
ECONOMIC POLICY
AND PROGRAMME
FOR
POST-WAR INDIA

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Banaili Readership Lectures

BY

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P R E F A C E

The chapters that follow are the outcome of a series of lectures delivered at the Patna University under what is called the *Banaili Readership*. The reason for my choice of the subject is very simple indeed. Planning and reconstruction not only belong to the contemporary climate of economic thought but they are also, in my opinion, the only solution of the problem which faces us in India—the problem of poverty. I have tried in these lectures to give a broad outline of the policy and programme which India should follow after the war in order to raise her teeming millions from their present appalling depth of miseries to a decent standard of living. Vast as the subject-matter is, the reader will find many gaps in these pages which it was not possible to cover in course of a few lectures. Nor is this a blue-print which, in my opinion, can be framed only by the Government of the country on the basis of fuller data and materials. This is no more than a broad indication of the problem and its solution. It may not be possible for all to agree with the views and opinions advocated here. Neither do I claim infallibility for them. But if these pages are able to provoke thought and clarify issues, I shall consider my labour to have been amply rewarded.

Nalin Ranjan Sarker

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I

PRELIMINARY

As we are in the midst of a grave and almost all-engrossing war, it is natural that the prosecution of the war itself and political issues of immediate importance should be dominant. But the most distinctive features of the present war are that economic problems have been conceded an unquestioned primacy among questions of post-war reconstruction. The demands which have had to be made in the name of the war effort on the common people, the unprecedented scale of suffering, the enormity of war ravages, and the extent of the change in the structure of industry during war time and, as a consequence, of the change that will be needed for reconversion to peace-time basis—all these adequately explain the importance accorded to economic problems. But apart from these objective factors, there is more intolerance now than ever before of want and suffering among the common people. The moral conscience of the ruling classes has been aroused in all countries and the demand for social security, full employment and an adequate standard of living for all has become insistent. These problems are now exercising the best minds in free and advanced countries with well-developed resources as well as in poor and backward subject countries. The solutions that are demanded, however, vary with the economic conditions in the different countries. In some advanced countries, the problem is essentially one of maintaining the standard of living already attained by removing all the elements of insecurity which threaten such standards and by bringing within the reach of all the improvements which scientific development has rendered possible. In the comparatively backward countries, the problem is rather one of developing and creating resources in such a way that an augmented purchasing power, which is also well distributed among the general population, and the current production will be sufficient for the attainment of a basic minimum standard for all. This is, of course, too broad a differentiation of the economic problems that face the nations of the world. In reality, no two nations are similarly

placed in regard to the problem of economic reconstruction in the years following the present war. What is common to all is the general agreement and determination that the well-being of the common man should be consciously striven for by the planned efforts of society as a whole.

In the case of India, the problem is complicated by the absence of a national government. For in a subject country, the question of freedom, the political issue, becomes all-important and tends even to eclipse the economic question. It is not alone a question of good government being a poor substitute for self-government. But, even in the economic sphere, no adequate programme of reconstruction can be carried through smoothly and successfully except by a national government. This is indisputable, and undisputed. A national government is really a *sine qua non* for the effective prosecution of a comprehensive economic plan embracing the whole country and all its people. But the difficult and complex task of evolving a satisfactory economic plan with the object of raising the standard of living of the masses, particularly in the prevailing conditions, can not be either neglected or shelved merely on the ground that the political issue has not yet been satisfactorily settled. The presence or otherwise of a national government does not aggravate or minimise the intrinsic complexities of the questions which have to be considered in the formulation of an economic plan. That is why the best minds in the country, both in and out of government, are applying themselves to the problems of planning without being discouraged by the altogether unpromising political outlook. It is, in my view, better that a sound plan awaits the advent of a national government than that a national government is kept waiting impatiently for the formulation of a workable plan, although I admit that the early formation of a truly national government would help to make the plan itself more completely in tune with our national interests than would otherwise be the case.

There is further such a desperate urgency about economic development in this country that certain parts of our future plan, in any case, have to be altogether independent of the vicissitudes of our nationalist politics. This is seen in the fact that, so far at least as certain aspects of planning are concerned, the Government of India in its present form is not less impatient than the leaders of our political and business life.

INDIA'S POVERTY—A PARADOX

The fact that the people of India are among the poorest in the world in spite of the vast human and material resources of the country is an obvious paradox. The paradox is there because of the Government's continued failure to proceed in a planned way to develop its rich resources systematically and on a large scale. The Government had until the recent past more or less accepted the view that India must essentially remain an agricultural country. Without going into historical details one might say that this was a direct result of the Industrial Revolution in England even if it were not deliberately brought about by the ruling classes in England. The Industrial Revolution confronted England with the task of finding adequate outlet for her increasing output of manufactured goods. This necessitated a drastic, almost a ruthless, move in the opposite direction in the economy of India. It became necessary to transform India, an exporter of cotton goods to the whole world, into an importer of cotton goods from England. In England the ruin of the old handloom weavers as a consequence of the Industrial Revolution was accompanied by a simultaneous growth of the new machine industry which provided employment to the artisans who had been robbed of their traditional vocation. But the tragedy of the Indian situation is that here the ruin of the millions of artisans and craftsmen was not compensated by the growth of any new forms of industry. On the other hand, the whole basis of the village economy, viz., the union of agriculture and domestic industry, received a mortal blow. Millions of ruined artisans and craftsmen and other categories of workers had no alternative but to crowd into agriculture. In this way India was forcibly transformed from a country of combined agriculture and manufacture into an agricultural colony of Britain. This was the position which continued more or less up to the end of the nineteenth century. Thereafter, although industries have been established and have made some progress and though India now stands eighth among the countries of the world in point of industrial production, the progress of Indian industry must be considered meagre when viewed against her resources, possibilities and needs. Her industrialisation shows all the signs of perfunctory growth which the lack of a definite, well-conceived policy of industrialisation must entail. India's economy, in fact, remains very much unbalanced with an exces-

sive dependence on a system of agriculture, which, again, for lack of industrialisation, has remained unaffected by modern science and has continued on practically primitive lines. The growing dependence of an increasing population on a system of agriculture which had become positively retrogressive has led to poverty on an appalling scale and a tangle of problems which cannot be unravelled by what are called the natural forces of economic progress.

CHANGED PERSPECTIVE TO ECONOMIC PROBLEM

It appears, however, that the Government are now waking up to this aspect of the Indian economic problem. H. E. the Viceroy, for instance, has stated in his speech at 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." Explaining further 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."

In order to pursue these aims the Government have set up a separate department for post-war development and planning, with a person of the eminence and experience of Sir Ardeshir Dalal in charge of it. A Reconstruction Committee of the Viceroy's Executive Council and certain Government Committees with non-official members have also been formed to help in formulating a comprehensive plan. Yet other indications of governmental activity in regard to planning for the future are the Sargent Scheme for education, the Memorandum on Agriculture prepared by the Kharegat Committee, and the appointment of the Bhore Committee for public health improvement. The various provincial governments have also been at work, planning for the future of their respective provinces; non-official agencies—professors, businessmen and others—have also been active in framing economic plans for the country. The most notable among these is the Bombay Plan which was the first concrete and definite scheme to come into the field, and which, I think,

gives a very clear lead as to the lines and the manner in which the country's economic development—production and distribution—should be planned. But apart from the question of the merits of these plans and blue prints, one thing seems to emerge quite clear out of all this, namely, that officials and non-officials, Government and the public, have all accepted the idea that poverty calls for a total mass offensive. A major victory has thus been won over prejudice and inertia. This initial victory will be complete if the plans formulated are translated into action efficiently and with promptness.

THE BIG FIVE

Even in economically advanced countries like the U. S. A. the attack on the economic front, they still say, must be on what has been termed the "big five", namely, food, shelter, clothing, health services and education. It need hardly be emphasised that in India in regard to the "big five" the people are so inadequately ministered to and the deficiency in regard to these is so colossal that very determined efforts have now to be made for a frontal attack on these. Our aim in India must accordingly be so to improve the standard of living that all, including those who are below the subsistence limit, may be brought to a level where they are assured of the basic minimum in regard to the "big five." The actual contents of our programme in India, however, must, from the nature of the case, be substantially different, even if the ultimate objective is largely similar. Thus, with the advanced countries the question is much more of equitable distribution than of any great increase in the volume of production, whereas in India production is yet at such an inordinately low level that the main emphasis in the first instance must still be on production. I emphasise production not because I do not regard equitable distribution as important, but because equitable distribution in the present state is by itself no solution to the problem of ensuring a decent minimum for all. There is not enough to go round; and the first task is to ensure the necessary increase in production. It does not mean that production and distribution can be totally divorced from each other. Upon a long view of things distribution is part of the mechanism of production. For in the absence of equitable distribution leading to an increase in the purchasing power of the consumers, production is bound to foster scarcity economy or take the

character of overproduction with all its appalling misery. What I suggest, however, is that the peculiar conditions of India's present economy, viz., the inordinately low level of production, must not be lost sight of. In fact, to put all the emphasis on distribution at this stage is to help a fatal misapprehension of the nature of the problem, though it is obvious that the distributive system must be improved simultaneously with production, or else there might be poverty in the midst of plenty.

Per Capita INCOME AS INDEX OF POVERTY

The appallingly low standard of life in India is much too self-evident to need any proof by way of comparison with the position in other countries of the world. The *per capita* income in India in 1981 was estimated at Rs. 65/- per annum, and the slight improvement which may have taken place since then does not really alter the picture at all. It must, however, be remembered that the *per capita* income, in the case of India especially, cannot but be a very rough indication of the economic condition of the country. There are, for one thing, no detailed or reliable statistical data, as in the highly industrialised countries. The country is mainly agricultural and the agriculture also is of a primitive character over large areas, in the sense that there is hardly any large-scale farming, but only small holdings where the cultivators consume what they themselves may be able to produce and the goods produced by them do not come into the money or exchange economy at all. Inequality of distribution, again, detracts from the value of the *per capita* income figure as a dependable index of the economic position of the general mass of the people. It conceals the fact that utterly inadequate as an income of Rs. 65/- per annum is for assuring even the barest minimum for sheer existence, a very large section of the people has an income much below Rs. 65/- *per capita*. It is, however, hardly necessary in India's case to demonstrate by reference to *per capita* income figures the miserable condition of her people. The misery of the people is writ large over the entire face of the land and the 'Economist' puts the whole position very succinctly when it observes that "the Indian worker lives for a year on what the British worker spends on cigarettes."

To tackle this problem effectively, a conscious and planned development of our economic resources is considered essential,

as pure *laissez faire* has been found in actual practice to be utterly unsuitable. The objective of all planning is to raise the standard of living of the people and to assure sufficient employment by means of the fullest and the most economic utilisation of the available resources of a country. In other words, we shall have to increase greatly our national wealth by vastly enlarged production and to assure through an equitable system of distribution sufficient income or purchasing power to the masses so that they may be enabled to buy the essential requirements of life. But before I proceed to a survey of our requirements and resources, I would like to say a few words on the concept of planning.

MEANING OF PLANNING

Planning is a word which lays emphasis on preparation based on foresight. In the economic sphere, it is a term used to signify in an impressive and spectacular way the decision of the social will that certain tasks, which formerly society had allowed to be accomplished in an automatic and therefore haphazard way, should hereafter be attempted and achieved in a methodical manner with a clear, definite object in view. The content of planning, therefore, is determined by the choice which the effective elements in a community make in regard to such tasks. I should mention here that the principles of planning should not be thought of in the same terms or on the same lines as the principles of the numerous social ideologies which have during the last half century contributed so much to communal antipathies and so little to realistic understanding of the problems of modern society. Planning rests on the assumption that the ends are chosen by the general conscience and consciousness of society as a whole, rather than in a Pharisaic conformity to the principles of established social cults. Even historically speaking, planning may be said to originate in the disappointments that have followed the exclusive adherence to one or another of such social creeds. The demand for economic planning originated in the period of the Great Depression when it was felt that the chances of natural recovery were very slender. It gained in strength when the sufferings of the common people in Soviet Russia which were due to rigid adherence to communism came to be widely known. All this led to the recognition that the facts of life are so varied and so intractable, for the purpose

of particular social creeds, that attempts to remodel society as a whole and economic life in particular in pursuance of such creeds are not likely to succeed.

I may, perhaps, emphasise here, if only to guard against possible misunderstanding, that this observation of mine applies as much to capitalism and its basic principles of *laissez faire* and free trade as to communism and its variants. After a decade of communistic experimentation in Russia and half-hearted and uncorrelated deviation from *laissez faire* in the democratic and non-communistic countries, the fundamental common sense of mankind has at last re-asserted itself in the insistence that the social tasks should be carefully formulated and methodically achieved, rather than that the welfare of the common man should be continually jeopardised by indiscriminating adherence to dogmatic social creeds on either flank. It may be said, therefore, that the vote of the average man has at long last been cast in favour of a commonsense attempt to improve the average well-being rather than for one social creed or another. It is in this sense and no other that planning may be said to be ideologically neutral.

While on this subject, I may point out that the view is often expressed that in the matter of social and economic development, we in India must follow Soviet Russia. As I have already said, the achievements of Soviet Russia have been something stupendous and there is much that we may learn from the Soviet example and many are the lessons which we may profitably gather therefrom. To say this, however, is not to suggest that India can or should copy Russia blindly in regard to the methods to be followed in her economic planning. One must not lose sight of the fact that Soviet Russia herself has gradually and sometimes imperceptibly brought in changes and modifications in her economy according to the exigencies of circumstances. While technically Russia is still a socialist country with ownership of the means of production vested in the State, a class of industrial managers and official bureaucrats has now emerged who for all practical purposes control and manage the factors of production, though socialised, through their control of the State machinery and who are specially privileged in many respects. I shall offer one illustration to prove my point. The degree of inequality of incomes in Soviet Russia today is greater than in other countries. James Burnham in his stimulating book

—“The Managerial Revolution”—points out that “the upper 11 per cent. or 12 per cent. of the Soviet population now receives approximately 50 per cent. of the national income. This differentiation is sharper than in the United States, where the upper 10 per cent. of the population receives approximately 35 per cent. of the national income.” If we are not satisfied with the testimony of James Burnham, we may listen to what Joseph E. Davies, ex-U.S.A. Ambassador in Soviet Russia, has to say in his “Mission to Moscow” which largely is a record of his personal experiences in that country. In letter No. 132 Mr. Davies has assembled “the various facts and trends which indicate a departure from, or modification by the present *regime* of the basic communistic principles upon which the Revolution was founded.” “The idea”, says Mr. Davies, “of a ‘classless’ society has been and is being destroyed in practice. The government itself is a bureaucracy with all the indicia of class, to wit: special privileges, higher standards of living, and the like. From the top down, there are to be found indications of class.” Towards the end of this letter Mr. Davies says: “It is alleged by the leaders here that this is simply a stage in their effort to attain ultimate communism. There is every indication here, however, that again it will be a case of ‘the monster that makes the meat upon which it grows’; and that it will be a long time before this capitalistic-socialistic state, with its rulers enjoying the ‘flesh-pots’ of luxury and power, will develop into a communistic state and ‘self-less’ society.”

For the reasons and considerations mentioned above, it seems to me that the wisest thing would be not to bring in the conflicting question of ideologies in shaping our plans, but rather to concentrate on the actual conditions in the country and make a vigorous, honest and commonsense attempt for securing the greatest possible measure of welfare of the greatest number of the people. Planning such as has commended itself to the commonsense of mankind today, is a highly useful blend of realism and idealism in the search and endeavour for the good of the ordinary man. It calls for discipline in sympathy and imagination alike; but it frowns on the tendency to make the past too much the measure and determinant of the future. While it insists that schemes should not be condemned merely on the basis of the calculations of the old individualist economy, it utters a stern warning against assuming that in a *regime* of

social control and planned endeavour, the community can both eat the cake and have it. While resources at any given time are a rigorous limiting factor, it would be folly to overlook the capacity of man to effect an expansion of resources, or in conditions of larger resources, to secure a larger social satisfaction by redistribution of the resources amongst the various objectives.

Planning, therefore, implies, as I have already mentioned, a happy blend of idealism and realism. While the general objective of planning may be assumed to be the same for all countries, viz., the raising of the standard of living of the masses and full employment, yet its actual translation in practice will be largely conditioned by the actual economic state and resources of particular countries. The process of realisation of the objective will therefore vary from country to country. The point will be better understood by a few illustrations. In the case of Britain, in productive equipment, in the development of the skill and aptitude of the people, in the power of the Government and the leaders to execute policies and secure the necessary effort therefor, she is in a far better position than most other countries of the world. But the economic system is designed on the basis of large-scale imports of the necessaries of life from abroad and the payment therefor by means of visible and invisible exports. The system implies in actual fact the possession of colonies and dependencies providing agricultural products to the mother country and offering at the same time a valuable market for her finished goods. But this war is bringing about far-reaching changes. Britain has lost her creditor position in the world and with it an important constituent of her invisible exports. Further, many of the backward countries are developing their industrial resources and they will no longer be good markets for the importation of many kinds of consumer goods. The problem that faces Britain, therefore, is one of re-organisation of her industrial structure such as will enable her to maintain a large export surplus even after the war for the purpose of preserving and even improving the standard of living of her people. In the U. S. A. the resources are even vaster than in Britain. But the problem of correlating agriculture and industry, exports and imports, foreign loans and security of internal production has confronted the U. S. A. ever since the last war; and even today America cannot be said to be ready to face up to this problem. In fact, foreign lending in recent years has come to occupy the key position in American economy. A fully developed and

mature country as she is, savings are almost automatically coming into being without any pain or abstinence being associated with them. Not all these savings, however, can be internally used owing to the congestion of the home investment market. A part of the savings, in fact a very large part, must seek an outlet abroad in the development of backward but potentially rich countries like China or India as well as in the reconstruction work of the devastated countries of Europe. The problem is how best to integrate and correlate the needs of these backward countries with America's own internal requirements. If American capital, like its English counterpart in the past, wants to secure undesirable control over the economy of these backward countries, it will be very much resented by the latter. A satisfactory solution of this problem of foreign lending is therefore not only necessary for maintaining the equilibrium of the world as a whole, but also essential for the safe and efficient functioning of America's own economy, inasmuch as full employment within her own borders cannot be effectively assured unless the congestion in her home investment market is removed by finding suitable outlets for investment of her surplus capital abroad. Lastly, Russia, at the beginning of the N. E. P., furnishes an instance of a country where the masses were soaked in communistic idealism, but the leader was a stern realist who saw not only the requirements of economic progress but also the stark necessities of social survival. Russia planned, not for an immediate increase in the production of consumer goods, but for the fundamental strengthening of the industrial structure which would ultimately assure this purpose and also greatly increase her war potential. Hence the appalling scale of scarcity in Russia before this war, a scarcity which is justified today by the success in rolling back the tide of German invasion.

It is such conditions that we have to keep in mind when we try to determine the objectives of economic planning in this country. I have already indicated that the problem in Britain and America is materially different from what it is in India. The Indian problem may with great force be compared to what it was in Russia on the eve of the First Five Year Plan. Russia was then a backward agricultural country, not much unlike India today. Russian plans, however, were materially influenced by the fear of foreign aggression and the resultant necessity of quickly building up an effective defence industry. This is the reason why very high priority was accorded to heavy and basic indus-

tries in the initial stages in the Russian Plans, even though it meant a good deal of privation and suffering to the people in respect of consumer goods. I feel, however, that the necessity of immediately building up defence industries on a large scale is not so urgent in India as it was in Russia. We need not concentrate too much on heavy industries at the beginning. I do not intend to suggest that we shall not plan to develop heavy and basic industries from the very start. What I wish to emphasise is that in the initial stages of our plan, more attention should be paid to the development of consumer goods industries. Although we in India may well take many a profitable lesson out of the pages of Soviet Russia's history in the sphere of planned efforts for economic development of the country, the position in India is yet unique in many respects, and as such there is need to take stock of the position. The preliminary steps are to examine the standard of living in this country and to estimate the kind of basic minimum that it may be possible to attain within our existing resources, in other words, to estimate the increase in production and national income, that is, the minimum necessary in these conditions and to try to see how far the factors of production available to us are capable of yielding the requisite results. Such an inquiry may well determine in a purely objective way some of the more important features of the economic plan that this country requires.

PROSPERITY INDIVISIBLE : ITS IMPLICATIONS

Opinion all over the world is slowly but surely realising that, like war and peace, prosperity and poverty are indivisible. Neither particular classes or sections within a society nor individual nations can prosper at the cost of others. All such attempts will generate conflicts and clashes with disastrous consequences. The history of the twentieth century bears painful testimony to this. The plague-spots of poverty and squalor, disease and ignorance, whether within the society of individuals or in the society of nations, must be removed in the interest of all societies and nations. It follows, therefore, that, as between countries, those that are poor and backward should be afforded every facility to attain a standard of development that would ensure to their peoples at least a minimum standard of living. The demand of countries like India for a recognition of their special position and their need for special safeguards made in

international economic conferences is, therefore, based on sound reasons; for, the well-being of the teeming millions of India is necessary for sustaining the prosperity of the whole world. A rise in their standard of living will mean a great increase in the purchasing power of very large masses of people. And they will be in a position to purchase ever so much more not only of domestic commodities but also of foreign goods. Further, as a publication of the League of Nations emphasises, they will be able to provide an elastic fringe to the trade of the world as a whole which should have the effect of removing that pressure upon present markets which makes so many nations reluctant, if not unable, to remove existing restrictions.

It is pertinent to observe in this context that, as estimated by Colin Clark, the entire world's production of economic goods and services, averaged over the decade 1925-34, was 254 milliard International Units per year. An International Unit is defined as the amount of goods and services which could be purchased for \$1 in the U. S. A. over the average of the decade 1925-34. Out of the 254 milliard international units, as much as 119 milliard or nearly fifty per cent, were produced in the four largest economic units, viz., U. S. A., Great Britain, Germany and France, containing between them only 13 per cent. of the world's population. Little or no thought was bestowed till recently on the consequences of such gross inequality. It is not alone a question of unfairness to the poorer peoples. It involves a degree of instability in the prosperity of the few which is the fertile breeding ground of the microbes of war. The question of India's economic development, or that of China is, therefore, part of the wider issue of world peace and prosperity. It has an international significance which cannot be ignored. The sooner this plain and simple truth is realised by the United Nations, engaged in the prosecution of the war, the better it is for the future of the world.

THE REQUIREMENTS

In my last lecture, I attempted to show how both in our national economy and in the wider sphere of world economy, the idea of planning has come to displace the devotion to particular social ideologies. I pointed out, too, that the principles and objectives of planning have to be determined with special reference to the conditions and needs of each country. In our position, it is obvious that there can be no other aim for national economic planning than to ensure a decent minimum of the necessaries and comforts of life for all classes of the population. The next step therefore is to be clear in our minds about what this minimum constitutes. This minimum can, no doubt, be fixed according to the personal preference of each man and may, therefore, leave scope for endless diversity of opinion. I shall endeavour to indicate the objective standards which narrow down severely this scope for differences, so that the basis of a national plan is an estimate of individual needs to which little or no exception can be taken. Our next step will be to examine the resources we have on hand in terms of the time-honoured divisions into land, labour and capital. An estimate of needs and an estimate of resources will together make obvious to us the immensity and the actual dimensions of the tasks that await us. The ways and means of accomplishing these tasks will no doubt form the crux of economic planning.

STANDARD OF LIVING

Before enumerating the constituents of a minimum standard I may be permitted to say a few words on the concept of standard of living which sometimes appears to admit of different interpretations. In ordinary parlance, standard of living usually refers to the actual level of consumption of food, clothing and housing, that is, only those factors which have a bearing on material comforts. But I feel we should not lose sight of the non-material factors which also enter into the calculations of human welfare. The happiness of a human being is not assured by the provision of his material wants only. If we plan to keep the common man above want, we must also learn to regard

him as a being with a mind and body and to recognise that the mind, no less than the body, has its needs of food, shelter and exercise. If what we aim at is the happiness of the common man, then we have to provide him the initial education and the subsequent mental development which will enable him to realise from our vast social investments the dividend of individual happiness. The provision of adequate leisure is also an essential condition for the full and free development of the self. So are social services like health and sanitation. Those who may not readily agree to include these non-material factors into the concept of the standard of living must recognise that education and leisure and health services are necessary to enable individual men and women to be efficient workers. Even from purely material considerations, therefore, it would be prejudicial if individuals are too stunted or if the social environment in which they live is much too cramped. One should, therefore, be prepared to take a wider view of the legitimate aims of planning.

In saying this, however, I must not be construed to mean that, whenever we embark on any scheme for raising the standard of living, we must proceed along both fronts at an even pace and that there are not circumstances and conditions which would not demand a greater emphasis on the material side of the matter. Indeed, when the economic condition and the standard of living of a country are so low as in India, it is imperative that in the initial stages we should devote our energies wholeheartedly to raising the income level of the masses as also to increase the flow of goods and amenities of life to them. Unless this is achieved and until and unless we have been able to assure to the poverty-stricken masses a certain minimum of income and a modicum of material comforts of life, we cannot aspire to tackle them effectively in the cultural and social sphere.

CONSTITUENTS OF MINIMUM STANDARD

I may now proceed to examine the constituents of a minimum standard of living. The first requirement obviously is adequate food, adequate not merely in quantity but also in the quality of the nutrition necessary to ensure vitality and physical fitness. The second requirement is clothing suited to our climatic conditions and the third a dwelling place in a healthy environment. But food, clothing and shelter by themselves are not sufficient, as I have already said. A minimum standard

must also provide for an appropriate conditioning of the mind and the body through education and health. Education and public health are essential not only for their own sake, but also as an aid to intensified production of wealth for the community. Education is further necessary to provide the minimum preparation required for the proper discharge of duties as a good citizen. The aim of education at its lowest should, therefore, be that every person reaching the age of 10 henceforward is able to read and write and that every adult has the means of taking an intelligent interest in social and civic life. In addition to this, measures will also be necessary for removing the accumulated evil of illiteracy among those who may have reached adulthood already without any benefit of education. Even these are not enough for a minimum standard of living for all. A comprehensive scheme of social security to cover such risks as unemployment, ill-health, old age etc., should also form part of the national minimum. Although this is the ideal, we have to realise that this is not immediately possible in India, for the simple reason that a complete scheme of social security cannot be introduced until a policy of full employment has had time to work itself out and some approximation has been made to a position of stable employment for the greater part of the population, thereby raising the average individual income to a level necessary to meet the contributions of insurance. Nevertheless, a start should be made in those spheres where it would be feasible to introduce social insurance even from now.

INADEQUACY OF EXISTING STANDARD

I may indicate some of our deficiencies as existing at present in respect of the different items included in the minimum standard. According to an estimate made in 1935, India had by then fallen short of food for 48 millions of her people. In terms of calories the shortage amounted to 41.1 billion calories. Having regard to the increase of population since 1935 as also the fact that there has been no proportionate increase in production of food crops, it is obvious that the position has since then deteriorated still further. The average Indian diet is not only inadequate but also ill-balanced. Nutrition experts usually divide food into two classes (i) the protective foods, which are chiefly valuable for providing minerals, vitamins and protein, and (ii) the non-protective foods chiefly valuable as energy providers. Lack of protective foods causes various deficiency

diseases and the Indian diet is particularly deficient in this, although it is none too strong in other respects. The consumption of milk and milk products is confined mostly to the richer sections of the community and some among the rural population who own cows and are not obliged to sell all their milk. The glaring disparity in milk consumption between our country and foreign countries will be evident from the following figures : the daily consumption of milk per head in India is only 7 oz. as against 39 in Great Britain, 40 in Denmark, 57 in New Zealand and 63 in Finland. The dietary position is further aggravated by the low intake of vegetable and animal foods and dairy products which contain valuable proteins and vitamins. Although vegetables are most susceptible to increased production and growth, it is significant that the area under fruits and vegetables, including spices, is only 3 per cent. of the sown area in British India. An investigation carried out some years ago by Sir John Megaw, one of the highest medical authorities under the Government of India at the time, gives a revealing picture of the widespread malnutrition in India. Sir John's was an elaborate enquiry embracing typical agricultural villages in all provinces of British India. The results of the investigation showed that "only 39 per cent. of the people are well nourished, 41 per cent. poorly nourished and 20 per cent. very badly nourished". The other findings of the inquiry are equally startling : viz. (i) that in nearly 40 per cent. of the villages the population was excessive in relation to food supply, as a result of which India has a very poorly nourished population, (ii) the average span of life is less than half of what it might be; (iii) periods of food scarcity or famine have been occurring in one village out of every five during a ten year period in which there has been no exceptional failure of the rains ; and (iv) in spite of the excessively high death rate, the population has been increasing much more rapidly than the output of food and other commodities. These observations of the Commission have lost none of their validity through lapse of time. On the contrary, malnutrition and under-nutrition have become more pronounced and widespread during this war when famine and famine conditions are reigning over large parts of the country. The seriousness of the problem is well brought out when contrasted with conditions in other countries. For instance, an enquiry

carried out in the U. K. in 1934 led to the conclusion that in the United Kingdom 'the evidence is that malnutrition is not a prominent feature, nor that it is widespread or increasing'.

In clothing, again, the epithet of a "naked fakir" is neither a figurative nor an exaggerated description of an average Indian villager; it is very nearly true. The annual per capita consumption of cloth in India is 16.1 yds. against 64.0 yds. in the U.S.A., 30.0 in Germany and 21.4 in Japan. I concede that the consumption of cloth in different countries is not quite comparable. In tropical countries, this requirement is not only much less than in cold countries, but the quality and type of cloth necessary will also be different. Yet it will be admitted that even for India a *per capita* consumption of 16.1 yds. is rather low, regard being had to the extremes of cold and heat prevailing in many parts of the country. I may mention that the Congress National Planning Committee estimated our requirement of clothing at 30 yds. per person. Further, the average of 16.1 yds. in India does not give a true indication of ordinary village life. Most of the rural folk are very much below this average.

In housing again, not only are the environmental conditions, sanitation, etc., too often altogether unsatisfactory, but the houses are extremely defective in construction, ill-lighted and ill-ventilated, and the space available is too small so that people have to huddle up somehow inside the rooms not unoften using the bare earth for shelter at night. This overcrowding in the dwellings of the poorer classes is very pronounced in towns, particularly industrial towns. Thus it has been estimated that the average space available to Bombay labourers in their tenements is only 27.53 sq. ft. whereas the minimum space usually recommended is 100 sq. ft.

In the sphere of education India holds no enviable position. Not even nearly two centuries of British rule have been able to dispel the darkness of ignorance from this country. The percentage of literacy above the age of five in India is 14.6 while in advanced countries of the world it is more than 80. Even this figure of 14.6 for literacy is rather deceptive, for it has been estimated that less than one out of every four who goes to school stays long enough to reach the earliest stage, viz., Class IV, at which permanent literacy may be said to be attained. The Sargent Report on Education, therefore, pertinently observes

that the money now spent on nearly eighty per cent. of pupils is practically wasted.

The lack of medical facilities also is appalling. As J. B. Grant has pointed out in 1939, there were only 7,300 hospitals and dispensaries in British India with provision for 74,000 beds. The average population served by each hospital and dispensary works out at about 41,000 and the proportion of population per bed at 4,000. The number of doctors and nurses in India is 42,000 and 4,500 respectively which means one doctor per 9,000 persons and one nurse per 86,000 persons. The comparative figures for the U. K. are one doctor per 776 persons and one nurse per 435 persons. The poor medical facilities contribute their share to high death rates and low expectation of life. Apart from the poor medical facilities available, the general condition of sanitation, of public health in India is notoriously low, the high rates of death from preventable epidemic diseases like malaria, cholera, small-pox, etc., being a clear indication of this. It was estimated in 1937 that there were on a rough calculation 12,500,000 cases of Malaria in India. In Bengal alone "over 60 per cent. of the population suffered from the disease each year and roughly about 1,000 people died from it every day in the year." The most sensitive index of a country's health, however, is the state of infant mortality upto the age of one and here India's position is the worst—deaths under one year per 1,000 live births in India being 167, as against 48 in the U.S.A., 60 in Germany, 53 in the U.K., 38 in Australia and 114 in Japan. The average expectation of life in India is about 26 while in most of the advanced countries the corresponding figure is in the neighbourhood of 60.

DIFFICULTIES OF QUANTITATIVE MEASUREMENT OF MINIMUM STANDARD

Although it is easy to state what our main requirements are, the actual construction of the minimum standard is attended with many difficulties. This standard differs from country to country. To take, for instance, the question of housing, the formulation of national housing policies is relatively easy in those countries in which the bulk of the population works for wages and is in a position to make regular payments of rent or in some cases payments with a view to ultimate ownership of the house they dwell in. But in India such conditions obtain only among a

very small fraction of her working classes. The preponderant majority of the population is engaged in subsistence economy, obliged to use their own efforts and material locally available for the provision of housing shelter. In the sphere of clothing also the ascertainment of the extent to which existing supplies fall short of the minimum necessary for healthy living presents great difficulties. No simple standard for minimum requirements can be laid down, as is possible in the case of dietary, because qualitative questions which are not susceptible to statistical analysis are of importance. The durability of materials, questions of style, comfort, functional and climatic suitability cannot be averaged out and revealed in simple arithmetical form. When materials are either spun and woven or made up into clothes in the home by female labour the task of measurement is further complicated.

Food or nutrition is perhaps the only element in the minimum standard which admits of any quantitative measurement. But even here an important consideration creeps in. Physiologists in the past, in determining human dietary standards, have generally devoted their attention to minimum requirements. Such was the usual standpoint of Governments and administrations when called upon to fix rations for workers, or to feed large masses of soldiers and civilians in war, or when obliged to assist the unemployed and their families during times of industrial depression. Modern science, however, has developed and brought into prominence the idea of an 'optimum', diet which may be defined as one providing "for the full development of the individual for efficiency without exhaustion and for his resistance to disease." The standard for adequate nutrition, like the standard for hygiene in general, cannot be limited to that required for the prevention of avoidable diseases by means of a minimum or barely adequate diet; the business of adequate nutrition is to create health by means of an optimum diet. Whatever may be the measure for other items of the standard, food and nutrition is a sphere where the 'optimum', and not minimum, provision should be aimed at.

These general considerations apart, there are some difficulties peculiar to India which stand in the way of a precise determination of the minimum standard. Such determination invariably depends on elaborate economic surveys and careful and

patient study of family budgets of different sections of the people. Statistical materials bearing on these matters are still inadequate and meagre, so that whenever we are confronted with any constructive work we have to proceed in a vague way without a dependable knowledge of facts. These difficulties notwithstanding, we have got to arrive at some rough and approximate ideas regarding the minimum standard of living and in this, besides utilising the facts which are available, we shall have to use our own judgment and commonsense as best as we can. The minimum standard of living in the ultimate analysis should be converted into money terms, for in order to bring the minimum standard within the reach of all, it is obviously necessary that the individual income should reach a minimum level for buying the goods and services included in the minimum standard.

ESTIMATES OF MINIMUM MONEY INCOME

The Bombay Plan of Economic Development has estimated this minimum income at Rs. 74 per annum. This according to them would ensure (i) a well-balanced nutritive diet with an energy value of 2,600 calories net, (ii) clothing to the extent of 30 yds. per person, (iii) housing accommodation with a space of 100 square feet per person and (iv) minimum health and education services for all. The figure suggested by Mr. S. N. Agarwal in "Gandhian Plan" is closely similar to this, viz., Rs. 72/- per annum, although, it should be remembered, this estimate is made for rural areas. On the other hand, enquiries made into working class cost of living in a number of provinces have revealed a much higher figure of minimum income as being necessary for ensuring the minimum standard for urban labourers. These figures range from Rs. 40 to Rs. 50 per month for a family of three units—husband, wife and two children. If we take the average of these figures, viz., Rs. 45/- per month for a family of three, it means that a minimum monthly income of Rs. 15/- or which means the same thing, an annual income of Rs. 180/- is needed for every urban labourer. The disparity between these estimates and those made in the Bombay Plan or Gandhian Plan is very great indeed. While I consider that in fixing the target we should be guided primarily by what is practicable and not pitch our aim too high on idealistic grounds, yet I am inclined to consider the figure of Rs. 74/- as being inadequate for the purpose. There are certain items, such as fuel and light, conventional necessities, travelling, correspondence,

indispensable social requirements, etc., which have not entered into the calculation of the minimum standard in the Bombay Plan or Gandhian Plan. These things when added to the estimate, would most certainly raise the minimum appreciably. On the other hand, the estimate of Rs. 180/- for an urban labourer per year is very high and incapable of achievement within a measurable period of time. Such wide disparities in the calculations of minimum income are perhaps due to statistical imperfections and one should be cautious in suggesting another independent estimate. Nor is a precise and meticulous calculation necessary at this stage. For, this much is clear beyond all doubt, that the present average income of India is utterly insufficient to sustain a minimum standard of life. It is equally clear that the figure of Rs. 74/-, suggested in the Bombay Plan, represents the barest minimum in securing which for every individual there should be no controversy or quarrel. And in practice our aim should be to attain a minimum income as much higher than Rs. 74/-, as may be practicable under existing conditions. In this connection it should be remembered also that in practice it need not be necessary for every individual to have the same amount of income in money terms. The money income is necessary to buy certain things which are considered essential for attaining the minimum standard of living. Some of these things may not have to be brought in the market by many. For example, many agriculturists grow their own food, and also possess a small plot of land on which they can grow vegetables; many again weave their own cloth or construct their own huts. To the extent that this is so for any individual, the money income that he needs will be less. In fact, I am inclined to believe that in many parts of the country nature has been so bounteous that the rural people owning land or a small farm-yard can with a little extra effort provide themselves with many of the ingredients of a nutritious dietary and to this extent do with less money income.

NEED FOR BALANCED ECONOMY

The proportion in which the national income that is aimed at should be derived from the different branches of the national economy should be well-defined. Any lopsided development, such as at present characterises the Indian economy must be avoided. It is now definitely established as a result of investiga-

tion that a high average level of real income is always associated with a low proportion of the population engaged in agriculture and other extractive industries. A rise in the level of real income is followed by a steady tendency for labour to move out of primary production into secondary production, that is, manufacture, and from secondary to tertiary production, that is, all forms of services. This is one of the signs of economic progress. In the U.S.A., Canada, Great Britain, Australia and New Zealand, nearly half of the working population is engaged in tertiary occupations, in other European industrial countries and the Argentine, between 33 and 40 per cent. On the other hand, low real income per head is always associated with a low proportion of the working population engaged in tertiary production, such as in China and India, where 70 to 80 per cent. of the population are primary producers. In any plan of economic development for India this fact must be given due consideration with a view to rectifying the occupational maldistribution of population. While it is true that the first and foremost necessity for us is a thorough overhauling of the agricultural economy, it has to be realised that improvement of agriculture can only lead to a new bunch of vexatious social problems, if it does not at the same time make provision for the vast labour force freed from agriculture as a result of rationalisation as also for the proper utilisation of the vastly large quantity of food and industrial raw material which the process of rationalisation will make available. The large annual increase in the population of India has also to be taken into account. There can be no solution of these problems unless industry is developed at a rate at which it can absorb the new additions to the population as also the men and women whom the development of agriculture will release from their traditional agricultural pursuits. To ensure that such decrease does not result in unemployment and that superfluous agricultural labour is duly absorbed in industrial development and services is perhaps the most difficult part of economic planning.

I.C.A.R. ESTIMATE OF FOOD REQUIREMENT

I may refer here to an estimate of the extent to which agricultural production for the purpose of food requires to be expanded. Our total requirements of food products and the amounts available at present are thus set out by the Imperial

Council of Agricultural Research in a recent memorandum:

	<u>Ounces per day per adult</u>		<u>Total quantities in million tons.</u>	
	Required for a balanced diet.	Available	Required	Available.
Cereals	18'	17.5	54.0	52.5
Pulses	8	2.5	9.0	7.5
Sugar	2	1.8	6.0	5.3
Vegetables	6	3.0	18.0	9.0
Fruits	2	2.0	6.0	6.0
Fats & Oils	1.5	0.6	4.5	1.9
Whole Milk	8	1.5	32.0	6.3
Butter Milk	...	3.0	...	12.5
Meat, Fish, Eggs	2.8	0.5	6.0 to 9.0	1.5

On the basis of these requirements and available quantities the same Memorandum estimates the necessary increase of cereals by 10 per cent., of pulses by 20 p.c., fats and oils by 250 per cent., fruits by 50 per cent., vegetables by 100 per cent., milk by 300 per cent., and fish and eggs by 300 per cent. As regards fruits it will be noticed that quantities required for a balanced diet and quantities available are equal. The Memorandum of the Kharegat Committee observes, however, that the estimate which is from the market survey is likely to be rather an overestimate and that people in many parts of the country do not get the required quantities. Hence it is suggested that the production of fruits should be increased inspite of the balance found between quantities required and quantities available.

In addition, there would still remain the question of the provision of adequate supplies of food-stuffs for animals necessary for increased out-turn of work and yields of milk. It is calculated that this will necessitate increasing the present production of oil-cakes and other concentrates by 400 per cent. and fodder by 55 per cent. Besides food products there are, of course, many other agricultural products—cash crops. The proper balance between food and cash crops is an important matter which will be dealt with at its proper place later on.

TARGETS UNDER BOMBAY PLAN

It has been mentioned before that low real income coincides with an excessive dependence on agriculture and other extractive industries, while rise of real income is always asso-

ciated with the growth of industry and services. Viewing India's position from this standpoint, it has been shown that the contribution of industry, agriculture and services to India's national income was 17, 53 and 22 per cent. respectively in 1931-32. The dependence on agriculture is clearly seen to be quite excessive. The authors of the Bombay Plan aim at a threefold increase in the national income and this they propose to achieve by increases of 500, 130 and 200 per cent. respectively in the net income from industry, agriculture and services. Such an increase would mean that the respective contribution of industry, agriculture and services to the national income will be changed to 35, 40 and 20 per cent. At the end of the planning period the distribution of the working population according to the principal occupations would be somewhat as follows: 58 per cent. of the working population would be dependent on agriculture, 26 per cent. on industry, and 16 per cent. on services of various kinds. This is undoubtedly an advance over the present occupational structure.

The targets under the plan are proposed to be attained within a period of 15 years, during which period the readjustment in the respective contributions from the three different sources of production is to be completed. Within the total 15 year period of the plan there will be three stages of five years each. The value and importance of setting up a target to be attained within a definite period are much too obvious to need stressing. To have a clearly formulated plan and to know that this has to be carried out within a definite time limit imparts a zest and urgency to all endeavours and provides the means of checking up as to how far each work is proceeding according to plan, and at which particular point or points efforts have to be keyed up to a higher pitch.

NATURE OF OUR TASKS

Although targets are necessary in the plan itself, I do not propose to suggest any for the simple reason that they cannot be finally fixed until the fullest possible consideration has been given to the resources on hand and the additions thereto which are immediately possible. Even in the best of plans the targets may have to be varied from time to time in accordance with objective conditions. What is far more important is to realise the general conditions of the problem we have on hand. Our first step, logically, if not chronologically, is so to increase

the output of land that our appalling deficiency of foodstuffs can be cured. And we have to realise that since this can be obtained only by the scientific development of our agriculture, its direct effect will be to release more and more men from their agricultural pursuits. The development of industry which is no doubt necessary to provide the other elements of the minimum standard is also necessary to provide employment for the men thrown out of agricultural vocations. The problem of correlating the developments in the various sectors of the national economy is the most intricate in economic planning. In a vast country like India, the problem of balancing production and consumption, of off-setting with new employment the disemployment which will follow technical improvement, is one beyond the capacity of any committee to solve. In the initial stages of planning at least, we have to aim at the more or less automatic adjustment of production and consumption through the regulation of the distribution of purchasing power among the various classes and the various parts of the country. In this, we are helped by the fact that we do not have to assign any overriding priority to heavy industries, but offer all assistance to the development of consumer goods industries in the initial stages. This will also have the effect of lessening the sacrifices that will have to be immediately borne by the community.

With a view to providing the largest possible employment, diversification of industries is also essential. This means that not only large scale, but also small and cottage industries should be fully developed. It is a significant fact that in 1939 big and organized industries occupied only 1.20 per cent. of the working class while the rest was employed in small, medium and cottage industries. With this may be compared the annual growth of population in India which is of the order of 5 million per annum. It is, therefore, clear that the development of organized industries alone, however large, would not be able to absorb even the annual growth of population, not to speak of drawing away the surplus population from land. The 'optimum' size of industries, therefore, under Indian conditions is likely to be much smaller than the 'optimum' obtaining in other countries. The industrialisation which we can visualise in India must conform to the two special conditions prevailing in the country, viz., the scarcity of capital supply and the super-abundance of labour. Small, medium and cottage industries, requiring more labour and less capital would employ more people than big giant enter-

prises. Particular attention should, therefore, be paid to the preservation and the re-organisation, wherever necessary, on sound and efficient lines of cottage industries in rural areas in order to provide scope for the fullest measure of employment.

I may indicate in broad outlines the way in which the money income necessary for the maintenance of the minimum standard of life will be obtained. The way in which money income is obtained is of course the counterpart of the productive process. The money income will have to be earned through the process of production embracing primary, secondary and tertiary work. In the first place, agriculture and allied pursuits will provide a section of the people with the requisite money income. This they will spend on various consumer goods. These goods, however, will have to be produced and the people engaged in their production will thus come by the necessary volume of income. It is presumed that when agricultural production is expanded according to a plan and agricultural conditions improved, the money incomes earned by the agriculturists will be larger than now and consequently the demand for consumer goods would exceed the present level. The production of consumer goods, therefore, would have to be increased considerably to meet the new demand and this will in turn offer wider employment. It is in this way that the surplus agricultural population would find a growing field for employment. These people, formerly unemployed or under-employed but now engaged in a wide variety of industrial and manufacturing pursuits, will in their turn earn an income and spend it on various goods and services. The demand for the latter will again go up and more people would be needed to cope with the increased demand. Employment will in this way increase by the process of the multiplier and money incomes will be diffused through the entire population.

NEED FOR A PUBLIC WORKS PROGRAMME

Further, I believe it is necessary to emphasise that in the provision of the main constituents of a minimum standard of life is implicit a vast public works programme which would, particularly in the initial stages, offer a wide scope for employment. The provision of adequate educational and public health services will involve construction of a very large number of buildings for schools and hospitals. A vast building construction programme is also implied in the task of providing adequate

housing facilities to all. For the development of agriculture, irrigation facilities on a much larger scale is necessary. Again, larger output of industry and agriculture will demand better marketing facilities and therefore the development of road and transport services. The work involved in each of these spheres will be of vast magnitude and will offer scope for employment of a large number of people. In fact, I consider a well conceived public works programme as a useful preparatory stage for planning, for the main virtue of such a programme is that by diffusion of purchasing power all over the country it will generate the forces of increased production, distribution and consumption. A public works programme will be very effective in stimulating employment by direct addition to the purchasing power of a large number of people and thereby also offer a valuable stimulus to any scheme of planned development.

In speaking of a public works programme and of the diffusion of purchasing power, I may appear to have anticipated a much later stage of this enquiry. But my aim is to emphasise, as soon as we have estimated our needs, the need to be cautious about making a big-facile jump towards the question of targets, as also the importance of the large unplanned sector in our scheme of national planning. I shall consider in my next lecture the resources at our command.

III

THE RESOURCES

In the previous lecture, I have offered in broad outline an indication of our requirements for attaining a minimum standard of life. But our ability to satisfy them depends primarily upon our resources in material and men, and the technical methods and organization for harnessing them to the production of wealth. In advocating that our plan must aim at ensuring a minimum standard of life, I have tacitly assumed that we have the resources with which to achieve it. I propose in this lecture to undertake a brief survey of our resources, which are the raw materials of planning.

The most important and permanent factor governing economic development consists of the natural resources—minerals, soils, climate, sources of power etc.,—obtaining in a country. Among the mutable factors are the supplies of capital and labour. We shall examine each of these classes separately.

AGRICULTURAL RESOURCES

India is an agricultural country and agricultural resources are, absolutely speaking, quite large. The following table will speak for itself:

(In Millions of Acres)

	Total area	For-ests	Not avail-able for cultiv-ation	Culti-vable Waste	Current Fallows	Net area sown	Percen-tage of sown area to total area.
British India ...	511	68	89	97	47	210	41
States ...	147	19	28	19	13	68	47

The area classified as "Cultivable Waste" is 116 million acres or nearly one-fifth of the total area of the country. The question how far it is possible to effect some extension of cultivation by bringing cultivable wastes and current fallows under the plough is an important one and we shall

have occasion to discuss it in a subsequent lecture. The prospect, however, does not appear to be very bright, for most of the culturable waste can under no conceivable circumstances be brought under the plough. In any case, individual efforts in this direction are not likely to succeed since it involves considerable expenditure of money for works like land reclamation, irrigation, control of malaria etc. State initiative and support will be necessary if such big questions are to be satisfactorily tackled.

Absolutely speaking, our agricultural resources are quite large. There is no other country in the world having such a vast area of agricultural land. Relative to the population of the country, however, the resources are not as large as might be imagined. It has been estimated that these resources work out at 1.29 acres of land per head in India, against 2.35 in the USSR, 2.66 in the USA and Cuba, 5.04 in Canada and Newfoundland, 1.31 in South Africa, 3.74 in Australia and New Zealand, 4.64 in Argentine, Uruguay and Chile. But there is one redeeming feature in all this. Compared to the position in many other countries, the productivity of Indian agriculture is capable of large improvements. In his report, "Technological Possibilities of Agricultural Development in India", Dr. W. Burns has demonstrated that there is a very wide scope for improvement of yield in Indian agriculture. This, when effected, would be able to support a much larger number of people although the *per capita* quantity of land is not large.

FOREST WEALTH

The area under forest in India works out at about 18 per cent. of the total area of the country. Compared to the size of the country, this is inadequate. According to expert opinions the minimum area of forest necessary for a progressive community is about 20 per cent. of the total area of the country. We fall short of this minimum substantially. In the past there has been a reckless destruction of forests in our country with consequent serious effects on our rural economy. The peasantry have been deprived of their sources of wood either for fuel or for building cottages. Agriculture has been exposed to greater risks of drought, flood and soil erosion. A policy of forest conservation and afforestation is, therefore, a crying need of the moment.

Among timber products, India is not self-sufficient in

respect of teak but for all other timbers the domestic output appears to be just enough to meet the present requirements of the country. But it is questionable if the present supply would be able to meet the growing demand when our *per capita* consumption of wood and wood products would increase as a result of development in the agricultural and industrial spheres. Of even the existing forest resources, no proper utilisation is being made at present. As yet sufficient consideration does not appear to have been given to the important problems of providing cheap fuel to the villagers or of grazing facilities to their cattle. The question of starting forest industries is also important. There are great possibilities for the manufacture of charcoal, extraction of turpentine, lac-culture, preparation of dyeing and tanning materials, basket, rope and mat-making etc. These branches of subsidiary occupations, when well developed, would be able to confer material benefits on the rural population. Apart from them, the country's production of paper is still far short of her requirements. The existing raw materials for this industry, even if they were fully utilised, would not be adequate to meet our requirements. Experiment and research may help in finding out a cheap wood pulp for the paper manufacturing industry. Research may also lead to the eventual establishment of a dry-wood distillation industry for manufacturing synthetic chemicals and dyes.

Considering the vital *role* which forests play in the economic well-being of a nation, it is necessary that a comprehensive and well thought-out forest policy should be formulated and applied over the whole area. A recent report of the Government of India prepared by Sir Herbert Howard has admirably enunciated the broad principles which should be kept in mind in formulating such a policy. These principles with suitable modifications, if necessary, should be immediately given effect to. The outstanding principles of such a policy may be summed up as follows:—

- (i) First and foremost the preservation of the climatic and physical conditions of the country, such as prevention of floods, soil erosion etc., should come first before everything else.
- (ii) Next in importance is the preservation of the minimum amount of forest necessary for the general well-being of the country.

- (iii) When the above two conditions are fulfilled cultivation should come before forestry.
- (iv) The satisfaction of the wants of the local population free or at non-competitive rates comes before revenue, and
- (v) After all the above are satisfied, the realisation of revenue to the greatest possible extent is permitted.

A corollary of the above policy is the laying down of the percentage area of the country which should be under forest. The report in question thinks that as a rough minimum guide for India, 20 to 25 per cent. might be adopted and this must be properly distributed over provinces. Having regard to the fact that the existing forest area falls considerably below this figure, attempts should be made to increase the forest area upto the minimum requirements of the country. The following methods of increasing the forest area should be tried:

- (1) bringing more government waste lands under forest;
- (2) bringing more private area under forest;
- (3) legal control of private forests. Ideally, government should take over all forests which must be preserved for climatic or physical reasons and such further quantity as may be necessary to supply the general needs of the community. If this is not possible at once, the minimum of control to be exercised over private forests is the prevention of their destruction and enforcing compulsory proper forest management.

As regards the consumption of forest the main problem in India is to supply the ordinary agricultural villagers with the forest produce they need largely to prevent the burning of cowdung, the most easily obtainable manure. Efforts to find out a cheap alternative fuel should form part of the general forest policy.

LIVE-STOCK POSITION

In respect of live-stock, India can boast of nearly one-third of the world's total bovine population. The density of cattle per 100 acres of sown area is as high as 67 in India as against 25 in Egypt, 15 in China and 6 in Japan. But this enormous bovine population in India, in the present form, is more a liability than an asset. The animals are weak, decrepit and

semi-starved and have little working efficiency. Many of them are not equal even to the task of drawing a light wooden plough over the soil. Ploughing in India, consequently, is no more than mere scratching of the surface and deep ploughing is a rare phenomenon. And yet the live-stock products occupy an important place in the country's economy. According to an estimate made by Norman C. Wright in 1937, the industry contributes 50 per cent. to the country's total agricultural income. This shows the importance of the industry to the nation, if only the productive value of cattle could be increased by means of scientific methods of animal husbandry and proper feeding and rearing.

MINERALS

The minerals which form the basis of a country's industrialisation are coal and iron. It is now an oft-repeated saying that the German Empire was founded not on blood and iron but on coal and iron. It is also well-known that the shortage of coal proved fatal to the industrialisation of France. India's resources in these two minerals, in absolute terms, are not inconsiderable. The iron ore deposits in our country are considered to be one of the world's major reservoirs and she is exceeded in this field only by the USSR and the USA. Coal resources, though very much smaller than iron ore, nevertheless appear to be considerable in volume, but when related to the population of the country and their needs the quantum appears small. The Coal Mining Committee of 1937 estimated India's reserve of workable coal of all grades to a depth of 1,000 ft. at 20,000 million tons. This works out at about 60 tons per head of her population as against 37,300 tons per head in Canada and Newfoundland, 20,600 tons in South Africa, 17,000 tons in USA and Cuba, 6,300 tons in the USSR, 3,700 in the U.K., 3,580 in Australia and New Zealand, 546 in China and 227 in Japan. Compared to these countries, our *per capita* coal resources are indeed very small.

It should be noted further that of the total reserve of 20,000 million tons only some 1,500 million tons are superior caking coal of a standard suitable for iron ore melting. As Sir Cyril S. Fox has pointed out, this reserve of caking coal "would not be sufficient to melt more than half of the good iron ore in the Singhbhum region, to say nothing of the iron ore reserves in other parts of India." The life of the available reserves of

superior coal, needed for metallurgical purpose, could have been increased if inferior coal of grade II and grade III were used for purposes for which superior coal of selected grade and grade I is now used. It is noteworthy that of the average annual output of 12 million tons of good quality caking coal, only about 3 million tons are used legitimately, i.e., in iron ore melting, while the balance 9 million tons are wasted annually in inferior uses, e.g., in locomotives and factory boilers. It is high time that the railways were persuaded to use inferior coal for running their locomotives, thus sparing a large quantity of precious metallurgical coal from going into waste. Organised research should be carried out for finding out further uses of inferior coal.

In petroleum too the country is very deficient. After the separation of Burma, India can claim but little in the shape of oil resources. India's production of crude petroleum in 1940 was only 325,000 metric tons as against 1,000,000 tons for Burma and a total production of 293,000,000 tons for the whole world. To satisfy our need we may be able to import as much as we require but such dependence reveals a weak position, at least in time of war. Further, our meagre resources in oil mean that we should concentrate upon such oil-saving devices as have come into practice during this war, e.g., the use of gas plants on light motor traffic. We should also explore the full possibilities of the use of power alcohol from molasses. But even with such improvements, the country will have to depend on foreign supplies.

But there is one redeeming feature in all this. It is an unmistakable trend of recent years that coal is becoming less important as power while water is coming into its own. According to a publication of the Royal Institute of International Affairs, India's potential water power at ordinary minimum flow amounts to as much as 39.0 million h.p. and she is exceeded in this field only by the USSR which commands 78.0 million h.p. As yet, India has developed very little of her water reserve, although nowhere else is this development so urgently demanded. The development of hydro-electric power is necessary not only for industrialisation but also for stimulating the agricultural development of the country. For in absence of this there is little power to irrigate the field in places where the limits of flow irrigation works have been reached. The development of hydro-electric power should

be accorded, therefore, a very high place in the list of the priorities of the nation.

Apart from the sources of power, the other minerals whose absence or inadequacy is seriously felt are lead, zinc, copper and sulphur. The separation of Burma has left us poorer in these fields also.

Although India is deficient in respect of minerals mentioned above, there are others in which she has either an exportable surplus or is self-sufficient. These include, apart from iron, all the minerals which are required to develop basic and key industries. These are kyanite, magnesite, manganese, mica, talc, etc. We are not only self-sufficient in these; but every year we export large quantities of these minerals. In mica, "one of the essential minerals in modern civilisation", India contributes three-fifths of the world's production and leads the list of producing countries. In manganese, she occupies a position second only to that of Russia. In monazite, too, she leads all other countries. In 1938 India supplied 88% of the world's requirements of this mineral.

There is an important consideration affecting these minerals. At present large quantities of them are exported to foreign countries at the raw material stage, with serious impairment to our reserves. The industries based on them are still undeveloped in India but when the time comes for their development we may be confronted with shortage of these minerals owing to their dissipation at present in the form of exports. Mica, an essential element of defence and other industrial needs, is shipped abroad in vast quantities without being locally treated. The same applies to ilmenite, monazite, kyanite, magnesite and chromite. We require very strict vigilance over the export of these minerals so that our reserves are not dissipated or exported without being treated within the country as far as possible.

OVER-ALL POSITION OF NATURAL RESOURCES

These are the main resources of India. As I have pointed out already, in absolute terms they are not inconsiderable. But when related to the 400 millions of people the resources per head wear considerably thinner. A comparison of the *per capita* resources in India with those of other countries is instructive. The accompanying table, reproduced from a publication of the

Royal Institute of International Affairs, gives the relevant data in this respect.

NATURAL RESOURCES PER HEAD

	Coal & Lignite Reserves Coal equivalent (tons per head)	Potential Water Power at ordinary minimum flow (h. p./head)	Iron ore metal content (tons/head)	Arable & other cultivated land (acres/head)	Pasture (acres/head).
U. K. ...	3,700	0.015	38.1	0.28	0.40
West Continental Europe ...	1,510	0.20	31.4	1.09	0.47
East Continental Europe ...	980	0.10	4.1	1.34	0.51
USSR ...	6,300	0.46	94.0	2.35	5.70
USA & Cuba ...	17,000	0.25	48.0	2.66	4.40
Canada and Newfoundland ...	37,300	2.27	217.1	5.04	6.78
South Africa ...	20,600	0.23	300.0	1.81	10.00
Australia and New Zealand ...	3,580	0.64	20.7	3.74	17.00
Argentina, Uruguay and Chile ...	107	0.48	12.7	4.64	13.70
India ...	66	0.10	5.9	1.29	0.52
China ...	546	0.05	1.4	0.55	1.78
Japan ...	227	0.10	0.4	0.23	0.11
All countries listed	3,000	0.16	24.6	1.30	2.10

This table is at best rough and fallible. Not all the figures mentioned are strictly comparable. In some cases data have been produced for a group of countries taken together, while the right course would have been to examine them with reference to each of the countries included in the group. Nevertheless, if read with caution and some allowance for probable errors, they provide a useful comparative study. Thus it is found that India, having the largest agricultural resources in absolute terms, is reduced to the bare position of only 1.29 acres per head when the population is taken into account. It is the same case with regard to other items in the table, coal, iron ore and water power—the *per capita* figure in each case assuming a low magnitude despite the fact that the absolute quantum is not small.

But the position is really not so serious as it may appear at first sight. The inherent nature of man is to rise above his environment and handicaps and effect an expansion of resources in conditions of limited resources. Indeed, planning would lose all its meaning or significance if it fails to achieve this. Take, for instance, agricultural land. Apart from extension of cultivation, there is, as I have pointed out, a wide scope for improvement in yield and productivity which in other countries have reached the maximum. Our potentialities for developing hydro-electric power are also great. There is, further, the question of our accessibility to world's raw materials. The strong position we hold in respect of some important minerals having universal demand, such as manganese and mica, should enable us to procure the needed supplies in exchange through international agreements. In fact, importers in our country have at no time felt any serious difficulty in obtaining the needed minerals from abroad. It is unlikely that conditions in this respect will change for the worse in the post-war scheme of things. Moreover, we have failed so far to utilise substitutes, which may be locally available, or to develop alternative sources through scientific research. A good example of this is the case of gypsum in the production of sulphur. Likewise, aluminium may be used as a substitute for copper. So far very little attention has been paid to the discovery of such essential substitutes. A bare beginning has been made under the strain of the war and the critical situation that arose when the Mediterranean was impassable and the shipping shortage was very acute. The results of even this bare beginning encourage us to expect very substantial results from the continuance of sustained research. In any estimate of our resources, therefore, we should bear in mind how significantly these may be expanded by the search for substitutes. It is to be noted further that the plastic industry in our country may be so developed as to be able to remedy the shortage of materials in many directions. In fact, in the opinion of some, we are approaching what has been called a 'plastic age.' In countries like England and America great strides have been made in the development of plastic industry and men are putting their whole lives into the future of the industry. Prior to the outbreak of war it was only known to and used by the electrical trades, the radio manufacturers, and to a limited extent, the engineer. But the war-time shortage of materials and the necessity to import only the

barest essentials have led to a speeding up in research with a consequent terrific demand for plastic materials in whatever sphere and to whatever purpose they could possibly be applied. Similar attempts in our country to explore the possibilities of plastics may go a long way in curing the shortage of materials.

I must also emphasise that the resources of India are still unexplored. No exhaustive survey has ever been made covering the whole ground. In most cases, surveys undertaken in India have been hasty, incomplete and perfunctory. We have something to learn from the experience of Russia which, as a result of an extensive and careful survey, discovered undreamt of quantities of mineral wealth in places which nobody would have credited with such mineral wealth.

CAPITAL AND SAVINGS

I now turn to the mutable factors in industrial development. One of the most obvious of these is the supply of capital which depends mainly on the accumulation of savings by a nation. The relative size of income and expenditure, standard of living, channels of investments, such as trustworthy banks and stock exchanges are some of the factors which determine the volume of savings in a country. Underlying these essential conditions is the necessity for a certain degree of political and social stability. The continual danger of revolution or foreign conquest, which may cause repudiation of debts or confiscation of savings, obviously inhibits lending either to industry directly or to banks, and causes such savings as are accumulated to be invested either in real property, in bullion or in foreign currency and foreign securities. With a stable national government, determined to ameliorate the conditions of the masses, people may readily trust their savings, even at considerable personal inconvenience, while they may be chary of lending anything to a distant, alien and unsympathetic government.

The mutability of this factor is very plain. Political and social stability of a certain degree being attained, institutions for the canalization of savings can grow up, and foreign credits also can be attracted. At the present moment the standard of living in India is no doubt much too low to allow any appreciable scope for savings by the common man. There is hardly any margin left after meeting the bare necessities. Nevertheless, we need not despair of raising the necessary capital for

financing a plan of economic development. There is, in the first place, a vast volume of hoarded wealth in the country, part of which should become available for capital investment if a national government comes into power in which people have full confidence. There is, secondly, the accumulated sterling balances which could be utilised for importing the capital goods required at the beginning of the plan. Thirdly, we have usually a favourable balance of trade with foreign countries which is unlikely to shrink after the war. Now that our sterling obligations are repatriated, the favourable trade balance should be available for capital investment at home. By far the larger part of capital supply, however, should come from internal savings and much would depend on the considerations mentioned above in this respect. The percentage of savings to national income in foreign countries may be profitably noted in this connection. Colin Clark gives the following figures in respect of a number of countries :

	U. K.	U. S. A.	GERMANY	JAPAN	RUSSIA
1900-10	... 12.2	14.3	19.1	—	8.2
1919-24	... 8.1	12.2	—	21.9	—
1925-30	... 7.6	10.9	7.7	19.8	7.8
1931-37	... 7.0	5.0	11.8	21.9	14.2

In India, as already stated, the standard of living is extremely low. The percentage of savings at the initial stage must necessarily be very much lower than in the above countries. Any compulsion put upon the poor to save at this stage will impinge on his standard of living which is already low. It is the richer sections in society which should bear the responsibility of saving very much more than they do now. Obviously the percentage will increase as the plan develops and succeeds in raising the standard of living of the people.

Apart from these, another potential source of financing is what is called "created money", provided, however, this does not lead to inflationary conditions. The inflationary gap is filled up when every instalment of created money is matched, apart from savings, by corresponding production. In a country with large idle resources, this bridging of the gap is comparatively easier. Nevertheless, there may be a time-lag during which some inflationary tendency may be in operation until production is sufficiently increased to offset the addition to the circulation.

If our internal sources of capital prove inadequate, we may resort to foreign borrowings. What are our prospects for obtaining foreign capital? India has generally enjoyed a high credit in foreign capital markets and this war has further strengthened her credit in these markets. She should therefore be able to borrow substantial amounts of capital if she so wishes in these markets provided there is a stable national government in the country. In the past, such borrowing has been often accompanied by undesirable political influences and interference of foreign vested interests. Any foreign loans that India may wish to raise in future must be free from all political influence or interference. I may point out that circumstances may even arise when it may be necessary to encourage the flow of foreign capital into Indian enterprises when these are vast undertakings, requiring equally vast capital outlay and technical assistance, beyond the capacity of Indians to supply at the initial stages. It may be that these big and enormous projects may never have a chance to grow and develop without the assistance of foreign capital and technical skill. In such exceptional cases it may be to the interests of India to enter into a kind of partnership with foreign capital and skill, provided appropriate safeguards are adopted for ensuring that these do not give rise to foreign vested interests, as in the past. Special charters granted to foreigners by national government, laying down in clear and unequivocal terms the details of the conditions and terms of foreign participation may well provide such safeguards as may be necessary in the interest of India.

MAN POWER

The other mutable factor in industrial development is manpower. We have this resource in its basic raw state in superabundance. Properly trained and educated, they are capable of being turned to good account even in work of great intricacy and demanding the highest degree of technical skill, as the war has demonstrated. But in its present form Indian labour is supposed to be far less efficient than labour in industrially developed countries. No precise comparison, however, is possible, in my opinion, because of the entirely dissimilar conditions. It is perhaps true that in physical terms Indian labour produces less than his foreign counterpart. But this is due to no inherent defect or inferiority. The surrounding disabilities and handicaps are more at fault than his innate ability. Effi-

ciency of labour is a function not of labour alone but of capital and of the social environment as a whole as well. The foreign worker produces more in an hour because he has more mechanical equipment to assist him. It is strange that this simple truth is not more widely recognized. The bad type of the raw material used by him, old and obsolete machinery and devices with which he works and the last but not the least his poor physique and lack of zest, both of which are largely due to his low wages, are the main reasons which account for his low productivity. It is a fact that high wages and high standard of living lead to high productivity. But the wages and standard of living of the Indian labourer are among the lowest in the world. Unsatisfactory conditions of work at the mills, bad and insanitary housing, the malnutrition from which he suffers and the lack of general education reduce the quality of his work which is reflected in low output. None of these conditions, however, are irremovable. Almost all of them are mutable and subject to rectification. How important the residual and unalterable factors of climate and hereditary constitution are in determining the working capacity of a people, it is difficult to say, but "it would appear wise in general to rate them low." "At all events, differences in industrial skill can be removed very effectively by technical training (to which general education may be a necessary prelude) in the course of time; there is little, if any, evidence that the peoples of the economically backward parts of the world are inherently less capable of learning than those of the advanced countries." It should also be remembered that the fact that the most advanced countries in the world have developed their industries after emerging from largely similar economic and social conditions shows clearly that the difference in productivity is not due to any lack of natural aptitude, but mainly to lack of education and similar social handicaps. Therefore not only vocational training for the higher grades of technical skill, but even general education would have to form an essential part of any programme of large-scale industrialisation.

In passing I may refer to the problem of over-population from which India suffers. Elaborate statistical investigation in this respect with regard to a large number of countries, such as, Czecho-slovakia, France, Belgium, Canada, Japan and others has established that it is in predominantly agricultural countries that the Malthusian relationship of population and real income holds good, while in industrial countries or countries which have

an opportunity of transferring a substantial proportion of the working population away from primary production, the Malthusian theory does not apply and that even its reverse may be true. If this is so, industrialisation and a shift of the population away from agriculture is an effective weapon in the solution of what is called the problem of over-population in India. Without being frightened, therefore, by the Malthusian spectre it would be more profitable to tackle seriously and more effectively the problem of India's industrialisation and try this method for the solution of the problem. Further, I consider that the adoption of measures of birth-control and similar measures would have little efficacy at this stage of India's development. This is also the experience of countries which have tried these measures for solution of the problem.

But our population, as I have said already, would require to be educated and trained if they are to be properly utilised. For this a comprehensive scheme of education aiming at literacy for all above the age of ten and removing adult illiteracy will be essential. Apart from this, the execution of a comprehensive plan of economic development will itself require a huge technically trained personnel for various posts in agriculture, industry and trade and for general administration. The availability of a certain minimum of experienced technical force is also essential for the establishment of heavy industries. In Soviet Russia in 1939 out of a total population of 170 millions, over 9½ millions consisted of trained staff, such as heads of administration, managers of industries and agriculture, engineers, architects, technicians, teachers, etc. The creation of such a huge technical staff for India is a stupendous task but nevertheless an essential one. In fact, it is recognised that the real bottleneck in embarking upon a plan of speedy industrialisation may be, not finance, but an adequate cadre of technical personnel. The war has, however, provided an impetus to the growth of a technical cadre in India. Not only has there been an expansion of industries to meet war needs requiring the employment of a large number of technicians, but the growing number of Indian soldiers, who are mostly recruited from rural areas, will have acquired some knowledge of handling intricate machinery in actual fighting and thereby become mechanically-minded. The problem of technicians at higher levels may prove more difficult. The Government of India's scheme for sending Indian technicians abroad for further and higher training is, therefore, a laudable

measure although the number proposed to be sent out is still meagre. The Government of India is also contemplating to give stimulus to higher technical and technological training for which they have already established a Committee to go into the matter. As the theoretical and practical training of such personnel might take, on the average, at least five years, in the initial stages of our plan for industrialisation we may have to depend on the assistance of foreign technical experts. But the services of foreign technicians that we may need should, like foreign investments, be free from political influence or interference of foreign vested interests.

A survey of our resources, such as is possible in the scope of one short lecture, should suffice to show that vast as are our requirements, the two together leave no disheartening chasm between them. In some respects, no doubt, comparisons with foreign countries are suggestive of more uphill tasks than we have been traditionally prepared for. But it is certain that fears raised by theories of over-population are as much overwrought as the hopes of a sudden dawn of Utopia are extravagant. To be on the road to rising standards of living, we have to accomplish a great deal by way of making our natural resources more readily serviceable to our needs. Our land, though old, may be made to yield more of a rich variety of crops; our people, though illiterate and untrained, are capable of turning out as good and as much work as people anywhere else in the world; our savings, shy and meagre at one time, have become of late bold and large. But the problem of bringing these three factors in proper relation so that each strengthens the other two and the nation rises to new heights of prosperity, is one of evolving a plan suited to our requirements and resources and in the formulation of which idealism and a sense of realism should be happily blended. These questions, I shall consider in the next series of lectures.

IV

AGRICULTURE

The place of agriculture in the planned development of our national economy is often the subject either of loose economic thinking or an unduly sentimental approach. In India, where there has been little industrial development and where there is a strong belief that an alien government has tried both positively and negatively to stifle India's industrial aspirations, the people are psychologically prone to have in their attitude to Industrialisation a kind of wistful longing which is not conducive to clear thinking. Likewise, since industry is associated with big business, any emphasis is apt to be misunderstood as lack of sympathy for the masses. There is need therefore to steer clear both of a demagogic exaggeration of the importance of agriculture and a slavish adoration of industry for its own sake. If our plans are closely related to the standard of living and the consumption on a definite scale of the necessaries and comforts of life, our task is to ensure that the annual production of the various goods and services will be on the requisite scale, without making too much of the somewhat arbitrary distinction between agriculture and industry. To make the land yield all the agricultural products on the requisite scale, we shall certainly have to develop a number of industries. Without the manufacture of fertilisers, agricultural implements and agricultural machinery, our agriculture would be uneconomic and would fail to sustain the population. Likewise, industries like sugar and cotton textiles cannot increase their efficiency unless the cost of the raw material is reduced or its quality improved by increasing the yield per acre or the quality of the product. The development of industry and agriculture are thus closely bound up together; and any question of partiality or preference between the two is unreal.

The difference lies in the fact that improvement of agriculture in the initial stages may be expected to have a wider incidence of human well-being. In planning the economic life of India we must necessarily pay somewhat greater attention to agriculture than is usually done in some other industrialised countries. It is probably not always realised that even when we have industrialised our country in accordance with some

plan, a larger proportion of our population will still be engaged in agriculture than in industry. In view of the fact that the appalling poverty of the Indian masses has itself been a factor in retarding Indian industry, the most important task for us, both from the point of view of industry as well as agriculture, is to raise the purchasing power of the people and their standard of living. In the peculiar conditions of India where agriculture supports the bulk of the population, agricultural improvement must necessarily occupy a very important place in our plan of economic development. Industrialisation can hardly sustain itself in the absence of improved agricultural conditions. For, if there is to be an expansion of industrial production of the magnitude that we desire, the purchasing power of the rural population will have to be raised considerably so as to ensure an effective demand for the enlarged supply of industrial goods. It is true that the workers in the industries concerned, as well as the whole mass of people providing services of various kinds will help to expand the market for increased industrial output. But it is necessary above all to raise the purchasing power of the masses, as otherwise the investment in industries which may well have to run into thousands of crores of rupees may prove sterile. There can be little doubt, from the experience of past depressions, that a powerful element in the serious fluctuations in urban and industrial employment has been the instability and insufficiency over a period of the rewards of primary producers, whether at home or abroad.

But I should not be understood to imply that conditions in agriculture can be improved in isolation, without a parallel growth of industries. The bane of Indian agriculture is overcrowding. No programme of agricultural improvement can succeed unless such surplus as may be left on land even after full development of agriculture is absorbed in industrial pursuits and other avenues of life. Further, a successful programme of industrialisation, coupled with social security measures, will raise the total demand for food and industrial raw materials and keep it steady. Neither agriculture nor industries can, therefore, be considered in isolation but as part of a national economic policy, that is, as part of the way in which it is decided to employ national resources in order to make the best use of them in terms of goods, services and security.

TARGET OF AGRICULTURAL PRODUCTION

In drawing up the agricultural programme the first thing to determine in a general way is the extent to which agricultural production should be increased. This has to be done after taking into account the nation's requirements of food, and the requirements of commercial crops for internal purposes as well as for the external purposes of exports and, more important than either, the nature and extent of the land we have at our disposal. Before proceeding further in this enquiry, it is necessary to draw attention to some features of our problem in this regard. The main purposes to which land has to be devoted can be easily understood. Food and raw materials for industry make the first claim on our land resources and easily come to one's mind in this connection. What does not occur to all as readily is the land needed for grazing and the growing of fodder for cattle. As a nation we have been so indifferent to this need that we are now paying the price of this neglect in the poor quality of our cattle. There is then the demand which forestry makes on our land, a demand which only those who have had occasion to think of the subject can be fully aware of. All these different demands on our land resources have got to be adjusted according to our needs and according to our success in the utilisation of land for each of these purposes. What I mean is that if our attempts to raise the yield per acre of, say rice, are more successful than of some other crop and if our needs of each have not changed, then it may be possible even to reduce the area under rice and turn over the land thus released to some other purpose. We have thus to think of the possibility of or the need for changes in the apportionment of our available land. But what is important at this stage is to remember that, of the various kinds of resources we have to deal with in economics, land is the least alterable, although it must be admitted that the productivity of land itself is capable of improvement by adding to soil fertility, application of manure and water, prevention of erosion and so on.

We may now proceed to consider our requirements under the head, food. The increases contemplated by the Imperial Council of Agricultural Research so as to secure a well-balanced nutritive diet for the whole population have been already noted, viz., cereals by 10 per cent, pulses by 20 per cent., fats and oils by 250 per cent., fruits by 50 per cent.,

vegetables by 100 per cent., milk by 300 per cent. and fish and eggs by 300 per cent. In addition provision is made for adequate supplies of animal food-stuffs which would necessitate increasing the present production of oil cakes and other concentrates by 400 per cent. and fodder by 55 per cent. There would still remain the question of achieving the proper balance between food and commercial crops. So far as industrial crops like cotton, jute etc., are concerned there appears to be no marked shortage in quantity in normal times. But this is not a fair criterion for ascertaining the extent to which commercial crops should be produced. For, as the standard of living improves as a result of development in the various spheres of economy, the demand of cloth for example, will go up; if as a result more mills are established, more cotton will be needed by them. The same applies to oil-crushing industries which, when developed, would demand more oil seeds. Moreover, increased production is necessary in respect of produce of better quality even in normal times, such as long staple cotton.

Whatever may be the volume of production of commercial crops the areas under the respective crops will have to be re-adjusted. The fortunes of jute, tea, cotton, oil-seeds etc., are too much bound up with foreign trade. Areas under them would have to be adjusted in accordance with the conditions of international trade that might come to prevail in the post-war period. On the other hand, the element of uncertainty attaching to these crops due to their excessive dependence on foreign markets might be considerably reduced when internal demands increase as a result of development in various spheres. For instance, the substitution of a large proportion of the existing short staple cotton by long staple varieties and the development of cotton textile and oil crushing industries within the country would act in this direction.

Taking all our requirements into consideration,—the requirements of food and commercial crops—the Imperial Council of Agricultural Research has estimated an over-all increase of agricultural production to the extent of 100 per cent. over its pre-war level, spread over a period of 15 years and at an estimated total capital expenditure of Rs. 1,000 crores. The corresponding figure of increase in the Bombay Plan is 130 per cent. at an estimated capital cost of Rs. 1,240 crores. The disparity between the two figures, it should be noted, is not very great. In any case, they serve to offer some idea of the

increase of agricultural production that would be necessary in our plan. The actual figure of increase will have to be fixed after a good deal of hard and patient work at the time of executing the plan but there is no doubt that production of agriculture will have to be increased substantially if the minimum standard of living is to be attained.

SCOPE FOR INCREASING AGRICULTURAL OUTPUT—THE QUESTION OF YIELD

The more important question is whether such vast increase of agricultural output is a practical proposition. According to many, the results of the 'Grow More Food' campaign during the war does not justify any such high hopes. The fact that agricultural production has increased but very little during the war despite the stimulus of high prices goes to show, according to this view, that agricultural production in India has perhaps reached its peak and there is no great scope for further increase. But this is an absolutely erroneous view. If the facts cited prove anything it is this that Indian agriculture has become so retrogressive and it suffers from such a complicated tangle of handicaps and disabilities that no change or improvement can be brought about in this sphere by merely leaving it to the natural forces of economic progress. The defects and handicaps have to be removed by deliberate and concerted moves in many directions. During the war very little has been done in this respect and consequently no better results could be expected.

The scope for increase of production of Indian agriculture becomes apparent from the consideration of its average yield which is incredibly low in comparison with yields in foreign countries. For instance, the average yield of rice in India is in the neighbourhood of 800 lbs. per acre as against 1,400 lbs. in China, 1,450 lbs. in the U.S.A., 2,000 lbs. in Egypt, 2,300 lbs. in Japan and 3000 lbs. in Italy. It is the same story with regard to other crops. Sir MacDougall, one of the foreign experts on the Indian Central Banking Enquiry Committee, very clearly brought out the significance of this low yield. Explaining the economic loss arising from low yield in connection with wheat alone he says: "If the output per acre in terms of wheat were raised to that of France, the wealth of the country would be raised by £669,000,000 a year. If the output were in terms of English production, it would be raised by

£1,000,000,000. In terms of Danish wheat production, the increase of wealth would be £1,500,000,000 per year."

But the question arises whether such vast increase in yield is capable of achievement. The report on the "Technological Possibilities of Agricultural Development in India" prepared by Dr. W. Burns throws a flood of light on this matter. Taking each of the principal crops in turn, Dr. Burns has tried to assess the technological possibilities of increasing their yields per acre which research has shown to be possible (i) by using improved varieties of seed, (ii) by application of manure and (iii) by protection from diseases. He has actually estimated the extent to which the present average yield per acre could be raised if all these known methods of improvement were put into effect. Thus in the case of rice the average yield per acre during the last five years ending 1942-43 was 738 lbs. At a conservative estimate this yield can be increased by 30 per cent. viz., 5 per cent. by using improved varieties, 20 per cent. by increased use of manure, 5 per cent. through protection from diseases. He thinks that there should even be no difficulty in increasing the present average yield by 50 per cent. viz., 10 per cent. by improved varieties of seeds and 40 per cent. by manuring. This would raise the production of rice to 959 lbs. per acre and Dr. Burns suggests that India should aim at an average of 1000 lbs. of rice per acre—an average already achieved in some provinces of India. Similar estimates of increased yield of other principal crops are given and in each case substantial increases are shown to be possible. I should perhaps mention in this context that attempts made in some Asiatic countries, such as Java and Siam, in more or less similar economic and climatic conditions, have largely succeeded in raising the yield of rice which is about one and a half time more than what obtains in India. There appears to be no reason why similar yields cannot be obtained on the fields of India, particularly when conditions in many respects are similar.

ESSENTIAL CONDITIONS FOR IMPROVING YIELD : CO-OPERATIVE FARMING

But the methods of improving the yield of agriculture cannot be applied without first carrying out certain fundamental reforms. The most crippling handicap of agriculture at present is subdivision-cum-fragmentation of arable land, which leads to a vicious chain of consequences with which all of us are familiar.

The minuteness of the unit of tillage bars the adoption of scientific farming which alone can transform agriculture from its present subsistence stage into a profitable branch of production. Attempts to introduce sturdier cattle, improved implements or scientific manuring do not succeed now, because in the first place the area of operation is much too small and, secondly, even this small total represents a sum of many scattered plots. Agriculture remains unprofitable because of this complex of causes and capital is scared away in consequence. There is, therefore, no prospect of a permanent cure for agriculture unless this basic problem of subdivision-cum-fragmentation is solved in a satisfactory manner. The solution which I suggest is co-operative or collective farming which appears to present less difficulties than any other method. The idea is to accomplish a merger of the tiny, scattered plots over a certain area and bring about larger farming units. The working peasants over this area should pool their small and scattered individual resources so that their united means of production and their common organized labour may be used for the purpose of farming a large collective economic unit. The way to do this would be by establishing a farming society composed of the peasants themselves. The assets of the society would consist of the sum-total of the individual assets. But it should be noted that individual rights in land will remain unaltered, while a system of joint management and farming will be brought in. This is necessary because in actual practice it is extremely difficult to induce cultivators to surrender their individual rights. The attachment of the peasant to his land is very strong. Every member of the farming society will be credited in the accounts of the society with the value of his land, which he brings in for joint cultivation. This would entitle him to an agreed participation in its profits. The land so held in a compact block would be divided into fields in accordance with the authorised crop rotation. Cultivation may be carried out by the labour of the members themselves as far as practicable, but the hiring of outside labour may also be made, when necessary. If such outside labour is engaged his wage will obviously be charged to the expenses of the society. Payments to members will be of two kinds—their annual share in the net profits of the farm in proportion to their holdings in the society and secondly the day-to-day wage of their labour on the farm. Individual live-stock and farming implements may also be pooled in the same way

and for which also a proportionate return may be paid. I may point out that in Soviet Russia collectivisation has been sought to be achieved on a much wider scale and little is left in private ownership. But although this is the ideal, in our country this may not be possible of immediate fulfilment. Even in Soviet Russia this proved to be a difficult task and the peasants in the initial stages of the first Five Year Plan, rather than surrender their private cattle to the collective farm, slaughtered them in large numbers. In our country therefore at the initial stage the start should be made on the basis which I have described above.

Co-operative or collective farming, as I have said, is suggested as a remedy of the problem of sub-division and fragmentation. But it should be recognised that this evil is largely the result of over-crowding and pressure of population on land. There is no prospect of a permanent cure of this problem except by relieving this pressure. All attempts at consolidation and amalgamation of holdings, whether by co-operative farming or other means, must ultimately fail unless it is paralleled by a shift of population away from land. It should be noted that while industrialisation will help to relieve this pressure, the process of agricultural improvement itself will create new avenues of employment for the surplus labour.

REFORM OF LAND REVENUE SYSTEM

Another question with which the successful carrying out of a scheme of co-operative farming is linked up is the system of land tenure. In the permanently settled zemindari areas the process of sub-infeudation has gone so far that there is often an incredibly long chain of intermediate holders between the landlord and the tenant. The Report of the Simon Commission pointed out that in some cases as many as 50 or more intermediate interests have been created between the zemindar at the top and the actual cultivator at the bottom. "This", the Floud Commission points out, "has resulted in dissipating the responsibility for the best use of the land in national interest amongst a host of rent-receivers, all of whom have to be supported by the labour of the cultivator, and none of whom have either the incentive or the power to exercise any control over the use of the land." Such a system is patently inequitable. There is also little doubt that the prevalence of zemindari system by investing the possession of landed property with social dignity and prestige, by bringing into birth an easy and safe source of

income and therefore resulting in a sense of security, has particularly been responsible for the fact that the people of these areas have generally been attracted by investments in land rather than by industrial ventures. It will be desirable therefore to bring about a ryotwari system of land tenure in areas where zemindari system prevails on the lines of the recommendations of the Floud Commission which reported on the land tenure system of Bengal. The Permanent Settlement and the zemindari system should be replaced by a Ryotwari system, under which the Government will be brought into direct relations with the actual cultivators by the acquisition of all the superior interests in agricultural land. Once this is done, measures should be instituted for the establishment of co-operative farming. The problem of agriculture will then resolve itself into one of augmenting production by improving the present low yield through intensive farming covering the following factors :

1. Better varieties of seeds,
2. Better control of pests and diseases of the crops,
3. Better irrigation facilities,
4. Prevention of soil erosion,
5. Better use of manures and fertilizers,
6. Better implements and cultivations,
7. Better systems of cropping, in particular better rotation and the use of more fodder crops with the view of obtaining more farm-yard manure.

Without appropriate measures simultaneously taken in each of these spheres agricultural production cannot be expected to reach the desired level. The question of indebtedness, which before the war was a crushing burden on the ryots, should also be properly approached. It is likely that various measures of debt conciliation and reduction adopted by different provinces, coupled with the high prices of agricultural products during the War have led to considerable diminution of this debt, though this is often controverted. In any case, the real position should be ascertained and provision made for the liquidation of such debts as may still remain. The more important question, however, is that the ryots do not relapse into this state again. The Government shall have to establish machinery either on a co-operative basis or otherwise to provide the ryot with credit to finance his agricultural operation. Cheap Agricultural Finance is an important part of any rural reconstruction programme and care should be taken to see that the

ryot is not made the victim of the usurious practices which have been responsible for his ruin in the past. Another point which has to be remembered in this connection is that a considerable part of the Indian peasants' resources is eaten away in the observance of traditional ceremonies and customary rites. Social propaganda is necessary to eliminate or at least reduce this uneconomic and wasteful expenditure, so that he may not have to run into debts on this account. To enable the ryots to get remunerative prices for their products and also to arrange for their economic distribution, it would be necessary to make proper marketing arrangements, which at present are rudimentary.

I need not dilate on other measures which should be applied in each of the fields enumerated above, for they are well-known and many of them have received attention from the Imperial Council of Agricultural Research. The latest Kharegat Memorandum on Agriculture has detailed these measures, which, if given effect to, will free our agriculture from many of the ills from which it now suffers. It is true, research has still to be pursued in many directions, for instance, in systematic testing and multiplication of improved seeds, in devising better methods of control of pests and diseases and in many other directions. But experience shows that the results even of existing researches have not received any large-scale application in practice partly because sufficient effort has not been made in this direction and partly because many of the methods suggested appear strange and novel to cultivators. Intensive propaganda as well as practical training in the application of these methods would be necessary for making them acceptable to ryots.

Of the various factors listed above for improving the yield and efficiency of agriculture I may be permitted to say something on mechanisation and mixed cropping, the scope and utility of which do not appear to have yet been fully appreciated.

SCOPE FOR MECHANISATION

The implements used by the Indian ryots in tilling the soil are among the simplest. A wooden plough and a spade are all that are used by him. Mere simplicity, however, should not lead one to pass a harsh judgment on the efficiency of these implements under existing conditions. As the Royal Commission on Indian Agriculture observed: "They are within the

capacity of the draught oxen, comparatively inexpensive, light and portable, easily made and easily repaired and they are constructed of materials which can be readily obtained." Widespread mechanisation, moreover, cannot be applied on the present small holdings which are unable to keep engaged fully even a pair of bullock and the plough. Mechanisation can yield best results on bigger farms of the size of 1,000 acres, although in Great Britain under the stress of the war it is being increasingly applied to holdings of 100 acres or so. Average peasant holdings in India do not even remotely approach this latter figure.

It should not be taken to mean, however, that I am putting a premium on the backward and archaic modes of cultivation in our country. Far from it. Indeed, to maximise yield it will be necessary to introduce increasingly more efficient, scientific and up-to-date implements of agriculture. But under existing conditions these will have to satisfy certain requirements if they are to come into extensive use among the cultivators. The improved implements, desired to be introduced, must be cheap and within the means of the ryot. They should be simple, light and portable, so that even the most ignorant among the peasants could handle them with ease. The repair work should also be capable of being done in the village itself. Without these conditions being fulfilled there is hardly any chance for the ryots taking to so-called improved agricultural implements.

Conditions, however, would most certainly alter if and when the small and scattered holdings of the ryots are consolidated through co-operative farming. Even then it may not be advisable in this initial stages to convert them into giant holdings on the Soviet model since the availability of tractors and other machinery will be a serious limiting factor. In this connection the possible use of surplus military machines and vehicles or parts of them should be examined. In any case, with the adoption of co-operative farming the scope for mechanisation will undoubtedly increase and attempts should be made then to bring as much land under mechanisation as possible. Simultaneously provision should be made for training up cultivators in the complex operations, who at present possess little or no knowledge of these things. Mechanisation, moreover, need not always mean tractors and such other big machines. Mechanisation other than tractors and big machines has greater scope and applicability under

Indian conditions. Stationary oil-engines for driving pumps to irrigate fields or operating chaff-cutters and grinding corn may be used in holdings of moderate size (of course much larger than present holdings). So also may secondary implements such as drills, bund-formers and scoopers. As regards the general apprehension that mechanisation might result in widespread unemployment by displacing labour from the farm, it should be noted that to evolve a parallel arrangement for absorbing surplus agricultural labour is an essential part of our plan. If displaced labour is really surplus to the land and mechanisation results in greater efficiency and productivity of agriculture, there is no sound reason for opposing it, particularly when provision will have been made for their employment in other spheres. Such provision will be made firstly, by increased industrial employment; but this alone will be insufficient for the purpose, because industries will have to absorb, in addition, the annual increase of population which is of the order of five millions a year. Secondly, the process of improving agriculture itself will create new avenues of employment for absorbing surplus labour. Improved agriculture will, for instance, require more irrigational facilities, better marketing arrangements, all of which will provide employment in new channels. Further, intensive agriculture, such as the production of poultry, eggs, honey, etc., will also absorb some of the rural population. Secondly, mechanisation need not necessarily mean fewer men upon the land. "It may mean fewer men per operation but not per acre. There are numerous examples in which modern progressive farming has actually restored the numbers of men employed upon the land. Mechanisation, in addition, creates several new classes of employed men, those who make, those who manage and those who repair the machines. It employs, in addition, more groups who are the suppliers or distributors of the spares, the fuel and the lubricants. Mechanisation, particularly if it involves the transference of machines from one place to another, involves the improvement of roads, and here, again, a large prospect of employment is opened up."

BETTER SYSTEMS OF CROPPING

In considering better systems of cropping for Indian agriculture it should be remembered that diversified cropping resulting from suitable rotation of crops and mixed cropping has some decisive advantages over specialised cropping where the farmer

produces only one crop. It is common knowledge that different crops extract different elements of plant food from the soil. For example, cereals consume a good deal of nitrates but few sulphates from the soil, while cabbages take more of sulphate. Hence if cereal is the only crop grown on the soil, the soil will grow systematically poor in nitrates with consequent decline of yield. But this can be overcome by suitable rotation of crops and mixed cropping. Diversification also leads to a fuller and more complete use of the factors of production by providing full time employment to the farmer and his equipments. Single cropping does not today engage the farmer for more than a part of the whole year. In the interval between planting and harvesting he has very little work to do, while mixed cropping can keep him engaged for the entire season. Further, diversification also leads to reduction of risks. If one crop fails he has others to turn to. It is on these grounds that a more diversified agriculture should be preferred to single cropping, although the obvious limitations of the former should not be lost sight of. Rice, for instance, has very few alternatives to it. While on the lighter rice-soils a number of other crops can be grown in some quantities, heavy soils generally have no other possibilities than rice.

In fairness to Indian cultivators it should be admitted that they have already a system of rotation of crops and mixed cropping prevalent among them from times immemorial. They grow quite a number of crops on the soil all at a time—wheat, barley and gram. These are sometimes combined with rape-seed as well. More complex systems of farming are also in use. Many varieties of crops are sown over the same area. Not only there are parallel rows of different crops but also alternating rows made up of mixtures of various crops. Some of these ripen quickly and are reaped early, while others are harvested much later. Of the crops sown, roots of some go deep down into the soil while others extract plant food from only the upper strata. The whole idea is so to cover the entire land surface from exposure to sun that none of the moisture may be thus lost. For all these the Indian farmer, ignorant and illiterate as he is, must have nothing but credit. But the question arises how best the existing rotations and cropping could be improved upon. Elaborate investigations into the different kinds of crops and soils are necessary for this. In this respect the agricultural departments of the Government have so far, it must be confessed, given most of

their attention to cash crops, while very little has been done with regard to food crops.

In passing I may refer to the question of vernalisation which, according to some, has considerable scope in our country. Vernalisation consists in chilling soaked seeds and this results in early ripening of the seeds when grown. The advantage of this process lies in the fact that the crop may be grown and raised more than once in a year, while at present one raising in a year is the general rule. The process, if successful, will undoubtedly lead to substantial increase of output. Vernalisation, as it is well-known, has been extensively applied in Russia and it is this fact which has impelled many in our country to urge that it should be given a trial. If, indeed, it could be applied to our agriculture, production would substantially increase. Intensive research is therefore necessary to find out the scope and possibilities of vernalization in our country. As yet, research in this field has not proceeded far enough.

SCOPE FOR EXTENSIVE CULTIVATION

I have so far described some of the methods of intensive cultivation which, if adopted, would lead to a considerable increase of our agricultural output by increasing yield and productivity. The possibility of extensive cultivation has also to be explored in this connection. Methods by which an extension of cultivation could be brought about would fall under one or other of the following categories—(i) Diverting some of the land at present under cash crops to the growing of food crops, (ii) bringing fallow land under cultivation and (iii) cultivating land that is waste but cultivable. It should be added that the first method would not lead to any increase in the total area of cultivated land,—only some lands would be transferred from the growing of cash crops to the growing of food crops. Nevertheless the method is extensive so far as food is concerned, since it would mean increased area under food. As regards (i) it has to be remembered that in respect of the cultivated land in India food crops preponderate and account for 81.8 per cent. of the total sown area, while non-food crops account for 18.2 per cent., although it should be added that the latter includes crops supplying beverages like tea and coffee and food-value like oil-seeds. Among non-food crops, areas under fodder crops, tea, coffee and

oil-seeds of various kinds together account for 8.58 per cent. of the total sown area. They obviously cannot be transferred to the production of foodstuffs. Among fibre crops which represent 6.5 per cent. of the sown area, jute accounts for only 0.9 per cent. Some areas under jute may possibly be brought under food crops. In any case, the area gained in this way would not be very substantial. As regards the diversion of cotton lands to food crops it is to be noted that with the rise in the standard of living of the people as a result of planned development, the demand for cloth will increase. If production increases, more cotton mills will be established resulting in an increased demand for raw cotton. It may, therefore, be assumed that not much of the area at present devoted to cash crops can be diverted for augmenting food supply, although whatever possibilities there may exist in this respect will have to be explored and utilised.

As regards fallow and cultivable waste, it may be noted that about 7.1 per cent. of the total area of British India is fallow and another 22.9 per cent. cultivable waste. It would appear, therefore, that cultivation could be extended considerably by bringing these fallow lands and cultivable wastes under the plough. But as pointed out by the Royal Commission on Indian Agriculture, most of these lands could under no conceivable circumstances be ploughed except at an enormous expenditure of money. Nevertheless, it is necessary to have a survey of all these lands to find out in each case what exactly prevents the land from being cultivated and to suggest what action, if any, is required to bring it under cultivation or whether it would be best to preserve them as forests or grass-lands. It should be noted, however, that even with a considerable extension of cultivation we would not be able to raise all our requirements of agricultural produce by this method alone. The solution of our problem lies in intensive cultivation, although undoubtedly efforts should be made for effecting whatever extension of cultivation is possible under prevailing conditions.

In my survey of agricultural problems in relation to planning, I have tried to touch in brief on the ancillary problems as well, such as reform of land tenure, rotation of crops, mixed farming and the like. But the main problem from the standpoint of economic planning is to apportion available land among the various competing uses. We have to take into account not only our internal needs and the rate at which we can increase the

yield per acre of particular crops, but also the position and prospects of our staple export. I may emphasise that the necessity of a sufficient export trade is very real, since we have to provide for the payment of the imports of capital and other goods not available in the country, particularly in the initial stages of the plan. The target for increased commercial crops will, therefore, have to be fixed considerably in excess of our internal requirements. We shall have also to see what further possibilities exist of exporting these crops in larger quantities. The total supplies of cash crops will thus have to be adjusted to internal and international demand. These problems, however, pertain to a later stage of economic planning. In the early stages, our main concern is to give the initial impetus which will overcome the age-old inertia of Indian agriculture and at the same time prepare the ground for the working of a planned economy by increasing the purchasing power of the people and the capital equipment of the average family in rural areas. This kind of preparation can be satisfactorily completed by such measures as new irrigation schemes, anti-erosion projects, development of roads and road-transport and establishment of industries for production of fertilisers and agricultural implements. I imagine that it will be possible before this stage will have been completed to estimate accurately the extent to which the yield per acre of particular crops can be improved by the technological improvements which we can now contemplate. And when the outlook of international trade, too, clears up, planning will be possible in more concrete terms.

TENNESSEE VALLEY AUTHORITY

In speaking of agricultural and economic planning, it would be pertinent to refer to the great and gigantic experiment carried out in the United States by the Tennessee Valley Authority. It is the largest and most ambitious attempt ever made in history to improve the standard of life in a single geographical region by the systematic and unified development of its resources. Originally envisaged as a scheme for the generation of power for agricultural, domestic and industrial purposes the Tennessee Valley Authority gradually widened its scope and entered the "wide fields of flood control, soil erosion, afforestation, elimination from agricultural use of marginal lands, and distribution

and diversification of industry." Today it represents an instance of national economic planning for a complete river valley covering agriculture and industry, and involving seven States, about the size of England, with a population of 4,000,000. Ten years ago the Tennessee Valley was one of the economically depressed and backward regions of the United States, where many of the simplest community needs were lacking. Agriculture which supported 76.7 per cent. of the people was unproductive and unprofitable. Standards of nutrition, health, housing and education were extremely low. The great river was untamed and menaced life and livelihood. To-day in the course of a decade the Tennessee Valley Authority has set its stamp on the Valley, not only on its physical features, but also on the administrative machinery and on the attitude of the people to the society. Its major constructional programme is now practically complete, and the resultant economic and social benefits show signs of rapid and cumulative growth.

Among the reasons why the Tennessee Valley was singled out as the site of this massive experiment only three may be noted. In the first place, there was the fact that proper control of the Tennessee River was crucial for the prevention of disastrous floods on the lower Mississippi. Further, flood control could be readily combined not only with improved navigation, but also with the profitable generation of electric power; there were finally the crying needs of this backward region which might largely be met by cheap electric power.

In India no attempts have yet been made to take a whole river valley as one unit, and explore the fullest possibilities of the river system for purposes of agriculture, navigation and power generation, and then take wholesale measures for reclamation. In the opinion of many scientists in India it is possible to treat the Damodar river basin on the lines of the Tennessee Valley to full measures of planned reclamation, and thus convert a destructive river into a beneficial agency. We could then produce a large amount of electrical power, ensure water for irrigation of the lower basins throughout the year, remove the ever-present menace to rail and road communication, and also incidentally guarantee public health.

It is worthy of note that the Tennessee Valley Authority idea of the planned development of natural regions, such as river valleys, has found its way into the world's general thinking.

T. V. A. ideas and methods are helping to guide the growth of new planning agencies such as the Middle East Supply Council. Studies are also being made how a set-up along the lines of the Tennessee Valley Authority could be adopted to serve as an international instead of a national agency (thus among other things undercutting and transcending limitations arising from national sovereignties, as the T. V. A. undercuts and transcends states' rights and boundaries), and adjusted to promote the planned development of regions of greater backwardness, like parts of Africa. In view of the magnificent achievements of the T. V. A. it appears to me both necessary and desirable that the Government of India should, with the help of Scientists, engineers and economists seriously explore the possibilities of establishing in India institutions on the lines of the T. V. A.

In doing so the following distinguishing principles of the T.V.A. idea should be borne in mind. Failure to do so will cut at the very root of the T.V.A. idea :

1. One Federal agency, the T.V.A., not a dozen or so (as is customary), is responsible for the unified, not the divided, development of resources in a natural region. Unity of resources and unity of responsibility—these are the two basic principles of T.V.A. planning.

2. The object of the T.V.A. is to stimulate and encourage private enterprise rather than usurp it. In the early days of the T.V.A. it had been argued by many that private business would decline in the Tennessee Valley because business men and investors would fear and avoid a region where Government played so important an economic role. But the contrary has been the case in practice. Since T.V.A. was created, the figures show that private enterprise in this region has made greater progress than in the United States as a whole during the same period—whether the measure of progress be increase in retail sales, number of new manufacturing establishments, bank deposits, value added by manufacture and persons engaged therein, or any other index.

3. T.V.A. represents a method of achieving genuine decentralisation of the Federal Government's role in resource development. The T.V.A. is an autonomous corporation rooted in a region rather than as a remote bureau of a Washington Department.

4. Congress itself, in a rare provision of law, prohibited politics in the administration of T.V.A. and this direction is literally observed.

These four distinguishing features of the T.V.A. may be thus summarised : one unified agency decentralised, adapted to stimulate private development and free from politics. These essential characteristics are not dependent upon the physical circumstances peculiar or distinctive to the Tennessee Valley. They can be adapted to other regions and other problems.

INDUSTRY

In my previous lectures, I have sought firstly to define the need for and the genuine objectives of economic planning in India and secondly to bring out in general terms the relation between our economic means and ends. I also endeavoured to delineate the outlines of our problem in regard to agriculture and industry. Our analysis tended to show that in the kind of economic development which the country needed for the purpose of raising the standard of living to the level of a decent minimum, not only is there no conflict between agriculture and industry, but also that the interests of both were complementary to an almost unexpected degree. The development of agriculture in the direction of increased yield per acre, stabilisation of the manpower devoted to agricultural pursuits and increase in the income of the agricultural classes were necessary for industrial development, necessary to sustain the consumption of a steadily increasing output of manufactured goods. Likewise, industrial development was indispensable not only for increasing the output of manufactured goods, but also for providing employment for surplus labour in agriculture, not to speak of the additions to the labour market consequent on the natural increase in population. These conclusions should be found comfortable by those who have been oppressed by the bogey of conflict between industry and agriculture. It is a help to practical planning in so far as the consciousness of this interdependence between agriculture and industry should help to reduce fear of friction between the agricultural and the industrial sections of our future plans. But in the accomplishment of the concrete task of planning, its value is limited. For the practical planner, the first question naturally is what objectives do I take first? In what order are schemes to be considered?

Enough has been said already to show that between industries and agriculture there is no problem of priority to speak of. There are certain developments in industry and agriculture which have to take place side by side, if each is to give the other the strength that it needs. Since those

engaged in industrial pursuits will, for as long as we can foresee, be a minority, it is correct to speak of goods being produced on the one side and purchasing power being created on the other to balance it.

The basic factors or conditions which determine the scope for, and the direction of, the country's industrial development may now be noted. One commonly known factor is the existence of a surplus population which cannot be fully utilised in agriculture. Another is the existing level of consumption for manufactured goods and the future trend of demand for such goods in so far as this can be anticipated. If an idea can be made of the extent to which the level of income may gradually be expected to go up as a result of development in the various spheres of economy, some idea can also be formed of the likely trend of consumer demand for manufactured goods in the future. The process of improving agriculture would also give rise to demands for some goods, e.g., fertilisers and mechanical equipment. One has also to add the specific requirements that would be generated by industrialisation itself—*viz.*, industrial buildings, industrial equipments, housing for industrial workers etc. There is further the need to develop basic and key industries essential for turning out consumer goods. In terms of the time-honoured classification all these diverse industries may be brought under one or the other of the two categories—producers goods and consumers goods. Among the producers goods in which India's dependence should be removed, if not immediately, at least in the long run, the following may be mentioned:

1. Power—Electricity from coal and water.
2. Mining and metallurgy.
3. Engineering industries including machinery of all kinds, machine tool and spare parts.
4. Chemicals including fertilisers and plastics.
5. Automobiles.
6. Locomotives and wagons.
7. Ship-building.
8. Defence industry.
9. Cement.

Among the consumer goods industries those which would require immediate establishment for raising the standard of living of the people, the following are to be noted :—

1. Rice and flour milling industry.
2. Oil crushing industry.
3. Cane crushing and gur making.

4. Sugar industry.
5. Tobacco curing and cigar and cigarette manufacturing.
6. Dairy industry, including manufacture of dried milk products, preparation of butter and *ghee*.
7. Dehydration industry.
8. Fruit canning.
9. Potteries.
10. Derived chemical industries like glass, paint and varnish, soap.
11. Match industry.
12. Paper.
13. Textile and clothing.
14. Leather and footwear industry.
15. Drugs and Pharmaceuticals.
16. Electric goods.

THE QUESTION OF PRIORITIES.

Besides these, goods like radio and refrigerators will also have to be developed. The question which naturally arises is whether a simultaneous development of all these diverse industries is possible. If India had the requisite supply of capital and technical personnel this might have been possible. But since that is not so the question of assigning proper priorities to the different kinds of industries in the initial stage arises. This question, it should be noted, is one of the most intricate in economic planning and has to be satisfactorily answered before embarking on a scheme of economic development. As is well-known, the Bombay Plan suggests the immediate establishment of the basic industries in preference to any other industry.

Its rationale lies in the fact that without the key and the basic industries any considerable addition to the capacity of consumer goods industries or their output would be unthinkable. To a certain extent this is too axiomatic to be questioned. But the fundamental question to be considered is whether, our capital resources being none too large, greater importance should be attached to the production of producers goods or the production of consumers goods in the initial stage. It should, however, be mentioned that the term producers goods covers a wide range of goods which can not be consumed by the individual citizen. But if the distinction between the two is sought to be understood, not in terms of more or less academic definition, but in terms of how far the goods are from the stage of delivering consumers goods, the general significance of this aspect of the problem can be easily grasped.

For, the farther a set of goods is from immediate consumption the greater is the waiting to be done for them and the more is the privation caused to the common folk.

Now it should be noted that this issue is easily liable to confusion and misinterpretation. If India had the requisite supply of capital and technical personnel, the development of capital goods industries and consumer goods industries might have proceeded simultaneously, but since that is not so and since we have reason to think that in view of the privation of the war period, the public will not be in a mood to make too large a sacrifice of present comforts for the sake of the future, I think preference has to be given to consumer goods industries. The objective of planning is to raise the standard of living of the common man as early as possible. In saying this I am of course not overlooking the fact—and I have referred to this at the start—that there are certain basic industries, such as power, whose development is a condition precedent for the growth of consumer goods industries themselves. I feel, therefore, that in our position in India, the initial stress has to be placed on the development of power, with an emphasis almost simultaneously on the growth of such consumer goods industries as are likely to have a wide popular demand. With the first emphasis on these, the attempt should be made to develop simultaneously, as far as possible, such basic industries as might, with the resources at the country's disposal, be developed comparatively more easily and as are likely to be required from the very start, such as cement which will be needed for housing etc., manure which will be required for development of agriculture and small machines and machine tools necessary for development of cottage industries as well as agriculture.

In my view, it will be better for India to concentrate in the initial stages on the importation of machinery for the production, not of capital, but of consumer goods. Further, I do not consider that any over-riding precedence need be accorded to our defence industries on a large scale immediately after the war, as I presume that our defence will be a joint affair with the British Commonwealth and we would be expected to contribute to our defence in accordance with the potential of the country. I wish to attach in the beginning more importance to the production of consumer goods with modifications already indicated in view of our limited resources in capital and technical

personnel, on the one hand, and for the purpose of mitigating the suffering and sacrifices that the people will have to bear, on the other.

There are also certain definite advantages in putting an emphasis on the development of consumer goods industries in the initial stage. In the first place, the scope for immediate employment is greater than that arising from the development of capital goods industries. Secondly, the growth of consumer goods industries has a very direct bearing on the rise of the standard of living and the urgency of a rise in the standard is, of course, very patent. If the initial emphasis is not placed on consumer goods industry but on capital goods industry, it follows that in the initial stages the demand for consumer goods would have to be met by imports. But if we have to take in foreign imports at all, it is less objectionable to depend on foreign sources for our capital goods rather than for the consumer goods. This statement should not of course be construed to mean that it is not very material whether capital goods industries are developed within the country or not. Indeed, on the desirability of establishing the essential capital goods industries there exist no two opinions in the country. But if there is to be a choice in the initial stages as to which of the two is to be imported, I think, for considerations already mentioned, that our choice is quite definite and clear. The development of our own basic industries is essential, and India should not be dependent on outside sources for any length of time for the capital goods she needs. The gradual removal of this initial dependence must be an ultimate objective. There is also one decided advantage in this procedure, since with the development of consumer goods industries the country will also be in a better position to judge and estimate the type and extent of the capital goods industries she will need in the later and more ambitious or spectacular stages of the plan.

LOCATION OF INDUSTRIES

We may now turn to another problem of general import, the problem of location of industries. It has some points in common with the problem of priorities. It may be said to be the geographical aspect of priorities. It is also concerned with the balancing of economic facts from a regional or geographical point of view. It has also not a little political import, since

the location of industries will affect the allegiance of all parts of the country to the working of a single all-India Plan. In my opinion decentralisation of industries with consequent diffusion of ownership should be a cardinal aim in the future industrialisation of the country. Hitherto India has followed the path of concentration as opposed to decentralisation. Two small areas in India, viz., Calcutta and its adjacent industrial area and the Bombay city and island between them contain more than half the factory population of India. When to these are added a few other centres like Ahmedabad, Cawnpore and Jamshedpur, one has nearly exhausted the list of industrial centres in India. The evil effects of such excessive concentration are noticeable, particularly in times of war, when owing to transport difficulties it becomes extremely difficult, even impossible at times, to send goods from a producing centre to a distant consuming area which produces little or none of these products. In the case of India there are also other circumstances of over-riding importance against geographical concentration. I have pointed out that a vast section of our rural population is either in a state of unemployment or under-employment, agriculture having failed to support such large numbers. While it is generally admitted that industries will have to absorb these unemployed or under-employed village folk, the way this will be done is not clear. We cannot do this simply by drawing them into the industrial centres of the towns and uprooting them from their village homes and environment. The report of the Whitley Commission on Indian labour is a brilliant commentary on the consequence of such steps. What we should do is that alongside of big manufacturing industries in towns, medium, small and cottage industries should be set up in rural areas. To them the village people would readily flock although they would be loath to migrate to distant industrial centres of the towns. Establishment of industries in rural areas has been tried in parts of Germany with considerable success. The rural setting and natural scenery have been preserved, and in some cases improved by better attention and care, and the villages more or less take the character of country towns. The growth of industries round the district of Nuremberg is a typical instance of this. The workers in these industries are recruited from the neighbouring villages and often continue to live in their village homes, so that there is no breaking up of the village community. This has been called

as the "wedding of the town and the country", in some of the industrial estates organised in England. I realise that it is not possible to argue in favour of maintaining fully the *status quo* in the matter of location of population, yet it is also unwise to take no account of the 'community' factor.

It should be realised that industrialisation in a country cannot be monopolised by any favoured region or regions. To the advantages of the rise in civilisation which would follow industrialisation, every part of the country must be considered to have a claim. For you cannot keep one part of the country suppressed and impoverished while another part flourishes, any more than you can make one part of your physical body active and vigorous while the other part or parts remain palsied. An attempt should, therefore, be made to develop the industrial possibilities of each and every region as far as possible. Of course, because of the difference in actual facts and circumstances between different regions, there will always be a difference in the degree of development between one region and another. Nevertheless, the general aim and policy should be an all-sided development as far as possible as I have indicated. Such harmonious and all-sided development of the whole country was one of the principal aims of the Soviet planners under the successive five-year plans. It was not merely to lessen the cost of transport or to put the most important new works out of reach of potential hostile invaders, that the various industrial establishments and undertakings were, as a matter of policy, geographically widely dispersed. The Soviet Government made it a cardinal point of policy that the plan left no part of the USSR, and no important national minority, dependent on agriculture alone. This supreme decision of policy, it will be noted, has so far been made by no other government. Nowhere else has a government so deliberately set itself to cause all parts of its area, and all its various races, to enjoy their respective shares in the common productivity and prosperity.

In this connection it may be noted that in Great Britain the Barlow Commission reported in 1937 on the problem of balanced regionalisation in that country and subsequently the PEP Report examined this very problem in 1939. These experiences and studies of other industrialised countries as well as the practical experiments of Soviet Russia should serve as valuable guides in planning for a balanced regional development.

It is worthy of note in this connection that on this question of regionalisation and diffusion of ownership there is little difference of opinion in our country. The Second Reconstruction Report of the Government of India envisages balanced territorial development. The Bombay Plan, Part II, also emphasises the need of regional development to aid better distribution of income. The Gandhian Plan as interpreted by Mr. S. N. Agarwal aims at self-sufficient village communities which would automatically lead to regionalisation. While, therefore, there is little difference of opinion on this question in our country, the broad principles underlying such regionalisation have yet to be settled. Questions of raw materials, labour, transport, and consumption centres must remain, as usual, the basic determinants in this respect. But in the interest of balanced development, these considerations should be tempered by the following factors: (a) strategic necessities, (b) density of population and avoidance of undue concentration in a particular area, (c) development of backward as well as rural areas, (d) diminishing the pressure on transport supply and (e) even distribution of income. I must hasten to add that such simple and cut and dried criteria may not serve for all industries. A judicious balancing of all these factors will be necessary. It should be remembered also that no areas should be made to depend exclusively on one or two industries. For, when for any reasons these industries suffer a depression, as a result of a serious diminution in export trade or a change of technique in the particular industry, the whole area will be faced with depression and unemployment. On the other hand, if a sufficiently wide range of other industries are made to grow side by side the areas need not be too largely bound up with the fortunes of one or two industries.

While on the subject I would like to point out that one essential condition for decentralisation is a wider network of internal communications which would help both specialisation in certain areas and new industrial development in others which, though otherwise well adapted for industrialisation, are at present handicapped by lack of transport facilities. The fact that most of the raw materials are widely scattered in the country and that there is no dearth of labour supply in any region will also be favourable to decentralisation. Another favouring condition would be the development of hydro-electric power over a wide area, for at present one important obstacle in the way of industrial development in certain areas has been

the lack of cheap power supply. Generally speaking, with the development of hydro-electric power, not only irrigational facilities are more widely distributed, but there is no serious disparity of power resources, despite the concentration of coal deposits in a few areas. Apart from the expansion of hydro-electric power it should be examined how far it may be possible to exploit more intensively the coal deposits in areas outside Bihar and Bengal.

This wider and more even distribution of power has considerably lightened the problem of location of industries. For the distribution of power is in greater accord with the distribution of raw material. There are at least a few great industries like cotton textiles, sugar, cement, leather goods manufacture, oil crushing etc., which can be very widely distributed over all parts of the country. The raw materials as well as the markets are present in all areas. While certain industries like iron and steel or heavy chemicals have to a very large extent to be centralised, others can be widely diffused, so that the sources of inter-provincial jealousy or friction may be minimised.

STRUCTURE OF INDUSTRIES

I have referred to the need for establishing small and cottage industries in rural areas as part of a deliberate policy of decentralization and diffusion. This is also important from another consideration on which I have touched in a previous lecture. The structure of India's industries must be determined by the two special features obtaining in the country—viz., the relative scarcity of capital supply and the abundance of labour. Large, organised industries demand large capital while small and cottage industries require more labour. Consequently, enterprises on a gigantic scale cannot dominate the whole Indian field for sheer lack of capital. While large scale industries will predominate primarily on the heavy sector, medium, small and cottage industries should be established for those of the consumption goods which it may be possible to run on a small scale. There is little inherent impracticability in assigning a prominent place to cottage industries. Japan provides a brilliant example in this respect. She has succeeded in developing her large modern industries side by side with home and small-sized industries in a way which has never been achieved elsewhere. She has linked up these two types of industries in such wise that they both

function as complementaries to each other, the cottage units carrying on certain processes of manufacture which are co-ordinated by central factories. Broadly speaking, before the present war, only 26 per cent. of the industries in Japan were on a large-scale basis whereas 85 per cent. were medium-sized, 29 per cent. small-sized and 10 per cent. of the smallest size. To put it differently, "one-half of Japan's total production is manufactured in workshops employing less than 75 workers, while the other half is produced in factories employing more than 75 workers. This shows that Japan is still substantially a country of small industries". These 'dwarf' industries of Japan have not in any way weakened her economic position. Rather they have strengthened it and represent "an appropriate adaptation of industrial methods to the economic conditions existing there". "In that country, capital is relatively scarce and dear while industrial labour is relatively plentiful and cheap". Conditions in our country are surprisingly similar.

I must, however, emphasise that a good deal of judicious planning will be necessary so as to enable the small and cottage industries to contribute their full share to India's industrial development. Mechanised cottage industries using cheap electricity as the source of power and aided by the Government in the technical and marketing sides may lead to mass production by the masses. Large-scale development of machine tool and power industries thus becomes an urgent necessity. Secondly, suitable methods should be devised to eliminate rivalry and competition between machine-made products and products of cottage industries. A balance between these two types of industries, it may not be difficult to find out. There is little dispute that heavy and basic industries should be run exclusively on large scale. The competition may appear only with regard to some consumption goods where both small and large-scale production is possible. Here also adjustment is not difficult. Definite quotas out of the consumption schedule of the nation can be set apart for cottage industries in respect of those goods, say cotton textiles, which can be had from both categories of industries, while there may be other cottage industries which produce the various parts of an article, the parts being assembled in large-scale factories. There are thus many spheres in which the two types of industries do not act in competition but as complementary to one another. The more such complementary processes are found out the more is

competition eliminated. The matter is one which calls for very careful investigation, and it is on the results of such investigation that the respective *roles* to be assigned to large-scale and cottage industries in our plans are to be determined.

PROTECTION AND INDUSTRY

I turn now to the question of protection, which for backward countries has a special importance. In planning our economy we shall have to examine how far it may be possible and advisable to stimulate industries by means of protective measures. In saying this it is not my intention to deny the validity or soundness of the general doctrine of free trade which rests on the advantages derived by nations from international trade. But this doctrine is at best a general one and it is possible to visualise circumstances of a special character when some relaxation of the general principle may be justified. Apart from the worn-out infant industries argument for backward and undeveloped countries, the whole theory of free trade is based on the fundamental assumption that there is a state of full employment in the countries concerned, whereas the starting-point for us in planning and reconstruction is the existence of idle and unemployed resources which it is our objective to bring into employment. The adoption of protective measures in such special cases is, therefore, far from inconsistent with the general framework of the theory formulated by classical writers.

In India the war has served as a kind of protection to industries by eliminating competition from countries directly engaged in the prosecution of the war. As a result, many industries have been established in the country which but for war-time conditions would not have been established so soon. Foreign competition would appear again with the cessation of hostilities when the countries, now engaged in war, would switch over to normal, peace-time economy. Industries established during the war may, therefore, be faced with fierce foreign competition held in check for a time during the war, and many of them would most certainly go down in absence of some kind of protective measures. It will have to be decided therefore, which of these war-time industries should receive protection. Apart from these war-time industries, protection may also be needed for new industries set up after the war, whether consumption goods industries or defence and key industries. There are some who believe that, so far at least as the consump-

tion goods industries are concerned, "in the period immediately following the termination of the war, protection and tariffs are not likely to play an important role in our industrial policy", because the need for protection in this period will diminish considerably, although, be it noted, its necessity in the long run is not denied. It is argued that the immediate post-war times will be marked by the same conditions of comparative freedom from foreign competition which characterises the present war-period. In the work of colossal reconstruction that would follow after the war, the various European countries, including Britain, will be preoccupied with meeting their own internal requirements and will have neither the productive power nor the time to cater to the demands of foreign countries. In this view, the assistance which India would need during this period will be, not protection, since competition would not exist, but direct assistance in such essential matters as finance for capital requirements, scientific research, transport, education, public health etc.

I do not deny that these are vital matters. In fact, they are among the most important things without which industries cannot prosper. But it appears to me that the view that tariff protection will have no use for India in the immediate post-war period is not quite correct. It is no doubt true that many of the European countries will be engaged in rebuilding their own economies and in meeting their own requirements, so long left unsatisfied during the war. But there are countries like England, for example, whose very existence would depend on a sufficient volume of exports for maintaining the essential imports, particularly when her income from the invisible items in the balance of payments has dwindled during this war. These countries will have to engage in a vigorous search for export markets in the midst of their other problems of physical reconstruction. Already plans are being laid in England in this respect, so that she might come into the world markets first and snatch the initial advantage. There is little doubt that India is likely to have to face increasingly fiercer competition from such countries. Besides, there are also countries like America which will not be satisfied merely with trading in capital goods. During the war American consumer goods have already appeared in the markets of various countries and people have got used to these goods. After the war it is unlikely that she would, by a self-denying ordinance, keep off the world markets.

It is on these grounds that I consider foreign competition

in the Indian markets, even in the immediate post-war period, to be a factor of real importance and, therefore, the question of offering protection to Indian industries will have to be faced. But I should make it clear at this stage that protection by itself will be able to do little for Indian industries, unless it is combined with other measures of direct assistance in such essential matters as finance for capital requirements, scientific research etc., which I have already mentioned. If tariff is not applied in conjunction with such vital measures it may sometimes do more harm than good by creating in the minds of both the Government and of the industrialists a sense of security resulting from the absence of foreign competition. This might easily cause them to be indifferent to the more permanent and fundamental factors on which the real growth and development of industries depend. It tends to perpetuate under certain conditions archaic and inefficient modes of production. In the past, protection has been granted to Indian industries as an isolated measure of assistance and while in the case of many industries the grant of protection has justified itself, the fact remains that simultaneous efforts have not been made by all industries to reduce their costs of production with a view to enable them ultimately to stand on their own legs without the protective crutches. The sugar industry, for instance, has developed admirably; but this quantitative growth has not been followed by corresponding improvement in productive technique and reduction of costs. Protection in these circumstances tends to be perpetual with lasting injury to the interests of consumers.

In this context I may make a passing reference to the method of protection which may be appropriate in particular situations. Protection by means of tariff is not necessarily the best in all cases. Direct subsidies may be a better expedient in certain situations. Generally speaking, where a rise in the price of the product of a protected industry is likely to have serious adverse consequences on the consumers, subsidies would be a better form of encouragement than tariff protection. Again, where the chief difficulties to the progress of an industry do not arise from outside competition, tariffs are really no help, a subsidy would be more suitable. Electrical undertakings are a case in point. There are yet other possible situations in which subsidies are a better expedient, such as where production of commodities of importance to the cultivator, e.g. agricultural implements and manures, needs to be encouraged, and where the

expansion is desired of commodities subject to the law of increasing returns, e.g. capital goods industries.

It should not be overlooked that for nearly a decade before the war there was serious dissatisfaction with the policy of discriminating protection. While industrialists were more or less dissatisfied with a policy which left them in the lurch more often than it could be said to have pampered them, there was also a growing volume of opinion in the country that the policy did little permanent good to the national economy while forcing the large mass of poor consumers to pay more for the necessaries of life. The policy was thus attacked from both sides. And the future of such a policy has, therefore, to be considered carefully. It may be said without any lengthy or detailed enquiry that the working of a protectionist policy in a *regime* of planned economic development is in many material respects different from its working in a *regime* of general *laissez faire*. For, in the latter, industries are chosen, one by one, for the grant of protection; and, as so many Tariff Board Enquiries have shown us clearly, the reduction of the cost of production in a new industry does not depend only on the efficiency of the factors concerned but the general efficiency of the national economic system as a whole. In the case of the sugar industry, for instance, further reduction in the cost of production depends upon the achievement of a far higher yield of sugarcane per acre. In case of cotton textiles, much improvement could be effected by the manufacture of spares and dyes and other essentials at home. A number of technical developments taking place side by side would facilitate the reduction of the cost of production in a wide range of industries. This is a fact to which the Tariff Boards of the past could not give sufficient importance because they functioned within the frame-work of principles laid down by the Fiscal Commission. The Government of India have moved sufficiently far away from the moorings of the old *laissez faire* policy to recognize that the formula of the Fiscal Commission will no longer work and that the terms on which protection will be granted in future will have to be liberalised. While this is essential from the point of view of industry, it is also necessary to consider the grievances of the consumer. There would, no doubt, be less cause for them since reduction in costs and prices would be rendered easier by co-ordinated development. Nevertheless, the principle of State control of the price policy of industries ought in fairness to be

accepted. A protectionist policy, which is liberal in the grant of protection and which will seek not only to shut out imports, but also to develop internal production to the level required by our new standards of living and at comparable costs, a policy of diffusion of industrial activity and co-ordinated development of agriculture and industry—these form the basis of the general economic policy of the period of planning which lies ahead of us.

VI

TRANSPORT

The development of communications and transport covering road, rail, shipping and aviation will call for parallel improvement in any scheme of economic development. Increases contemplated in the volume of agricultural and industrial production would result in large movements of raw materials, finished goods as well as labour within the country. Internal trade and commerce will, therefore, increase considerably necessitating a parallel expansion of the means of communication. In fact, the Bombay Plan of Economic Development anticipates an increase in the net income from trade and services to the extent of 200 per cent. This will be impossible of achievement without adequate provision for the movement of the increased volume of goods. It is indeed no exaggeration to say that the well-being and prosperity of a country in modern conditions depends to a very large degree on cheap and efficient public transport and in India, whose mainstay is agriculture, the importance of rural communications and transport for the ryots as well as for the marketing of what they produce cannot be over-emphasised.

The existing facilities of transport and communications are admittedly inadequate to meet the needs of the country. India with an area of approximately 1,580,000 sq. miles has about 41,000 miles of railway, while Europe, excepting the USSR, with an area of 1,660,000 sq. miles has 190,000 miles of railway. Similarly, the proportion of road mileage to area works out at 35 miles per 100 sq. miles in India, while the corresponding figure for the USA is 100 and the UK 200. Coastal shipping has been even more seriously neglected. For a long time past, very few ports in India except Bombay, Calcutta, Madras and Karachi have had adequate harbour facilities. In recent times several smaller ports, principally in Indian States, have no doubt been developed but still the number of ports suitable for coastal shipping is very small. Apart from this, India's share in the country's sea-borne and coastal trade is insignificant. Before the war 66.6 per cent. of the country's sea-borne trade was run in British vessels, 30.0 per cent. in other foreign vessels, while British Indian vessels carried only 3.4 per cent.

of the total sea-borne trade. Similarly, as regards coastal trade, British companies monopolised 80 per cent. while only 20 per cent. was run by Indian companies. Such a state of affairs is certainly not to the national interests of India. It is essential that Indian vessels should be able to carry a much larger percentage of the country's sea-borne and coastal trade than at present.

The deficiencies in each of the spheres will have to be removed if the development of industry and agriculture discussed in previous lectures is to be brought about. Broadly speaking, the improvements called for fall under four main headings: expansion of transport capacity; the provision of certain specific means of transport (*e.g.*, for perishable food-stuffs); the provision of new lines of communication for new currents of traffic; and the opening up of the isolated areas. The Bombay Plan of Economic Development has proposed an increase of 50 per cent. over the existing railway mileage and an increase of 100 per cent. in the mileage of roads. For the development of coastal shipping the plan aims at improving the small natural harbours that are scattered along India's extensive coast-line and to provide them with loading and unloading facilities.

In developing and constructing roads the main currents of traffic in India should be carefully noted and the varying needs of each region determined according to them. The predominance of small and scattered production units in agriculture causes local traffic between villages and the nearest market towns to be divided into a great number of very small local currents. A second stronger stream flows from the market towns to the main assembly and distribution centres. It is subjected to wide seasonal and also to yearly fluctuations, according to the size of harvests. Communications between sources of raw material supplies and industrial centres on the one hand, and between industrial and distribution centres on the other, vary according to local conditions. Industry is concentrated in a substantial measure around the capital and this situation contributes to the convergence of the goods traffic upon these points. Another important flow of traffic is that between surplus and deficiency areas in primary commodities. Obviously, systems of transport should vary according to these different currents and local conditions.

Apart from developments in these spheres, I should per-

haps point out that the question of developing inland waterways should also receive adequate attention, for inland water transport plays an important role in the traffic of some regions, for instance in provinces like Bengal. Possibilities in this respect have to be explored in Bengal as well as in regions of the Punjab where there are navigable rivers and canals. The navigational aspect of the problem, however, forms only part of wider water conservancy projects which may embrace flood control, irrigation and the harnessing of water-power. Sometimes these latter aspects may even predominate over that of communications. The possibilities of water-power development should be examined in the light of concrete plans and from a wider point of view; that is to say, all aspects of any particular project should be considered as a whole and in relation to alternative schemes as well as competing capital requirements.

The question of developing civil aviation in India must also engage serious attention in the post-war period. A country of such vast distance as India is particularly suited for development of civil aviation. Further, all nations now realise that they must possess commercial air lines not only for the movement of goods and passengers but for security reasons as well. Not only, therefore, is there an urgent need for developing civil aviation in India, but the scope for it in such a vast country is also extensive. It is obvious that in the initial stages, until the air-craft industry has sufficiently developed in India, we shall have no other alternative but to buy planes from countries like England and America. But any sound National Air Policy will, it is obvious, form part of an international system. It appears that the principle of the "Sovereignty of the Air" which was until now the guiding principle of international aviation is going to be replaced by the alternative principle of "Freedom of the Air" which means in practice that commercial planes of any nation can fly over the land and water harbour and airport installations of other countries. This policy, if combined with "Reservation of Cabotage", should not be detrimental to India's interests. The Reservation of Cabotage would signify that traffic originating from and terminating in the territory of the same country, shall be reserved for the national services of that country. For instance commercial planes of foreign nations, *en route* to other ports beyond India, will be allowed to land on Indian soil for overhaul and re-fuelling purposes only. They

shall not be allowed to carry passengers or cargo originating in India, from one station to another within India.

In order that developments in the diverse spheres do not grow in an unplanned and uncorrelated manner it is necessary to formulate from the beginning a national transport policy. The principal aims of such a policy should be to provide a system of cheap and efficient transport and to co-ordinate the various means of transport in such a way as to secure for each of them the traffic for which it is best suited, and to avoid over-lapping. The function of the State should be not to favour one means of transport at the expense of another, but to create the requisite conditions for securing the maximum efficiency of all means of transport and to further their evolution in the interests of the general welfare of the community and of technical progress.

The importance of a sound and rational transport policy has been thrown into relief by competition between motor and railway transport. The problem is more or less the same in all civilised countries. In India, as elsewhere, the war has held in check this competition and rivalry, since during a war there is enough traffic for each class of transport. But the problem of road-rail competition is likely to reappear in a more virulent form immediately upon demobilisation and with the disposal of surplus army trucks. It has been estimated that within a year of the cessation of hostilities, India may have on the roads more than twice the number of transport vehicles which existed before the war, and which were then creating acute road-rail competition. There will also be a large number of demobilised soldiers who have been trained to drive and who will be needing employment. Such a situation may conceivably again result in acute road-rail competition to the detriment as much to both these forms of transport as to their users.

In achieving co-ordination between road and rail, it is necessary to realise that the functions of the State in regard to the community's transport cannot be discharged by two independent water-tight administrations, as at present,—the provincial government being in charge of the administration of road transport, while the railways are the domain of the central government. The road-rail conflict in these circumstances degenerate into conflicts between the Central and Provincial administrations. The Report of the Technical Sub-

Committee on the Future of Road Transport and Road-Rail Relations has suggested a solution in this respect which in my opinion is just and sound. With a view to giving the provinces an interest in railway and the Centre an adequate voice in road transport, the Committee have suggested that there should be a Central Transport Budget from which or in parallel with which the provinces should be given some share in the profits and losses of railways. The removal of this financial conflict between the Centre and the Provinces appears to me of utmost importance in removing the conflict that exists between road and rail transport system.

Once this financial conflict between the two governments is removed the task of co-ordination between road and rail should be comparatively easy, for it need hardly be emphasised that while the country needs cheap and efficient transport, it cannot be provided by any single agency. Both railways and motor traffic have a part to play and neither can be dispensed with. A much greater use of road transport should be made than at present in rural areas now inadequately served by either road or rail. The bulk of road transport in these areas is by bullock carts. The importance of this means of transport in the given economic and social setting should not be underestimated. The dispersed and small holdings, the varied service given by bullocks, frequently the use of carting itself as a source of secondary income by under-employed peasants, justify its use, under present conditions, even on purely economic grounds. While all this is undoubtedly true, there is little doubt that with the improvement of agricultural conditions, a much better road transport system will be necessary. Sir Kenneth Mitchell's objective that "no village with the population of 1000 and over should be more than, say, a mile or half a mile from a public road", is certainly realistic under improved agricultural conditions. As villages, however, are not likely to have heavy traffic, the roads connecting them with district roads or trunk roads should be ordinary metalled roads. If side by side with this road development, bullock-carts are also improved, specially by making the use of pneumatic tyres universal, it would go a long way towards increasing the facilities of transport in rural areas.

On the more specific question of regulating road-rail competition the Report of the Technical Sub-Committee referred to above has made some important recommendations. So far

As passenger traffic is concerned competition will not only be inevitable upto a distance of 50 or even 100 miles and more but also desirable in the interests of the public. The duty of the State should be to create for the benefit of passengers requisite conditions for securing the maximum efficiency of road-transport by preventing cut-throat competition among motor companies themselves, providing regular, speedy and comfortable services according to published time-tables, enforcing proper maintenance and other safety measures and taking precautions against over-development of certain roads at the expense of others. Subject to these measures of control there should be no restriction on the range of operation of passenger road-transport. As regards goods traffic, it may be noted that competition so far has been limited. Motor transport can compete economically with railways only in respect of short-haul goods traffic; the transfer of such traffic to the roads would be an improvement of transport facilities and should be encouraged. Regarding long distance journey the Technical Sub-Committee has referred to a system of zoning and an evolution of a formula based on experience and determined by public need.

The question of railway rates is also important. They should be revised and fixed anew, in a manner conducive to the economic development of the country. The railways are a premier utility service, and, therefore, profit should not be the determinant of the railway's rates structure. The development and prosperity of the country's economic life should be given adequate attention. This has been done in other advanced industrialised countries. The rates structure of the American railways, for instance, has been framed in such wise that it is able to bring about the widest development of markets and the most extensive development of trade. The American Railways make their income by small profits per unit and large volume, while Indian railways make their income by large profits per unit and a smaller volume. Another notable defect of the railway rates policy is that it has favoured competing imports or the import trade in general to the great disadvantage of Indian industries. A rational railway rates policy should help to remedy these defects and should be guided more by the need for assisting the economic development of the country than by the commercial profit motive.

So far as railway constructions are concerned it should be

noted that improvement of existing services alongside of new constructions should form an essential part of a railway programme. The restoration of the over-worked railways in war conditions as well as their re-equipment is likely to present a huge task which may postpone new construction on any large scale for some considerable time. Even in the long run the improvement of the existing railway system by re-equipment and modernisation appears to be as important as the task of new construction. Electrification would also seem to be a desirable long-term objective for areas with a great traffic density and for certain mountainous regions, especially if power development projects in connection with industrialisation are effectively carried out.

Developments of transport and communications, it should be noted, offer certain advantages in the case of undeveloped countries like India. Investment in transport creates employment on a large scale for skilled as well as unskilled labours, as the experience of other countries shows. Countries like India which stand most in need of better communications also have a large reservoir of unskilled labour in their surplus rural population. Even large-scale industrialisation would hardly be sufficient to absorb this surplus, whilst it would increase still further the need for improved transport. All these conditions speak strongly in favour of transport development. Further, the increased demand for consumer goods coming from the newly-employed persons gives a fillip to the production of these goods and causes further employment in those lines. The wide diffusion of employment and purchasing power thus brought about is one of the essential conditions for generating the forces of production, consumption and distribution.

VII

FINANCIAL ASPECTS

I have in my previous lectures dealt in a general manner with the main features of the development which we need to secure under the main heads of agriculture, industry and transport. I have now to turn to a consideration of the important question of financing the plan. Here, as in other aspects of planning, I shall have to be content with indicating the main principles which should underlie the provision in respect of finance. It is clearly impossible to refer, and do justice, to all the issues relating to finance in a *regime* of planning. What is more important is to deal with those points in which a new angle of vision and a new perspective are required, and to indicate where the old habits of thought, which are always a great hindrance to apprehension of new problems, should be, so to say, sloughed away. When we speak of the financing of planning, we will do well to remember in the first place, that planning necessarily implies the pooling of resources and outlay of capital by the State or some large organisation in place of the innumerable individuals and groups of individuals who formerly embarked on unco-ordinated private ventures without reference to one another. The capital required for planned development, though doubtless large, may seem to be even larger and more formidable, if we forget that it includes in large part the outlay that has been made and is being made by private individuals, that is, in regard to the total outlay needed.

As regards public finance, new taxation in a planned *regime* is in some essential respects different from the taxation in a *regime* of unplanned *laissez faire*. For, in the case of the planned *regime*, new taxes are not thought of on the spur of the moment without reference to either the economic developments of the past or the economic programme for the future. Taxation is resorted to, either because incomes have been created which call for some measure of redistribution, or because there are on hand schemes for expenditure, which can be depended on to add substantially to the national income and the taxable capacity of the people. The standard of public expenditure which an economic plan calls for will therefore have to be judged from an altogether new standpoint. It is no longer a question

of whether the taxable capacity of the people is sufficient at any one point of time to bear the weight of public expenditure which the plan involves. The more appropriate standpoint is whether sufficient money can be raised for the immediate purposes on hand and whether the outlay of such moneys will effect the requisite increase in real taxable capacity before the weight of new taxation will be felt to be oppressive. There is no doubt that the short term effects of new taxation will involve some privation for the people. But the more important point is whether the relief which comes of increases to real national income will occur in time to save the people from an oppressive feeling of heavy taxation.

The two points I have just now mentioned are vital to a proper appraisal of the issues connected with the financing of the Plan. The two refer to the two sectors of our economic life of the future, the public sector and the private sector. Assuming roughly for purposes of elucidation that the public sector is the sector which it is for the State to finance and the private sector is financed by private capital we may proceed to consider whether the conditions in the country and the pace of progress that is practicable justify confidence in the success of our attempt to, say, double the *per capita* income in a period of fifteen years. There can be no doubt that much the larger part of the total capital required for planning can come only in the later stages of the Plan, when the increase in the national income will have been greatly accelerated. In the present context, it is far more important that the outlay we shall need for the first phase of the plan can be found without any considerable difficulty. Here it is very encouraging that the Finance Member of the Government of India declared within a short period of the publication of the Bombay Plan that Government would be well able to spend Rs. 1,000 crores on the plan in the first five years and could still leave an amount of about Rs. 500 crores for private investment. This forecast of Sir Jeremy Raisman has since been confirmed by the Second Report of the Reconstruction Committee. Whether Rs. 1,500 crores would be sufficient or not for the first five years is a question which may admit of some difference of opinion. But that such an outlay will give a sound start for planning can hardly be denied. By a sound start I mean a start which will bring about such an improvement in the quality and quantity of our resources as will enable us to take up the further stages of the Plan with a

confidence which we cannot now command without calling on our faculty of imagination.

SCOPE FOR CREATED MONEY AT INITIAL STAGE

It need hardly be said that of the Rs. 1,000 crores which, according to the Government, they can put up for planning in the first five years, only a part will be derived from revenues obtained from taxation, the other part being found by loans from the public. There is, however, a third source of funds which the authors of the Bombay Plan took credit for, but which may not be available for us in the immediate post-war years. I am referring, as you can guess, to created money. This is an item which I have reckoned with in my previous lecture on resources as a potential source which can be tapped under certain circumstances. While nothing can be said against the expenditure of created money in carefully chosen fields, the rate at which currency has been expanded and is still being expanded during the present war-period will confront us with a problem of deflation in the post-war period and will put this question of created money out of the pale of serious consideration in the first phase of the plan. Doubtless, if there had been no inflation or if inflation had been kept within bounds, we might consider the question of resorting to created money for filling the gap between available capital and requisite capital. But as things are, inflation has deprived us both of the choice and of the embarrassment that generally goes with it. This observation, however, does not apply to the later stages of the plan when the transition from war to peace economy will have been completed.

TAXATION AND BORROWING

Created money being thus out of the question in the initial stage, the Government have to rely wholly on taxation and borrowing for the resources they will need for the execution of their plan. The power to borrow is so dependent on the power to maintain credit and provide for the service of the debt, that it should be sufficient to consider the position of public revenues in the years ahead. And, here, *prima facie* the ability of the Government to finance our war expenditure should encourage us to believe that the financing of planned development will not be beyond the capacity of the future Government of India. *Prima facie*, again, it should be possible for the Government to expend from revenues as much as they are doing now and raise

loans for reconstruction purposes which in many cases will be productive and will not be a mere addition to our unproductive debt as during the last few years.

But how far can the conditions of the post-war years be parallel to the conditions of the present? In the first place, war time inflation will have to be adjusted to the requirements of the changed times of peace. Secondly, Government expenditure on war account cannot have an exact counterpart in peace-time. If then the total note circulation should go down and the opportunities for private profits should suffer shrinkage on account of the cessation of Government expenditure on war account, neither public revenues nor public borrowing can continue at their present war time levels.

Sound as this line of reasoning may seem at first sight, it ignores a number of factors which point in the opposite direction. Post-war contraction will effect only the large amounts of redundant funds now lying all over the country ; and even if they should proceed far, there are other factors such as the release of pent up purchasing power, to combat its effects. The inauguration of new enterprises which have been formally registered during war time will lead to the counteraction of deflationary trends and the maintenance of business activity in general. As for Government expenditure on war account, the execution of large peace-time schemes of public works will provide a substitute for the war expenditure of the present.

EVALUATION OF DIFFERENT SOURCES OF REVENUE

Given a suitable policy, there is no reason to think that the general background of economic and monetary conditions will not be favourable to a more or less equal extent to the maintenance at their present level of Government revenue and new borrowing. But this is, of course, different from saying that public revenues will continue to flow in at the same rate and in the same way as now. When the Government take the view that they can find Rs. 1,000 crores for planning in the first five years, they have not tried to indicate how much will be found from revenue and how much from new borrowing. And all that we can do now is to examine the principal heads of revenue at the Centre and in the Provinces and estimate their prospects in the years ahead. Firstly, we shall do well to note that Central revenues have grown from about Rs. 90 crores in the pre-war years to about Rs. 360 crores at the present time. Customs

revenue, which was the sheet anchor of Central finances up to the third decade of this century, dwindled to about Rs. 32 crores in the early thirties, while excises were negligible. As against this, the budget estimates for 1945-46 provide for Rs. 52 crores under customs alone in addition to Rs. 48 crores under excises. The contributions of commercial undertakings which were practically a minus quantity twelve or fifteen years ago, amount to-day to about Rs. 45 crores. Direct taxation, which accounted for about 12 or 13 crores, now yields Rs. 190 crores, while currency profits have gone up from about less than Rs. 1 crore to about Rs. 12 crores. Of these expanding sources of revenue, customs and excises are undoubtedly very dependable ; and here there is a clear increase in the last decade of well over Rs. 50 crores. Contributions of the Railways and Post & Telegraphs may not be viewed in the same light. Some reduction in rates and fares might prove to be necessary. Nevertheless, in the conditions of the post-war period, when the general movement of goods is bound to be on a large scale, we have no reason to apprehend that all the profits on the commercial departments will vanish on the cessation of hostilities. Though the traffic on military account may not be fully replaced, contributions of the scale of Rs. 15/- to Rs. 20/- crores may be reasonably expected. As regards yield from direct taxation which amounts in the latest budget to about Rs. 190 crores, it would be rash to attempt any forecast in this respect. E.P.T. has a restricted application in times of peace. But generally speaking, if the national income can be maintained in terms of money at about the same levels as to-day—and that should not be impossible considering the various avenues of productive activity from which trade and industry are now wholly shut out—then income-tax should suffer no serious fall. There are also the potentialities of expansion of revenue which have been created during the war period by the ceaseless search for new items for excise duties. The tax on tobacco has begun to yield revenue on the scale of Rs. 20 crores a year. And the possible increases on the institution of some forms of State monopolies in articles like tobacco are yet to be explored. Considering all these circumstances, a genuine increase in Central revenues of about Rs. 600 crores over the pre-war level in the first five years of post-war planning is by no means difficult to secure. And that I believe should dispel the disquiet which most people feel when they have to contemplate the consequences of the cessation of war.

STATE OF PROVINCIAL BUDGETS

In this calculation I have not taken into account the possible yield on death duties for the imposition of which the Central Government has taken the necessary powers, for death duties belong to the sphere of Provincial Governments. And here we must consider the prospects of provincial revenues, apart from the additions which death duties promise. A glance at provincial budgets will show that the revenues of all the provinces have expanded very considerably during the present war period. One obvious source of increase is the divisible pool of income-tax which is collected at the Centre. We have, doubtless, to reckon with a decrease though not as great as is generally feared, under this head. But we should not overlook the fact that provincial sources have been expanded during recent years. The short period of provincial autonomy which we have had has been fruitful in measures of new taxation. Sales taxes, entertainment taxes, taxation on urban land, and of agricultural income and similar measures have contributed to provincial revenues. Provincial excises have expanded significantly as a result of the prosperity of the war period. It would be fallacious to attribute the expansion of provincial revenues wholly to the war. With the provinces adding death duties to their revenues and with the Central revenues maintained at about the levels of the present, the ability of public finance to support schemes of economic development will be largely assured.

NEED FOR STIMULATING SAVINGS

In order to secure savings for purposes of investment, we shall have to depend on the savings of all classes of the population so far as practicable, although it should be added that the comparatively richer section of the community will necessarily have to bear a larger burden, the general standard of living of the people being very low. Institutions which encourage savings have to be carefully fostered and developed. Apart from banks, we have to give attention to life insurance, building societies, investment trusts, co-operative societies of various kinds, insurance schemes connected with social security and the like. Measures which will ensure stable money incomes for the agricultural population will be very useful for maintaining the rate of savings in the country as a whole. And I hold that it is of first rate importance that no class of people should

continue in the sloppy ways of old, the ways of indifference to the state of the domestic budget and the needs of the future. If schemes are designed—and that is by no means difficult—to ensure savings at the average rate of, say 4 to 5 per cent., then institutional savings will more than make up for the possible fall in the savings of the rich which our system of taxation might bring conceivably about.

PLANNING AND PRIVATE INVESTMENT

It is quite possible that factors like the increase in the income of the rich or a decline in their fondness for jewels or for hoarding may prevent a decline in the savings of these classes. But in a planned economy we can hardly afford to let so vital a factor as the volume of savings to the caprices of a people untrained in the ways of a progressive economic life. That is why I have urged that we should set more store by institutional savings. We must have schemes of insurance to cover every need of every class of the population, schemes so designed that they will mean substantial additions to the total volume of savings in the country. I might say that if we devote proper care to institutional savings and if the craze for jewellery should decline, then the volume of savings, after allowing for money taken by the Government in taxes and loans, might well exceed the 500 crore limit indicated by the Second Progress Report of the Reconstruction Committee.

I may now turn to the question of what the directors of our planned economy might seek to do to this volume of savings. Planning, let us remind ourselves, obviously implies a degree of control over new investment. This control has already been instituted during the war period, though the motive here has been the fight against the effects of inflation. But whatever the motive, the practical result is that even during the war period we have done much to regulate the first stage of new investment in the post-war period. When the war will come to an end, the funds that have been raised by new issues of the present and deposited with the Government will be released and will flow into their pre-determined channels. But we must be prepared for a continuance of the present system of supervision and regulation of new issues even in the post-war period. It is only by such control that we can assure that the developments which the plan will leave to private enterprise will not be starved for lack of capital. The large volume of institutional savings

other than bank deposits will help us to regulate the flow of savings by means of instructions to the heads of the business community without an unduly rigid system of control. The banking system which to-day has attracted a larger volume of deposits relatively to total currency circulation than at any time in the past will be able to preserve the elasticity of credit and currency to which classical theories attached so much importance. There is also the large volume of money earned during the war, which being in the hands of private individuals and therefore unamenable to control, will flow automatically into the myriad schemes of small scale private enterprise which, though they are not easy to gauge or guide, are invaluable for providing the basis of our progress in the later stages of the plan.

My examination of this question of private savings and investment has necessarily been brief and cursory. But I believe I have said enough to show that this sector of our planning has a few elements of strength and soundness and that we have reason to expect it to function more efficiently than we could have dared to hope in former years. It may also turn out that the volume of savings available for private investment will be more than what the Government have indicated in their report.

PRINCIPLES OF BUDGETARY POLICY

So far I have tried to show that it is quite within the bounds of practical politics to raise the necessary funds for financing the plan. But I have said nothing regarding the manner in which the funds should be raised. For, it is well-known that, given a certain amount of revenue to be raised by taxes and loans, this can be done in different ways, each of which will have different economic effects. The tax system should be so modified as to operate in the least damaging way on the general economic system. For this purpose the national fiscal policy should have three main objects: to improve the distribution of the national income, to increase its production and, finally, to diminish the variability of its flow. Taxation as a method of income re-distribution was foreign to the classical theory of public finance. It was foreign in the sense that it had no economic merit although it might have merits on grounds of social justice. But now it is different. Apart from social justice, re-distribution of incomes has power to contribute to a policy of full employment by increasing the community's propensity to consume and, therefore, effective

demand. For, as is well-known, the propensity to consume is greater in the case of the poor than the rich. The argument of social justice and the economic argument have thus merged in modern theory. To say that redistribution of taxes is no longer inimical to technical progress and the accumulation of capital does not, however, mean that some kinds of taxation may not have economically destructive effects. Some forms of taxation are more injurious than others in their effect on enterprise and the task of the Government in the post-war period will be to eliminate those forms of taxation which exercise a depressing effect on energy and enterprise and to introduce in their place methods of raising revenue which are calculated to stimulate the introduction of improved methods of production. Two principles should be borne in mind in this respect: (1) All profits retained in business for purpose of expansion should be granted exemption from income-tax. This is an extremely important dictum since it is universally recognised that the soundest of all forms of business growth is through the ploughing back of profits; (2) the income-tax should be based on true profits, which should be computed only after making proper deduction and allowance such as might be made on a commercial basis. In the first place, in estimating profits, wear and tear allowance on industrial buildings as well as maintenance and obsolescence allowance on an adequate scale should be granted. Secondly, expenditure on research incurred by business should be a permissible deduction from business profits. Efficiency of production is very often a matter of expensive research and experiment and it should be the duty of the Government to accelerate them by means of such deductions. I may point out that in the last British budget the Chancellor of the Exchequer made suitable provisions in respect of maintenance and obsolescence allowance as well as research. This was done obviously with a view to assisting the British industries in keeping step with the latest and most economical methods of production. It may be noted also that in the latest budget of the Government of India provision has been made for allowing for income-tax purposes expenditure on scientific research. The proposals, in brief, are "the allowance of current research expenditure as it is incurred, the allowance of payments to recognized research bodies and institutions and the allowance over a period of five years or over

the life of the assets, if shorter, of research expenditure of a capital nature."

Apart from keeping the national income high and bringing about a better distribution of this income, budgetary policy should also aim at keeping that income stable. The variability of the flow of national income should be reduced as far as possible. This is done by mitigating cyclical fluctuations by various means. The heart of such a policy lies in stabilising the expenditure on capital goods and consumer goods during years of boom and depression. When expenditure on capital goods incurred by trade and industry diminishes during bad years the public sector should vigorously pursue a policy of public works and should be guided by considerations other than those of earning profits. Similarly, to stimulate demand and consumption, taxes may be lowered during depression while during boom periods inflationary tendencies may be curbed by heavier taxation on consumer goods. These suggestions of variable taxation imply that there is no inherent reason why the budget should be balanced annually. It will be enough if a cyclical balance is attained.

These, then, are the three kinds of effects which should be taken into account in framing the fiscal policy of a country, effects on distribution, production and variability of national income. Their applicability to Indian conditions is all the greater since the fiscal machinery is deficient from the point of view of each of these criteria. The Indian tax system is generally regressive in character with practically no provisions for free social services to the poorer people. There are at least two valid reasons for considering social services—using the term in its widest sense—in conjunction with capital investment. As a means of raising the productivity of labour, education, public health and social services are, in the long run, complementary to the provision of equipment. On the other hand, to the extent to which they use up part of the immediately available output they compete with investment. Again, so far as the technique and method of production is concerned, the effect is equally unwholesome since not all the deductions and allowances referred to above have yet been fully granted. In the sphere of mitigating industrial fluctuations and variability of national income also, the Government have at no time embarked on a bold and energetic scheme of public works.

VIII

CURRENCY, EXCHANGE AND TRADE POLICY

Part of the problem of economic development rests not wholly on ourselves, but to some extent on our relations with the rest of the world. I must, therefore, turn now to the wider problem of international economic relations and the part that India should play in them. It is certain that efforts will be made to organise international economic relations by mutual consultation among different countries and by joint decision as far as possible in important matters which affect world economy and international trade. So far, the only clue we have to the future is the decisions of the International Monetary Conference which was held at Bretton Woods in July, 1944. The main object of Bretton Woods is to establish healthy international trade and investment among the participating nations. It represents the first tentative step in that direction by setting up a permanent agency for consultation and action on all international monetary and investment problems. The purposes of the Fund are to facilitate the expansion and balanced growth of international trade thereby leading to the development of productive resources of all members, to maintain orderly exchange arrangements among members, to assist in the establishment of a multilateral system of payments in respect of current transactions and to make available to members the resources of the Fund under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures detrimental to national or international prosperity and progress. The fund is not a clearing scheme for all international monetary transactions, nor is it intended to be used for large capital movements. It seeks to provide normal short-term credit facilities on current trade account. The problem of abnormal war balances which includes our sterling accumulations has also been taken outside the purview of the Fund. The Fund is intended to come into full operation only after a transitional period, tentatively put at between three to five years. During this period of transition, exchange restrictions both on current and capital transactions are permissible. Normally, however, current trade transactions are proposed to be freed from the shackles of exchange control and

discriminatory currency practices, except in the case of a scarce currency, while exchange restrictions are allowed in the case of capital movements.

SHOULD INDIA JOIN THE INTERNATIONAL MONETARY FUND

On the question whether India should or should not participate in the Fund, it is desirable to remember that in this shrinking world no nation can stand all by itself, and that the pressure towards, as well as the scope of, international co-operation will increase daily. Although some of the provisions of the Fund require further clarification, it would appear that, apart from the question of sterling balances, participation in the Fund is not likely to be prejudicial to our interests. The proposals of the Fund as they stand are not calculated to interfere with the measures that we need to institute for the internal development of the country. We used to have a favourable balance of trade before the war, and now that most of our foreign obligations have been liquidated, our balance of payment position should be still more favourable. Again, apart from the question of sterling balances and the position during the transitional period, the Fund will assure to us the benefits of multilateral payment. Whether our political status will constitute a bar to our participation in such international organizations is a problem which will cause some controversy. But even here, Indian delegations have learnt to speak out boldly and independently, and the time is come when India should take her place not only in the economic but also in the political councils of the world.

THE INTERNATIONAL BANK

The other mechanism evolved at Bretton Woods is an International Bank for reconstruction and development dealing with long term credit. Membership of the International Bank is contingent upon participation in the International Monetary Fund. The most important provision in connection with loans is that the Bank would guarantee or grant loans for reconstruction and development purposes only when it is found that the country in question is not able to obtain such loans through private channels. If this is the position it would appear that India is not likely to derive any great advantage from such a Bank, for she has generally enjoyed good credit in foreign markets and this position has been further strengthened by the war. Provided there is a stable government at home, there is

no reason why India should not be able to attract foreign loans even without the guarantee of the International Bank.

CURRENCY AND EXCHANGE POLICY

Another matter of crucial importance is the behaviour of post-war prices and exchange rates. Compared with countries like England and the United States prices in India and the quantities of money in circulation have gone up to giddy heights during the war. Although the continued expansion of currency has weakened the rupee internally, its external value has been kept steady through the operation of exchange control and other difficulties in the way of foreign trade. This is not expected to continue after the war when the normal economic forces will re-assert themselves and prices and exchange rates will have an irresistible urge to seek parity with world price levels. The question which naturally presents itself is, at what levels should the internal value of the rupee and its external value be stabilised? This is a question of tremendous importance to India, for she has still fresh in her mind the memory of the costly and futile efforts made after the last great war to maintain an untenable exchange rate, and the disastrous consequences to her economy which followed.

To begin with, it must be emphasized that there are many imponderables in the situation and it is impossible to forecast with any degree of precision the shape of things that will ultimately come to prevail. There is a whole host of circumstances, internal as well as external, to be taken into account. Some of them will work even in the opposite direction and thus make the final results still more confused and hazy. It is also clearly impossible to suggest at this stage the exact parity which India should establish at some future date. All that we can do and should do at this stage is to analyse the broad factors likely to operate after the war and exert their influences on levels of prices and exchange rates.

Two sets of factors working in opposite direction will exert their pull on the level of post-war prices—one tending to lead to a downward level of prices and the other to an upward level. The final result will be determined by the relative strength of each factor. On the termination of hostilities the enormous war expenditures will cease almost as suddenly as they first came into being. Private industries supplying the war requirements of the Government would also find themselves robbed of the

war orders which had been their mainstay. The demobilisation of soldiers and the menace of unemployment will be another serious depressing factor. The administrative services created during the war will also shrink and throw many educated young men out of employment. The immediate effect of the drying up of these sources of income will be to knock the bottom out of the present high level of prices and usher in an era of deflation. It is impossible to say to what extent and how long these forces will operate but of their certain emergence there can be little doubt.

Against this should be set off the other factors which will operate in the contrary direction and tend to counteract the deflationary trend. Because of the exigencies of the war the civilian population have had to restrict their consumption in various ways. With the cessation of hostilities there is bound to be a general desire on the part of these people to satisfy these wants stinted during the war. Those who would have the backing of purchasing power would make their demand effective by entering the commodity market and competing for as much of the consumer goods as possible. The increased volume of consumer goods demanded by them will not, however, come into the market all at once. Sufficient time must elapse before supply is able to adjust itself to new demand. In the meanwhile the growing volume of purchasing power will impinge on the limited fund of consumer goods and raise their prices. Besides, during the war many people have bought land but have postponed their construction on account of the non-availability of materials. If these people resort to construction after the war there is the likelihood of a building boom in the post-war period. The psychological predisposition towards a depression which the first set of factors might create may thus be countered and offset and the country may find itself in the midst of new economic activities. Whether this will be on a scale sufficient to counteract or outweigh the previous deflationary tendency is something more than one can predict. But generally it may be said that in countries like India the immediate deflationary tendency will exert the stronger pull and get the better of the inflationary tendency, while in advanced countries like England and the United States the reverse is likely to be the case. This is for a number of reasons. The increased purchasing power which, by impinging upon the limited supply of consumer goods, imparts strength to the inflationary ten-

dency has not widely diffused itself in India. It has found shelter in the hands of limited sections of the population—the larger agriculturists, the industrialists and the war contractors. The vast majority of people will have very little effective demand with which to compete for the consumer goods in the commodity market after the war. On the other hand, the richer sections of the people who have got in possession increased purchasing power, have not had to deny themselves many of their wants during the war. Their propensity to consume is not, therefore, likely to increase to such an extent in the post-war period that it will give much strength to the inflationary impulse. In countries like England, on the other hand, the campaign of small savings has succeeded so well that it accounts for a very substantial portion of the Government borrowings, so that the release of this pent-up money would mean so much purchasing power in the hands of the ordinary common man whose propensity to consume is even ordinarily strong. Besides, the physical reconstruction of the devastated economy of these countries will create huge demands for capital goods, the supply of which may not increase rapidly. All these taken together have the effect of leading to an inflationary swing in the immediate post-war period and the problem in these countries is how best to avoid not a slump but a run-away boom, while in our country the problem will be quite the opposite. The immediate psychological effect favouring a depression on the termination of hostilities in our case is not likely to be fully counterbalanced by the opposite forces, unless the Government steps in and replaces the war expenditures by new reconstruction expenditure of various kinds. The reconstruction plan of the Government has, therefore, to be kept ready in advance so that it may be able to go into action immediately on the cease-fire orders.

I must not be construed to mean that I want the present abnormal prices to continue after the war. Far from it. They are abnormal and untenable by any criterion and have inflicted tremendous sufferings and privations on the people. If they are maintained at this level even after the war, they will seriously affect the standard of living of the people. The prices should no doubt be brought down to their normal level—not necessarily the pre-war level—and stabilised there. But this should be done only gradually. A catastrophic fall should be avoided. For it must not be supposed that if inflation is an evil, deflation is

necessarily good. On the contrary, if inflation is Satan, deflation is Beelzebub and both must be effectively tackled and overpowered. During the war we have allowed the Satan of inflation to play havoc with our economy. After the war we must not allow deflation to carry the havoc further.

As regards the gradual scaling down of the prices, the final adjustment should be sought partly in the expansion of production and partly in the contraction of currency. The volume of production has to grow to the expanded currency and thus enable the maintenance of a stable price structure. This view derives strength from a broad survey of the conditions in other countries of the world. The pre-war note circulation in India was low, considering both the total population and the *per capita* income. Therefore, a part of the solution of the problem of war-time inflation must be found, even while the war is on, in the increase of production of ordinary consumer goods. The other part should be sought in reduction of the note circulation.

The prices will thus ultimately come down but not necessarily to the pre-war level, for even in 1938 India had been unable to recover fully from the effects of the depression. It is somewhere between the pre-war level and the present that the post-war level of prices should be stabilised. This will mean that the internal value of the rupee, although higher than at present, will be considerably lower than before the war. Disparity between the internal value of the rupee and its external value will thus persist even after the war, although not to the same degree as at present. The question is whether this disparity should be cured by devaluation. A relevant factor to be taken into account in this connection is the probable trend of prices in foreign countries after the war. If prices in foreign countries rise sufficiently, the maladjustment between the internal value and the external value of the rupee is automatically removed and no devaluation may be necessary. If, again, prices in foreign countries rise but not sufficiently, some devaluation may be necessary, although to a lesser degree than if prices did not rise at all. The crucial question is, therefore, the behaviour of post-war prices in foreign countries. As I have already pointed out, with the release of the mopped up purchasing power in these countries an advance in their price levels is almost unavoidable. Whether they will rise sufficiently high to obviate altogether the need for devaluation of the rupee, it

is impossible to predict. But whatever that may be, the extent of devaluation needed is reduced in proportion to the rise in foreign prices. Since there are so many external factors entering into the fixation of parities, we should do well to watch carefully how the major countries of the world behave in the post-war period. Hasty and premature attempts to stabilise the rupee either in terms of the existing parity or a new one are fraught with danger and should be avoided. So long as important currencies like sterling or dollar have not found their moorings and world economic conditions have not returned to normal, attempts to stabilise the rupee are bound to fail.

INTERNATIONAL TRADE POLICY

With regard to international trade policy in the post-war period, there are several factors to be taken into consideration. In the first place, the war has altered the position of India in one fundamental respect. In the course of a few years she has changed from a debtor to a creditor country, with the result that her effective demand for overseas goods has considerably increased. If she husband her resources carefully, she will not have to suffer helplessly adverse changes in the terms of trade. Secondly, as a creditor nation, and as a country with an export surplus in a wide range of raw materials and with prospects of developing an export trade in manufactured articles as well, it is clearly to India's interest that the trade of the world should, as far as possible, be multilateral. A world, in which trade is largely bilaterally organised, would cramp her development and the economic progress of the world at large. This does not mean that we must give unqualified support to free trade. Not only tariffs for the purpose of protecting our own industries, but also special arrangements with certain foreign countries which are in a position to help us will doubtless be necessary. The third factor to be taken into account is that India will have to develop an export trade for meeting the cost of her essential imports of capital goods. This will be necessary because, on the one hand, our sterling balances are not likely to be repaid all at a time and on the other, our demand for imported materials in order to implement a plan will considerably increase. It is difficult to hazard any definite opinion about the post-war prospects of our export trade. Japan and Germany may after the war prove to be worse customers than before. Although there may be scope for some expansion of trade with the USA,

it should be remembered that the trade of the two countries, USA and India, is in some respects competitive, as for instance in cotton. The possibilities of developing export trade to countries in the Middle East and around the Indian Ocean are, however, more promising. It should be possible for India to retain and develop some of these markets gained during the war. But even when allowance has been made for such expansion, it should be borne in mind that in the period before the war, 54% of Indian trade was with Empire countries. This means that the Empire countries were our best customers before the War and if this position remains substantially unaltered even after the war, it may be necessary with a view to develop our markets in these countries to accord to them some favourable treatment.

Much indeed depends on the post-war changes in international trade on which the peace treaties will exert not a little influence. But, as I have said earlier, though India may have need to ally herself closely with one or two industrial countries with a view to secure adequate help in her industrialisation and may have for this purpose to give them special treatment in certain matters, her main interest lies in the emergence of an expanding trade among all nations. Whether the post-war years will witness such emergence or not is more than any one can say at present. But if trade is not to be developed only along certain pre-determined lines then we have to keep our ideas of world trade in a somewhat fluid state. Our position as a creditor country, the trade relations which we have developed during these war years with the Middle East and the countries adjacent to us, our dependence on countries like the U.S.A. and Britain for the equipment of industry and the scope which the re-entry of Soviet Russia into world trade will create for us and for others—all these are factors which we shall have fully to take into account before we seek to give shape to our foreign trade relations. Over and above all these is the need to come to a settlement with Great Britain for the repayment of our sterling balances. The issues connected with this are quite familiar. Britain, it is obvious, can repay these balances mainly by means of export surplus in goods and services over and above what she exports to India in normal conditions. But here it will be necessary to impose some safeguards in India's interests. In the first place, India's interest would demand that Great Britain's exports to this

country, so far as the sterling balances are concerned, are goods and services which India really wants for the purpose of her development. The sterling balances must not be frittered away through a spate of export of consumer goods which may very well retard our economic development. The volume of consumer goods that we need, apart from what India would produce locally, may well be available to us through our normal trade transactions. So far as the sterling balances are concerned, Britain, in other words, should not attempt to follow the example of Germany by trying to sell us "millions of mouth-organs and ship-loads of aspirins" in settlement of our claims. I may point out in this context that India will have to resort to some form of import control together with the inevitable concomitant of exchange control in order to ensure that non-essential goods and services do not find their way to India, particularly during the period when she will be in need of capital goods for developmental purposes. The second safeguard which is necessary is that the price of British exports should be the same to us, the holders of sterling, as to buyers who want to pay in goods, gold or dollars. Thirdly, India should be enabled to buy her requirements in the best markets, apart from what she would buy from England. A bilateral agreement with Britain, incorporating these safeguards and providing for an orderly liquidation of the balances, should be brought into operation at the earliest date, for this is a matter which brooks no delay. I do not want to deal with the other issues connected with this problem—issues which I have raised on other occasions but which cannot be dealt with now for sheer lack of time.

IX

DISTRIBUTION AND STATE-CONTROL

I have previously mentioned that even though production is both sufficient and efficient, unless there is equitable distribution the problems of poverty may not be solved and poverty might continue in the midst of plenty. Economic welfare depends on two factors, production and distribution. On the one hand, production must increase to such a level that it is adequate to satisfy the requirements of a minimum standard of living and on the other, the result of increased production must be so distributed among the whole population that nobody is allowed to sink below the minimum standard. Re-distribution of income, however, must not be carried to such lengths that it has depressing and injurious effects on production, for it is obvious, as I have said earlier, that in a country like India where there is not enough to go round emphasis has necessarily to be placed on increased production.

If equitable distribution is to be effected, the State has to step in. Without State intervention this is not really possible. The problems of distribution and of the *role* of the State in economic planning are, however, problems which raise many controversial points. Controversy and difference of opinion on such vital matters spring up too readily, particularly in India where almost all the ideologies in socio-economic matters have been running simultaneously and in cross-currents, with the result that the country is in the grip of none of them. I have no desire to sing the virtues of this or that ideology. But to be candid, I am not one of those who feel that the doctrine of *laissez faire* is practicable or desirable under present conditions. The cost and character of the competitive struggle itself, the tendency for wealth to be concentrated in a few hands, the appalling poverty in the midst of plenty—all these are beyond the cure of a *laissez faire* economy. The ruthless struggle which the system of *laissez faire* entails and how this system is blind to the cost of the struggle, is very ably brought out by Lord Keynes, in one of his lectures by the use of a brilliant simile of a society of giraffes. I would quote his own language which is inimitable : "The object of life being to crop the leaves off the

branches upto the greatest possible height, the likeliest way of achieving this end is to leave the giraffes with the longest necks to starve out those whose necks are shorter." Developing the idea further he says, "If only we leave the giraffes to themselves, (1) the maximum quantity of leaves will be cropped because the giraffes with the longest necks will, by dint of starving out the others, get nearest to the trees; (2) each giraffe will make for the leaves which he finds most succulent amongst those in reach; and (3) the giraffes whose relish for a given leaf is greatest will crane most to reach it. In this way more and juicier leaves will be swallowed, and each individual leaf will reach the throat which thinks it deserves most effort." I may be permitted to quote a few more sentences from the same lecture where Lord Keynes points out the consequences of such a struggle. "If", he says, "we have the welfare of the giraffes at heart, we must not overlook the sufferings of the shorter necks who are starved out, or the sweet leaves which falls to the ground and are trampled underfoot in the struggle, or the over-feeding of the long-necked ones, or the evil look of anxiety or struggling greediness which overcasts the mild faces of the herd." These are the consequences of the *laissez-faire* economy which, according to its greatest advocate, Bentham, is supposed to lead to the greatest good of the greatest number. On the contrary, under the system the rich become richer at the expense of the poor and inspite of the enormous wealth produced, the majority of people live in the midst of soul-killing misery. Such a system evidently cannot continue consistently with our ideal of raising the standard of living of all to a decent minimum. It may be noted that even countries like England and the United States which in the past were advocates of pure *laissez faire* have realised its bitter consequences and are thinking in terms of increasingly more and more state interference to improve the lot of the common man.

But if I am opposed to *laissez faire*, I do not also agree with those who would let the government do everything. I firmly believe that between these two extreme views there is a golden mean for harnessing the resources of the country to the fullest benefit of all. As Louis Fischer, one of the most ardent and passionate friends of the Soviet Union, has so admirably put it in "Men and Politics":—"To jump from the monism of uncontrolled capitalism to the monism of uncontrollable State ownership, or State domination, of all

property, industry and finance—is no solution. In fact, it is highly dangerous. Even in countries where there is a stronger tradition of democracy and personal freedom than in Russia and Germany, the omnipotent State—omnipotent because it owned and ran everything—might still become a menace to liberty. I fear the strong state. The individual is at its mercy. Where a State is the employer of all, no strikes are permitted. Where the State owns everything, how can private individuals own the press? If the Government owns the press how can one criticise the Government? . . . I am opposed to putting the entire economic life of a national community into the hands of property-owners and bankers who must use their wealth primarily to earn profits for themselves. But I am no less opposed to giving the whole job to Governments. Society, today, needs an economy of checks and balances, one in which the State can check private capital, in which private capital can balance the State, and in which citizens organised as consumers, or as producers, with little or no property, can check and balance both the State and capital.” This prognosis is also confirmed in a piece of writing by Mr. and Mrs. Webb whose sympathy for Soviet Russia is well-known. Speaking of Russia they say: “The suppression of every expression of dissent and the ruthless use of all possible instruments of propaganda are not accidental accompaniments of a centrally directed system; they are essential parts of it.” I personally believe that the material comforts gained in a planned economy are not worth so much sacrifice of personal freedom. If we cannot reconcile planning with liberty and democratic control, planning will lose much of its charms and fascination, inspite of the increase of material wealth that it may bring about. It is not indispensable that planning and totalitarianism should go together, as in Germany and Soviet Russia. On the contrary, the pattern of planned society which we contemplate should give full play to individual liberty and democratic control.

It is, therefore, a system of checks and balances, as described by Louis Fischer, that planners in India should endeavour to bring about. It is neither free enterprise nor state ownership but a judicious combination of both which should be aimed at. India should be looking forward to a mixed type of society where free enterprise will be encouraged over a large segment of the economy, but where, also, there will be a broad field for state ownership and control. If we can make state enterprise and free

enterprise both serve the national interest and "pull the national wagon side by side", much of the bitterness and acrimony of controversy regarding questions of distribution or the *role* of the state and, what is more, even the complexity of many practical problems will be minimised to an almost incredible extent. But how, one may ask, will this be achieved in our plan? I shall try to hold before you, as briefly as possible, a picture of the planned society which it should be our aim to build up.

Our aim and object in economic planning is, as I have said, to establish a certain minimum standard of living—a sort of financial plimsoll line below which no individual should be allowed to sink. This should be achieved by bringing a certain money income within the reach of all. This money income will have to be earned through the processes of production. The developments envisaged in the various spheres of our economy—primary, secondary and tertiary, if fully and successfully carried out, would be able to do this by bringing about a high and stable level of employment. This would mean that every able-bodied individual, willing to work, is earning an income through the process of production. But the vital question arising in this connection is: What guarantee is there that the income so earned will be such as will ensure a minimum standard of living to all? In fact, this is not so at present where the incomes for most of the people are much too low. The wages paid to the workers or the prices received by the peasants are never adequate to meet even the bare necessities of life. It will be necessary, therefore, to institute measures for ensuring that the incomes earned are such as would be able to sustain a minimum standard of living. For this two measures would be necessary—the establishment of a national minimum wage for labour, including agricultural labour, and the stabilisation of the prices of agriculture which would continue to engage by far the larger section of our people. Insistence upon the payment of a wage sufficiently high to provide the necessities of a civilised existence would help in preventing the exploitation of labour which is capitalism's chief offence. A corollary of this is price regulation with the double purpose of ensuring a fair margin of profit for the producer and fair prices for the consumer, for if more is to be paid in wages, an appropriate increase in prices, where necessary, will have to be ensured while at the same time profits will have to be restricted to ensure a fair deal to the consumers. In the same way, the

stabilisation of agricultural prices would help to restore a certain minimum price to ryots who, at present, are exploited by middlemen. To enforce these prices it may be necessary to build up adequate buffer stocks to be used for checking violent fluctuations. It is true the application of these two measures, viz., the stabilisation of wages and of agricultural prices over such a vast area is replete with difficulties. But it will have to be done if the exploitation of the workers or the peasants is to be checked.

These measures, while helping to direct the out-turn of the productive efforts of the community into the hands of those who have so far been receiving less than they should, will by themselves, leave untouched the vast and growing field of inequalities which exist at present. No doubt, larger amounts will now go to wages which formerly used to go into dividends or reserves, hidden or otherwise. The peasants also would receive fairer prices for their agricultural products. Nevertheless, adjustments on these points alone would not make such differences as would really create a new society. While figures of income distribution in India are far from complete or perfect, an idea of the enormous disparities may be had from those that are available, meagre and incomplete though they may be. The *per capita* average income itself varies from Rs. 51 in rural areas to Rs. 166 in urban areas. And in urban areas, in 1981-82, one half of the total income was in the hands of less than 10 per cent. of urban people and "even among the comparatively well-to-do class, whose annual incomes exceed Rs. 2,000 a year, 38 per cent. of the number could claim only 17 per cent. of their total income, while a little more than 1 per cent. were in possession of as much as 10 per cent. of their total income." Obviously, such disparities cannot be removed merely by the fixation of minimum wages and prices. Something more would be necessary. A re-distribution of income will have to be brought about by appropriate means. One such obvious method is for the State to take wealth from the pockets of those who have it and then transfer it to others, either by direct payments such as old age pensions, unemployment allowances, increases to wages or by using it for purposes of communal enjoyment or utility such as free health and education services, free libraries, parks etc. Such transfers of wealth are usually done by various forms of taxation, including death duties, which are, in fact, nothing but the forced transfer of

property from those who have it to those who have not. Such re-distribution of income would also have the effect of directly helping in the attainment of a state of full employment. For, when income is shifted from higher to lower income earners, total consumption and, therefore, effective demand is increased. If, for instance, the income tax on the rich is increased and at the same time the indirect taxation on necessities is reduced to the same extent, or an equal amount of family allowances is paid, the average propensity to consume will increase thereby. But there is one obvious limitation to this. The complicating factor which is often left out of consideration is the depressing incidence of the rise in income tax upon private investment. Tax on income has to be increased, but, obviously, taxation should not be carried to such heights that private investments and enterprises fall off. Such falling off in private investments and enterprises, far from leading to fuller employment, may be detrimental to it.

Besides, a dead level of economic equality has ceased to have the same appeal as formerly even to extreme leftists. For one thing, experience has shown that it is not practicable. Unless new altruistic traits were to appear in human nature, a completely equal distribution of wealth would most certainly remove a considerable part of the stimulus towards efficiency in production which is provided by the present state of affairs, inequitable though it may be. Even in Soviet Russia today equality is a forlorn cry. Payments are made in that country according to work, not according to needs. The incentives to increased production and efficiency are much the same as in capitalist countries. Hence in India too our aim of economic control, in so far as it affects distribution, should be to secure a national minimum standard of life, and to ensure that income received by individuals above this minimum should, on the whole, be paid according to social economic worth. A corollary to this, so often ignored in arguments, is that individuals should as far as possible have equal opportunities to show their worth as producers. To achieve this it would be necessary to help all members of the community to obtain health, education and training.

The next question arising for consideration is that of ownership, control and management of the means of production. Attempts to improve the distribution of incomes by methods suggested above would have little meaning if the means of pro-

duction are allowed to be utilised by a few for their own benefit. The apparently easy method of establishing a complete and universal system of state ownership is neither sufficiently easy in practice, nor does it always mean a satisfactory solution of the problem. For, it is difficult to resist Mr. James Burnham's contention that, notwithstanding state ownership of the means of production, it is possible for economic power to pass into the hands of a new governing class—the 'managers', which term includes not merely the Managing Directors and administrators of industry, but also the technicians and the trade union leaders. These managers flourish behind the *façade* of state ownership, securing a special degree of control over the instruments of production and receiving preferential treatment in the distribution of their products. In other words, the controls which have to be exercised over the instruments of production, in the modern world, are coming to be of greater importance than property rights over those instruments. Personal ambition no longer centres upon the ownership of wealth as such, but, to an increasing extent, upon the possession of responsibility and power. We can no longer blind ourselves to the very real danger of the vested interests of all classes of managers drawing together in an effort to impose their will upon the community. This is what is supposed to have happened in Soviet Russia in spite of the so-called socialisation of the means of production.

State ownership, therefore, has no magic for me. True, the State may come to own certain industries and enterprises, but every such case has to be decided on its merits rather than from a pre-conceived bias in favour of or against State ownership as such. The broad, general criterion in this respect is not difficult to lay down. It is possible to distinguish three main categories of economic activity, each category corresponding to a varying degree of immediate relationship to the essential welfare of society. Firstly, those which are by their very nature monopolistic and which are so essential to the life and survival of the community that they must be maintained without much regard for their economic character. These include all the resources of which the supply is limited, such as coal, with the kindred organisation of electricity and gas supply, communications etc. The State must control directly and completely these industries by some form of nationalisation. The question of competition is the deciding factor in these cases. As soon as a branch of economic life is becoming mono-

polistic, it should be taken out of private hands. Private profit limited by competition may be defended; private profit from monopoly cannot. The second category comprises those which are not necessarily monopolistic, but in which social interest is direct and immediate, and in which control must appear to a large degree, such as industries which in particular cater to the necessaries of life. In the third category would come all industries not of a sufficiently vital character to come into the first two categories.

The forms of control and intervention regarding these three categories of industries would obviously differ. In the case of the first viz., essential monopolies, control is bound to be of the most direct kind. Some form of nationalisation will have to be brought about. This, of course, does not mean that a uniform system will be applied to all nationalised services, particularly if municipal control be admitted as equivalent to nationalisation for commodities of local rather than country-wide interest, such as gas and tram cars.

As regards the second category of industries which may be described as not necessarily monopolistic but in which social interest is direct and immediate, the state without going to the length of ownership should enforce some control on the following lines, viz.—fixation of prices, limitation of dividends, guarantee of quality and supply, prescription of conditions of work and wages for labour, nomination of government directors on the board of management, licensing and 'efficiency auditing'. Regarding the third type of industries, not of a sufficiently vital character to come into the first two categories, the State need only interfere in varying degrees to secure certain conditions of labour, to protect the consumer against extortion and fraud and to ensure that no capital and labour are diverted thereto which are really needed elsewhere. On the whole, in this matter I am generally in agreement with the lines indicated in the Second Report of the Reconstruction Committee of the Viceroy's Council in regard to state activity in relation to industries. There are certain industries which in the national interests the state must both own and manage; there are others which the state may own but which it may be more economical and more efficient to manage by a private corporation, and there are others which will be privately owned but which the state will control in various ways as I have just indicated. As regards agriculture I need not repeat here the kind of relationship which the State

should establish. Nationalisation of land is what I have suggested, which in practice would mean peasant proprietorship. Land is at once the most essential and the most severely restricted of economic resources; and its use and possession, if necessary, must be controlled by the State, if the community is to live.

In winding up this lecture on State control I would like to point out that social philosophy or ideology of any kind has its attractions for men academically or philosophically inclined. That for over half a century since the advent of the modern machine age, discussions on economic progress should move along the sterile channels of ideological partisanship is, to my mind, one of the gravest tragedies of human history. Perhaps, it could not have been otherwise. But to-day the experience of mankind has provided sufficient material to convince all men of reason and good will that human societies can progress only to the extent they can break the fetters which the ideas of encrusted partisanship clap on men's minds. We in India should find it easier than most others to shake off this bondage. We have before us a clear task, about the nature of which the appalling conditions of life of the masses leave no room for doubt. Equally, there can be no doubt about the resources we have at our command. Given a certain amount of honesty and sincerity and progressive outlook in the desire to raise the life of the common man to a decent level, the ends should, to a large extent, determine the means. The differences, where they arise, should be more akin to the differences of opinion between expert engineers on the most suitable kind of bridge in a given position than the differences among political parties. The virtue of planning, as distinct from particular social ideologies, is that it will tend to take up differences of opinion to the level of technical experts rather than to push them down to the depths of political partisanship.

X

HINDRANCES TO PLANNING

To plan for assuring a decent minimum standard of living to 400 million people, the vast majority of whom are ill-fed, ill-clothed, ill-housed and illiterate, is a task of immense magnitude, which must naturally present exceptional difficulties. To remove them, bold and vigorous actions taken simultaneously and with determination are called for. But it is necessary to have first an idea of the difficulties and obstacles that face us. Accordingly it is my desire here to deal with the major obstacles and difficulties in a broad and general manner. For it is possible to define the broad outlines of an economic policy for the planned development of the country, but certain major premises must be granted if the plan is to be efficiently executed and the desired results are to be obtained.

Of the major bottlenecks and obstacles that face us, the political factor is the biggest and most important. I have already said in the course of these lectures that only a national government can be expected to tackle successfully the manifold and complex problems of planning and its execution. The sacrifices that would be demanded of the people, the surrender of privileges that will be necessary in many cases, the discipline and control to which people must be subjected in a *regime* of planned economy and the enthusiastic support which must be lent to the planning authorities—all these are obviously unattainable without a Government which is truly national. This government must be free from interference by any outside source or power both in the political and economic spheres. The bitterness and acrimony that are invariably created by an alien government stand in the way of successful execution of a plan, with the willing co-operation of the people. No plan, however skilfully designed, will succeed unless there is a commonness between the government and the governed. The conditions that actually obtain under the present constitution are, however, far from what is desirable or necessary. The entire set-up of the present constitution and the atmosphere generated by it are such that they preclude any bold or imaginative actions being taken in furtherance of any plan of

economic development. The powers which have been granted under the constitution, inspite of their apparent plentitude and range, are, in practice, reduced to nullity by the checks and balances of the constitution, and the over-riding authority of the Viceroy and many of his officials who are pre-occupied more with their loyalty to the appointing authority than to the people of the country. Neither in the political nor in the economic field do Indians possess freedom of action. Our political servitude is evidenced on the one hand by the subservience of the Government of India not to the Indian Assembly but to the British Parliament through His Majesty's Government, and on the other, by the continued incarceration of the national leaders by the present government of the country. Our economic servitude is borne out by the fact that in many matters of vital economic concern, such as currency, exchange and commercial policy, Indians do not have much real voice. In fact, since policy in these matters rests only nominally on the present Government of India, while the main strings are pulled by H.M.G. in London, the policy is more often than not framed to further British interests, even if the consequences thereof should be detrimental to Indian interests. Even in internal matters, India has hardly any freedom of action. Finance, which is the key-stone of any economic policy, is well safeguard against popular control. Nearly 80% of the Federal Revenues are beyond the vote of the Legislature. No policy of bold economic planning can be undertaken since the Governor-General is advised in his Instrument of Instructions to follow a very orthodox and conservative financial policy. A subject of very great importance in this context—and one which has been exercising the public mind—relates to the special safeguards which have been provided under the constitution to British business and trading enterprises operating in this country. Thus, British companies cannot be subjected to any discrimination and handicap in this country. They can establish in India any industry or business they may want to. A company incorporated in Great Britain is considered to have complied with the provision of any federal or provincial law under the Constitution Act. Further, any grant of bounty or subsidy that may be offered for the encouragement of Indian trade or industry will automatically be payable to British companies operating in this country. Again, full protection has been given to British shipping interests which cannot be subjected to any discriminatory treatment in the interests of Indian

nationals. These conditions, it will be readily realised, will have very unfavourable repercussions on a plan conceived to promote national aspirations and interests. I may mention that this matter was recently brought up, apart from the larger political problem, before the Assembly. The motion before the Assembly initiated by Mr. Manu Subedar called for the deletion of the relevant clauses from the Government of India Act, 1935; and Sir Ardeshir Dalal, speaking for the Government, expressed sympathy with the object of the motion and declared that Government were taking up this question with the Secretary of State.

An equally important problem requiring solution for bold execution of the plan is the relation between the Central and Provincial Governments. A scheme of planned development postulates large powers of initiative and control in economic matters in the hands of the Central Government. In the actual formulation and execution of the Plan, Provinces and States have no doubt a part to play. But their *role* must conform to the pattern set by the Central Government after consideration of all relevant factors. If, on the contrary, Provinces and States were to enjoy the fullest autonomy and be free to plan or not plan according to their wishes or pursue any economic policy they may like, the result would be haphazard development, internecine rivalries and working at cross purposes, resulting in waste of effort and money. No national plan could be carried through with a measure of success under such conditions. It is essential, therefore, that the Central Government should be vested with ultimate powers of directions, initiation and control.

It should, however, be underlined that even when India will have a national Government of her own, it will be necessary for this government to be fully efficient and imbued with a missionary spirit and zeal for the purpose of executing a plan of such vast magnitude. This government must be sustained by the highest idealism and appreciate that a sacred task has been entrusted to it, to which it must address itself with the sole determination of subserving national, not communal or sectional interests.

The next difficulty is in respect of technical personnel, which has an important bearing on the successful execution of a national plan. In India our resources in man-power are large, but the problems that confront us are firstly, the quality of our labour force which I have already dealt with, and secondly, an

inadequate supply of technicians. As a matter of fact, it has been suggested that not finance, but the problem of technical personnel, may constitute the real bottleneck in the execution of a plan for the economic development of this country. We would require an army of intelligent workers and administrators and technically qualified personnel for the implementation of our plan. Apart from ordinary as well as higher grade skilled labour used directly in industrial field, there would be need for trained staff in other fields as well. To carry out an ambitious house-building programme, for example, we would require a large army of architects, engineers and town and country planners whose supply is limited. It is obvious that under present conditions, it will be impossible to create this army of technicians as quickly as we would like to. It may, therefore, be necessary for us to import foreign experts in the beginning of the plan. Efforts of the Government of India to increase our technical cadre and to send abroad youngmen for higher training in technology, as also the setting up of a committee for evolving a scheme for the establishment of a high grade school of technology in India, are all moves in the right direction. But when our deficiency in every walk of life is remembered, it becomes evident that very much more requires to be done if we want successfully to launch a plan of the magnitude we desire.

In this connection I would like to point out that a re-organisation of our existing civil service, in order to make it more suitable to the task of planning, is called for. To-day our administrative machinery serves but a limited purpose. Historically, it grew up out of the ruling power's need to collect revenue and maintain law and order. Even now these are the main duties with which the civil service is entrusted. As experience has shown again and again, particularly during this war, the present civil service is thoroughly unsuitable in times of economic crisis and emergency. It will be necessary, therefore, to re-organise this service and bring into birth a kind of Economic Civil Service, informed by a higher social purpose and competent to deal with questions of development with understanding, energy and enthusiasm. While making efforts in this direction, attention should be given to a new branch of education which is rapidly developing in other countries. This is education in planning itself. In the U.S.A. education in planning is a separate subject of study with separate curriculum, teaching and examination. Similar attempts should be made in our country and a basic

planning course devised as a compulsory paper in specialist courses like those of engineers, economists, politicians, architects, town planners and so forth. A more elaborate type of education will be necessary for the planners themselves—men who will be thoroughly versed in all the intricacies of planning and will be able to envision the broad aims of a planning programme.

Another difficulty with regard to planning, but of a different category, is the absence of adequate statistical information. The formulation and the executing of a plan will require more detailed data in respect of various matters. For instance, one of the serious difficulties in planning for industrial expansion has been the absence of relevant statistics. Though the census operations are outside the scope of an industrial programme, their results are nevertheless the basic raw material of any plan. There is hardly any special advantage in counting every head at a certain fixed date every ten years or so. The census should be a continuous process under a Census Department, staffed by specialists. A complete enumeration is not necessary. The results of random sampling, correctly carried out, are quite reliable. A well organised scientific Department would be in a position to keep a continuous record of the nation's development and would produce most valuable data on standards of living of various classes and regions, employment and production and so on. The whole economy at present is lacking in a dependable basis of statistical data, so that whenever we want to do anything in any field we have to proceed in a vague way without being armed with the necessary knowledge of facts. It is urgent, therefore, that provisions should be made for gathering statistical materials by elaborate and permanent survey work covering all fields of the economy—whether geology, dietary standards, census of production or any other thing. This will enable us to know our deficiencies and requirements in each of these fields, by remembering which we would be able to draw up and execute the plans efficiently. In order that the statistical materials may be dependable the latest and most scientific method should be applied in their compilation. This point has to be emphasised because many of the statistics collected in our country are not quite reliable.

Social factors, although their bearing on a plan is often overlooked, are nevertheless of a far-reaching importance. Although they may be considered non-economic in their character, yet

their influence upon economic activities is often profound. Our social customs, conventions and superstitions may constitute a serious impediment to economic progress. They may exert a very unfavourable influence upon such problems as mobility of labour and occupational planning. Our social structure still continues to be mediæval in certain respects and would resist any large changes that are implicit in a national economic plan. A social revolution, therefore, is necessary in order to make the psychological and mental atmosphere favourable to planning. This is to be brought about largely by educating our masses and thereby bringing to them light and reason where darkness and superstition now very often prevail. Finally, it must be emphasised that since planning embraces the whole nation, a very large measure of agreement on the policy to be pursued for accelerating India's economic well-being should obtain among the people of the country. To-day various sections and classes in society, like labour, capital, religious communities, etc., think only in terms of their own particular interests, irrespective of consequences on the whole country. National Planning, however, postulates that the national interest should be placed in the forefront and to which all sectional or partisan interests must be subordinated because the incidence of economic well-being under the plan is far-reaching and it benefits the nation as a whole. The mutual suspicions and recriminations that often embitter the relations between communities and classes in the Indian body politic to-day do not provide an atmosphere which is conducive to planning. But there are no administrative measures which by themselves can remove these suspicions and bring about a more healthy atmosphere. That is and must remain the responsibility of all those whose position in society, whatever social circle they may belong to, gives them some tinge of social leadership. Politics in this country has till now been a matter of a hopelessly unequal fight between the British Government and the Indian Nationalists at one end, and, at the other, a set of cliquish scramble for the miserably low share of the loaves and fishes of office, which the Government were prepared to set apart for Indians. The outlook of the average politician outside the circle of genuine nationalists is narrowed by these severely limited opportunities of development. Planning which is certain to offer great, almost unlimited, scope for such opportunities should help to widen that outlook. If it is not recognised that a comprehensive plan will help to create a new India

in which there will be room for all, then the old suspicion will continue to make all progress impossible. The time has come when all parties and classes should recognise that it is no longer a question of give and take on a small scale, but on the other hand it is now possible to create a plentitude of material wealth in which the old sectional quarrels would be patently absurd. The impact of planning on politics must be such as to lift politics to the high plane of national good. Let us hope that the parties and classes will be responsive to the new call.

XI

CONCLUSION

Now I have come to the end of this series of lectures. I confess it has not been easy for me to determine the form and content of these lectures. Economic development is a wide enough subject. And to qualify it by the term 'planned' is to include within its scope a wide range of theoretical and practical issues. I have carefully eschewed, primarily and of necessity, all questions which are either too theoretical or too practical. I was concerned to show in the first place that the modern love of planned economy is really the re-assertion of the commonsense of mankind and the insistence that practical tasks should be tackled in a severely practical spirit and that the prejudices and pre-occupations which are born of economic theory or social ideology should be scrupulously dropped. On this basis, we in India have to tackle the problem of raising the standard of living in a country in which Sir William Beveridge's five giants are even more gigantic than the graphic imagination could conjure. We have to attack, wear down and finally put an end to these five giants. In these lectures I have dealt mainly with the initial campaign of this warfare. I have been concerned more to show how these giants can be made less formidable than they seem and in a way overpowered. I have not dealt with the ways of their final extinction. I believe that a sound start calls for more careful preparation and more imaginative planning than the subsequent advance. Our agriculture—every factor in which is primitive and old, has to be rejuvenated, made fit to bear the burden of the immense superstructure that we propose to build on it. Likewise, our industry which is now more or less a sickly plant leading a precarious life on uncongenial soil and climate, has to be acclimatized. Our financial system, which has gone on in lofty indifference to the vital needs of the country has to be shaped to our requirements. In all these spheres, happily, the recent past has not been without more than one favourable development. It is idle to speculate on whether, without the war and the changes it has wrought, the tasks of economic planning would have been lighter or heavier. But it were well to retain the

faith that a sovereign Demiurgus had designed the war as a lever of unparalleled power to lift this country out of its age-old inertia. History has brought us face to face with our tasks in a manner unknown to other countries. We are yet innocent of the bloody revolutions which in some countries have been the chief instrument of progress of any kind. But we are guilty, in an even more unique manner, of dissensions which are utterly without meaning or purpose. It is our experience that these dissensions grow, rather than diminish, when dealt with on the political plane.

I have endeavoured to show the main lines which planning in India may take, if all classes of people and all sections of people will focus their eyes on the tasks ahead, instead of letting their minds hark back to old feuds and dead controversies. Let us recognise that to the all-absorbing question as to what the State shall do and what it should not, there is no simple answer. But man is the measure of all. And if we only hold fast to the yardstick of individual happiness and remember, too, that every man is an individual human personality regardless of the class or creed he may belong to, we shall retain a sense of values, a sense of proportion, a capacity to work and a will to achieve, on which, after all, genuine human progress really depends.

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