and agricultural operations.
3. Cattle rearing for slaughter (for meat).
4. Sheep rearing for wool and shearing of wool.
5. Fruit canning industry, including preparation of condiments, pickles, jams and chutnies.
6. Dehydration industry, which has been introduced in India as a result of the war.
7. Bee-keeping and honey-gathering.
8. Collection of gums and resins from the forests.
9. Sericulture industry and silk-reeling.
10. Tobacco curing.
11. Dairy industry, including preparation of *ghee* and butter.
12. Collection of bark-tan materials.
13. Curing of hides and skins and tanning them.
14. Cultivation and collection of mohwa flowers for power alcohol industry.
15. Cultivation and collection of sabai and other suitable grasses for the paper mill industry.
16. Cane crushing and gur making.
17. Oil crushing industry (for local consumption).
18. Flour grinding and rice hulling industries.
19. Decorticating industry, to decorticate groundnuts.
20. Cotton ginning and pressing industry.
21. Jute preparing and pressing industry.

Most of these rural industries are vast but entirely unorganised. They require organisation on modern basis, modern appliances and help in the way of grading and standardisation and generally in marketing the products. All these should be provided for through active Government aid, the co-operative organisation being harnessed for the purpose. Post-war agricultural plans should definitely make provision for these and other rural industries which will make agriculture more profitable and rural employment wider and more

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lucrative. These industries, while being helped to organise themselves on modern lines with the aid of modern appliances, should be fostered essentially as cottage or small-scale industries. That is necessary to fit the entire scheme well into the rural and agricultural economy of the country. The labour demand of these industries may be so adjusted as to absorb the surplus labour of the rural population during slack seasons in agricultural operations. Many of these industries have been cottage in character from time immemorial and should continue to remain so if they are to subserve the peculiar needs and organisational character of Indian economy.

## CHAPTER V

### INDUSTRIAL PLANNING

The importance of industrial planning and development in the post-war period, both as an end in itself and a complement of agriculture, has already been explained. Industrialisation is required to create conditions of full employment, which will relieve pressure on agriculture and absorb the unemployed and under-employed. It will absorb the raw material capacity of agriculture, fully utilise the mineral resources of the country and produce enough to meet the consumption requirements of the people. Industrialisation should also aim at producing capital goods.

Unfolding its scheme of industrial development, the Bombay Plan suggests that, "in the initial stages, attention should be directed primarily to the creation of industries for the production of power and capital goods." This is needed, in its opinion, to quicken the pace of industrial development, apart from "ultimately reducing our dependence on foreign countries for the plant and machinery required by us and consequently reducing our requirements of external finance." Provision should be made at the same time, it says, for the manufacture within the country of the most essential classes of consumption goods, "as otherwise a great deal of unnecessary hardship may be caused during the planning period."

In doing so, the Plan suggests that "the fullest possible use should be made of small-scale and cottage industries;" but it has not clearly and fully explained how it proposes to do this. As among that section of the population classified in the census as employed in industries about 90 per cent are employed in cottage industries, it is of the highest importance that the development of these industries should be separately and properly planned and fitted into the general framework of industrial development. The Bombay Plan has not done that; nor does it anywhere indicate that it proposes to do so. The impression left on one's mind after carefully reading it is that it has confined its attention almost exclusively to large-scale industries, except for a passing reference to small-scale and cottage industries. The Roy Plan does not appear to attach much importance in its scheme of development for cottage industries, for it is of the opinion the "any considerable use of the cottage industries cannot be reconciled with the spirit of the plan which is to open up for the people a prospect of continually improving standards of living." In advocating certain theoretical conceptions, like ensuring greater leisure for the cultural development of the people through mechanisation of production, it seems to have lost sight of hard realities, viz., that nearly 90 per cent of the industrial population depend on the precarious cottage industries and are, therefore, in immediate need of effective measures to improve their economic conditions. The Visvesvaraya Plan is more satisfactory from this aspect, though it too would appear to pin its faith ultimately on the development of large-scale industries. It divides industries into large-scale, medium-scale and small-scale and cottage industries and provides specifically for the planned development of each of these categories.

Among the basic industries suggested for immediate development, getting "priority over the other types of industries in the earlier years," the Bombay Plan mentions the following main groups:

1. *Power*—Electricity.
2. *Mining and Metallurgy*—Iron and steel, aluminium, manganese, etc.

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3. *Engineering*—Machinery of all kinds, machine tools, etc.
4. *Chemicals*—Heavy chemicals, fertilisers, dyes, plastics, pharmaceuticals, etc.
5. *Armaments*.
6. *Transport*—Railway engines and wagons, ship-building, automobile, aircraft, etc.
7. *Cement*.

The Plan proposes the further development of the following consumption industries—textiles (cotton, silk and wool) glass, leather goods, paper, tobacco and oil.

The two lists should find general acceptance, although further useful additions can be made to the latter group. But the more important thing is to determine the relative importance of these two classes of manufactures in a scheme of immediate or very early development. While the need for the immediate development of some of the basic industries cannot be questioned, as for instance hydro-electric power, the proposal to give priorities to some of them—e.g., manufacture of heavy machinery—at the expense of consumption goods may be questioned. The Roy Plan would appear to show a better appreciation of the position in this connection. While recognising the importance of developing basic industries, it emphasises, at the same time, the immediate necessity of developing consumption goods industries, so as to satisfy the unsatisfied essential demands of the community which will have increased as a result of improved agriculture for which it has planned. It says:

“We do not at all plead for a neglect of the basic industries. The question is simply one of the tempo of development, one of the different degrees of emphasis to be placed on one or the other of the two broad categories into which industrial development is generally divided. In fact an adequate development of the consumers' goods industries, or the increase contemplated in the agricultural production of the country, is inconceivable without a substantial development of the basic industries also. . . . In the absence of these industries, the

foundations of a proper industrial development in the country must remain weak... But it is indeed a little pathetic, and may even prove to be considerably harmful, to start with half-filled bellies and half-clad bodies, thinking in terms of automobiles and aeroplanes. The industries on the development of which there should be laid a relatively greater emphasis by the planning authority should be the consumers' goods industries."

Two or three important considerations should weigh with the planning authorities in deciding generally on the question of priorities between different classes of capital and consumer goods industries. The most important one relates to the question of utilising our sterling balances. Sooner or later, a bilateral agreement is bound to be entered into with the U. K. by which India will be in a position to make use of a substantial portion of these balances to purchase goods and services from that country. Should we, under such a contingency, give our preference for importing capital goods or consumption goods? The general opinion in the country is in favour of the former, as India is in a position immediately to expand production of the latter to the requisite extent without depending much on imports. If, on the other hand, the country is to concentrate production in the first instance on capital goods, then it will have to tighten its belt and needlessly suffer until consumption goods catch up the demand for them, or, in the alternative, make use of its sterling credits for large-scale imports of consumption goods from the U. K.—a prospect which has neither been welcomed in the country nor is helpful to its industrial development. India would like to import capital rather than consumption goods from England in settlement of its sterling dues. It may endeavour to restrain any inflationary tendency that may manifest itself in the early stages of the planning period primarily through increased production of consumption goods and secondarily, if considered necessary, through the institution of control measures.

Another important consideration relates to the necessity of maintaining—and if possible increasing—our exports. In order to export, we will have to import in return. Should

we import capital or consumer goods? The answer to this question too is in favour of the former, for reasons already indicated. It is inconceivable that we can hope to maintain our level of exports without importing anything in return. The choice is between capital and consumer goods; and obviously the preference should be in favour of the former.

A third reason leading to the same conclusion relates to the raising of foreign loans for industrial development in India. In the event of our raising such a loan in America, for instance, it will be—and should be—given to us in the form of capital goods. We need not borrow abroad for importing consumer goods.

To what extent can—and should—the major industries be developed in the post-war period? We have already seen that, in order to cope with the needs of the country, there should be a three-fold increase in the cotton mill industry, producing at the rate of 12,000 million yards a year at the end of the planning period. About 4,000 million yards more will be required to meet the full needs, which will be supplied by imports limited to about 1,000 million yards and by the handloom industry producing about 3,000 million yards a year. This industry may be called to produce even more, in which case mill production will have to be restricted to that extent.

We have also seen that there should be a four-fold increase in the vegetable oil industry, if the oil supply should be sufficient to meet the full nutritional requirements of the country. Here too the cottage oil mill industry will have a large part to play, supplying nearly  $\frac{3}{4}$ ths of the requirements on the basis of creating to strictly local needs.

The two other textile industries—viz., woollen and silk industries—have also good prospects of expansion. Here too the cottage industry will have a leading role to play.

The paper industry too has a very good future. During the war period, production has increased by nearly 100 per cent from 50,000 tons to 100,000 tons a year. A vast educational programme is contemplated having as its important objects, among other things, to educate, through a system of free and compulsory education, all boys and girls between the ages of 6 and 14 and to undertake an extensive adult literacy campaign. In order to satisfy the needs of this pro-



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gramme, production of paper will have to be stepped up more than two or three times. In addition, increased literacy will bring in its train the need for more books, periodicals and newspapers, to cater to the demands of a far wider reading public than at present. Further, increased business activities resulting from the operations of the economic plans will mean the increased use of paper for business purposes. All these and other favourable factors go to show that the paper industry will have to be developed to many times its present size in the planning period.

Although India is the largest raw hides producing country in the world, its leather industry is still to be developed to its proper dimensions, though the war has given a great fillip to it by placing orders with it for the manufacture of millions of army boots. Plans will have to be devised for the consolidation of this gain and to expand production in consonance with the needs of an increasing standard of life.

The glass industry too has good prospects of expansion in the post-war period, as also the ceramic industry.

As a vast public health and medical relief programme is under contemplation, a considerable expansion in the drugs industry has to be planned for.

For the reasons mentioned in connection with prospects for raw jute, no considerable expansion in the jute industry need be expected in the post-war period.

We have estimated the sugar and *gur* requirements of the country at the end of the planning period at twice the present output. The sugar industry, therefore, will have to be at least doubled.

The other industries the development of which will have to be examined and planned for in the post-war period are:

1. Industries using lac as raw material.
2. Manufacture of paints and varnishes.
3. Bakelite industry.
4. Manufacture of electrical goods.
5. Manufacture of cigars and cigarettes.
6. Saw-mill industry supplying timber for various purposes.

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7. Plywood manufacture.
8. Manufacture of by-products from coal.
9. Sandal oil and other essential oil industries.
10. Miscellaneous rubber manufactures in addition to the manufacture of tyres and tubes.
11. Celuloid industry.
12. Manufacture of sports goods and furniture.
13. Production of utensils from metals sheets.
14. Processing mica and asbestos.
15. Manufacture of soaps and toilets.

The list may be multiplied. The above-mentioned industries mainly fall under the category of medium and small scale industries.

Without minimising the importance of essential consumption goods industries, the development of basic industries will also have to be planned. Some of them will have to receive the highest priority in view of their fundamental importance for the effective economic development of the country to the full. Hydro-electric development is one such instance.

Of the heavy industries, the manufacture of broad-gauge locomotives has already been planned by the Railway Board and will be started as soon as circumstances permit. At least two factories will be brought into commission, one of them definitely to produce 70 locomotives a year. Metre-gauge locomotives are already under manufacture and the stepping up of their production to meet post-war needs is under consideration. Locomotive boilers will also be manufactured in India. The wagon building industry will be expanded to provide average replacement requirements of goods wagons at the rate of 4,000 B. G. and 700 M. G. wagons a year.

The armaments industry has come to stay in this country. With the co-operation of His Majesty's Government, a vast programme of extension of this industry has taken place during the war. India is now able to manufacture numerous kinds of small arms and ammunition which were not originally manufactured in this country. There is no reason why

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this industry, considerably expanded under the impetus of war, should not flourish in the post-war period to subserve the peace-time needs of the Indian Defence Services. Also, there is the wider strategic consideration prominently brought out by the present war: India is a pivot of the Defence system in the East of the British Commonwealth; and as such a well-developed armaments industry should be planned for in the post-war period.

A highly developed steel industry is a paramount basic necessity alike in war and in peace. It is required to turn out bayonets during war-time and ploughshares when peace returns: the victories of peace as well as of war are forged by it. The Indian steel industry has considerably expanded during the war. Definite statistics of production are not available to the public, owing to security reasons; but it is reasonable to assume at least a 50 per cent increase in production. The peace-time demands of the industry will also be equally great: new railway construction; new bridges; the machine-tool industry; steel for re-rolling purposes; vast house-building programme and aerodrome construction; steel for shipbuilding; automobile manufacture and aircraft construction; steel for manufacturing machinery, particularly agricultural machinery; and steel for the armament industry; these will be the several major industrial activities requiring an expanded use of steel in the post-war period. Therefore, at least a two-fold increase in the iron and steel industry will have to be planned for, for which the raw material—iron ore—is adequately available in the country.

Under the stress of war, an aircraft factory is already functioning, originally devoted to the construction of moth planes and now largely concentrated on repair work. This nucleus can very well be developed into a full-fledged aircraft industry in the post-war period, mainly producing a few types of craft for the Indian Air Force and Civil Aviation and also doing repair work for both defence and civil planes.

A ship-building yard was laid at Vizagapatam when the war commenced for building merchant vessels; but work could not be started owing to difficulties connected with the import of requisite machinery during war time. The building of small craft for the Royal Indian Navy has developed

during the war. Thus a start is already there for developing a ship-building industry in India, building merchant ships as also small and medium vessels for the Royal Indian Navy. The war has shown the importance of having an adequate mercantile marine, which can be utilised during a period of war as an adjunct to the Navy and for the transport of war materials and other essential commodities. As the Government of India's second Report on Reconstruction aptly observes, "the vulnerability of India's position has been revealed by the stress of war-time conditions, but by no circumstances more glaringly than by her inability to find adequate shipping from her own resources to provide for the transport of the food supplies required by her." It is pleasing to note that the report recognises the need to rectify this state of affairs in the post-war period, "not only for commercial reasons but also because the development of the Royal Indian Navy necessarily implies the concurrent development of the merchant navy."

Plans were in an advanced stage just prior to the outbreak of the war to start automobile industry in India with the co-operation of American manufacturing interests; but the scheme could not be implemented owing to certain war-time difficulties. During the war, motor vehicles assembly factories, which had already existed, considerably expanded their output, for supplying thousands of vehicles to the Army. Thus, there is already a nucleus for the development of the automobile industry in the post-war period. Two companies have already been floated—one sponsored by the Birla group and the other by Mr. Walchand Hirachand, the initiator of the original scheme—with substantial capital, to start the industry after the war ends. Possibly American participation is intended by the sponsors. Thus, in the scheme of post-war planning of industrial development, a definite place will have to be provided for the development of the automobile industry.

One notable lacuna observed during the war in the industrial structure of India is the absence of a well-developed non-ferrous metals industry; this gap should be effectively filled in the post-war period as an item of vital national necessity. The aluminium industry has already been started, with

an assurance of protection in the post-war period; as large bauxite deposits have been found in several parts, this industry has good prospects in the coming years. The possibility of developing other non-ferrous metals will also have to be investigated, with the small copper ore production of about 300 tons a year as the starting-point.

The machine tool industry has been substantially developed during the war period and, what is more important, it has been properly organised. It should be further developed in the post-war period, since the large-scale industrialisation and agricultural development contemplated in the post-war period requires the help of a well-developed machine tool industry.

The development of heavy chemicals production has been a particular feature of the war. This production will have to be further stepped up in the post-war period, to supply adequately basic chemicals for industrial development. Particular mention must be made in this connection of the need to produce sufficient quantities of chemical fertilisers, which will be necessary to meet the demands of a vastly extended agricultural programme.

The cement industry will have to produce at least double its present output, if not more. The production was 1,000,000 tons before the war, which has substantially increased during the war period. With 200,000 miles of new roads under contemplation in ten years involving a capital expenditure of Rs. 450 crores, with plans for aerodrome construction at a capital cost of Rs. 15 crores in ten years, with a large railway programme of reconstruction, renewals, and development involving an expenditure of Rs. 319 crores in seven years and with prospects of a vast programme of housing, factory building, irrigation works, hydro-electric works, etc., the cement industry will be called upon to play a very prominent part in the industrial and agricultural development of the future; and visualising at least a two-fold increase in its production in the planning period is a very conservative estimate.

The possibilities of starting the following new industries should be explored and, if found feasible, provided for in the industrial plan:

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1. Rayon industry.
2. Manufacture of newsprint—suitable wood for mechanical wood pulp—which will be useful for both this and the art silk industry—is understood to be available in certain parts of the Himalayas.
3. Production of power alcohol from molasses and *mohwa* flower. This industry is already in existence on a small scale in one part of India—viz., Mysore—and has to be developed where sugar production is concentrated (U. P. and Bihar) and where *mohwa* flower is available in plenty (C. P.,) It is estimated that India can produce at least 20 million gallons of power alcohol a year, which will substantially supplement the petrol production of the country. In an agricultural country like India, this industry is important from the point of view of utilising agricultural products which would otherwise go waste. It is especially required to make a profitable utilisation of a by-product of the sugar industry, viz., molasses. Mixed petrol, in the proportion of one part of power alcohol to three parts of petrol, is being successfully used in many countries of the European Continent. If this industry had already been developed, the problem of petrol supply during war time would have been easier than what it is at present.
4. Colour industry.
5. Manufacture of mill stores. This is very important, since the absence or deficiency of some of these has been responsible for inability to step up industrial production more than what has been done in certain directions.
6. Manufacture of Radio sets. Cheap radio sets for the rural parts are greatly needed if the radio is to become popular and useful to the rural population.
7. Recovering petrol from coal, using for this purpose inferior grades of coal which will not be useful either for industrial or domestic purposes. From this source, India will have some additional supply of petrol.
8. The organisation of the lumber industry as in America and Canada.



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The above list is in addition to the new industries recommended already under the minor and heavy industries groups.

In order to draw up a proper industrial plan against international background, the post-war trade and fiscal policy of India will have to be clarified. Our economic planning will have to be in some material respects within the framework of possible international understandings regarding trade and monetary matters. While India should be willing, on principle, to collaborate in any genuine international arrangement designed to benefit humanity as a whole, she should not, at the same time, give up her right to determine her own fiscal policy in accordance with the needs of her industrial development. When there are favourable factors for the development of a particular industry in this country, like availability of raw materials and a large internal market ready at hand to consume the product, protection may be necessary to give a start to it and enable it to develop on strong foundations in a competitive world market. Under such a circumstance, India must have the right to determine the right fiscal policy and the level and period of protection. Again, when an industry is considered vital to national needs, we should have the right to develop it, by adopting protection if need be. Such a policy should not be considered as being inconsistent with our collaboration on the international plane for a freer flow of international trade, since the adoption of a blind and all-round policy of protection, irrespective of the other favourable or unfavourable economic factors in the country, is not suggested. What is suggested is only a continuance of the present policy of discriminating protection, the conditions for its grant being liberalised in certain directions to permit of a speedier industrial development in the country. With this qualification, India may become a party to any multilateral trade agreement that may be devised for the future conduct of world trade. Failing multilateral agreement, bilateral trade agreements may be concluded, wherever circumstances favour such a course, based on the principle of the most-favoured-nation treatment.

There is a wrong impression in certain quarters that Indian industrialisation will retard her foreign trade. This

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impression has been engendered by those who loosely talk in terms of "national self-sufficiency." By adopting a policy of fuller industrial development, the object of India is not to achieve self-sufficiency. Far from it: when the standard of life increases through industrial development, there will be a greater or not lesser flow of foreign trade between India and the outside world. Only the character of exports and imports may change. Instead of mainly exporting raw materials and importing manufactured goods in return, we may be able to export more of manufactured goods and less of raw materials, which will be required by the expanded industries within the country. Even here the policy should be to so step up the production of agricultural raw materials as to satisfy the needs of Indian industries and at the same time maintain at least the present volume of exports. There will have to be a shift in the nature of imports too. With large-scale industrial development, India may restrict the imports of the present categories of consumption goods and expand other categories which may be required in the process of industrialisation or which may not be produced in the country. The shift will most probably be in favour of more capital goods and less of the present lines of imports.

This policy is far from being one of "national self-sufficiency." This does not mean that India should neither export nor import—far from it, India should increase her foreign trade; and, as has already been pointed out, as the standard of life of the people increases through industrialisation, there will be a greater flow of foreign trade. That has been the experience of Western countries when they began to industrialise themselves on a large-scale; it cannot be otherwise so far as India is concerned. But the policy means that this country should adjust her trade relations on a rational and enlightened self-advantageous basis. She should not, for instance, export a raw material which can be easily used by local industries; nor should she import a manufactured article which is likely to retard her industrial development. In other words, she should export only those products which are surplus to her requirements and import those which she cannot manufacture. Exporting a raw material and import-

ing the goods manufactured out of it is bad economics; it is worse if this harms local industrial development.

Industrial planning and development for the post-war period, therefore, should take for granted the continuance of the present policy of discriminating protection; only the provisions governing the grant of protection and procedure and machinery for determining whether protection should be granted to a particular industry should be liberalised in certain directions. For instance, under present conditions protection will not be granted if the industry asking for it is not based on the abundant supply of an indigenous raw material. On that score, it has been denied to the glass industry since a component raw material—viz., soda ash—was largely imported and to the woollen industry on the score that a large part of the raw wool consumed by it came from abroad. This provision should be liberalised; if other conditions for development are favourable, there should be a relaxation of the condition relating to the availability of indigenous raw material. Further, the Tariff Board must become a permanent body, watching over the industrial development of India in the light of her fiscal policy, instead of being an *ad hoc* organisation set up whenever needed to conduct an inquiry. The procedure for applying for protection is cumbrous and unsatisfactory. An industry claiming it should have already been started and must demonstrate to the satisfaction of the Tariff Board that it will languish if protection is not granted. "Be boon and lie gasping on your death-bed. If your survival is considered desirable, then artificial respiration will be given to you. Otherwise, you must curse your birth and then die!"—that would appear to sum up somewhat picturesquely the present procedure for granting protection. On this line of reasoning, an assurance of protection could not be given to the automobile industry when its sponsors wanted such an assurance from the Government of India before they would decide to start the industry. The more rational procedure would be for the Tariff Board to conduct investigations on its own initiative (or on a reference from the Government of India) whether a particular industry could be started and developed with the aid of protection; on a favourable verdict from the Tariff Board, the Government of India should call

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upon private capitalists to start and develop the industry concerned on an assurance of protection. The present procedure would appear to be placing the cart before the horse.

In planning industrial development, the exact scope of the State and private enterprise in respect of that development should be clearly defined and determined. What should be the scope of the State? Should it become completely socialistic in its outlook and plan on the basis of full State ownership and control of the entire economic life of the community? Should the Russian model be followed? Or, should it leave the entire field for private enterprise? The right course, as in so many other cases would appear to lie somewhere in the middle. While the State should not sap private initiative and enterprise and entirely do away with enlightened profit motive, it should see to it that this motive does not act in a manner detrimental to national interests and impede the equitable distribution of what is produced through selfish profit-motive devices like speculation, deliberate hoarding and cornering of stocks with a view to pushing up prices, deliberately creating conditions of seeming over-production while there is real under-consumption, and artificial restriction of production or wilful destruction of what is produced for realising greater profits at the expense of the community. All such anti-social acts should be rigorously controlled by the State. It must have powers, in the interest of the nation, to control industrial production, distribution and prices along sound and healthy lines. While guaranteeing reasonable prices to producers—agricultural and industrial—it should see to it that the consumer is not victimised. It must protect the legitimate rights and interests of labour, so that it gets its due share of what is produced. It must also see to it that wealth does not become concentrated in a few hands to the disadvantage of the many and that it is distributed in as wide and equitable a manner as possible.

It should be possible from the beginning to lay down that certain classes of industries which are of national importance should be owned and conducted by the State. I do not welcome the idea, given expression to in certain quarters, that the State may, under certain circumstances, delegate the actual conduct of an industry owned by it to private hands,

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as was done in the case of the railways in the early stages of their development. Such a course will not be generally welcome to Indian public opinion and is also bad on merits, as it will have neither the advantages of State ownership nor of private initiative, but the disadvantages of both—so well illustrated in the railway history of India. The industries which could be considered for State ownership and management are; armaments, electric power generation, all public utilities and transport services.

The State should exercise rigorous control over basic industries, so that they subserve national and not sectional needs. In the industries concerned with manufacture for public utility services, like shipbuilding, aircraft manufacture and automobile production, it may have from 50 to 60 per cent interest both in capital and management. The development of the present consumption goods industries and of those new ones of this class which may be started in the post-war period, may be left to private initiative and enterprise. The same policy may also apply to capital goods industries in general, with the addition of rigorous State control in the interests of general national development. If a particular basic industry is considered to be of vital importance to the nation, the actual participation of the State in capital and management may also be considered. The State may also stimulate private enterprise, wherever considered desirable or necessary, by temporary participation in the capital structure and management, guarantee of interest, grant of subsidy, etc.

The general policy should be that the State must control and direct industrial development in national interests and should not step in where private enterprise can do the job better. The profit motive should not be the sole factor governing industrial enterprises: there must be a social consent also to such development. This need not necessarily mean the acceptance of the fundamental principle of socialism, viz., public ownership and control of all instruments of production. An essentially capitalistic system of economy—with such modifications as present-day conditions and circumstances necessitate—is capable of realising that end, perhaps in a much better way, in my opinion, than through the adoption of socialistic principles and methods. Such a capi-

talistic economy of the future should not, however, be based on the *laissez faire* theory of the past, but should be controlled and regulated by the State in the interests of the nation. Both the profit motive and "social consent" will operate together in the new economy of the future and contribute the best results to general welfare, avoiding the evils of undiluted capitalism on the one hand and those of unadulterated socialism on the other. Private enterprise will thus play a prominent industrial development of the future; but it will have to conform to national requirements.

The scope of the State in respect of industrial development should thus be somewhat on the following general lines:

1. State to own and conduct public utilities.
2. State to own and conduct vital national industries.
3. State to own and conduct industries of a pioneering nature in respect of which private capital may be shy.
4. State rigorously to control basic industries in the interests of general industrial development of the country.
5. State to participate in capital and management under certain circumstances.
6. State to help private enterprise through collection, collation and interpretation of economic statistics.
7. State to help private enterprise through organising and maintaining industrial research.
8. State to provide facilities for industrial and technical education and training in India and abroad.
9. State to help in finding outlets for Indian manufactures in foreign countries.
10. State to help industrial development through the adoption of suitable fiscal measures.
11. Other kinds of State help to be given, such as subsidy, guarantee of minimum profits, advancing of capital, taking up shares, technical advice and the like.
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13. State to help in securing the services of foreign experts.
14. State to control capital issues, for canalising them in desired directions.
15. State to control production, distribution and prices in national interests.
16. Control over profits, wherever considered necessary.
17. The adoption of a judicious system of taxation which discourages the concentration of wealth in few hands and enables the community to enjoy the surplus profits of industries.
18. State to regulate location of industries.
19. State to plan industrial development and undertake technical inquiries in conjunction with the representatives of industry.
20. State to undertake geological and mining surveys.
21. State to help through allocation of priorities for the import of machinery.
22. State to provide adequate power and transport facilities.
23. State to protect the relative interests of producers, consumers and labour.

An important policy which should be definitely enunciated in regard to post-war planning and execution refers to the question of location of industries. Strategic, economic and social considerations and the needs and interests of provinces and States will determine where a particular industry or group of industries will have to be located. Granting that economic factors are not very unfavourable to such a line of development, such as nearness of raw materials and source of motive power, market consideration, transport facilities, availability of labour, etc., industries should be so distributed that the economic advantages resulting from industrialisation—particularly facilities for fuller and greater employment and full utilisation of the raw material produced within the locality—is more or less evenly enjoyed by the different regional units of the country. It may even be necessary to plan

industrial development of certain "distress areas." Any lop-sided development of industries should be avoided. The sugar industry is an outstanding example of such development. It is concentrated in two northern provinces, while the Deccan and South India possess equal advantages for the development of this industry in their midst. The cotton mill industry is another example, though not of such an outstanding character. It is predominant in the Bombay Province, while raw cotton on a large scale is grown in several regions.

In planning industrial development for the future, it should be seen to it that the present tendency for the concentration of industries in a few big urban areas is discouraged as much as possible. New industries should be located in suitable rural areas, which will develop in consequence into small industrial centres without the economic and social evils antecedent to concentration of industries in big cities.

To what extent foreign capital and enterprise be allowed to participate in the industrial development of the future? The Bombay Plan gives a proper answer to this question. Foreign capital, it says, "if it is not accompanied by political influence or interference of foreign vested interests, should not be unwelcome." This issue is well clarified from the Indian point of view by the second Government of India Report on Planning, in the following words:

"Where Government decides to enlist the assistance of firms from overseas to develop industries of a highly technical kind, or those which depend on patents, the following principles may be observed: In such cases, the participation of outside interests may, if possible, be confined to the provision of technical assistance and of machinery and experts, the firm being remunerated for services rendered and by royalties on patents. In cases where participation in capital is required, care should be taken to see that the capital is issued in India, that the majority of the capital, as well as the directorate, is Indian and final control over policy rests in Indian hands. In cases where it is necessary to entrust the management of such industries to outside firms, provision should

be made for the training of Indians in all technical processes and the ultimate transfer of control to Indian management."

A cognate point which will have to be made clear in accordance with Indian public opinion is in respect of the future position of foreign companies started in India with rupee capital in order to take advantage of the fiscal policy of the Government of India. In such cases, the real object of protection, viz., safeguarding of Indian industries, becomes unrealised, as foreign vested interests are able to walk round the protective wall raised against them and compete with Indian enterprise from a position of vantage. The match industry is an outstanding example in this connection. This industry has been fully developed behind the protective wall; but its capital and management are predominantly foreign. What has happened after the introduction of protection is that Scandinavian interests, instead of exporting matches to India as formerly, have been able to build the industry in this country itself and thus enjoy the fruits thereof. Thus, protection in this instance has not benefited to any considerable extent, genuine Indian enterprise. This sort of thing should not be allowed to develop in the post-war period. Otherwise there is a likelihood of India being industrially developed for the benefit of foreign vested interests.

The last important point for consideration in respect of industrial planning is the place which cottage industries should occupy in the scheme of development. These industries occupy a very prominent place in the industrial structure of India; therefore they are bound to play an important role in the industrial development of the future. It should be remembered in this connection that far more people are dependent on cottage than on large-scale industries. While only three million workers are engaged in the latter, a like number is employed in the handloom industry alone. Therefore, in a country with such an economic structure as that of India, cottage industries must inevitably play an important part in the economic life and development of its people.

In the 1931 census, 15 million people were returned as employed in industries. As only about 2 million workers were engaged in the organised industries, it must be presumed that about 13 millions must have been dependent in that year on cottage industries. There are no occupational details for 1941. One method of working out the details for that year is to adopt the same proportions as in 1931. On this basis, about 17 millions must have been employed in industries in 1941. As about 3 millions were employed in the organised industries, about 14 millions must be presumed to have been employed in that year in the cottage industries.

What are the principal cottage industries of India? In addition to those mentioned in the "Agricultural Industries" list under "Agricultural Planning," the following are the main industries:

1. Handloom industry—cotton, woollen, silk and art silk. By far the largest of the cottage industries, giving full or partial employment to about 2½ million people and sustaining nearly 10 million people. There are about 2 million looms, with a capacity to produce 2,000 million yards of cloth every year.
2. The village potter, turning the same kind of wheel since the dawn of civilisation in India 6,000 years ago.
3. The village blacksmith, the village carpenter and the village leather worker, all turning out implements needed in agricultural operations.
4. Bell metal industry, employing bell metal and copper and brass sheets for the manufacture of vessels in common use by the people.
5. Carpet industry.
6. Beedi industry—the "cigarettes" of the poorer classes, an industry extensively practised throughout the country.
7. Manufacture of glass bangles and beads.
8. Art works on metals, wood and ivory. The silver and goldsmiths of the villages also come under this category.

## PLANNED ECONOMIC DEVELOPMENT FOR INDIA

9. Manufacture of miscellaneous metal articles like locks, cutleries, etc.
10. Soap and match manufacture are also being practised as cottage industries.
11. Other cottage industries worth mentioning are: embroidery work, furniture making, manufacture of gold and silver threads, cap and doll making, hand-made paper industry, rope making and mat weaving (particularly coir mat weaving).

As has already been explained, these industries require for their sustenance and development active Government help, through the co-operative organisation, for finance, supply of raw materials, technical advice regarding patterns and standardisation, a few simple machine tools which will modernise production, make it more profitable and lessen the tediousness—without, at the same time, destroying their individuality as human handiwork and the cottage basis of organisation—and facilities for marketing their products. Some of them have shown wonderful vitality of survival in this age of machines and large-scale production, while others can flourish with Government support, given in the directions indicated above. As the end of economic planning is human happiness, failure to plan for the development of the cottage industries would mean the neglect of the material interests of 90 per cent of the population depending on industries for their subsistence and well-being. A definite place must be given to the products of cottage industries in the general scheme of consumption to be devised for the post-war period. Most of the products are consumed locally; and if the industries are helped to organise themselves on modern lines and improve the quality of their products, their output will definitely find better local support as against machine products of large-scale manufacture. For the surplus production and for the production of those industries which have a wider and more than local appeal, sales should be arranged through Government helped co-operative or other kinds of specific commercial organisations. It may even be necessary to lay down special quotas for the products of certain cottage industries in the general consumption

schedule of the country. For instance, I have already explained that, in the consumption of cloth at 16,000 million yards estimated at the end of the planning period, the handloom industry should be effectively organised to produce at least 3,000 million yards. Similar arrangements may be possible in a few other directions too; but, generally speaking, if help is given on the lines indicated above, the cottage industries can be expected to hold their own and develop even in the face of the mass-produced machine products. Some of them enjoy a distinct individuality of their own, which will enable them to stand up successfully against machine competition.

## CHAPTER VI

## PROBLEM OF EQUITABLE DISTRIBUTION

The supreme importance of an equitable distribution of what is produced has been repeatedly stressed; otherwise increasing the productive capacity of the nation would be meaningless to the many, who may still continue to be below on the borderline or even below subsistence while a few may be rolling in wealth. How to bring about this equitable distribution? How to ensure that each person gets his minimum share of the national income so as to enable him to maintain at least the minimum standard of comfortable existence? It may be stated as a general proposition that in an expanding economy, as is contemplated under a scheme of planned development, where the aim is to create optimum conditions of employment, the very process of development may be expected to absorb profitably all unemployed and under-employed labour and thus ensure wages at or above the minimum standard. But that is not enough. More positive and specific measures should be adopted with the deliberate object of bringing about an equitable distribution of the aggregate national dividend and ensure to each individual at least that income which is required for minimum of essential comforts.

The step for this purpose should be, in the first instance, the adoption of a minimum wage standard for both agricul-

tural and industrial workers. On the scale of minimum income required, this wage scale should be fixed at Re. 1-0-0 per day per agricultural worker or non-agricultural worker in rural areas and Re. 1-8-0 per day for a labourer in urban areas or in the large-scale industries. (This is based on the calculation, previously explained, that an average family of three units, with one earning member, requires to maintain minimum standards, Rs. 45 a month in urban and Rs. 30 a month in rural areas.)

In the next place, a social security scheme, on the model of the Beveridge Scheme for the U. K., should be devised for India for industrial and agricultural labourers, to begin with. A scheme of only compulsory sickness insurance for workers in a few specified organised industries has been prepared by Prof. Adarkar at the instance of the Government of India. It is based on the contributory principle and expected to cost  $2\frac{1}{2}$  crores per annum. This is scarcely sufficient to meet the needs of such a vast country like India, where the number of workers runs into millions and the incidence of unemployment and sickness has been great. A scheme must, therefore, be devised to embrace within its fold the entire labour population—both rural and urban, both agricultural and industrial and both those engaged in large-scale and cottage industries—which should be effectively organised for the purpose. The tripartite contributory principle may be adopted, in the proportion of the employee contributing two parts, the employer four parts and the State three parts. The scheme may be applicable both for unemployment and sickness. The question of including old age pensions may be considered later.

There are no reliable statistics to determine the aggregate cost which this scheme will involve. Occupational particulars are available only for the 1931 census and even these do not enable us to calculate the approximate sum involved; only the roughest estimate can be attempted. But as India is planning to work out an economy of expansion in the post-war period, which is calculated profitably to absorb all unemployed and under-employed labour, and vast a public health programme, it can reasonably be assumed that the incidence of a social insurance scheme—confined in the

first instance to unemployment and sickness—may not be more than what is estimated on the basis of 1931 particulars; the chances, on the other hand, are that it may possibly be considerably lower, since a long way will have to be traversed in India before saturation points are reached both as regards production and employment.

In 1931, 31 millions were returned as agricultural labourers, 15 millions as depending on industries and 11 millions as domestic servants. It is extremely difficult to determine how many of those 15 millions depending on industries were actually industrial workers, since of that number about 13 millions were employed in the unorganised cottage industries where it is impossible to draw a distinction between employer and employee. For the purposes of my scheme, I assume that two-thirds of this number were actual workmen or people who can be considered as workers for all practical purposes. Thus the aggregate number of the labour population coming within the ambit of the social security scheme will be about 50 millions.

What will be the incidence of unemployment and sickness among them? Again, there are no relevant statistics to guide us at least to an approximation; here too we will have to make certain broad assumptions. For purposes of my scheme I assume that 5 per cent of this number may be continuously unemployed and 2 per cent continuously sick throughout the year. On this basis, the incidence would be about Rs. 135 crores a year, benefits being at the minimum urban and rural rates already indicated: i.e., Rs. 150, Rs. 10 per month per individual in urban, rural areas, respectively, or Rs. 450, Rs. 30 per month, respectively, for a family of three units. Of this, according to the proportion of contribution which I have suggested, the burden to the employees will be Rs. 30 crores (distributed among 50 million workers), to the employers Rs. 60 crores and to the State Rs. 45 crores a year. This works out, per worker per month, to a contribution of 8 annas by the employees, one rupee by the employers and 12 annas by the State.

With a view to reducing inequalities of income to the minimum, certain kinds of State taxation are suggested. They are:



## PLANNED ECONOMIC DEVELOPMENT FOR INDIA

1. Taxation of agricultural income above Rs. 5,000 a year, with progressively steeper rates on larger incomes.
2. Inheritance tax for both agricultural and non-agricultural properties above a certain value which will only affect the very rich classes.
3. Income-tax to be progressively steeper on the higher incomes.
4. The State to have a fair share of excess profits of business concerns—both agricultural and non-agricultural.

Business profits of both agriculture and industries should be arranged to be equitably distributed between Capital, Labour and the State. The standard of profit for each kind of business may be determined and fixed. Any profits accruing over and above that rate may be considered as excess profits, to be equally divided between the above three participants in the economic development of the country. The State's share may be recouped in the form of excess profits tax.

The co-operative movement should be made to play an effective part in ensuring an effective distribution among consumers of what is produced. While the State should control production, distribution and prices for the benefit of the entire nation, co-operative organisations may be started on an extensive scale throughout the country, with active and generous Government help, for securing consumption goods directly from the producers and distributing them to actual consumers at reasonable prices. This will not drive private trade out of business, but will help to keep the unsocial manifestations of the profit motive under effective check.

The scheme of equitable distribution that I have suggested here will prevent the concentration of wealth in a few hands, to the disadvantage of the many, and ensure to each individual at least the minimum comfortable share in the national dividend. The nation will grow richer, as also the individual. The profit-motive will be there as incentive to economic progress; but it will be of an enlightened character and broad-based on national considerations. The material prosperity of the nation will progressively increase, in which each and every individual will be a happy participant.

# INDIA'S ECONOMIC SET-UP-A FEW STATISTICAL PARTICULARS

## I. AREA AND POPULATION

(All figures are exclusive of Burma, Aden, Andamans  
and Nicobar Islands)

### BRITISH INDIA

<i>Particulars</i>	1921	1931	1941
Area (Sq. miles) .. .. .	857,370	859,456	865,446
Population (000) .. .. .	233,708	256,778	295,808
Density per sq. mile .. .. .	273	299	341
<i>Distribution between towns and villages (000)</i>			
Urban .. .. .	23,697	28,087	37,547
Rural .. .. .	210,011	228,691	258,262
<i>Distribution according to occupation (000) ..</i>			
Production of raw materials .. ..	78,959	79,293	} Not available
Industry, transport and trade .. ..	18,242	20,432	
Public administration and liberal arts	2,411	3,030	
Miscellaneous .. .. .	7,198	17,968	
Total number of literates .. .. .	14,998	18,072	37,016
Number of literates per 10,000 .. ..	642	704	1,251

## II. EDUCATIONAL PROGRESS

### BRITISH INDIA EXCLUDING BURMA

<i>Year ending 31st March \</i>	1928-29	1932-33	1936-37	1938-39
No. of educational institutions	232,429	229,771	227,940	230,526
No. of Government institutions .. .. .	4,665	3,822	4,062	5,128
<i>No. of Scholars (000):</i>				
Total .. .. .	11,461	12,125	13,390	14,509
Males .. .. .	9,521	9,735	11,482	11,345
Females .. .. .	1,940	2,390	2,908	3,163
<i>Number of scholars attending (000):</i>				
Arts and Science Colleges .. .. .	75	83	96	109
Professional Colleges .. .. .	18	19	21	24
Secondary Schools .. .. .	1,909	2,090	2,288	2,505
Primary Schools .. .. .	8,734	9,236	10,224	10,870
Technical and Industrial Schools .. .. .	27	26	31	34

PLANNED ECONOMIC DEVELOPMENT FOR INDIA

*Expenditure on recognised Institutions:*

(Rs. in lakhs):				
Total	2,491	2,409	2,640	2,782
From Government Funds	1,211	1,071	1,152	1,225

III. PUBLIC HEALTH

BRITISH INDIA EXCLUDING BURMA

Particulars	1929	1933	1937	1939
Number of hospitals and dispensaries	4,439	4,869	5,285	5,650
No. of patients treated (ooo)	51,640	62,618	71,048	79,057
Crude birth rate (per mille)	33	36	35	34
Crude death rate (per mille)	24	23	22	22
Infant mortality rate (per thousand live births)	178	171	162	156

IV. INDUSTRIAL LABOUR

*Volume of factory employment—both perennial and seasonal*

BRITISH INDIA EXCLUDING BURMA

N.B. Figures in brackets relate to the number of factories.

Particulars	1931	1935	1939
Government and Local Fund factories	122,870 (333)	114,666 (346)	132,446 (374)
All other factories	1,217,805 (6,863)	1,405,944 (7,520)	1,618,691 (10,092)
Textiles	665,073 (469)	729,247 (592)	817,077 (1,303)
Engineering	121,212 (571)	127,570 (667)	148,424 (1,201)
Minerals and Metals	35,971 (99)	43,861 (124)	55,123 (187)
Food, drink and tobacco	134,950 (2,471)	202,584 (2,708)	247,455 (3,388)
Chemicals, Dyes, etc.	42,922 (395)	51,235 (448)	57,934 (610)
Paper and Printing	28,922 (348)	33,080 (402)	44,377 (709)
Woods, Stone and Glass	22,408	32,873	52,290

STATISTICAL PARTICULARS

		(221)	(291)	(465)
Hides and Skins .. .. .	5,028	7,887	12,906	
	(33)	(43)	(66)	
Ginns and Presses .. .. .	153,820	162,665	163,226	
	(2,173)	(2,141)	(2,132)	

V. AGRICULTURAL PRODUCTION

BRITISH INDIA EXCLUDING BURMA

<i>Particulars</i>	AGRICULTURAL YEAR			
	1928-29	1932-33	1936-37	1938-39
Net area sown .. .. .	210,631	210,070	213,719	209,400
Cultivable Waste (culturable waste and current fallows) (ooo acres) .. .. .	139,361	141,686	137,065	142,482
<i>Area and yield of principal crops:</i>				
<i>Rice—</i>				
area (ooo acres) .. .. .	67,421	65,990	67,728	68,844
yield (ooo tons) .. .. .	26,215	25,045	26,373	22,612
yield per acre (lb.) .. .. .	871	850	872	736
<i>Wheat—</i>				
area (ooo acres) .. .. .	24,796	24,797	25,026	26,769
yield (ooo tons) .. .. .	7,263	7,576	7,859	7,985
yield per acre (lb.) .. .. .	656	684	703	668
<i>Other cereals—(Jowar, Bajra and Maize)—</i>				
area (ooo acres) .. .. .	38,756	40,853	40,649	39,316
yield (ooo tons) .. .. .	8,791	8,990	8,357	7,721
yield per acre (lb.) .. .. .	508	493	461	440
<i>Linseed—</i>				
area (ooo acres) .. .. .	2,627	2,779	2,934	3,118
yield (ooo tons) .. .. .	304	369	356	378
yield per acre (lbs.) .. .. .	259	297	272	272
<i>Groundnuts—</i>				
area (ooo acres) .. .. .	4,679	4,897	4,631	5,507
yield (ooo tons) .. .. .	2,771	2,353	2,110	2,274
yield per acre (lbs.) .. .. .	1,327	1,076	1,021	925
<i>Other oil seeds—</i>				
area (ooo acres) .. .. .	10,733	9,962	9,236	9,235
yield (ooo tons) .. .. .	1,310	1,494	1,333	1,279
yield per acre (lbs.) .. .. .	273	336	323	310

PLANNED ECONOMIC DEVELOPMENT FOR INDIA

<i>Cotton—</i>				
area (000 acres) .. ..	16,188	12,790	14,862	13,895
yield (000 bales of 400 lbs. each) .. ..	3,755	2,911	4,186	3,259
yield per acre (lbs.) ..	93	91	113	94
<i>Jute—</i>				
area (000 acres) .. ..	3,381	2,491	2,847	3,115
yield (000 bales of 400 lbs. each) .. ..	10,258	7,941	8,559	9,648
yield per acre (lbs.) ..	1,214	1,275	1,203	1,239
<i>Tea—</i>				
area (000 acres) .. ..	704	721	740	739
yield (000 lbs.) .. ..	372,788	399,115	360,946	411,595
yield per acre (lbs.) ..	530	554	488	557
<i>Coffee—</i>				
area (000 acres) .. ..	75	79	83	82
yield (000 lbs.) .. ..	12,534	15,769	18,492	20,609
yield per acre (lbs.) ..	167	200	223	251
<i>Rubber—</i>				
area (000 acres) .. ..	19	14	17	18
yield (000 lbs.) .. ..	3,377	..	3,697	4,183
yield per acre (lbs.) ..	178	..	217	232
<i>Sugarcane—</i>				
area (000 acres) .. ..	2,497	3,179	4,223	2,988
yield (000 tons) .. ..	2,599	4,450	6,234	3,148
yield per acre (lbs.) ..	2,331	3,136	3,254	3,360
<i>Area under improved crops:</i>				
(000 acres):				
Rice .. ..	633	1,422	3,320	4,362
Wheat .. ..	4,125	5,303	8,330	7,803
Cotton .. ..	3,829	3,188	4,864	6,156
Jute .. ..	1,144	1,003	1,314	1,588
Sugarcane .. ..	494	1,832	3,197	2,093
All crops .. ..	11,298	14,489	22,430	23,819

VI. IRRIGATION

BRITISH INDIA EXCLUDING BURMA

<i>Particulars</i>	1928-29	1932-33	1936-37	1938-39
Total Capital outlay upto the end of financial year (Rs. crores) ..	112.32	139.58	147.06	152.80
<i>Area irrigated:</i>				
Total area under irrigation (000 acres) .. ..	48,253	48,453	50,158	53,662

## STATISTICAL PARTICULARS

Area irrigated as percentage of net area sown .. .. .	23	23	23	26
Area irrigated from Government canals (000 acres) .. .. .	21,668	21,524	23,324	24,412
Area irrigated from Government canals as percentage of net area sown .. .. .	10	10	11	12

## VII. FORESTS

### BRITISH INDIA EXCLUDING BURMA

<i>Particulars</i>	1928-29	1932-33	1936-37	1938-39
Area under forest (000 acres)	66,794	66,631	67,163	68,184
Proportion of forest area to whole area .. .. .	13%	13%	13%	13%
<i>Outturn of forest products:</i>				
timber and fuel (000 qbc. ft.)	262,037	223,305	258,277	284,919
minor produce (000 rupees)	1,35,24	1,03,73	1,00,89	1,22,83

## VIII. LIVE-STOCK

### BRITISH INDIA EXCLUDING BURMA

<i>Particulars</i>	1928-29	1932-33	1936-37	1937-38
Bulls and bullocks (000) ..	48,650	48,988	48,563	48,600
Cows (000) .. .. .	36,484	36,518	36,936	37,052
Male buffaloes (000) .. .	5,087	5,158	5,461	5,466
Cow-buffaloes (000) .. .	13,993	14,278	14,959	14,968
Sheep (000) .. .. .	22,987	25,117	23,754	23,748
Goats (000) .. .. .	37,223	35,249	36,249	36,326
<b>TOTAL</b> ..	164,424	165,308	165,922	166,160

## IX. MINERAL PRODUCTION

### BRITISH INDIA AND INDIAN STATES

<i>Particulars</i>	1929	1933	1937	1938
Coal (000 tons) .. .. .	23,419	19,789	25,037	28,343
Gold (ozs.) .. .. .	363,833	336,056	330,744	321,138
Petroleum (000 gallons) ..	52,748	57,008	75,658	87,082

PLANNED ECONOMIC DEVELOPMENT FOR INDIA

Iron Ore (ooo tons) .. ..	2,382	1,192	2,871	2,744
Manganese Ore (ooo tons) ..	994	218	1,051	968
Mica (Cwts.) .. ..	53,231	41,075	105,478	123,169
Copper Ore and Matte (tons)	73,524	181,907	371,573	288,127
Salt (ooo tons) .. ..	1,439	1,368	1,493	1,538
Ilmenite (tons) .. ..	23,670	52,980	181,047	252,220
Building materials value (ooo rupees) .. ..	1,10,83	86,34	96,90	1,12,65

X. (A) INDUSTRIAL PRODUCTION

INDIA EXCLUDING BURMA

Particulars	1932-33	1934-35	1936-37	1938-39
Jute Manufactures (including twist and yarn) (ooo tons) .. ..	903	950	1,253	1,221
Paper (ooo Cwts.) .. ..	804	892	971	1,184
Iron and Steel (ooo) tons):				
Pig iron .. ..	880	1,343	1,552	1,576
Steel ingots .. ..	591	834	861	977
Finished steel .. ..	359	551	613	726
Heavy Chemicals:				
Sulphuric acid (ooo Cwts.) ..	484	530	560	512
Sulphate of Ammonia (ooo tons)	8	14	18	15
Cement (ooo tons) .. ..	593	781	997	*
Sugar (excluding molasses) (ooo Cwts.) .. ..	6,778	13,716	20,801	15,662
Matches (ooo gross) .. ..	18,790	16,450	20,632	21,064
Petrol (ooo gallons) .. ..	14,597	17,741	16,736	19,820
Kerosene (ooo gallons) .. ..	24,402	30,912	35,822	38,731
Paint (ooo Cwts.) .. ..	..	..	..	577
Wheat flour (ooo mds.) .. ..	15,075	13,775	14,286	16,483
Cotton piecegoods (million yds.)	3,169	3,397	3,572	4,269
Cotton yarn (mill. lbs.) .. ..	1,016	1,001	1,051	1,303

X. (B) NUMBER OF LOOMS AND SPINDLES IN TEXTILE MILLS

BRITISH INDIA EXCLUDING BURMA

Particulars	1928-29	1932-33	1936-37	1938-39
Cotton mills:				
No. of mills .. ..	248	277	297	350
No. of looms .. ..	148,847	160,110	163,121	170,157
Spindles .. ..	7,643,113	8,108,942	8,042,088	8,513,134

STATISTICAL PARTICULARS

*Jute mills:*

No. of mills .. ..	95	99	104	107
No. of looms .. ..	52,409	60,506	65,273	67,939
Spindles .. ..	1,108,147	1,202,183	1,303,077	1,350,465

*Woolen mills:*

No. of mills .. ..	12	16	34	35
No. of looms .. ..	1,216	1,118	1,751	2,102
Spindles .. ..	63,412	54,643	57,044	73,943

XI. POWER PRODUCTION

BRITISH INDIA

(In million units)

<i>Particulars</i>	1938-39	1939-40	1940-41	1941-42
Domestic consumption .. ..	143.4	150.8	156.9	138.2
Commercial small-light and power (for offices and other uses) .. ..	91.6	101.6	103.5	109.7
Industrial power .. ..	1194.2	1261.4	1373.6	1603.8
Street lighting .. ..	39.2	39.1	37.7	32.5
Tramways .. ..	44.1	46.6	46.4	46.3
Electric Railways .. ..	155.2	156.3	161.5	315.2
Miscellaneous .. ..	14.2	64.2	60.9	110.9
Total energy sold .. ..	1681.8	1819.9	1940.6	2356.8
Total energy generated .. ..	2004.4	2166.9	2297.8	2655.2

XII. (A) FOREIGN TRADE

BRITISH INDIA EXCLUDING BURMA

(In crores of rupees)

<i>Particulars</i>	1935-36	1936-37	1937-38	1938-39
Exports of Indian Merchandise (Private) .. ..	149.55	185.05	180.93	162.79
Re-exports of Foreign Mer- chandise (Private) .. ..	4.70	7.24	8.28	6.42
Total Exports .. ..	154.25	192.29	189.21	169.21
Imports of Foreign Merchan- dise (Private) .. ..	149.14	141.10	173.33	151.83
Balance of trade in merchan- dise .. ..	+5.11	+51.19	+14.36	+17.38
Balance of transactions in Treasure (Private) .. ..	+35.41	+13.71	+14.26	+11.89
Total Visible Balance of Trade	+40.52	+64.90	+30.24	+29.27



PLANNED ECONOMIC DEVELOPMENT FOR INDIA

XII. (B) DIRECTIONS OF OVERSEAS TRADE

<i>Particulars</i>	1928-29	1932-33	1936-37	1939-40
<i>Sources of Imports: (Percentage of share in the total value of import):</i>				
U. K. . . . .	45	37	38	25
Other Empire countries . . . .	9	8	11	31
Foreign countries . . . . .	46	55	51	44
<i>Directions of Export Trade: (including re-exports):</i>				
U. K. . . . .	21	28	32	35
Other Empire countries . . . .	14	17	14	21
Foreign countries . . . . .	56	55	54	44

XII. (C) COMPOSITION OF TRADE

UPTO 1936-37 FIGURES INCLUDE BURMA

(In crores of rupees)

<i>Particulars</i>	1928-29	1932-33	1936-37	1939-40
<i>Export of Indian Merchandise (Private):</i>				
Food, drink and tobacco . . . .	67.34	37.32	40.23	39.84
% of total . . . . .	21	29	21	20
Raw materials and produced articles mainly unmanufactured . . . . .	170.27	54.78	102.54	85.99
% of total . . . . .	52	42	53	43
Articles wholly or mainly manufactured . . . . .	89.59	38.48	49.82	75.83
% of the total . . . . .	27	29	26	38
<i>Imports of Foreign Merchandise (Private):</i>				
Food, drink, and tobacco . . . .	46.08	14.82	11.15	31.29
% of total . . . . .	18	11	9	22
Raw materials and produced articles mainly unmanufactured . . . . .	22.52	20.49	18.42	36.13
% of total . . . . .	9	16	16	22
Articles wholly or mainly manufactured . . . . .	180.30	94.53	92.40	91.81
% of the total . . . . .	73	73	75	56

STATISTICAL PARTICULARS .

XII. (D) TRADE IN SELECTED COMMODITIES  
FOREIGN SEA-BORNE TRADE

(Upto 1936-37 figures include Burma)

Particulars	1928-29	1932-33	1936-37	1939-40
<i>Imports:</i>				
COTTON PIECEGOODS—				
million yards .. ..	1,937	1,225	764	579
Value in lakhs of Rs. ..	5,382	2,126	1,337	965
IRON AND STEEL—				
tons (000) .. ..	1,170	326	363	261
Value in lakhs of Rs. ..	2,024	530	594	609
SUGAR—				
tons (000) .. ..	937	402	23	255
Value in lakhs of Rs. ..	1,609	423	24	332
SOAP—				
Cwts. (000) .. ..	406	296	48	33
Value in lakhs of Rs. ..	158	83	27	24
MATCHES—				
gross boxes (000) .. ..	1,532	57	55	1,297
Value in lakhs of Rs. ..	17	1	..	25
CEMENT—				
tons (000) .. ..	127	83	51	11
Value in lakhs of Rs. ..	68	29	19	7
<i>Exports:</i>				
RAW COTTON—				
tons (000) .. ..	663	365	762	526
Values in lakhs of Rs. ..	6,625	2,037	4,441	3,011
COTTON PIECEGOODS—				
million yards. .. ..	149	66	102	221
Value in lakhs of Rs. ..	537	209	263	611
RAW JUTE—				
tons (000) .. ..	898	563	821	570
Value in lakhs of Rs. ..	3,235	973	1,477	1,983
JUTE MANUFACTURES.				
bags in millions .. ..	498	415	567	1,210
Value in lakhs of Rs. ..	2,493	1,116	1,209	2,545
Cloth (million yds.) .. ..	1,568	1,012	1,708	1,560
Value in lakhs of Rs. ..	3,164	1,024	1,547	2,241
GROUNDNUTS—				
tons (000) .. ..	788	433	739	549
Value in lakhs of Rs. ..	1,937	712	1,229	719

PLANNED ECONOMIC DEVELOPMENT FOR INDIA

LINSEED—					
tons (000)	.. .. .	157	72	296	219
Value in lakhs of Rs.	.. .. .	331	91	436	318
HIDES AND SKINS RAW—					
tons (000)	.. .. .	60	27	43	32
Value in lakhs of Rs.	.. .. .	947	276	435	408
MANGANESE ORES—					
tons (000)	.. .. .	681	198	677	719
Value in lakhs of Rs.	.. .. .	197	48	131	183
MICA—					
Cwts. (000)	.. .. .	96	40	180	219
Value in lakhs of Rs.	.. .. .	90	32	94	177
TEA—					
million lbs.	.. .. .	360	379	302	359
Value in lakhs of Rs.	.. .. .	2,660	1,715	2,004	2,630

XII. (E) COASTING TRADE

BRITISH INDIA EXCLUDING BURMA

(In lakhs of Rs.)

Particulars	1936-37	1937-38	1938-39	1939-40
<i>Indian Merchandise:</i>				
Imports .. .. .	38,73	41,62	38,73	34,45
Exports .. .. .	37,73	41,29	39,18	34,86
<i>Foreign Merchandise:</i>				
Imports .. .. .	5,07	5,83	4,83	5,25
Exports .. .. .	6,57	7,67	6,77	7,16
<i>Total (Foreign and Indian):</i>				
Imports .. .. .	43,80	47,46	43,55	39,70
Exports .. .. .	44,30	48,96	45,86	42,02

XII. (F) STATEMENT SHOWING THE VOLUME OF INLAND TRADE OF BRITISH INDIA (EXCLUDING BURMA), IN CERTAIN IMPORTANT COMMODITIES

(In 1,000 mds.)

Particulars	1936-37	1937-38	1938-39	1939-40
Wheat .. .. .	28,109	32,562	27,983	27,502
Sugar (excluding molasses) ..	24,990	23,149	24,409	15,652
Cement .. .. .	19,948	22,742	27,750	25,638

STATISTICAL PARTICULARS

Cotton piecegoods .. .. .	10,521	11,190	11,077	11,294
Coal and Coke .. .. .	397,864	464,286	449,854	496,513
Iron and Steel .. .. .	39,318	38,655	41,894	41,987
Hides and Skins Raw .. .. .	3,157	2,970	2,679	3,383
Hides and Skins Tanned and Leather .. .. .	587	610	637	869

XIII. TRANSPORT AND COMMUNICATIONS

(A). RAILWAYS

(All India excluding Burma)

Year ending March 31	Route mileage	No. of passengers carried (000)	Volume of goods traffic in tons (000)
1936-37 .. .. .	41,068	489,606	82,406
1938-39 .. .. .	41,133	530,623	88,361
1940-41 .. .. .	41,052	575,722	92,780
1942-43 .. .. .	45,525	622,333	95,253

(B) ROADS

(British India excluding Burma)

As on 31st March	MILEAGE			No. of Registered Motor Vehicles running
	Metalled	Unmetalled	Total	
1929 .. .. .	64,839	170,247	235,086	151,555
1932 .. .. .	71,431	181,962	253,393	189,667
1935 .. .. .	73,131	186,970	260,101	151,193
1937 .. .. .	77,266	225,617	302,883	151,717

(C) SHIPPING

Year ending March 31	VESSELS CARRIED				No. of passengers carried in un-berthed ships (000)
	Foreign Trade		Coasting Trade*		
	No.	Tonnage (000) tons	No.	Tonnage (000) tons	
1932-33 .. .. .	3,274	7,805	75,688	15,403	1,547
1934-35 .. .. .	3,640	8,717	81,036	17,437	1,638
1936-37 .. .. .	3,810	9,475	96,401	17,407	1,538
1938-39 .. .. .	4,037	9,657	99,968	19,134	1,824

\* Corrected for Burma

PLANNED ECONOMIC DEVELOPMENT FOR INDIA

(D) AVIATION

Particulars	1934	1936	1938
Mileage flown by Indian regular air services (internal) .. . . .	345,777	496,539	1,412,334
Number of passengers carried ..	757	349	2,104
Weight of mails carried (tons) ..	21.3	49.4	244.6

XIV. JOINT STOCK COMPANIES

PAID-UP CAPITAL OF COMPANIES (IN LAKHS OF RUPEES)

(British India excluding Burma)

N.B. Figures in brackets denote the number of companies.

Particulars	1928-29	1932-33	1936-37	1939-40
All Companies .. . . .	243,44 (5,500)	247,52 (7,252)	272,24 (10,061)	288,50 (10,368)
Banking, Loans and Insurance .. . . .	23,01 (1,443)	26,02 (2,137)	30,84 (2,759)	26,43 (2,398)
Transit and Transport ..	20,12 (219)	20,93 (306)	21,86 (418)	23,33 (498)
Trading and Manufacturing:	84,60	86,91	95,43	107,44
Mills and Presses .. . . .	(2,061) 65,31 (684)	(2,786) 62,38 (721)	(4,193) 61,97 (879)	(4,728) 66,02 (944)
Planting Companies ..	12,52 (537)	13,79 (533)	14,40 (519)	13,53 (498)
Mining and Quarries ..	21,84 (274)	21,15 (275)	22,00 (338)	20,00 (297)
Estate, Land and Buildings	6,67 (96)	9,80 (131)	11,53 (187)	12,75 (235)
Breweries and Distilleries	68 (14)	33 (11)	57 (16)	60 (16)
Sugar Manufacture ..	1,91 (33)	2,36 (106)	9,26 (196)	10,98 (157)
Hotels, Theatres and Entertainments .. . . .	2,12 (80)	2,29 (167)	2,85 (400)	5,79 (465)

STATISTICAL PARTICULARS

XV. PUBLIC FINANCE

(A) CENTRAL

(In crores of rupees)

Official Year	Total Revenues*	REVENUE EXPENDITURE				Total	Defence Services
		Cus-toms	Central Excise	Income Tax & Corporation Tax			
1936-37 ..	117.84	29.95	13.63	15.34	119.63	50.67	
1937-38 ..	122.48	43.11	7.66	14.58	122.48	52.60	
1938-39 ..	121.07	40.51	8.66	15.78	121.76	52.07	
1939-40 ..	125.77	45.88	6.53	15.58	125.77	50.26	
1940-41 ..	145.13	37.30	9.49	21.77	151.65	74.81	
1941-42 ..	173.70	37.89	13.15	36.67	186.39	105.38	
1942-43 ..	235.12	25.12	12.75	74.86	347.29	218.54	

XV. (B) PROVINCIAL FINANCE

BRITISH INDIA EXCLUDING BURMA

(In crores of rupees)

Official Year					Total Revenue	Total Expenditure
1936-37 ..	..	..	..	..	82.72	82.24
1937-38 ..	..	..	..	..	85.82	83.25
1938-39 ..	..	..	..	..	85.07	85.89
1939-40 ..	..	..	..	..	91.37	89.24
1940-41 ..	..	..	..	..	98.53	95.40

XV. (C) LOCAL FINANCE

BRITISH INDIA EXCLUDING BURMA

(In crores of rupees)

Particulars	1928-29	1932-33	1936-37	1939-40
Municipalities ..	30.84	37.15	38.61	44.31
District and Local Bodies ..	15.98	15.51	16.23	16.71

\* Inclusive of net receipts of Railways, Posts and Telegraph, etc.

PLANNED ECONOMIC DEVELOPMENT FOR INDIA

XV. (D) PUBLIC DEBT

CENTRAL

(In crores of rupees)

	Total	Internal	External (£ 000)
1936-37	942.83	466.42	357,307
1937-38	944.72	476.83	350,920
1938-39	949.77	464.95	348,712
1939-40	944.62	436.41	327,306

XVI. PRICES

Index number of wholesale prices for Calcutta	Working class cost of living Bombay city Index number		
	August 1914=100	July 1914=100	
	Year ending June 1934=100		
1927	148	154	..
1930	116	137	..
1931	96	110	..
1933	87	103	..
1935	91	101	100
1936	91	..	101
1939	108	..	106
1942	185	..	157
1943	307	..	230

XVII. CONSUMPTION

(Per capita consumption)

Year	Cotton piecegoods in yds.	Sugar in lbs.	Tea in lbs.
1929-30	16.02	8.3	.19
1934-35	15.49	6.4	.19
1939-40	16.10	6.3	.21
1941-42	14.93	..	..

STATISTICAL PARTICULARS

XVIII. ESTIMATES OF THE ANNUAL INCOME OF INDIA

(Taken from Various Publications)

<i>Estimates of</i>	<i>Area</i>	<i>Year</i>	<i>Income per head Rs.</i>
Dadabhai Naroji .. ..	British India	1867-68	20
Atkinson (F. J.) .. ..	Do.	1875	30.5
Baring, Major (Lord Cromer) .. ..	Do.	1881	27
Richard, T. (Sir) .. ..	Do.	1881	10
Horne (E. A.) .. ..	Do.	1891	28
Atkinson (F. J.) .. ..	Do.	1895	39.5
Digby (W.) .. ..	Do.	1898-99	18/9
Curzon (Lord) .. ..	Do.	1901	30
Giffen, R. (Sir) .. ..	Whole of India	1903	30
Balkrishna (Dr.) .. ..	Do.	1911-12	21
Horne (E. A.) .. ..	British India	1911	42
Shirras (G. F.) .. ..	Do.	1911	50
Wadia (P. A.) and Joshi (G. N.) .. ..	Do.	1913-14	44/5
Lupton (A.) .. ..	Do.	1919-20	114
Shah (K. T.) .. ..	Do.	1921-22	46
Sarma (B. N., Sir Hon'ble)	Do.	1911	86
		1912	Over 100
Shah (K. T.) and Khambata (K. J.) .. ..	Whole of India	1900-14	46
		1914-22	58.5
		1900-22	44.5
		1921-22	74
Shirras (G. F.) .. ..	British India	1921	107
		1922	116
Slater (Dr. G.) .. ..	Madras Presidency	1919-20	112
Vakil and Muranjan .. ..	British India	1925	74
Simon Commission's Report (1930) .. ..	Do.	1922	100 (£ 8)
Findlay Shirras .. ..	Do.	1931	63
V. K. R. V. Rao (Dr.) .. ..	Do.	1925-29	77.9
"A Student of Economic Research." .. ..	Do.	1938-39	66
Ditto .. ..	Do.	1942-43	142