PROBLEMS IN THE THIRD PLAN

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A Critical Miscellany

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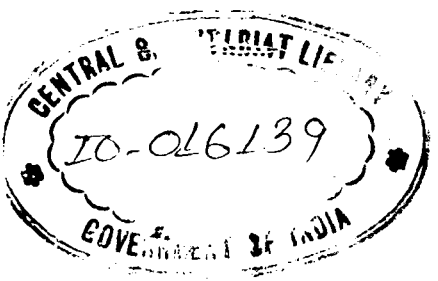

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INTRODUCTION

An essential feature of planning in India is its democratic character. While experts have necessarily an important part to play in the formulation of our Plans, a democratic plan cannot be merely an exercise by experts. The people have to take an active part both in the formulation and in the implementation of the Plan. This is the essence of democratic planning, and in so far as it gives everyone a sense of participation, it helps to make our Plan a people's plan in the truest sense of the term.

The Draft Outline of the Third Five Year Plan has been published several months ahead of the publication of the Final Plan primarily with a view to giving the people, experts and laymen alike, an opportunity to examine it carefully and give the Planning Commission the benefit of their constructive suggestions. It is a heartening feature that the people are taking very keen interest all over the country in discussing the various issues raised in the Draft Outline.

The 'Yojana' took an early opportunity to organise a Symposium on the Draft Outline. Well-known public men, administrators and economists have contributed valuable articles on different aspects of the Plan and have given their constructive criticisms. It was felt that these articles have a permanent value and deserve to be made available to a larger circle of readers than the patrons of the 'Yojana'. These articles are, therefore, being published in book form in the hope that it will help further to stimulate interest in the problems of planning and provide useful guide-lines to all those who wish to participate actively in this great national endeavour.

G. L. NANDA

Deputy Chairman
The Planning Commission

"Problems in the Third Plan—A Critical Miscellany" consists mainly of articles reproduced from the Third Plan Special Number brought out by *Yojana* soon after the Draft Outline was released. In order to provide a fuller perspective and enable an objective discussion, the volume also reprints the first and third chapters of the Draft Outline and includes the speeches made by the Prime Minister and the Minister for Planning during the Parliamentary debate on the Draft Outline.

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I

SOCIAL OBJECTIVES IN PLANNING

OVER the past decade, through the Five Year Plans, India has endeavoured to harness natural resources and the energies of the people to the tasks of national development. From the beginning, it has been stressed that the objective of planned development is not only to increase production and attain higher levels of living, but also to secure a social and economic order based on the values of freedom and democracy in which "justice, social, economic and political, shall inform all the institutions of the national life". It is the primary aim of the Plans to provide the basic necessities to all persons within the community and at the same time, to emphasise the place of human values in economic and social development. Long before independence these purposes were expressed through the movement for national freedom and guided the thinking of those who urged the need for planned development.

In December 1954, Parliament declared that the broad objective of economic policy should be to achieve the "socialist pattern of society". Accordingly, the basic criterion in determining social policies and the lines of economic advance should be, not private profit or the interests of a few, but the good of the community as a whole. The existing social and economic institutions have, therefore, to be judged in relation to their role in national development. To the extent they do not fulfil the social purposes in view, they have to be transformed or replaced. In reconstructing social and economic institutions, a large responsibility rests with the State on behalf of the entire community. The State has to plan its own investments and to influence and regulate economic activity within the private sector so as to ensure the co-ordinated development of all the available resources. Through the policies it pursues, it has to safeguard the interests of the weaker sections of the community and enable them as speedily as possible to come up to the level of the rest. A socialist pattern of society has to be based on increased production realised through the use of modern science and technology and on equitable distribution of income and wealth. The problems of production cannot be viewed in isolation from wider social considerations, for the manner in which productive activity is organised itself determines to an extent the relative distribution of incomes and the benefits reaching different sections of the community. Programmes of investment under public ownership or control, whether these relate to economic and social overheads or to the development of agriculture and industry, are therefore

Chapter I of the Draft Outline of the Third Five Year Plan

of crucial significance not only for their direct effects, but also in determining the directions of future economic and social advance.

These considerations follow from the Directive Principles in the Constitution and were broadly embodied in the First Plan which stated that the main objective of planning was to create conditions in which living standards are reasonably high and all citizens, men and women, are given full and equal opportunity for growth and service. The Plan, therefore, sought to provide for a balanced emphasis on increase in production and employment and the attainment of economic equality and social justice. The Second Plan also stressed that the pattern of development and the lines along which economic activity is directed should be related from the start to the basic objectives which the society has in view. In particular, the benefits of economic development should accrue more to the relatively less privileged classes of society, and there should be a progressive reduction in the concentration of incomes, wealth and economic power.

The socialist pattern of society envisaged in India's plans does not imply that all economic initiative must rest with the State. Indeed, it assigns to private enterprise an important role in national development. This is based on the assumption that the private sector accepts the broad discipline and values implied in the national plan and will function in unison with the public sector. In thinking of the private sector, it is necessary to take into consideration not only the large organised units but also—and principally—the millions of farmers, artisans, traders and small industrialists who constitute the bulk of the private sector. In any objective assessment private enterprise should not be equated with large units in industry and trade although, for technological and other reasons, such units have considerable significance in the development of the economy. The socialist pattern places special emphasis on the needs of the small producers and envisages a rapidly growing co-operative sector, in particular, in respect of agriculture, medium and small scale industry, trade and distribution and many fields of social services. Co-operative organisations have the merit of combining the advantages of individual initiative and small-scale pattern with those of large-scale management and organisation and are a vital factor both for social stability and for economic growth. Along with the public sector and a private sector informed by a sense of social purpose, they constitute the foundation for the co-operative commonwealth. All enterprise, whether Government or private has to meet the test of public interest in terms of the basic economic and social goals which the country has accepted. The public sector has a leading role in the development of the economy and is expected to grow both absolutely and relatively to the organised private sector.

In the short run, there may sometimes be a conflict between the economic and social objectives of developmental planning. The claims of economic and social equality and those of increased employment may have to be reconciled with the requirements of production. Experience of the working of the first two Plans suggests that on the whole the most satisfactory results are likely to be achieved by a balanced advance in all these

directions. What constitutes a balance will vary according to the needs and circumstances of the economy but, given the acceptance on the part of the community of the essential values or ends to be pursued, the processes of democracy and freedom of choice should be capable of throwing up the optimum to be aimed at in a given context.

The Directive Principles of State Policy in the Constitution have placed before the country the objectives of securing adequate means of livelihood and the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement and in other cases of undeserved want. They have also affirmed that for realising these goals, the ownership and control of the material resources of the country should be so distributed as best to subserve the common good and that the operation of the economic system should not result in the concentration of wealth and economic power in the hands of a few. The successive Five Year Plans which the country undertakes have to keep in view these basic considerations.

II

FACTORS IN LONG-TERM DEVELOPMENT

Among the aspects of retarded development to which planning has to address itself are low levels of productivity, income and living, the high proportion of the population engaged in agriculture and the existence of large-scale under-employment, the dependence on more advanced countries for equipment and technical knowledge, and inadequate rate of economic growth. These are deeply rooted economic and social problems which call for a long-range strategy for development. For a nation to lift itself from a state of poverty and enter upon the process of dynamic growth is a task that calls for a long and sustained effort. It was for this reason that in the First Plan the problem of development was visualised over a period of 25 or 30 years and the immediate five-year period was considered in this broader context.

Although for certain purposes it is convenient to divide the process of development into shorter spans, in reality it forms one continuous whole in which the priorities and objectives for each period are linked with a larger perspective. Thus, both the First and the Second Plans were conceived as stages in the long-term social and economic development of the country. The First Plan presented a picture of economic growth over the 30 years between 1950-51 and 1980-81. On certain assumptions concerning the rate of growth of population, the proportion of the increase of national income which could be ploughed back into investment at each stage of development, and the return by way of additional output on the investment undertaken, it was envisaged that the level of national income in 1950-51 could be doubled by 1971-72 and that of per capita income by 1977-78. In the light of the experience gained during the First Plan, the earlier projections and assumptions were reviewed in the Second Plan, which suggested that in relation to 1950-51 the doubling of the national

income might be achieved by 1967-68 and of per capita income by 1973-74. Another important objective to be achieved by the end of the Fifth Plan in 1975-76 was the reduction of the proportion of the population dependent on agriculture from the present level of about 70 per cent to about 60 per cent.

The realisation of the targets envisaged in the Second Plan projections will depend on two sets of factors—firstly, the rate at which population grows and, secondly, the scale, pattern and intensity of the effort made in each of the next three Plan periods. In respect of population, there has been already a significant change since the publication of the Second Plan. A number of estimates of the likely growth of population which have been worked out on different assumptions suggest that the population is likely to increase during the next 15 years at a rate much in excess of that indicated in the Second Plan. The following table sets out the estimates of population growth prepared by the Central Statistical Organisation which have been accepted provisionally as a working basis for the preparation of the Third Plan along with those given in the report on the Second Plan:

	(in millions)					
	1951	1956	1961	1966	1971	1976
Second Plan estimates	362	384	408	434	465	500
C.S.O. estimates	362	391	431	480	528	568

The projections of the Central Statistical Organisation, which are necessarily very tentative, are based on the following view of trends of birth, death and growth rates:

	(per 1,000 per annum)				
	1951-56	1956-61	1961-66	1966-71	1971-76
Birth rate	41·7	40·7	39·6	32·9	27·3
Death rate	25·9	21·6	18·2	13·9	12·6
Growth rate	15·8	19·1	21·4	19·0	14·7

On these estimates, over the period 1951—76, the total increase in population may be of the order of 206 million as against 138 million assumed in the Second Plan. Corresponding to the growth of population, it is estimated that the labour force, which stood at 141 million in 1951, will increase to about 222 million by 1976. The increase in the labour force over the 15 years 1961—76 may be of the order of 60 million; of these more than two-thirds will need to be absorbed outside agriculture.

In an economy with low levels of income and consumption, high rates of population growth severely limit the pace of economic development. They increase the requirements of consumption and the difficulty of finding productive employment for the growing labour force. If the long-term aims concerning per capita income and the reduction in the proportion of population dependent on agriculture are to be realised, the effort by way of capital accumulation has to be substantially increased. The projections regarding birth rate trends set out above certainly assume widespread changes in attitudes and a high degree of success in the spread of family planning practices. The objective of stabilising the population

has certainly to be regarded as an essential element in a strategy of development.

PATTERN AND PRIORITIES OF DEVELOPMENT

The projections in the Second Plan assumed that national income would increase at over 5 per cent per annum during the next three Plan periods. The principal economic objective of long-term development is to secure a progressive rise in the level of consumption per head. This rise in consumption can only be achieved through a large and continuous increase in production. In other words, development has to be so planned and organised that the economy expands rapidly and becomes self-reliant and self-generating within the shortest period possible. For achieving this aim, the following are the essential conditions :

(*a*) *Rate of Investment :* As was stressed in the Second Plan, the rate of investment as a proportion of the national income must be stepped up progressively. This may be illustrated from the projections in the Second Plan which envisaged increase in the rate of investment from about 7 per cent of the national income by the end of the First Plan to about 11 per cent by the end of the Second Plan, about 14 per cent by the end of the Third Plan, and 16 and 17 per cent respectively by the end of the Fourth and Fifth Plans.

(*b*) *Basic and Heavy Industries :* Basic industries, such as steel, fuel and power and machine-building, have to be established on a large enough scale as a major condition of rapid economic development. Without this condition being fulfilled the requirement of further industrialisation will not be met in adequate measure from the country's own resources, and self-sustained growth cannot be achieved. This approach has far-reaching implications specially for a country like India, which has a large population and rich resources, but also a great deal of leeway to make up over a relatively short period.

(*c*) *Agriculture :* In those sectors of development in which a large measure of progress can be achieved through the fuller exploitation of the resources available within the economy, the maximum rate of development physically possible should be secured. Thus, the development of agriculture, based on the utilisation of manpower resources of the countryside and the maximum use of local resources, holds a key to the rapid economic development of the country. In the present stage of development, production of sufficient foodgrains has the highest urgency. Once the capacity to produce has been created, within a comparatively short period it can be adapted to meet the changing needs of the community. Over a period, the aims to be achieved are the development of a diversified and intensive system of agriculture, including animal husbandry, dairying, production of meat, fish, poultry, etc.; provision of a balanced and adequate diet to the entire population; and the development of commercial crops both to meet the increasing requirements of industry and of exports.

Development of agriculture calls for extension of irrigation on a large scale as well as for increased production of chemical fertilisers.

In any long-term view, the prospects of agricultural development are intimately connected with the success achieved in

(i) bringing about technological changes, specially the adoption of scientific agricultural practices and improved implements and other equipment;

(ii) fuller utilisation of manpower resources in rural areas and the organisation of maximum local efforts; and

(iii) reorganisation of the rural economy along co-operative lines, including the provision of services, credit, marketing, processing and distribution, co-operation in production and diversification of the occupational structure.

Through the community development movement and the development of co-operatives, these goals are being pursued; the effort has to be further intensified.

(*d*) *Social Services and Equality of Opportunity:* An essential aspect of long-term planning is that effective and speedy means should be devised to raise the level of productivity for the nation as a whole. It is only thus that the general level of well-being can be effectively raised. At the base of this entire effort are the various programmes of development for building up the country's human resources, specially education and health, and programmes for raising the levels of skills and technical and scientific knowledge and for scientific and technological research. With this in view, it has been proposed that free and compulsory education will be provided for all children in the age group 6—11 years during the period of the Third Plan. The next step will be to provide for universal education up to the age of 14 years, a goal to be fulfilled during the Fourth and Fifth Plans.

Reference may also be made here to the programme for providing minimum amenities in the course of the Third Plan. These include supply of drinking water, approach roads and the village school building which may serve as a community centre and provide facilities for the village library, and roads linking each village to the nearest main road or railway station. Through these and other development programmes, undertaken with the support and participation of the people, the Plan seeks to provide basic necessities to all citizens, more especially food, supply of drinking water, clothing, elementary education, health and sanitation, housing and, progressively also, work for all.

Investment Requirements of the Economy : Estimates concerning future investments are necessarily subject to a number of assumptions regarding the proportion of the current income of the community which may be devoted to capital formation, the return by way of additional output on the investment which is undertaken, the extent of external assistance available and other relevant factors. Preliminary studies undertaken in the Planning Commission suggest broadly that if national income

is to increase from about Rs. 13,000 crore in 1960-61 (at 1958-59 prices) to about Rs. 17,000 crore in 1965-66, net investment of the order of Rs. 10,000 crore has to be undertaken during the Third Plan. This may be compared with a total investment of Rs. 3,360 crore in the First Plan and of Rs. 6,750 crore in the Second. Further, to raise the national income to about Rs. 22,000 crore by the end of the Fourth Plan and to about Rs. 30,000 crore by the end of the Fifth Plan, it will be necessary to provide for a net investment of the order of Rs. 15,000 to Rs. 16,000 crore in the Fourth and Rs. 21,000 to Rs. 22,000 crore in the Fifth Plan.

Significance of External Resources : For growth in national income to be realised in a sustained and continuous manner, an essential requirement is that investment should become progressively larger in relation to the national income. A substantial part of the investment will require mainly domestic resources, but in the short period the lack of foreign exchange resources restricts the rate at which the potential resources of the country can be turned into productive wealth and outputs of capital goods and intermediate goods expanded rapidly enough to reduce the dependence on external resources. This deficiency is inherent in the character of the economy as it has functioned thus far. While possibilities of increasing foreign exchange earnings from the traditional exports have to be developed to the greatest extent possible, it is nevertheless true that the first impact of the effort to develop the basic and heavy industries and machine-building capacity is to accentuate the balance of payments problem. The problem of replacing imports is essentially one of developing the necessary capacity for production within the country. A developing economy which for its part endeavours to mobilise its own resources is faced with the dilemma that a large increase may occur in the import requirements for specialised capital equipment, metals, machinery etc., for which it may not be able to pay for a period from its own export earnings. The need for external resources is implicit in this situation. Such assistance has already done a great deal to hasten India's economic growth and its value can scarcely be over-estimated. It is a basic objective in the strategy of development to create the conditions in which the dependence on external assistance will disappear as early as may be possible. To this end, the highest priority is to be given to industries which are vital to export-earning and import-saving. There has to be special emphasis on policies and measures which will help in securing the surpluses needed from internal production and making them available for export at competitive prices. These aspects of export promotion are of the greatest significance for enabling the Indian economy in the course of the next two Plans to secure its further advance on the strength of its own resources.

Research and Surveys : Large advances in science and technology which are taking place continuously demand that programmes of development in industry and allied fields should be kept under constant review. It is essential to exploit new possibilities as they arise, for instance, in the field of heavy chemicals, metallurgical industries, development of energy etc. Equally, it is essential to promote more intensive scientific research

on the many problems which confront large and small industries in the country, to speed up the practical application of the results of research and devote greater attention to fundamental research in all fields. Small improvements in productivity which affect the work of millions of persons have enormous significance in terms of overall production and should therefore receive special attention in each phase of development.

Both the First and the Second Plans provided for surveys and investigations of natural resources. Valuable studies have been already undertaken by the Central Water and Power Commission, the Geological Survey of India, the Bureau of Mines, the Oil and Natural Gas Commission, the Indian Council of Agricultural Research, State Governments and other agencies. The stage has been reached when as a necessary condition of well-conceived long-term plans, a comprehensive view must be taken of the extent and quality of the information available, the principal gaps which exist and the further steps needed in relation to specific long-range objectives concerning the development of irrigation, power, steel, coal, oil and minerals and land and forest resources and the conservation of natural resources generally. In the light of such a review, systematic programmes for surveys and investigations have to be drawn up and the organisations concerned strengthened. An appropriate machinery for planning co-ordinated studies of natural resources on a continuing basis and reviewing the results obtained from time to time has now to be devised. This may take the form of a committee of direction composed of the technical heads of the various agencies concerned with which a few leading scientists are associated and which is assisted by a highly trained staff. For this purpose it is hoped to work out details in the near future.

III

APPROACH TO THE THIRD PLAN

In defining the objectives, priorities and targets for the Third Plan, the determining considerations are the social objectives described above the requirements of the economy during the Plan period, the perspective of long-term development to which the Plan has to be related, and the actual progress achieved during the first two Plans. Over the period of the First and the Second Plan, national income is expected to increase by about 42 per cent. The Third Plan aims at securing an increase of over 5 per cent per annum in national income, so that over the 15 years, 1951—66, the total increase in national income will be of the order of 80 per cent. To achieve this, it will be necessary to step up investment from about 11 per cent of the national income at the end of the Second Plan to about 14 per cent by the end of the Third Plan.

A principal aim of the Third Plan is to secure a marked advance towards self-sustaining growth. Basically, self-sustaining growth implies that savings and investment in the economy rise sufficiently to secure a high rate of growth of income on a continuing basis. An important aspect of this problem is that of creating within the country the capacity—

including the development of the designing and operational skills required—to produce the capital goods and equipment necessary to support the scale of investments proposed. As already explained, it is difficult for an under-developed economy to create within a short space of time sufficient export surplus to enable it to buy all the equipment it needs. The fullest effort has to be made for increasing export earnings; this is vital in balancing the external account. Nevertheless, a substantial part of the improvement in the balance of payments has to be sought through increased domestic production of capital goods and equipment in substitution for imports. In determining the scale and pattern of investment in the Third Plan, this objective of securing viability on external account within a period of 10 years or so is therefore being given high priority.

The Third Plan will have a large foreign exchange component, and this will have to be financed almost entirely from external sources. From now on, the pattern of investment has to be so chosen that, within the shortest period feasible, there should be no need to rely on special assistance, the inflow of capital from abroad being determined by normal conditions governing international capital movements. This implies, firstly, that the country will endeavour to produce the necessary output of machinery and equipment and, secondly, that it will produce food and raw materials required to sustain the tempo of development. Self-sustaining growth can only be achieved by balanced development both in agriculture and in industry. Incomes and employment cannot rise sufficiently without industrialisation. On the other hand, an industrial revolution cannot be achieved without a radical improvement in agricultural productivity. The Third Plan calls for effort both to enlarge the capital base and to raise the output of food and raw materials. Advance towards self-sustaining growth has thus several aspects: savings have to grow progressively to meet the demands of investment; basic and capital goods industries have to be developed rapidly; the balance of payments gap has to be bridged over. The foundation of this advance is, as emphasised earlier, an efficient and progressive agriculture.

Taking into account the experience of the first two Plans and the considerations outlined above, the Third Plan is being formulated with the following aims:

(i) to secure during the Third Plan a rise in national income of over 5 per cent per annum, the pattern of investment being designed also to sustain this rate of growth during subsequent Plan periods;

(ii) to achieve self-sufficiency in foodgrains, and increase agricultural production to meet the requirements of industry and exports;

(iii) to expand basic industries like steel, fuel and power and establishing machine-building capacity, so that the requirements of further industrialisation can be met within a period of 10 years or so mainly from the country's own resources;

(iv) to utilise to the fullest extent possible the manpower resources of the country and to ensure a substantial expansion in employment opportunities; and

(v) to bring about a reduction of inequalities in income and wealth and a more even distribution of economic power.

It should be stressed that the Third Plan represents an important phase in the development of the country's economy. In the course of the first two Plans, the field organisation and the administrative machinery for agricultural development have been greatly strengthened. The development of the steel industry and of mining, power and transport provides the nucleus for more rapid advance in industrialisation. It is vital that the tempo of development that has been attained already is accelerated in the Third Plan and even more in the Fourth. The success that can be achieved in this ten-year period will make a vital difference to the standards of living of the people and the future growth rate of the economy.

REDUCTION IN INEQUALITIES

The aims of the Third Plan in respect of growth in national income, increase in agricultural production, expansion of industry, utilisation of manpower and increase in employment opportunities are described more fully in the appropriate chapters. A few words may be said here regarding the objective of reducing inequalities in income and wealth and securing a more even distribution of economic power.

The problem of reducing disparities in income and wealth is, in part, one of correcting existing inequalities, but its more important aspect is represented by the need to create conditions under which rapid growth can be achieved alongside a marked reduction in economic and social inequalities. In a number of directions measures have been already taken whose total effect in reducing economic and social disparities has been significant. In some of these, a greater advance is anticipated during the Third Plan. Thus, within the rural economy, the progress of land reform has been a major factor in reducing inequalities. Security of tenures and reduction in rents have been largely achieved. In the course of the next two or three years, the legislation relating to ceilings on agricultural holdings will be implemented. The vast body of cultivators will also become owners of land in their own right. The expansion of irrigation, specially in areas which have in the past suffered from scarcity conditions, contributes to the raising of levels of living for some of the poorest sections in the rural community. Programmes relating to the welfare of backward classes—Scheduled Tribes, Scheduled Castes and others—are intended to benefit sections of the population who, in the present conditions, are not able to derive all the benefits due to them from the general plans of development. The extension of elementary education, which will become universal during the Third Plan for the age group 6—11 years, the increase in scholarships and other assistance which is contemplated, the establishment of primary health centres, the provision of drinking

water supply in almost all rural areas, the eradication of diseases like malaria and the extension of welfare activities of voluntary social service organisations, specially for women and children, go a long way to create the preconditions for equality of opportunity within the community. Increasingly, the community development movement is being required to place greater emphasis on measures to raise the levels of living and to provide work opportunities for the less privileged sections. In many rural areas, the provisions made for rural industries and rural electrification will also increase opportunities of productive employment. As these various measures are implemented with wider support and understanding from public opinion, their impact will steadily extend to the great majority of the population. Fiscal measures, undertaken with a view to finding resources needed for rapid development and based on the principle that burdens shall be equitably distributed, will also greatly assist the process of reducing old inequalities and preventing new ones arising from the very process of growth.

Under the Plan there is a considerable role for the private sector in the industrial sphere. This is due in the main to the wide opportunities provided by the expansion of the economy under the impact of successive Five Year Plans. One of the main objectives of policy is that the opportunities which thus arise for private enterprise should be availed of by a large number of comparatively small and middle entrepreneurs and that possible trends towards concentration of economic power should be checked in the early stages. It is true that in the present phase of development well-established firms have certain advantages in organisation and expertise, better access to the capital market and to sources of foreign collaboration and availability of funds on a larger scale from businesses or industries which are within their control or influence. Modern technology also favours large-sized firms or plants in certain directions. From the broader social angle, however, it is essential that there should be a wide diffusion of enterprises in the private sector and new entrants should be encouraged and, at the same time, concentration of economic power and monopolistic tendencies should be countered effectively. The growth of the public sector in various fields, such as power, transport and heavy industries, places the State in a better position to ensure the broad direction of economic activity from the aspect of public interest. In addition, a series of positive measures, including special facilities and assistance need to be taken in support of medium and small enterprises. The Industrial Finance Corporation and other financial and promotional institutions set up by the Government have therefore to make a special effort to assist such enterprises. Licensing policies should be so operated as to facilitate the entry of new firms, promote medium and small enterprises and exercise due vigilance in regard to the expansion of large businesses.

Fiscal measures have also an important role and should be devised so as to reduce inequalities in income and wealth. In ensuring that the objectives set forth above are implemented, there is need for greater co-ordination between various agencies of Government, including those concerned with the administration of company law, licensing of industry,

capital issues and import policy. There are a number of problems in company management, such as inter-corporate investment, interlocking directors and the like, for which legislative measures have been adopted. It would be desirable to assess to what extent these measures are proving effective in practice. Another problem for examination is the working of some of the tax concessions or incentives which are now being given for private investment. These concessions and incentives have a part to play, but their working has to be assessed and related more directly to the fulfilment of the development programmes of various industries in accordance with the Plan. The problems of reducing inequalities in incomes and wealth and preventing concentration of economic power are complex and closely bound up with problems of rapid growth. The aspects to which attention has been drawn above, therefore, call for careful study with a view to evolving policies capable of securing the fulfilment of both the social and the economic objectives of national planning.

PRICE POLICY

Another important aspect of the Third Plan, to which special attention is being given at present, may also be mentioned here, namely, price policy. It is recognised that in the ordinary course the progressive step-up in investment which the Plan envisages is likely to exert an upward pressure on prices. The task of policy is to ensure that prices, especially of essential consumer goods, remain relatively stable despite this pressure.

The course of prices depends upon a variety of factors some operating on aggregate demand and some working through demand and supply of individual commodities. Price policy has therefore to act at a number of points, through fiscal measures, through monetary policy and through direct allocations and controls where necessary. Only a combination of measures in these various fields can ensure economic development with relative stability of prices.

The Plan envisages substantial increase in the production of foodgrains, cloth, sugar, etc. To the extent possible, the needs of essential consumption have been kept in mind while determining the pattern of investment. Nevertheless, imbalances between demand and supply are apt to develop from time to time, and it will be essential to take timely and effective action to correct untoward trends. This is particularly important in regard to foodgrains prices which not only affect adversely the more vulnerable sections of the community but react on the entire price-and-cost structure.

To tide over the period that may elapse before the domestic production of foodgrains comes up fully to the required level, imports will be necessary. The recent P.L. 480 agreement with the United States provides for these imports as well as for imports to build up a sizeable buffer stock of wheat. These supplies will help in steadying prices.

Price policy has, however, several wider aspects. It is necessary for a developing economy to strengthen its internal defences against price rises. While domestic wheat supplies will be supplemented by imports, there

may be a shortage of rice. There may be in any year a partial failure of crops; there may be speculative withholding of stocks. Another problem which has emerged in recent years is that of large regional disparities in prices. Regulation of prices through suitable governmental action, state trading and marketing and distribution through co-operatives, is unavoidable if these situations are to be met adequately. Moreover, price policy for food has to be viewed in relation to the price trends in the rest of the economy, and a reasonable relationship maintained between prices in various sectors. What structure of regulatory devices, including price control, zonal arrangements, prescription of minima and maxima, state trading, etc. will ensure the optimum results needs to be carefully examined. These problems are at present under study by a Committee of the National Development Council.

The Plan envisages increases in taxation. Restraint on consumption through judicious taxation is an essential part of the Plan. The surpluses of public enterprises will also have to be maximised—in suitable cases through adjustments in prices. In this context, it is particularly important to avert adventitious or haphazard rises in prices. Price policy as well as the techniques of price regulation raise complex issues. They involve a balancing of several conflicting claims. Prices, incomes and costs are closely interrelated. It is essential, therefore, to ensure that the regulatory devices adopted function effectively and in a co-ordinated way. There is scope within limits for varying the techniques that might be used for securing the right relationship between prices, but Government must be in a position to exercise control effectively at all strategic points, should the situation so warrant.

The Third Plan in Outline

THE objectives of the Third Plan and the broad economic considerations which determine its size and pattern of investment have been set out earlier. The object of this chapter is to state briefly the general priorities in the Plan and to present a picture of the distribution of outlays between different sectors of development as well as preliminary assessment of the targets envisaged in the Plan. An attempt is also made to indicate the provisional distribution of outlays between the Centre and the States. The targets indicated in different fields are provisional, the main intention being to assist further studies at the Centre and in the States. The results of studies concerning projects and programmes and their phasing, which will be completed in the course of the next few months, will be presented in the final report on the Plan.

PRIORITIES

The pattern of investment embodied in a five-year plan reflects the priorities and the relative emphasis in different sectors during the Plan period. In turn, these derive as much from an assessment of the current economic situation and the likely trends as from the analysis of the basic economic and social problems of the country and the long-term goals. A number of considerations have, therefore, to be carefully balanced.

In the scheme of development the first priority necessarily belongs to agriculture. The importance of achieving self-sufficiency in foodgrains and meeting the requirements of industry and exports is one of the major aims of the Third Plan. Agricultural production has to be increased to the highest levels feasible, so that the incomes and levels of living of the rural population may rise and keep pace with incomes in other sectors. The level of agricultural production is an important determinant of the rate of growth of the economy as a whole. There is also an intimate connection between the expansion of the agricultural economy and the mobilisation of the manpower and other resources of the rural areas. An attempt has, therefore, been made to allocate sufficient resources for the development of agriculture and the rural economy. It is further envisaged that, as the Plan proceeds, if larger resources are needed for assuring more rapid advance within the rural economy, specially through the fuller use of manpower, these will be made available.

The second set of general considerations concerns the priority accorded in the Plan to the related sectors of industry, power and transport. Development in these fields is vital for lifting the economy to a higher level and for its accelerated growth. It is recognised that beyond a stage, the growth of agriculture and the development of human resources alike hinge upon the advance made in industry. At all times agriculture and industry

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Chapter III of the Draft Outline of the Third Five Year Plan

must be regarded as integral parts of the same process of development. Until an economy reaches the stage of self-sustaining growth, industrial development calls for large resources in foreign exchange.

Since large projects involve a considerable measure of waiting before the investments made result in increase in output, it is necessary both to plan ahead for them and to ensure that during each period there is a reasonable proportion between projects of long duration and those whose benefits accrue over shorter period.

Within each field in the sector of industry, power and transport, there is need for careful priorities, so that adjustments can be made readily. Secondly, programmes in these sectors should be worked out in a co-ordinated manner. Connected projects should be implemented as schemes closely related to one another, so that there is satisfactory phasing, and the expenditure incurred on each group of projects yields the maximum return.

In the field of industry, the Plan is being drawn up, in the first place, from the point of view of the needs and priorities of the economy as a whole, the public and the private sectors being considered together. The natural resources available as well as the growing requirements of the country justify greater emphasis on the basic industries, specially steel, machine-building, fuel and power. The capacity of the economy to develop in future from its own resources is largely dependent on the advance achieved in these industries and in agriculture.

Another set of priorities which have been kept in view in the Third Plan relate to social services and allied fields of development. These are essential for ensuring a fair balance between economic and social development. It is realised that in the development of the country's human resources, in evoking widespread public understanding and participation, education and other social services have a significance which cannot be too greatly stressed.

Some of the programmes included in this group are in fact directly linked to economic development, such as scientific research, technical education and the training of craftsmen, and the provision of housing and townships in industrial areas. There are others which are indispensable on larger social considerations, such as the expansion of facilities for education, control of diseases and provision of health and medical services, family planning, and the provision of drinking water in rural and urban areas and of welfare services for the less developed sections of the community. Within the limits of the resources available, these needs have been provided for. In some directions, at any rate, as the Plan proceeds, every effort will be made to secure a larger measure of progress.

Another aspect which has claimed attention in the phasing of outlays under the Third Plan is the need to ensure that the output in different branches of the economy and the levels of savings of the community should increase continuously from year to year. It is also essential that there should be no avoidable lags between the creation of assets and the utilisation. At every point in the economy, whether in the public or in the

private sector, the emphasis must be on obtaining the utmost by way of increased output from the investments which were made in the past and those which will be made during the Third Plan.

DISTRIBUTION OF OUTLAYS AND INVESTMENT

The Plan includes outlays both in the public and the private sector. In the public sector, a distinction is made between investment expenditure and current outlays, the latter representing expenditure of the nature of staff, subsidies, etc. The Third Plan envisages a total investment of Rs. 10,200 crore, of which Rs. 6,200 crore will be in the public sector and Rs. 4,000 crore in the private sector. Including the current outlay estimated at Rs. 1,050 crore, the total outlay in the public sector will be Rs. 7,250 crore. Investment in the private sector also includes a sum of Rs. 200 crore corresponding to transfers from the public sector for capital formation in the private sector. In Table 1 below, outlay and investment in the Third Plan are compared with those in the Second.

TABLE 1 : OUTLAY AND INVESTMENT IN THE SECOND AND THIRD PLAN*

(Rs. crore)

	Public Sector			Private Sector**	Total Investment
	Plan Outlay	Current Outlay	Investment		
Second Plan	4,600	950	3,650	3,100	6,750
Third Plan	7,250	1,050	6,200	4,000	10,200

It will be seen that the Third Plan provides for an increase of about 51 per cent in the total investment, of about 70 per cent and about 58 per cent respectively in the investment and outlay undertaken in the public sector, and about 29 per cent in the private investment.

The following Table shows the distribution of outlay and investment in the Third Plan :

TABLE 2: OUTLAY AND INVESTMENT IN THE THIRD PLAN

(Rs. crore)

Group	Public Sector			Private Sector Investment	Total Investment
	Plan Outlay	Current Outlay	Investment		
1. Agriculture, Minor Irrigation and Community Development	1,025	350	675	800	1,475
2. Major and Medium Irrigation	650	10	640	—	640

*Two expressions in common use may be briefly explained :

(1) *Investment* is expenditure on the creation of physical assets (*e.g.* buildings and plant and equipment), including expenditure on personnel required for putting up these assets. The expression corresponds broadly to expenditure on capital account.

(2) *Current outlay* corresponds broadly to expenditure on revenue account on Plan Schemes; it is expenditure other than that classified as 'investment'.

**These Figures do not include investment financed out of resources transferred from the public sector.

(Rs. crore)

	Public Sector			Private Sector Investment	Total Investment
	Plan Outlay	Current Outlay	Investment		
3. Power	925	—	925	50	975
4. Village & Small Industries	250	90	160	275	435
5. Industry & Minerals ..	1,500	—	1,500	1,000	2,500
6. Transport and Communications	1,450	—	1,450	200	1,650
7. Social Services	1,250	600	650	1,075	1,725
8. Inventories	200	—	200	600	800
9. *Total*	7,250	1,050	6,200	4,000	10,200

The investment in the economy increased over the First Plan from Rs. 500 crore to nearly Rs. 850 crore per annum. By the end of the Second Plan it is expected to reach an annual level of Rs. 1,450 crore to Rs. 1,500 crore. By the end of the Third Plan, the annual investment is likely to be in the range of Rs. 2,500 crore. Investment by public authorities rose from about Rs. 200 crore per annum to about Rs. 450 crore by the end of the First Plan and is likely to rise to about Rs. 800 crore by the end of the Second Plan, the corresponding level expected to be reached at the end of the Third Plan being about Rs. 1,500 crore.

The general pattern of investment in the Second Plan is being continued in the Third, but in the public sector there is greater emphasis on agriculture, industry and power and on certain aspects of social services. The distribution of Plan outlays in different sectors according to the Second and the Third Plan is given in the Table below :

TABLE 3 : DISTRIBUTION OF PLAN OUTLAY IN THE PUBLIC SECTOR

(Rs. crore)

	Outlay		Percentage	
	Second Plan	Third Plan	Second Plan	Third Plan
1. Agriculture and Minor Irrigation ..	320	625	6·9	8·6
2. Community Development & Co-operation	210	400	4·6	5·5
3. Major and Medium Irrigation ..	450	650	9·8	9·0
4. *Total* 1, 2 & 3	980	1,675	21·3	23·1
5. Power	410	925	8·9	12·8
6. Village & Small Industries	180	250	3·9	3·4
7. Industry & Minerals	880	1,500	19·1	20·7
8. Transport & Communications ..	1,290	1,450	28·1	20·0
9. *Total* 5,6,7 & 8	2,760	4,125	60·0	56·9
10. Social Services	860	1,250	18·7	17·2
11. Inventories	—	200	—	2·8
12. *Grand Total*	4,600	7,250	100	100

Investment in the private sector falls broadly into two parts, namely, (a) investment relating to the organised sector of industry, mining, electricity and transport, and (b) investment which is dispersed extensively

over fields like agriculture, village and small industries, rural and urban housing, etc. Data regarding the second category are necessarily very rough, but in recent years more precise information has become available in respect of the organised private sector. Details concerning the distribution of private sector investment under different heads are set out in the chapter on Resources.

OUTLAYS IN THE PUBLIC SECTOR

The allocations proposed at present are necessarily provisional. They are intended to assist the Central and State Governments in undertaking detailed studies of their programmes and projects and in establishing priorities within each sector. In those sectors of the Plan for which responsibility lies mainly in the States, the final allocations will depend on the plans drawn up by State Governments and the relative emphasis which they are able to provide for different programmes, having regard to the competing claims and the financial resources available. In some fields, the targets of the Plan will result from district and block plans, for instance, in respect of agricultural programmes, development of co-operatives, village industries, rural water supply, and works programmes for the full utilisation of manpower resources in rural areas. In the relevant sections in this Outline, attention has been drawn to certain fields in which, in the interest of rapid development, the present targets may have to be stepped up and the allocations relating to them suitably adjusted. Thus, it is envisaged that for approved programmes and targets, under agriculture, village and small industries, primary education, technical education, special works programmes for utilising manpower resources etc., for which additional domestic resources are found to be necessary as a result of examination by States and Ministries, resources needed will be made available. In respect of approved projects for which substantial external finance is required, once the necessary foreign exchange is found, every effort will be made to find the requisite internal resources.

The distribution of outlays between the Centre and the States will be known after the plans of States have been examined in consultation with them. Meanwhile, to assist States in drawing up their plans, the following tentative distribution of outlays has been indicated:

TABLE 4: DISTRIBUTION OF OUTLAY BETWEEN THE CENTRE AND THE STATES

(Rs. crore)

	Total	Centre	States
1. Agriculture, Minor Irrigation and Community Development	1,025	175	850
2. Major and Medium Irrigation	650	5	645
3. Power	925	125	800
4. Village and Small Industries	250	100	150
5. Industries and Minerals	1,500	1,470	30
6. Transport & Communications	1,450	1,225	225
7. Social Services	1,250	300	950
8. Inventories	200	200	—
9. *Total*	7,250	3,600	3,650

This distribution is based on the assumption that as a general principle all development schemes executed by the State Governments will form part of the plans of States and that only certain limited categories of schemes will be shown in the plans of Ministries as being "sponsored" by the Centre. In this way it is hoped to broaden further the scope of the plans of States and thereby to facilitate the integrated working of State programmes.

FOREIGN EXCHANGE

The foreign exchange requirements of investment under different heads of development are shown together for the public and private sectors in the Table below along with the amounts of investment proposed:

TABLE 5 : REQUIREMENT OF FOREIGN EXCHANGE

(Rs. crore)

	Investment	Foreign exchange
1. Industries & Minerals including Small Industries ..	2,935	1,190
2. Power	975	270
3. Transport and Communications	1,650	300
4. Agriculture, Community Development and Irrigation ..	2,115	75
5. Social Services including Construction	1,725	80
6. Inventories	800	—
7. *Total*	10,200	1,915
		Say 1,900

PHASING OF PROJECTS

In a development plan of the dimension and scope of the Third Plan, the correct phasing of projects and of outlays is of the greatest importance. Without this it will not be possible to implement the Plan efficiently to keep investments in harmony with the internal and external resources available from year to year, and to ensure that at each stage in the Plan there are a series of projects under execution which will yield results speedily and that there will be continuity both in planning and in the flow of benefits. To facilitate detailed work on the phasing of projects and programmes, the following broad criteria have been proposed:

(i) The phasing of projects should be worked out with strict regard to the requirements of physical planning, especially planning of manpower and the provision of materials and of the ancillary services, including power and transport;

(ii) Priority should be given to the early completion of the projects under execution and those carried over from the Second Plan. For these projects sufficient resources should be provided in the annual plans to facilitate completion within the minimum period necessary;

(iii) There should be continuity of output from year to year. The phasing should be such as to ensure that at each stage of investment the maximum benefits possible are secured and there is a reasonable balance between projects with long gestation periods and those which can be completed over relatively short periods;

(iv) In working out the relative priorities of different projects from the point of view of the economy as a whole, through appropriate phasing items included in the following groups should receive preference—

(a) items important for ensuring rapid growth of agricultural production, e.g. fertilisers;

(b) items which might become bottlenecks unless they are available at the right time, e.g. transport, electricity, metallurgical coal, etc.;

(c) items required for the fulfilment of the export plan;

(d) items which are intended to replace unavoidable imports, e.g. machinery, alloy and tool steels, etc.; and

(e) technical education and training programmes.

While the considerations mentioned above will guide the phasing of projects within each sector, from the point of view of the Plan as a whole it will be necessary to ensure through annual plans that at each stage adequate resources are raised to meet the commitments (including those on account of foreign exchange) which result from the phased programme that is accepted. Equally, it will be essential to secure the necessary physical balances from year to year in respect of steel, cement, electricity, and other key commodities.

In a plan of national development stretching over a period of five years, the financial provisions initially proposed provide at best a framework within which various agencies can formulate and implement their programmes. It is inevitable that the financial allotments which are made from year to year should be influenced largely by the speed and efficiency of execution and the measure in which practical results are secured. The essential problem, therefore, is to devise in each field of development effective means for obtaining the maximum value from the outlays incurred. Under each head, those objectives which are essential need to be distinguished from others which may be of secondary importance. In every field, the main test is that the assets created or the services developed under the Five Year Plans should yield their fullest benefits as early as possible.

Frequently, in carrying out development programmes in a number of fields, there is resort to grants or subsidies. Wherever there is a subsidy it is proposed that the working of the scheme will be investigated with a view to determining whether the subsidy can be withdrawn or reduced without injuring the objective in view. It is also observed that in many development programmes which can enlist the participation of local communities or contributions from beneficiaries, in practice insufficient em-

phasis is placed on these aspects. This aspect needs to be watched carefully. Finally, as suggested later, the building component of every programme or project should be subjected to close scrutiny in the stage of planning so that the maximum economies in construction may be realised.

TARGETS IN THE PLAN

The physical targets proposed in different sectors of development are at present preliminary in character. Consultations with representatives of different industries in the private sector are in progress and, on their completion, it will be possible to take a view of the industrial plan as a whole, including both the public and the private sectors. A large number of projects under industry and minerals and transport and communications, for which the Central Ministries are responsible, have yet to be worked out in detail, although their investigation and other preparatory measures are being expedited. The outline plans of State Governments, especially in sectors like agriculture, small industries, roads and social services, which will become available during August and September, 1960, are expected to be amended in the light of the local plans which will be drawn up in the districts and on the basis of further study. In these circumstances, the physical targets, which are indicated in the Draft Outline, represent broad dimensions of the effort envisaged in the Third Plan. Their main value lies in presenting the picture as a whole and in drawing attention to possible inconsistencies or weaknesses.

NATIONAL INCOME AND EMPLOYMENT

Examination of the targets of development which have been proposed in different sectors suggests that during the Third Plan the national income should increase by over 5 per cent per annum. As regards employment, the present indications are that the total employment outside agriculture in the Third Plan might be about 10.5 million out of a total increase in the new entrants of about 15 million, of which about 3.5 million are expected to be absorbed in agriculture.

BALANCE AND FLEXIBILITY

In drawing the framework of the Plan, the attempt has been made to provide for a reasonable balance at each vital point within the economy. Thus, the requirements of steel, coal, electricity and other commodities were assessed carefully and the Plan attempts to provide for them. Similarly, in drawing up the railway plan, the likely increase in traffic arising from different developments has been taken into account. When work on the Plan proceeds beyond the present preliminary formulation and both the phasing of projects and the requirements and availability in different regions are considered, changes will doubtless be needed both in the physical targets which may be proposed and in the consequential financial allotments.

As explained earlier, in some fields, an important consideration in the phasing of programmes will be the availability of foreign exchange. Since the picture in this respect can become definite only over a period,

it has been felt desirable at this stage to provide for a somewhat flexible approach in considering projects involving foreign exchange for inclusion in the Plan. Accordingly, as explained in the Chapter on Industries and Minerals, industrial projects have been grouped into five categories as follows:

(a) Projects under execution and carried over from the Second Plan.

(b) New projects for which external resources are already assured.

(c) New projects which can for the present be regarded as included in the Plan. Most of these have reached a fairly advanced stage of preparation, but foreign exchange has not yet been arranged for them.

(d) Other new projects for which preparatory work is less advanced and for which foreign exchange has not yet been arranged. In respect of these projects, definite decisions for inclusion in the Plan have not yet been taken, but the intention is that the projects should be worked out more fully and, may, in due course, be considered for inclusion in the Plan.

(e) Projects of a contingent nature whose implementation will depend on certain developments which cannot at present be accurately foreseen.

The principal targets in the Third Plan are set out briefly along with statistics of progress during the first two Plans in the annexure to this chapter. In this place it will be sufficient to draw attention to some salient features.

AGRICULTURE AND IRRIGATION

Agricultural production is to be stepped up by 30 to 33 per cent, depending upon the targets which may be finally decided upon as a result of work on area agricultural plans. The targets of additional production proposed for some of the important agricultural commodities are given below:

Commodity	Additional Production	Percentage Increase
Foodgrains (million tons)	25 to 30	33—40
Oilseeds (million tons)	2 to 2·3	28—32
Sugarcane (in terms of gur) (million tons)	1·8 to 2	25—28
Cotton (million bales)	1·8	33
Jute (million bales)	1·0	18

In addition measures will be taken to increase the production of food articles like fruits and vegetables, milk, fish, meat and eggs as also of other commodities like coconuts, arecanuts, cashewnuts, pepper, cardamom, tobacco, lac and timber.

The target proposed for foodgrains would allow for consumption of about 15 oz. of cereals and 3 oz. of pulses per capita per day besides pro-

viding some margin against emergencies. The target for raw cotton is expected to be sufficient to provide for 17.5 yards of cotton textiles per annum per capita and in addition allow for some exports.

As regards specific programmes for agricultural development, the net additional area benefited from major and minor irrigation works is estimated at 20 million acres after making allowance for some of the old works going out of use partly or wholly and other similar factors. This will bring the net irrigated area to about 90 million acres by the end of the Third Plan. About 40 million acres will be covered by dry farming techniques. Soil conservation measures are to be extended to an additional area of 13 million acres. The consumption of nitrogenous fertilisers is to be increased to 1 million tons in terms of nitrogen and of phosphatic fertilisers to 400 to 500 thousand tons in terms of phosphorus pentoxide. Also an additional area of 50 million acres is proposed to be covered by green manures. Plant protection measures will be extended to 75 million acres.

The community development programme will be extended to the entire rural area by October 1963. The programme of co-operative development will be intensified along the lines laid down by the National Development Council in November 1958 and finance from co-operative agencies is expected to play a considerable part in increasing agricultural production.

INDUSTRY AND POWER

In Industry special emphasis is being placed on the development of those industries which will help to make the economy self-sustaining, namely, steel and machine-building and the manufacture of producer goods. Necessary measures are also being taken to expand the production of consumer goods.

Developments in iron and steel are linked with the target capacity of 10.2 million tons in terms of steel ingots and 1.5 million tons of pig iron for sale. The additional capacity and output in this field are expected to be realised almost entirely in the public sector. The Bhilai, Rourkela and Durgapur steel plants are proposed to be expanded contributing jointly 5.5 million tons of steel ingots. The Plan also provides for a fourth steel plant in the public sector to be started at Bokaro. About 200,000 tons of steel ingots are expected from scrap-based electric furnaces and 200,000 tons of pig iron from low shaft blast furnaces proposed to be established on a decentralised basis in the private sector. Steps are also to be taken for the production of about 200,000 tons of alloy, tool and special steels.

Important advances will be made in the field of machinery and engineering industries during the Third Plan period. Proposals for this sector include: heavy machine-building plant, foundry forge, coal mining machinery plant, heavy structurals plant, heavy plate and vessel works, heavy machine tool factory, doubling of the output of Hindustan Machine Tools, Bangalore, expansion of Heavy Electrical Project, Bhopal, two

additional heavy electrical projects and schemes for the production of high pressure boilers and precision instruments.

Machinery manufacturing programmes in the private sector are expected to supplement the efforts of the public sector. In relation to the levels of demand envisaged by 1965-66 for certain lines of machinery, e.g. textile, sugar, cement and paper machinery, programmes have been formulated which should lead to considerable reduction of imports of complete plants for the related industries.

The production of nitrogenous fertilisers is proposed to be stepped up from 210,000 tons in terms of nitrogen at the end of the Second Plan to 1 million tons at the end of the Third. A substantial increase in the production of phosphatic fertilisers is also proposed.

The production of coal is proposed to be stepped up by 37 million tons over the target of 60 million tons set for the Second Plan, i.e. to 97 million tons.

On the basis of the present proved reserves the Naharkatiya area is expected to produce 2.75 million tons of crude oil per year. Provision has been made both for the completion of the refineries at Nunmati and Barauni for processing the Naharkatiya crude and also for further exploration with a view to obtaining additional production of crude from Cambay and other areas where prospects appear to be favourable.

Among the other important targets which have been proposed so far are:

	Annual Production	
	1960-61	1965-66
Aluminium ('000 tons)	17·0	75·0
Cement (million tons)	8·8	13·0
Paper ('000 tons)	320	700
Sulphuric acid ('000 tons)	400	1,250
Caustic soda ('000 tons)	125	340
Sugar (million tons)	2·25	3·0
Cotton textiles—mill cloth (million yards)	5,000	5,800
Bicycles—organised sector ('000 Nos.)	1,050	2,000
Sewing Machines ('000 Nos.)	300	450
Automobiles (Nos.)	53,500	100,000

It is proposed to increase the total generating capacity of power from 5.8 million kW at the end of the Second Plan to 11.8 million kW at the end of the Third Plan. The programme for power includes a programme for nuclear power generation of 300,000 kW. It is expected the 15,000 additional towns and villages will be electrified during the Third Plan period bringing the total to 34,000.

Programmes of development are being formulated by State Governments and the All-India Boards for the Development of Small-scale Industries including industrial estates, Khadi (including Ambar Khadi) and

village industries, handloom, handicrafts, sericulture and coir. Broadly, the aim is to encourage the expansion of production through the private and co-operative sectors by providing positive forms of assistance like facilities for training, technical know-how, provision of credit, supply of raw materials, etc. Production of cloth in the decentralised sector, namely from handlooms, powerlooms and Khadi, is tentatively proposed to be increased from about 2,610 million yards in 1960-61 to 3,500 million yards in 1965-66. Production of raw silk will be increased from 3.7 million lb. to 5.0 million lb. The number of industrial estates is expected to increase from 60 in the Second Plan to about 360 in the Third Plan. In the programmes for small-scale industries, the emphasis will be on promoting development in small towns and rural areas and on linking them up more closely with large-scale industries as ancillaries or feeders. For handicrafts and coir, the programmes will be designed for achieving improvement in quality as well as for stepping up production and exports.

TRANSPORT AND COMMUNICATIONS

It is expected that the railways will be able to carry goods traffic to the extent of about 235 million tons in the last year of the Third Plan, as against 162 million tons in 1960-61 and 1,200 miles of new railways lines will be constructed. Under the road development programme it is proposed to add during the Third Plan 20,000 miles of surfaced roads to the level of 144,000 miles expected in 1960-61. The expansion of road transport will be mainly in the private sector. It is roughly estimated that the number of commercial vehicles will go up from over 200,000 to about 300,000 during the Third Plan period. For the time being the shipping target has been placed at about 200,000 GRT in addition to the tonnage of 900,000 GRT expected to be achieved at the end of the Second Five Year Plan. This target is, however, felt to be insufficient and is to be examined further.

SOCIAL SERVICES

The progress made in the field of social services in recent years is reflected both in demands for larger resources for social services and in increased expectations on the part of the people. In some directions, large advances are expected to be made during the Third Plan. It is proposed to provide for free and compulsory primary education for the age-group 6—11 years. Making allowance for slower progress in female education in certain backward areas, it is estimated that the proportion of pupils to the number of children will go up from 60 to 80 per cent in the age group 6—11, from 23 to 30 per cent in the age group 11—14 and from 12 to 15 per cent in the age group 14—17. The total number of students in schools will go up from 41 million in 1960-61 to 65 million in 1965-66.

Scientific and technical education will be given increasing support. The number of pupils taking science courses in colleges is expected to rise from 30 to 40 per cent of the total number. The intake capacity of engineering colleges and polytechnics will increase from 37,000 at the

end of the Second Plan to 52,500 at the end of the Third Plan. Scientific laboratories and engineering enterprises will be encouraged to provide facilities for technical training. Special provision will be made for part-time and correspondence courses.

In the field of health services, the number of registered doctors will increase from 84,000 to 103,000, of hospital beds from 160,000 to 190,000 and of hospitals and dispensaries from 12,600 to 14,600. The number of primary health centres will be increased from 2,800 to 5,000. The programme for family planning will be given a very high priority and the number of clinics will be increased from 1,800 to 8,200. Programmes for low income group housing, housing for industrial workers, slum clearance and slum improvement and acquisition and development of land for housing will be expanded and finance for housing will be provided through Housing Finance Corporations.

The Third Plan includes a programme of local development works for enabling all rural areas to provide themselves with certain minimum amenities. These are : (a) adequate supply of drinking water, (b) roads linking each village to the nearest main road or railway station, and (c) the village school building which may also serve as a community centre and provide facilities for the village library.

The targets for the Third Plan as at present envisaged will take the economy a considerable distance towards the stage of self-sustaining growth. The ground will also be prepared for more rapid development under the Fourth Plan. In view of the large investments which have been already made, it is essential to ensure that the assets created are utilised to the best advantage. The process of development itself will offer fresh possibilities for increasing output and employment and the effort should be to take advantage of these possibilities by ensuring the fullest possible utilisation of manpower and mobilisation of the savings of the community.

ANNEXURE

PRODUCTION AND DEVELOPMENT : PROGRESS AND TARGETS

Item	Unit	1950-51	1955-56	1960-61 (anticipated)	Increase in 1960-61 over 1950-51 (percentage)	1965-66 targets	Increase in 1965-66 over 1960-61 (percentage)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Agriculture and Community Development							
1·1. Agricultural Production:							
Food grains	million tons	*52·2	*65·8	75	44	100 to 105	33—40
Cotton	million bales	2·9	4·0	5·4	86	7·2	33
Sugarcane-gur	million tons	5·6	6·0	7·2	29	9·0 to 9·2	25—28
Oilseeds	million tons	5·1	5·6	7·2	41	9·2 to 9·5	28—32
Jute	million bales	3·3	4·2	5·5	67	6·5	18
Tea (*a*)	million lb.	613	678	725	18	850	17
Tobacco	'000 tons	257	298	300	17	325	8
Fish	million metric tons	0·7	1·0	1·4	100	1·8	29
Milk	million mds.	466	528	600	29	690	15
Wool	million lb.	60	65	72	20	90	25

*Estimates of production adjusted for changes in statistical coverage and methods of estimation up to 1956-57

(*a*) relates to calendar year

PRODUCTION AND DEVELOPMENT : PROGRESS AND TARGETS—*Contd.*

Item	Unit	1950-51	1955-56	1960-61 (anticipated)	Increase in 1960-61 over 1950-51 (percentage)	1965-66 targets	Increase in 1965-66 over 1960-61 (percentage)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1·2. Agricultural Services							
Area irrigated (Net total)	million acres	51·5	56·2	70·0	36	90·0	29
Land reclamation (additional area)	million acres	—	2·7	1·2	—	1·0	—
Soil conservation (additional area benefited)	million acres	—	0·7	2·0	—	13·0	—
Nitrogenous fertilisers consumed	'000 tons of Nitrogen	55	105	360	555	1,000	178
Phosphatic fertilisers consumed	'000 tons of $P_2 O_5$	7	13	67	857	400 to 500	497—646
Seed Farms	number	—	—	4,000	—	4,500	13
1·3. Community Development Blocks	number	—	1,064	3,112	—	5,217	68
Villages covered	thousands	—	150	400	—	550	38
Population served	million	—	78	200	—	374	87
2. Power							
Electricity (installed capacity) ..	million kW	2·3	3·4	5·8	152	11·8	103
Electricity generated	million kWh	6,575	11,000	20,700	215	42,250	104
Towns & Villages electrified ..	thousands	3·7	7·4	19·0	414	34·0	79
3. Minerals							
Iron ore (*a*)	million tons	3·0	4·7	12·0	300	32·0	167
Coal (*a*)	million tons	32·0	38·0	53·0	66	97·0	83

4. Large Scale Industries							
4·1. Metallurgical Industries:							
Finished Steel	million tons	1·0	1·3	2·6	160	6·9	165
Pig Iron (for sale)	million tons	0·35	0·38	0·9	157	1·5	67
Copper	'000 tons	—	7·3 (*a*)	7·9	—	18·4	133
Aluminium	'000 tons	3·7	7·3	17·0	359	75·0	341
4·2. Mechanical and Electrical Engineering:							
Cement Machinery	value in Rs. lakh	—	34 (*a*)	80	—	450	463
Sugar Machinery	value in Rs. lakh	—	19	440	—	1,000	127
Machine tools (graded)	value in Rs. lakh	29	72 (*a*)	550	1,797	3,000	445
Ball and Roller Bearings	million number	0·1	0·9	2·4	2,300	12·0*	400
Diesel Engines	thousands	5·5	10·0	33·0	500	66·0	100
Tractors	number	—	—	2,000	—	10,000	400
Electric motors (200 b.h.p. and below).	'000 h.p.	100	270	800	700	2,500 †	213
Electric transformers (33 kv and below)	'000 kva	179	625	1,350	654	3,500	159
Electric Cables	'000 tons	1·7	8·7	18·0	959	44·0	144
4·3. Railway Locomotives:							
Steam and diesel	number	n.a.	5,000‡	1,250 ‡	—	1,609 ‡	29
Electric	number	—	—	—	—	232 ‡	—
4·4. Chemicals:							
Fertilisers:							
Nitrogenous (in terms of nitrogen)	'000 tons	9	79	210	2,233	1,000	376

(*a*) relates to calendar year
*by working to capacity on three shifts
† 300 h.p. and below
‡ relates to the Plan period

PRODUCTION AND DEVELOPMENT : PROGRESS AND TARGETS—*Contd.*

Item	Unit	1950-51	1955-56	1960-61 (anticipated)	Increase in 1960-61 over 1950-51 (percentage)	1965-66 targets	Increase in 1965-66 over 1960-61 (percentage)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Phosphatic (in terms of Phosphorus pentoxide) ..	'000 tons	9	12	70	678	400 to 500	471—614
Sulphuric acid	'000 tons	99	164	400	304	1,250	213
Soda ash	'000 tons	45	81	240	433	450	88
Caustic soda	'000 tons	11	35	125	1,036	340	172
Sulpha drugs	tons	—	83(*a*)	150	—	1,000	567
D.D.T.	tons	—	284	2,800	—	2,800	—
4·5. Other Industries:							
Sewing Machines .. .. (orgamsed sector only)	thousands	33	111·2	300	809	450	50
Bicycles (organised sector only)	thousands	101	513	1,050	940	2,000	90
Automobiles	thousands	16·5	25·3	53·5	224	100	87
Cotton textiles (mill-made) ..	million yards	3,720	5,102	5,000	34	5,800	16
Sugar	million tons	1·1	1·9	2·25	105	3·0	33
Steel structural fabrications ..	'000 tons	—	90	250	—	1,000	300
Cement	million tons	2·7	4·6	8·8	226	13·0	48
Petroleum products	million tons	—	3·6	4·6	—	7·4	61
Paper and Paper-board ..	'000 tons	114	187	320	181	700	119
5. Village and Small Industries							
Khadi : traditional	million yards	7·3	28·9	48·0	558		
Ambar	million yards	—	—	32·0	—	3,500	34
Handloom	million yards	742	1,471	2,125	186		
Powerloom	million yards ..	148	273	405	174		
Sericulture (raw silk) ..	million lb.	1·9	3·1(*a*)	3·7	95	5·0	35

		(a)					
6. Transport and Communications							
6·1. Transport Services							
Railways							
Passenger train miles ..	million	95	109	124	31	143	15
Freight carried..	million tons	91	114	162	78	235	45
Roads : surfaced including national highways	'000 miles	97·5	122·0	144·0	48	164·0	14
Shipping	million GRT	0·4	0·5	0·9	125	1·1	22
6·2. Communications:							
Post Offices	'000 numbers	36	55	75	108	95	27
Telegraph Offices	'000 numbers	3·6	5·1	6·3	75	8·3	32
Number of Telephones ..	'000 numbers	168	280	475	183	675	42
7. Education							
7·1. General Education							
Students in Schools	million numbers	23·5	31·5	41·1	75	64·8	58
School-going children as percentage of children in the respective age groups :							
Primary stage	6-11 age group	43	51	60	40	80	33
Middle stage	11-14 age group	13	16	23	77	30	30
Higher secondary stage ..	14-17 age group	5	8	12	140	15	25
Institutions :							
Primary/Junior Basic Schools	'000 numbers	209·7	278·1	354·9	69	500·0	41
Middle/Senior Basic Schools	'000 numbers	13·6	21·7	30·0	121	45·0	50
High/Higher Secondary Schools	'000 numbers	7·3	10·8	14·0	92	18·0	29
Multi-purpose Schools ..	'000 numbers	—	0·4	1·6	—	1·8	13

(a) relates to the calendar year

PRODUCTION AND DEVELOPMENT : PROGRESS AND TARGETS—*Concld.*

Item	Unit	1950-51	1955-56	1960-61 (anticipated)	Increase in 1960-61 over 1950-51 (percentage)	1965-66 targets	Increase in 1965-66 over 1960-61 (percentage)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
7·2. Technical Education							
Engineering & Technology							
Degree level (intake) ..	number	4,119	5,888	13,165	220	18,500*	41
Diploma level (intake) ..	number	5,903	10,484	24,020	307	34,000*	42
Agriculture							
Degree level (intake) ..	number	1,060	1,989	4,500	325	6,000	33
Veterinary							
Degree level (intake) ..	number	434	1,269	1,300	200	1,550	19
8. Health							
8·1. Institutions:							
Hospitals & dispensaries	'000 numbers	8·6	10·0	12·6	47	14·6	16
Hospital beds	'000 numbers	113	125	160	42	190	19
Primary Health Units ..	number	—	725	2,800	—	5,000	79
Family Planning Centres ..	number	—	147	1,797	—	8,197	356
8·2. Personnel:							
Medical Colleges (intake) (*a*)	number	2,854	3,655	4,790	68	n.a.	—
Doctors (registered)	'000 numbers	59	70	84	42	103	23
Nurses (registered)	'000 numbers	17	22	32·5	91	52·5	62
Midwives**	'000 numbers	18	27	40	122	70	75
Nurse-dais and dais (registered)	'000 numbers	2·2	6·8	12·0	445	42·0	250
Health assistants and sanitary inspectors ..	'000 numbers	3·5	4	7	100	14	100

*In addition to this, facilities would be provided in part-time courses

** Including nurses registered as midwives and auxiliary-nurse midwives

(*a*) relates to calendar year

Strategy of the Third Plan

THE PRIME MINISTER

I

The Prime Minister's Speech in the Lok Sabha initiating the discussion on the Draft Outline of the Third Five Year Plan, August 22, 1960

THIS Draft Outline is only an outline, but it covers the whole progress of the Indian nation. For me to deal with it in a brief or even a long speech can hardly do justice to it. I shall, therefore, try to deal with some major aspects of this Plan, particularly what could be called its strategy.

Although a great deal of thought has been given to it by the Planning Commission, and the Commission has consulted advisers, experts and others in this country and from outside, we do not approach this question with any sense of finality or with any desire to appear rigid in our approach.

There is, however, certainly some rigidity about the ideals we aim at, because there must be some fixity. If we want India to progress, and if we want India to be prosperous, and if we want to raise the standards of India, we want a socialist society in India. There is no lack of firmness about that. We aim at socialism in this country. Let there be no doubt about it. But we do not aim at any rigid or doctrinaire form of socialism.

So far as this particular Plan is concerned, it flows from and is a projection of the Second Plan, which itself came after the First. The Second Plan was roughly double the First Plan. And the Third, again, is much larger. Most of the objectives mentioned in this Plan will be found to be mentioned in the Second. Therefore, so far as our objectives are concerned, they have been consistently placed before this House and the public. Very briefly, they are : a rise in the national income of over 5 per cent per annum; achievement of self-sufficiency in food grains, and increase agricultural production for industry and export; expansion of basic industries like steel, fuel, power and machine-building; utilisation of the manpower resources of the country and expansion of employment opportunities; reduction of inequalities in income and wealth and a more even distribution of economic power. All these, in somewhat different language, were mentioned in our Second Plan.

I suppose almost everybody in this House will agree to these objectives and broadly accept the principle of planning. Planning is the exercise of intelligence to deal with facts and situations as they are and find a way to solve problems. Everybody plans, and ought to plan, whether he runs a shop or an industry or a plant or a State. In this world today, where everything is more and more governed by developments of science

and technology, the idea of things happening by themselves, that is, the *laissez faire* theory, is almost considered the verge of absurdity except by a few who profit greatly under it at the cost of the many. Nobody in this House, I trust, stands for the profit of the few at the cost of the many.

This Third Five Year Plan, in fact, has become for us not some kind of a book to read but a picture of a vast nation advancing forward in certain pre-determined directions to pre-determined goals. Planning, therefore, consists in having an objective—not only an immediate objective, but a more distant objective. You cannot plan only for tomorrow; you have to plan for years, and in the case of a nation, you have to plan for generations. Therefore, planning means perspective planning. After such long-term planning, you come to planning for tomorrow and today.

A country which wants to progress wants to progress in a hundred ways. We have therefore to take into consideration the order of preference—what is first, what is second, and what is third. There are so many things we want to do in India, and we want to do them quickly and passionately. The question of finding the proper way to reach a certain goal becomes important. Suppose you want to build a steel plant. You can buy it, of course; but even so you have to train the people who have got to run it. Now, experience teaches us that the affluent society of the West has come into being because of technology, because of improvement in techniques of production and distribution, plus the technical personnel who can do it. It should not be thought that technical processes are meant only for industry and not agriculture; modern techniques are meant for agriculture also.

If we have to do this in a big way, we have to change the whole atmosphere in India, in field and factory, and make it amenable to such modern techniques as are suited to India—I do not say that every modern technique is suited to India. Many people talk glibly of a steel plant or new techniques, but really their minds have not got into the climate of new techniques; they still live in the climate of ancient usages and ancient ways of doing things.

Advance in technology means a general advance in such training and education as are necessary for the purpose in a widespread way. It is not a question of putting up a plant here or there; it is a question of building up from below a nation used to thinking in terms of technical change and technical advance. It becomes a problem of mass education. The countries which had the Industrial Revolution had perforce to go in for free and compulsory education; not that they liked it at all. We like it; they did not; they were forced to go in for it because they could not support the structure of industrialisation without mass education.

We have to industrialise our country and introduce new techniques both in industry and in agriculture. We can do it, in a way, by buying machines and technical experience from abroad and asking the experts to put up the machines and work them here. This has been the normal method. That is how, for example, the railways came here a hundred years ago to change the face of India. This is all right in the beginning

stages of a process, but if we want to do it steadily, we have to do it ourselves and not always buy from America or Russia either the skills or the machines. We have to build up the skills and we have to build up the machines here. If we are to industrialise, it is of primary importance that we must have the heavy industries which build machines.

There are some who argue that we must not go in for heavy industry but for the lighter ones. Of course, we have to have light industries also. But it is not possible to industrialise the country rapidly without concentrating on the basic industries which produce industrial machines which are utilised in industrial development.

I confess that we lost a good deal by not putting up a steel plant under the First Five Year Plan. We did not have the courage to take that burden then; but if we had shown a little courage, it would have been well for us in the Second Plan and now. In the Second Plan, therefore, we were forced to have three new plants, which have been a tremendous burden on us. We have borne it, and of the three plants, two are completed and the other is nearing completion. There are also some other heavy plants that we have put up, particularly the machine-building plant which is gradually taking shape.

The beginning of industrialisation really can now be seen in India. A number of textile mills in Ahmedabad or Bombay or Kanpur is not industrialisation; it is merely playing with it. I do not object to textile mills; we need them; but our idea of industrialisation will be limited, cribbed, cabined and confined by thinking of these ordinary textile mills and calling it industrialisation. Industrialisation produces machines, it produces steel, it produces power. They are the base. Once you have that base, it is easy to build. But, for a backward country, even to build the base is a difficult task. We have not finished building the base but we have put a good part of the base and we can now look forward with some confidence to a more rapid advance which could never have happened without that base, however much we might have built the smaller industries. We would always have to depend on outside aid. Indeed we have had troubles in regard to foreign exchange and they are likely to continue. We can never get rid of the foreign exchange troubles without having heavy industry in our country. Unless we start from the base, we cannot build the third or fourth storey. We can advance in minor sectors of the economy, but if we do not build the basic structure, it will not make any difference to the hundreds of millions of our people. The strategy governing planning in India is to industrialise, and that means the basic industries being given the first place.

Having laid great stress on industrialisation, we have to look in the direction of agriculture. We shall find that this industrial progress cannot be made without agricultural advance and progress. The fact is that the two cannot be separated. They are intimately connected because agricultural progress is not possible without industry, without tools, without the new methods and techniques. There is no question of giving priority to agriculture. Everyone knows that unless we are self-sufficient in agriculture we cannot have the wherewithal to advance

in industries. If we have to import food, then we are doomed so far as progress is concerned. We cannot import both food and machinery. We just cannot get on.

Inevitably, whether it is agriculture or industry, training of personnel counts. It is the trained human being that makes a nation—not all the machinery in the world. It is he who makes the machines—not the machine the man. So we have to have general training and specialised technical training. We cannot live on iron and steel. We have to produce other commodities. For this purpose, we have to encourage, in every way, the small and medium industry. I am glad to say that in spite of our concentration on basic industries, small and medium industries are spreading fast in India. This is of considerable importance.

We do not put forward the Draft Outline as something perfect. We may change it here and there. But in the ultimate analysis it is not that that counts. I think the Hon. Members here and most people outside readily accept the strategy of the Plan and even most of the details. But they criticise its implementation. For instance, they say that the community development scheme, very good though it is in theory, is not in practice functioning as it should. Or, they may ask why agriculture, on which vast sums of money are being spent, is not showing results or why there is delay in production in our industries. All these are legitimate criticisms. But you will find that, broadly speaking, the criticisms relate to implementation. The real problem before India is one of implementation and not one of laying down policies. Every man in India, every officer, small or big, must realise that it is a question of implementation.

It is important not merely to lay down policies but to have satisfactory audits of performance. The real thing is not the spending of money but what that has produced. In enforcing this audit of performance it becomes necessary that responsibility should be given to the person who has got to do the job. We have been struggling for years to distribute the responsibility and not keep it concentrated and centralised. It is still too greatly concentrated. It is better to take risks and face losses and not have this centralisation. In a rapidly moving scheme, delay is the most fatal of all evils and it is caused by references from one place to another. In some measure, no doubt, responsibility is spreading out. We should have people who are held responsible if they do not do certain things. We may then punish them, or if they have done the things we may praise them. It is not good enough for us loosely to think that everybody is responsible for everything, which means nobody is responsible for anything. I am laying stress on this because the future seems to me to be a question of implementation above everything else and not a question of policy-making.

The record of the first two Plans, even though sometimes criticised, is a fairly remarkable record of achievement. It did not, in some matters, come up to what we wanted it to be, but it is, nevertheless, a very creditable record, whether it is transport, communications, steel, fuel, power, scientific and technological research. In fact the whole of Indian

economy has arrived at the threshold of accelerated growth. It can grow much faster if we keep it pushing. In a moment like this, if we slacken at all we shall lose all the advantage we have gained.

As you know, our population in 1961 would presumably have gone up by about 70 millions compared to 1951. Why has it gone up? Because we are a much healthier nation. The expectation of life ten years ago was 32. Today it is 42. To raise the level of expectation of life by ten years is a big achievement. But it has made a big difference to our population figures. Such difference will continue as our society becomes healthier and healthier.

Again, the national income over the First and Second Plans has gone up by 42 per cent and the per capita income by 20 per cent. Now, a legitimate query is made: where has this gone? To some extent, of course, you can see where it has gone. I address large gatherings in the villages and I can see that they are better fed, better clothed, they build brick houses and they are generally better. Nevertheless, that does not apply to everybody in India. Some people probably have hardly benefited. Some people may even be facing various difficulties. The fact remains, however, that this advance in our national income, in our per capita income has taken place, and I think it is desirable and I am sure it will meet with the pleasure of this House that we should enquire more deeply as to where this has gone and appoint some expert committee to enquire into how exactly this additional income that has come to the country or per capita has spread.

We have to avoid and prevent too much accumulation of wealth. If, after all this additional income, only 5 per cent or 10 per cent of the population have benefited by it and 90 per cent have not, that is not a good result. We cannot, of course, even it out. That is not possible. But it is desirable to make the benefits spread. There are several ways of spreading. You cannot make it spread evenly because human beings are not the same; some persons work harder than others. One nation works harder than another and goes further. It is only through hard work that a country progresses, whether it is America or China, whether it is capitalist, communist or socialist. I regret to say that we in India have not learnt the lesson of hard work yet. We complain if holidays are cut down, although India has more holidays than any country in the world. It is our misfortune that in this country attempts are constantly made to hamper, obstruct and create a fog all round which prevents hard work being done. I am referring in particular to those who are wrapped up in local troubles, local problems, local quarrels. Whether they represent some form of provincialism or linguism or communalism or all the other 'isms', they think in terms of some narrow objective which may be good in their view but which comes in the way of the larger objective.

See what is happening in Assam. It is a deep tragedy in itself, but it is a deeper tragedy that such conflicts should occur at all in this country. See the agitation that is going on in the Punjab. It seems to me quite amazing that intelligent people should indulge in these agitations when

mighty problems face the country. If we are to give in to this kind of slogan-raising, it will mean that we are incapable of facing issues fairly and squarely.

The House should realise how much we lose in this Plan by this constant diversion of effort, by this bringing up of issues which are secondary or tertiary. What matters is not what the Plan says but the whole climate of thought and activity in the country. If the thought and activities turn to petty quarrels based on province, language, caste or community, then, indeed, we cannot make great progress.

Some people may ask, "Why such a big plan? Have a small plan." There are certain minimum objectives that we have to reach. There is no escape from them. As a matter of fact, there used to be some people who criticised our planning on the ground that it was ambitious. Hardly anybody says that now. The realisation has gradually come about that by the compulsion of events and circumstances and our own needs, we must plan in a relatively big way. Even the toughest and the most cautious of people in the Western world have come to the conclusion that our Plan is not ambitious; it is rather on the low side.

Though from the point of view of the advancement of India the Plan is not very big, yet from the point of view of our resources it is big undoubtedly, and it requires a tremendous effort on our part to raise these resources and to work hard to achieve our aims. It is proposed that almost the least that we should have is an advance in the national income of five to six per cent per annum. It should not go below five. And the rate of investment should be stepped up from 11 to 14 per cent. All this requires social development. You cannot divorce industrial or agricultural improvement from the development of education and so on. It is the building up of man that is needed. Some people who have no social sense at all do happen to possess a very strong sense of making money and they do make money. But this House should not encourage money-making activity at the cost of social sense.

Take education. It is proposed in the Plan to spread out education —free and compulsory education—to all boys and girls of the age-group 6 to 11. Under our Constitution it should have been up to 14 years and it should have been done within the first ten years. But we have been unable to do that, although the spread of education has been vast.

Many people have criticised our education policy here and their criticism, I think, is justified. Our schools are not properly equipped and our school-masters are not properly paid or trained. All these criticisms are justified, but really the effort we have made and the success that has come to it is nevertheless very big. At the present moment, there are, I believe, 45 million boys and girls in the schools and colleges in India. It is a very large figure. If we could do what we intend to do in regard to education in India, we would have 100 million teachers and taught in India. That is about 25 per cent of the total population. See the stupendousness of the problem: a quarter of the total population being either teachers or the taught!

The question is often asked: you talk about socialism and yet you permit grave inequalities of income; you want to put a ceiling on land holdings and yet you oppose ceiling on urban or other incomes. There is that contradiction, of course. But if we try to remove that type of contradiction, we put a stop in many ways to the type of progress we are aiming at. If you are not prepared to change completely the whole basis of society, you have to leave enough incentive for people to work. You can, by taxation, etc., reduce disparities. But enforcing ceiling on urban incomes may well result in a slowing down of the process of development and it is of the utmost importance that this process of development and production should not come down. After all, production comes first, before any kind of equalisation or division. There is no point in having an equal measure of poverty for all.

Take the much-talked-of private sector and public sector. Obviously, most persons who believe in a socialist pattern must believe in the public sector growing all the time. But it does not necessarily mean that the private sector is eliminated even at a much later stage. I am not a prophet to say what will happen twenty, thirty or forty years later. But I can well imagine the private sector functioning, although, naturally, in limited ways. It does not seem to me necessary that every little shop should be a public sector shop, or that every patch of land should be publicly owned.

In regard to the private sector and the public sector, I think the criteria should be basically two. One is to have as much production as possible through all the means at our disposal and the second is prevention of accumulation of wealth and economic power in individual hands. If I have only the first one, it may lead subsequently to unsocial, undesirable and harmful consequences. Therefore, we must aim right from the beginning and all the time at the prevention of this accumulation of wealth and economic power. I do not mind how much the private sector spreads out. I want it to spread, subject always to prevention of monopoly. Why? Because, apart from other reasons, your Constitution says that there should be no monopolies and accumulation.

But to draw the line may be sometimes difficult. One has to judge each case, but the two broad facts must be remembered. If, by any step that we take, production goes down, then we are cutting at the root of our advance and progress. If, on the other hand, private monopolies are built up, then we are encouraging a process which will come in our way badly and be harmful now and later. It will take us away very far from any kind of progress towards socialism. In other words, we must encourage production, and at the same time, the social motive. Incentives are necessary; I agree. But there are many types of incentives, some incentives that are good to society, and some that are bad to society. The acquisitive society, a society in which the main incentive is acquisitiveness, is getting out of date everywhere. I do not want to encourage acquisitiveness in India beyond a certain measure which perhaps many of us have to have in our lives and in our activities.

Our whole object in the Third Plan is to arrive at a stage when we do not depend upon outside countries for any kind of help, whether financial or mechanical. That is what is called, broadly speaking, the take-off stage. But even at this stage, one would have to depend somewhat on supplies from outside, whether they are machines or financial help by way of loans or credits.

Every country trying to industrialise fairly rapidly has to depend on outside help. Every country has done so. Every country in Europe or America has had to do so in the past. It is difficult for me to say what measure of outside help we can get. We are grateful for the help we have got from various countries, from the USA most of all, from the Soviet Union a good deal and from a number of other countries. They have been generous. It is not for me to complain that the loan or credit they have given us has fallen short of our expectations, because our expectations are very vague at the present juncture. But it is loans and credits that we want, not charity. All I can say now is that the prospects are fairly good.

But what is more important is what we have to do in our own country —our domestic resources. They are going to place a very heavy strain on us. There is no escape from it and we have to face it, whether it is heavier taxation, public loans or savings.

In all these matters, the question of price policy comes up. It is an exceedingly difficult question and an exceedingly important one. It is not a party matter. In fact, in the whole Plan, our approach is not a party approach, except in so far as you might say that we are committed to a policy aiming at a socialist pattern and socialism.

It goes without saying that it is of the utmost importance that prices should be under control. It is true that in a developing economy there is bound to be inflation. In fact, some inflation is good; it is itself a sign of development. We need not be frightened by that. But if it goes beyond that measure, then it is obviously harmful. More especially, when the essential requirements of the masses of people are concerned. Hence the question of having a price policy which controls the prices. I am not going to give any assurance of a definite price policy now. This matter is being given attention, and I hope it will come up in this House in various ways. But a price policy is not separate from the rest of economic activity. It cannot be separate from fiscal or monetary or commercial policy, and it might well involve controls. In certain essential articles, if necessary, it may involve all kinds of approaches including controls. What articles should be so controlled is a different matter.

The prices of luxury articles going up does not make very much difference, but price rise in essential goods does. The question of control of prices really applies to the essential commodities. So that, even if we have to take some particular measures, they will be directed rather to the those articles than to the many. In other words, a kind of selective control may become nesessary.

Now I should like to say a few words about community development. I have attached great importance to it and often praised it, not its working everywhere but the whole conception. I have no doubt that in spite of all that has happened, and our numerous slips, the community development scheme has changed and is changing the face of rural India. And that is more important in the final analysis than any number of factories. More particularly, recent developments in the direction of giving more power to Panchayats—what is called Panchayati Raj—I feel, is going to make a revolutionary change. I should like this House to appreciate it, because it is a very important part of our Plan, especially in regard to the rural areas and agricultural production.

There is then the question of co-operatives. For some odd reason the word "co-operative" rather frightens some people. I have tried in all humility to understand the other person's point of view, and to some extent I succeed in it. People sometimes accuse me of looking at things from both points of view! I have tried hard to understand the viewpoint of those people who have started expressing themselves in pain and sorrow about the co-operatives. When co-operative farming is mentioned the pain becomes intense. I have not been able to understand this in spite of every effort. Co-operatives are the one and only way for agriculture in India. There is no other way. This we clearly understand. And this is not my saying—every person who has studied agriculture in India has said that for the last generation or more. But the vested interests are so great and the mental outlook is so limited that this is not appreciated.

Co-operative farming, or joint farming, is the right method for Indian agriculture. It may not be the right method or the necessary method when the holdings are big. Where each person has 100 or 200 acres of land it is not so necessary. But where, as in India, the holdings are territorially small, we are driven to it, whatever your policies or convictions might be.

It has been said that this leads to something terrible—communism. If the logic of thinking of some people is governed by such ghosts and hobgoblins it is difficult to reason with them. Communism has nothing to do with this. Whether communism may be good or bad, you can argue. But to bring in this kind of thing and confuse the issue seems to me quite amusing. If you say: "You must not do this by compulsion", I agree; although, remember, there are a hundred and one things in a state which are done by compulsion. Taxation is compulsion; if we have controls it will be compulsion. You are compelled to go by the left of the road and not by the right. That is the compulsion of the rules of the road. In an organised state, there are so many rules and regulations which you have to follow or pay the penalty for not following them. But, so far as this matter is concerned, I do not believe in compulsion, because of certain social aspects, because it will not produce results, because, fundamentally, I do not like compulsion in this matter as far as possible.

But the idea of joint co-operative farming is definitely a higher social form in agriculture, just as the social approach in industry is better than

the narrow acquisitive approach. You may say: "The people are not good enough for it; therefore we cannot do it". But try to improve the people. Anyhow, the co-operative method is essential for our rural areas. But, at the moment, we are not laying stress on co-operative farming. We are concentrating on service co-operatives and where people are willing we can have voluntary joint farming. We do not come in the way of people who want to do it; we encourage them. We do that because I think that is the highest form of effort.

I should like to say a word about land reforms. We, or rather our States, have been slow in the matter. This has been harmful to us and to production. Fortunately, we are gradually ending the first phase of land reforms.

I should again like to repeat that the Planning Commission or the Government of India do not regard themselves as being in possession of the ultimate wisdom. But they have given a great deal of thought and produced what they consider good for the country. They invite friendly consideration, and even unfriendly consideration, provided it is intelligent, so that we might improve it before finalising it. We are living in a changing world. See what is happening in Africa and what is happening everywhere else. We dare not slow down or slacken. I am not referring to our own internal problems of the frontier. They are there, but the world problems are such that we have to work hard and we have to see our problems in the context of this changing world.

II

The Prime Minister's Speech in the Rajya Sabha in the course of the debate on the Draft Outline

I PRESENT to this House the Draft Outline of the Third Five Year Plan. The Third Plan is a growth out of the first two Plans, out of the last ten years' effort in India. It was ten years ago that we made a deliberate attempt to plan, or to reorganise the economic life of our country. The First Plan, a relatively small one, was a planless Plan, because we did not have the necessary data. But the Second Plan became a much more organised effort. We have had the experience, both by our success and by our lack of success. We have had much more data and statistics, and perhaps we have also been educated in the process to some extent.

And so out of the First and the Second Plans has grown the Third Plan. The thinking on it is not confined to the half a dozen or so members of the Planning Commission. Numerous people have taken part in it. Many panels, many organisations, many experts, economists and statisticians, trade union people, business men and others have been consulted by us. We have also had the advantage of consulting many eminent foreign experts from a variety of countries. They come to us not only because we invite them for our own advantage, but because they

themselves and their countries are fascinated by planning in India, which is going to affect 400 million people.

Out of this earnest, continuous, persistent and combined thought, this Plan has emerged. That, of course, does not mean that it is a perfect Plan. Just as it is a continuation of the first two Plans, the Third Plan again is but a step in the process which will lead to the Fourth Plan and the Fifth Plan and so on.

Looking back over the last ten years, with their successes and failures, and at the future and how we hope to achieve our objectives, we begin to think in terms of a long perspective, 15 years or 20 years or 25 years. In building up the country, we cannot have bits here and there, but have some kind of picture of the whole as it is going to be. We must have some objectives clearly in view and some kind of strategy which will help us to realise the objectives.

However much on paper you decide to do a thing or not to do it, it is the 400 million people of India who will give the final answer. Nobody, not even the greatest autocrat or tyrant, can force vast numbers of people to do this or that. For us, with a democratic apparatus of government, the question of inducing and enlisting the co-operation of the public at large is more essential. No government, however good it may be, can undertake these vast social movements without a very great deal of public response and help.

Sometimes the very essence of planning is challenged and the poor Planning Commission, it is said, is a fifth wheel in the coach, coming in the way of Government, of the Ministries and the rest. Some people call it a super-Cabinet and ask : What is it doing there ?

Now, all those who think so have not, I am afraid, really grasped what this is all about. They have not grasped that planning is an essential thing today in every country, even in those countries which have what is called free enterprise, although the planning there may be different. A country situated as India is, as any more or less underdeveloped country is, cannot move ahead without hard planning and hard work. It cannot be left to the advocates of free enterprise. It is a matter of continual astonishment that we should have in this country relics and museum pieces of the past, mentally speaking. I cannot understand it; not even can men in America or England, which are capitalist countries, understand it. Even they realise the necessity for planning in India, more or less in the ways that we are doing it, but some people here, isolated from any modern thought and modern developments, and perhaps living in the circle of stock exchanges and imagining that that is the world, think that planning is bad and that it takes away one's freedom. Freedom for what? Freedom to exploit? Freedom to make vast sums of money? Freedom to create monopolies? If that is so, I say we are intent on taking away this freedom to exploit others. I hope the time will come when even the existing freedom of exploitation will be strictly limited. In fact, one of the aims of planning is to do that, and I quite appreciate what was said

yesterday in some of the speeches: that in our planning we have not proceeded far enough in that direction. I hope we will.

The Planning Commission is not a Cabinet, much less a super-Cabinet. The Planning Commission has no executive functions. It has certain advisory functions, very important ones perhaps. It might be worthwhile to remind this House of what these functions are. It is almost exactly ten years ago that the Government of India issued the Resolution about the Planning Commission. It said:

The Planning Commission will

(1) make an assessment of the material, capital and human resources of the country, including technical personnel and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation's requirement;

(2) formulate a Plan for the most effective and planned utilisation of the country's resources;

(3) on a determination of priorities, define the stages in which the Plan should be carried out and propose the allocation of resources for the due completion of each stage;

(4) indicate the factors which are tending to retard economic development and determine the conditions which, in view of the current social and political situation, should be established for the successful execution of the Plan;

(5) determine the nature of the machinery which may be necessary for securing the successful implementation of each stage of the Plan in all its aspects;

(6) appraise from time to time the progress achieved in the execution of each stage of the Plan and recommend the adjustments of policy and measures that such appraisal may show to be necessary; and

(7) make such interim or ancillary recommendations as appear to it to be appropriate for facilitating the discharge of the duties assigned to it or on a consideration of the prevailing economic conditions, current policies, measures and development programmes or on an examination of such specific problems as may be referred to it for advice by the Central or State Governments.

This is fairly comprehensive but essentially it is advisory in nature. The advice in such circumstances may be very important and such as cannot be bypassed. That is a different matter. But it advises the Central Government and the State Governments. It has to appraise the results and look at the implementation. It has to see what is being done about the performance and not merely to advise and forget. Perhaps the Planning Commission has not done that adequately in the past. It has to appraise from time to time the progress achieved in the execution of

each stage. This is of the highest importance. We have often talked about how much money has been spent or why it has not been spent. It has always struck me that we are looking at things in a very imperfect way; the question is what has been done, not how much money has been spent. Maybe the quantum of money spent is an indication of what ought to have been done, or might have been done, but the real thing is what actually has been done. This business of appraisal is therefore of the utmost importance. Naturally it is a business which the State Governments and the Central Government should take up, and to some extent they do it; but the Planning Commission, with its all-India outlook, is best placed to look into it and to advise and report as to what is being done.

When we plan, we have obviously to be clear as to what we are aiming at, our objective. We cannot plan in the air. We have laid down our objectives, not always very precisely but certainly sufficiently clearly to guide our path. We may say we want higher standards of living for everybody. We may say we want to put an end to exploitation of individuals or groups by other individuals or groups. We may say that every person must have the opportunity to lead a good life, to have the primary necessities of life.

All this put together leads us to the conclusion that we want a socialist structure of society—socialist in the widest sense of the world—and that the principal means of production should be owned by the State or by the people. Where the principal means of production are in private hands, they may lead to private exploitation, to private monopoly and the like. That is why we are opposed to it, and indeed our Constitution has laid it down that monopolies should not be encouraged. It is of the utmost importance that concentration of wealth and concentration of economic power should not be encouraged and should be actively discouraged.

There are other factors of great importance outside the accumulation or distribution of wealth: moral and ethical factors. For the moment they do not come into the picture in the direct sense, although indirectly they are very important.

When I say I believe in socialism, it is not only because I think it is the best way to solve our problems but because it is an ethical, moral way. I believe that a society which is entirely an acquisitive society is an immoral society. Such societies may have functioned and succeeded in the last hundred years for a variety of reasons. The countries that succeeded had colonies, the world to exploit, and they managed to get away with it. We do not have the world to exploit, even if we want to. We have to function in the limited sphere of India, though it is itself big enough. I am quite sure that the whole Indian genius attaches certain moral or ethical values to the political or economic structure. Therefore when we talk about a socialistic pattern of society, it is not some artificial thing which we create. It has a basis deep down in our minds and hearts, and we seek it with passion. We have believed in it and we are likely to continue to believe in it and to work for it. But it is true that

frustration often comes to us because we cannot implement our desires as we want to. But we have to deal with age-old practices, ways of thought, ways of action. We have got to get out of many of these traditional ways of thinking, traditional ways of acting, traditional ways of production, traditional ways of distribution and traditional ways of consumption. We have got to get out of all that into what might be called more modern ways of doing so. What is society in the so-called advanced countries like today? It is a scientific and technological society. It employs new techniques, whether it is in the farm or in the factory or in transport. The test of a country's advance is how far it is utilising modern techniques. Modern technique is not a matter of just getting a tool and using it. Modern technique follows modern thinking. You can't get hold of a modern tool and have an ancient mind. It won't work. We have 400 million people in India, very fine people, very capable people, very intelligent people, but people who have functioned for ages past in certain ruts of thought and action. Take our peasant; it is a matter of amazement and shame to me that any peasant should go about today with a plough which was used in Vedic times. There has been no change since then. It should have been a museum piece; yet the fact is, it is there. It astonishes me.

To put it simply, if we want to solve the problem of providing enough wealth for a satisfactory living for all our people, we cannot do it without applying modern techniques and science. That must be recognised. If we have to apply modern techniques, then we have to build up those techniques. It is no good buying a few machines from abroad or buying a few text-books from abroad and putting up some factory or the other. We have to develop in India a technologically mature civilisation or culture.

I do not say that is enough; and we have to adapt it to many things which we value in our history, culture and thinking. For a society merely to be technologically mature and nothing else may well be fatal like the atom bomb which may kill the world. Something besides atomic energy and the hydrogen bomb may be needed for the world to survive and go in the right direction. So also we, desiring a technologically mature civilisation, also need many other things. Otherwise technology may lead to evil results. For the moment, however, I am talking about basic technology and we have to develop in the direction.

Everyone demands that we be industrialised. Then some people say our agriculture should be given greater pre-eminence. Of course agriculture is of the greatest importance to us and everything that we can do in agriculture must be done.

But I do not think it is right to think of industry and agriculture as if they were in separate watertight compartments. They are intimately allied. There can be no progress in agriculture without progress in industry, without progress in tools, without the habit of thinking in terms of better techniques for the agriculturists. It is not merely a question of throwing in a lot of fertiliser and getting a good crop. If you do so, you get a good crop, no doubt, but you stop there. You may miss the

next step. Even today our agriculturists demand more and more iron and steel. We have got them now and we can supply as much as the agriculturist wants, so that he can have the tools he wants. As things are, greater agricultural production is of vital importance and we must do everything in our power to achieve it. But how will we get greater production? We all know: better implements, better ploughs, better seeds, more irrigation, more fertiliser, more manure, etc. etc. Everybody knows what has to be done and where it has been done. Yet, when you spell it out, the problem becomes big, for there are 60 million farming families in India. It is not a question of lack of resources; you have to train up 60 million families, and prepare them mentally to do the job as they should. That is the problem.

It was with this object in view—to change the atmosphere of the rural areas—that we started the community development movement a number of years ago. I think it did a great deal of good but I must confess that after a while it seemed to lose its shine and get into a rut, like everything else. Unless one is constantly awake, things get into a rut; things get officialised; things get tied up with bureaucracy. I am not using the word 'bureaucracy' in a bad sense, because in socialism you have plenty of bureaucracy; you won't escape it. Some people are more equal than others. So the community development movement became rather slow-moving, though not static. Oddly enough, the very enthusiasm of the officials in charge of it produced a good effect on the one hand and a bad effect on the other, because they tried to do everything themselves and the community waited for them to do it. This is not our objective. We want the community to do it. It is easy for us to criticise the movement, and our criticisms are often justified. I think the community development movement has done wonderful work, and it will continue to do that work. Looking at the whole picture and thinking of the vast problem of moving hundreds of millions of people out of the rut of their thought and action, I think it has done fine work. Nevertheless, it began to slow down in its creative energy and creative impulse. That is the position we have had to face in the last year or two. Then came the stress on two or three things, leading to what is called by 'democratic decentralisation'. It is almost a test. Although we have always talked about Panchayati Raj, it had no particular meaning. But the content of it now is to throw the burden on the Panchayats, to give them resources, to give them authority, and to tell them to go to God or to the Devil, as they choose. It is always essential in such matters to have the liberty to go to the Devil, because if you do not give that liberty, the fellow does not go to God either. He does not do anything. Therefore, it is essential to give them power and authority, even taking the risk that they will misuse it. Only that way can they learn. Now, I cannot say we have had too much experience of this. Certainly we have some experience, and some good experience in two or three States, notably Rajasthan and Andhra Pradesh. Panchayati Raj is coming also in Madras and in several other States.

I have no doubt that this experiment, this new change, this Panchayati Raj, taken together with some other things, is a revolutionary change in

India. It has changed, it is changing and it will change the whole texture of our society, of our thinking, of our acting. It is an exciting thing to sit among the Panchas and Sarpanchas who have been charged with this work, and listen to their questions and criticisms. You see a mind at work, a mind grappling with new problems, a mind which had never thought that there was any problem except to go to the big Sarkar or the big 'Lat-Saheb' for everything. Now he knows that he has to do it. He does not run up to others. He does not run up even to the Minister or the Deputy Commissioner. Once or twice he tried to do so. He was told: "Why do you come to me? You can do it." He went back knowing that he had to do it. This is an enormous change, and it is coming over hundreds of millions of people. It is the biggest revolution you can imagine and it is a peaceful revolution. And it is more important from the point of view of food production than all the fertilisers that you can give. If you can give them fertilisers, by all means do so, but the main thing is this awareness and receptiveness on the part of the farmer that is coming about. It is a thing which nobody who goes to him can miss, not even the foreigner who comes here. Looking at the work we do and the reports they have written, they were surprised at this new receptiveness of the Indian farmer. It is a basic change and I would like particularly to draw the attention of the House to this active, receptive mind, because out of that comes any change-over to better techniques.

Think of the exhibition last year, the World Agricultural Fair. Tens of thousands of farmers came here and it was a pleasure to me that many of them came to my house. I do not know how many came, but thousands of them came to me every morning. They were not too much interested in the big machines—they are beyond their comprehension—but in the small things which they could use, and they asked questions about them. They wanted to understand them. They told me about them. It was really a most exciting thing to talk to them. Normally to talk to a peasant is not exciting, because if I may say so, he is rather dull. But there was this element of excitement about their talk which they conveyed to me. There was, I think, an interesting public opinion survey of those who came here—not all the thousands, but a sufficient number of them. It is a very close survey into how the mentality of the peasant in India is changing. Of course, there is no doubt that the people who came here represented rather the higher type of peasant. That is true of the 20,000 or 30,000 who came here. Still, this basic change is taking place. This is important from the point of view of food production, to which we are diverting all our thinking and trying to utilise better techniques.

Looking back over these ten years—I shall be frank with this House—I feel disappointed in many ways, and the disappointment comes for a variety of reasons, many of these reasons being not directly connected with planning. They are extraneous to planning but affect our work. Provincialism, casteism, linguism and what not come in the way of planning and break up a united approach. And yet I do not feel dejected because the picture that one sees as a whole, in spite of these troubles, is of a nation and people throbbing with activity, moving forward, making

mistakes, stumbling, falling, getting up and moving forward whether it is in agriculture or whether it is in industry.

I have just said something about agriculture. Industry has made much more spectacular advance and I use the word 'spectacular' advisedly. It is not a solid advance, but it is a very big advance. On the one side, we see that a firm foundation of heavy industry has been built up, on which future progress so much depends. On the other side, innumerable small industries are growing up everywhere. You can feel the air throbbing with industrial activity. The indices of production are extraordinarily encouraging. They are not quite satisfactory as far as food is concerned; yet they show very considerable progress. There is another aspect of these statistics which has rather forcibly come before me in recent weeks. It is now almost universally recognised that our statistics are always understatements. They are on the side of understating the position. We have two sets of statistics for food. They are both scientific approaches. They differ so much that I dare not tell the House how much they differ! But take industrial statistics. Even now statisticians move in the old ruts. The indices of production are based on jute, cotton, maybe tea—things on the export of which we have lived all these long years. All this tremendous expansion of small industries is almost left out, because it is unorganised and no figures are available. You can see the progress, but it does not translate itself into statistics. Experienced people who look at this picture have come to the conclusion that our statistics are gross understatements of what is being done in India. I hope our statisticians will widen their vision and look round a little more and not live in an atmosphere of jute and cotton and tea only. We talk about exports, but it seems to be difficult to move out of that circle of cotton and jute and tea. But the fact is that we must get out of that rut and explore new avenues, as we are doing in fact about engineering goods and the rest....

Everyone can judge for himself by seeing what the people look like, village crowds or city crowds. They are better fed, they are better clad, they look better. See the vast number of people who travel by bus, by truck and by railway. All these are signs of growth, and of economic prosperity, and you see them everywhere. Of course this does not mean that everybody is sharing in it. Large numbers of people have not shared in it and live without the primary necessities of life. On the other side you see a small group of really affluent people. They have established an affluent society for themselves anyhow, though India as a whole may be far from it. Examine the recent company floatations. It is an astonishing thing. Imagine a company is floated. The capital required, let us say, is Rs. 1 crore. But twenty crores of rupees roll in. One case I remember where the capital was about Rs. 1 crore 65 lakhs. The applications were for Rs. 8 crore. In these company floatations you see the state of the money market and the amount of money that is in the country. True the money is in a limited number of hands but not so very limited after all. Apart from the members of the narrow affluent society in India, there are others today below that scale but in the well-to-do class. These are much larger in numbers than previously. Take shops. Everywhere

they are full of goods and full of purchasers. All these are signs of economic activity and prosperity—not shared by all, I am prepared to admit. This picture may be lop-sided. I think the new wealth is flowing in a particular direction and not spreading out properly. To some extent that is inevitable in a growing economy. But in order to prevent it one has to take measures. Normally, if you leave things to themselves, wealth grows into more wealth. "Unto those that have more shall be given" —that is the law if you leave things to themselves. And that is the law in which some of our friends believe who do not like any planning or any countervailing measures, and they consider it the right of the free man to get his wealth. Wealth has spread out much more than previously, but it still flows more in a certain direction, and a large section of the population has not profited by this increase of wealth. That is a matter to be looked into and, as you know, we have suggested some kind of enquiry. As my colleague said, it will not be a witch-hunt of individuals but it is rather to see in what tendencies and directions wealth is flowing and how we can check it and prevent monopolies from arising.

In spite of all the troubles and difficulties, in spite of the distress of many of our people, the general picture is one of a very great increase in economic activity. There is also the fact that a solid foundation of heavy industry has been built up. I attach importance to it because without heavy industry there can be no real industrial growth.

That again brings up to the question of strategies. An honoured Member in the other House asked, "Why don't you just sit down and rest?" He was referring generally to planning. He asked, "Why not stabilise? Why not just let the country take it easy?" That, if I may say so with all respect, is not thinking on practical lines. There is no rest. Dynamic forces are at work. You are riding a tiger. You cannot get down. You will be swallowed by it if you get down and rest. There is no rest and you have ever to go faster and faster, not slower, because other things do not rest. Your population does not rest; it goes on increasing. You have therefore to think in terms of an ever more rapid pace of growth. Five per cent, we have said. That may be big or small, depending upon how you look at it. But it is the least. Our population goes up at the rate of 2 per cent. If you advance by 2 per cent only, it means that you remain where you are. That is, you work hard and produce 2 per cent more, but still remain where you are. You have to give some benefits to those who lack them, and you must have money for future progress, for investment, etc. So 5 per cent is the very minimum required by us.

To come back to this business of strategy. If you have to industrialise, you want new tools, new techniques, new machines. You cannot depend upon foreign countries for all these. The foreign exchange component and everything else will always remain like that. You can make rapid progress only when you have built up a strong foundation of heavy industry. It means the machine-making industry, the iron and steel industry, the chemical industry, coal, transport, etc. The sooner you build it up, the sooner you get free of this dependence on others. If you do not

build it up, it does not matter what you do, you will always be dependent. Therefore, the test of a country's advance in industrialisation is heavy industry, not the small industries that may be put up. That does not mean that small industries should be ignored. They are highly important in themselves for production and for employment. And in fact, I think small industries are going up with remarkable speed in India. Go to Punjab or go to the South or go to other places. It is most heartening to see this tremendous activity in the small industry field. Nevertheless, the basic thing is heavy industry. Therefore, our strategy requires us to concentrate on iron and steel, concentrate on machine-building, concentrate on electricals, power and coal and other things which are the basis of modern growth. Some of the captains of industry in our country ask, "Why do you want more and more steel in this country? You will not be able to absorb it, and it will be too much of a burden." Now that is an extraordinary argument because, I say, it does not matter how much steel you produce—three times, ten times, fifty times—you will always find a use for it. It does not matter how much power you produce; you will always find for it in India with her growing economy. To say that we may not find use for the steel that we shall produce is to look at things in a most restricted and limited way, not realising the dynamics of social growth today. We had a steel plant in India put up by one very great Indian, Tata, a little over fifty years ago. He had vision, he looked ahead. And yet, for fifty years after that plant, we had no capacity to set up another plant. We relied on America or Germany or some other country. That way industrialism cannot grow. We had a magnificent plant at Jamshedpur which had no offspring. If we wanted another plant, where had we to go? To Germany, England, Russia or America. We are dependent all the time on others. We hope that this process of dependence will end in five or ten years. It is not enough if we merely make spindles or small things here. The test of a country lies in its making a steel plant. When it can do that, it can make everything else.

Look at it from another point of view. Everyone realises, or should realise, that defence today is mainly a question of progress in defence science and defence industry. Without them, we shall be weak. That brings us back again to heavy industry. It is the base of defence. And yet people ask, "Why do you have heavy industry? It does not yield quick dividends. It takes a long time. It absorbs money." But our strategy of industrialisation will continue....

Then we come to the economic consequence of prices. We must be in a position to control prices of the basic necessaries of life. I would like to add, however, that while we talk so much of inflationary pressures in this country, even now we are much better off than most of the countries of the world. Outsiders who have come here are rather surprised at the lack of inflation here.

I think someone mentioned State trading, in food grains specially. I think we must progressively investigate more and more avenues of State trading. There has been some State trading in food grains, but broadly speaking, we have not succeeded in doing what we intended to do, partly

for lack of apparatus and partly because we asked the very people to do it who were opposed to it—the small shopkeepers and others. I think we shall get over the difficulties. The development of the co-operative movement will facilitate the whole process of distribution.

Some doubt was expressed as to our broad industrial policy. I should like to say that we adhere firmly to that policy. In certain matters it may appear that we have perhaps relaxed. For example, we are criticised for allowing private firms to put up a fertiliser plant. Yes, we are going to allow them, for the simple reason that we want as much fertiliser as possible. We are putting up our own public sector plants, to the limit of our capacity. And we thought it better to have more fertiliser even at the expense of some relaxation than be rigidly orthodox about it.

Realisation of Objectives

THE PLANNING MINISTER

I

Th Planning Minister's Speech while moving a resolution in the Rajya Sabha for the discussion of the Draft Outline of the Third Plan, September 6, 1960

IN considering the proposals put forward in the Draft Outline, we have before us two broad questions: Is the Plan, as proposed, sound? And do conditions exist or are they being created to ensure the successful implementation of the Plan?

It is relevant in this context that we must assess the experience of the last decade, the decade of planned development in the country, draw proper lessons from it and shape our future course in the light of that experience. There are in that assessment two aspects, one of which looms very large in the eyes of some, since there are shortcomings, targets not fully realised here and there, lack of success at certain points, etc. The other, more dominant, feature of the picture is the striking advances made in a number of directions. If you see the picture in its true proportions, the impression created is one of very great advance during these years.

It might be said that whatever this progress, so far as the mass of the people in the country are concerned, there are no visible signs of any marked improvement, and of rise in their standard of living. It may be that, considering the vast needs, the advance that has occurred has not made a strong impression. But I should like to submit that the very considerable progress that has been achieved would not have been attained had it not been for the decision taken ten years ago to adopt the techniques of planning for the purposes of our development programmes.

Planning naturally means that things will not take their ordinary course, that we will try to step up investment and raise the tempo of development to the highest attainable level. Therefore, planning does not become easy. It has its difficulties, its problems and its shortcomings. Of course rewards follow.

In evaluating the experience of the last ten years, we must take into consideration the conditions which have prevailed in the country during this period which naturally have determined the rate of progress and which also have been responsible for such difficulties or disappointments as have been caused. The first and most important thing is: what was the starting point? When we initiated planning, what was the stage of the country? What was the stage of development or under-development? Considering the national income per capita in this country and the international comparisons that are available, this country stood among the lowest in this respect. It is not only that it was at a very low level but

also there was no evidence that it was catching up with the increase in population. That is, the trend was downwards. It was not stagnation but deterioration. So our planning effort had this downward pull to face which initially had to be overcome. It took a number of years—the First Plan and a part of the Second Plan—to achieve that. It is a very big achievement to have introduced a certain dynamism in the economy which is pushing it forward. It will be recognised that among our handicaps—and there were many—was our lack of experience initially in tackling big projects of this kind. We stepped up our rate of investment on a very large scale and our administrative machinery was not geared to the task. We did not have enough trained personnel. The shortages and difficulties were accentuated by the fact that the stepping up was very rapid. I shall give some figures. In the first year of the First Five Year Plan we started with Rs. 500 crore investment, and at the end of the period it was Rs. 800 crore. At the end of the Second Five Year Plan it is Rs. 1,500 crore. At the end of the Third Plan it has to be Rs. 2,500 crore. That means 70 per cent increase, 65 per cent increase and 72 per cent increase respectively. This stepping up has its own consequences, and if we are not fully prepared for this huge rate of acceleration, naturally difficulties arise....

We have made big strides in preparing ourselves for a still bigger advance in several directions. Another consequence is the fact that ours has been an underdeveloped country and we need more investment for its development and we need more savings. Here is a country where the people are not in a position to make any big savings out of their low consumption levels. That is a fact which has to be encountered. There is another factor which is very important. It is our democratic structure. I am convinced that when democratic forces come into full play, they will become a very great ally of development. I have no doubt at all in my mind that the fact that we are a democracy is not going to be a liability but an asset. We have been told very often that we cannot attain the level of progress and the rate of development which other countries with a different kind of political structure and an economy different from ours are capable of doing. I have no such fear in my mind, but, at the moment, we have some difficulties.

These difficulties are of two kinds. There is the fact of rising expectations, because our people are a free people. They are awakening to a new consciousness of their needs and their rights. Therefore, they ask for more for every region, every section, and the claims pile up. On the other side, we do not have the methods to extract more out of their current incomes for the purpose of investment. I am sure that this handicap is going to diminish progressively. When every unit of the population participates—and becomes a willing partner—in this process of development, the results are going to be extraordinarily good.

A third difficulty is the growth of our population. Between the time when we started our planning and now, the rate of population has been increasing. It was 15.8 per thousand then; now it is 21.4. That is a considerable increase. The consequences are that if a certain result could

have been created with an investment of Rs. 100, now it will need Rs. 120 or Rs. 125. If we could have given work to all the people and if we could have utilised the manpower fully, then the growth of population would not have been a handicap. But today it is.

In regard to our planning effort, we are asked why certain targets have not been realised and what happens to the price level. We are in a mixed economy. We are trying to maintain a mixed economy in which the control of the State is limited.... Another factor is the federal structure of our State. There are various levels of planning as well as execution. This, I think, is not entirely a disadvantage, but certain difficulties do arise in the co-ordination of the processes of planning and development as a result of the system.

One factor which has a very important bearing on the course of progress is the fact that we have set before ourselves several objectives and they are competing objectives, for the time being at least. Our main objective is that the speed of development should rise, that the rate of development should increase and should grow for the purpose of better standards of living. Another objective is that we should, as soon as possible, be able to maintain this high rate of growth on our own resources. That is, we should rely on ourselves and not be dependent on others. The third objective which we have set before ourselves is that the people should get full employment. The fourth objective is social justice which we cannot forget. We want to see that disparities do not increase, but are narrowed down, that the common people are able to improve their standard of living and their wealth is increased.

Among these four objectives there are conflicts. In the first place, there is a conflict between consumption and investment. A further conflict arises when we try to go ahead with the programmes which will enable us to achieve economic independence and a self-sustaining, self-generating stage in our economy. It means that high capital-intensive projects will have a large proportion in the whole scheme of development. The potential of employment will be correspondingly less. Those who are in favour of higher employment tell us not to industrialise, or at least to see that the proportion of investment in industrialisation is not so much. They want us to have more of labour-intensive schemes which will provide larger employment. Here again a balance has to be struck. It should be realised that, over a period, it is only this larger investment in industrialisation, particularly of the basic type, which offers scope for larger employment. We have been asked again and again about social and economic disparities. Frankly, in the earlier stages of development, if there is too much preoccupation with the other aspects, production will not rise adequately and development suffers. Even the cause of social justice will not be served thereby. This factor has a bearing on the things which we are going to do for the next five years and later. I feel considerable confidence that we have been able to do so much, and stepped up the rate of development. The difficulties in regard to trained personnel have been removed very largely, and our administration has improved in several directions.

When we started planning, we set before ourselves a very modest goal, and it was that the national income should be doubled in a certain number of years. When the First Plan was drawn up, the idea was that there would be a doubling of the national income in 22 years and of per capita income in 28 years. In the Second Five Year Plan we revised our estimates and projections, and according to the projections incorporated in the Second Five Year Plan, the aim was that this doubling of the national income should come about in 18 years and the doubling of the per capita income in 24 years. It is in that perspective that we have to consider the role that has been assigned to the Third Five Year Plan.

Two or three things appear relevant in judging the progress of national income. The first is the investment-output ratio. This involves the efficiency of our investment, both in the construction stages and in the operational stage. We have to see that even with the same size of investment we have a better yield, a better return. The next consideration relates to the extent of investment which is locked up over a period and matures later. In the Second Plan we had to invest large amounts, with a long gestation period. Another factor is the place that agriculture occupies in our national income. Agriculture still accounts for nearly a half of the total national income, although it has gone down somewhat. In 1958-59 it was 47.7 per cent as against 49 per cent in 1950-51. The other sectors are growing uniformly in value. Not only does their level rise year by year but their rate of advance also is accelerated. The case of agriculture is different. The production fluctuates, being very largely influenced by the weather. While we are doing our best to increase agricultural production by the various methods open to us, still one bad season may bring us face to face with a difficult situation. But over a period of years, it is a rising trend and that is the important thing. Take the experience of last year, the fourth year of the Second Plan. Because of a fall in agricultural production, the rise for that year in the national income was only about half a per cent. This of course is a 'quick' estimate. It may be that when we get the final figures, the position will be better. That usually happens. Still, the average for the four years is going to be less than the average we had thought of. Yet it is our hope that we may very nearly reach the level that we had visualised for the end of the Second Five Year Plan, if there is a normal season.

When examining the pattern and structure of the Plan, a number of questions arise. Are the targets that we have placed before ourselves adequate in relation to certain requirements? Is a sectoral balance being achieved? That is, are we securing balanced development from the various allocations that we make? Of course, financial allocations are met, but what really matters are the physical targets. In relation to physical targets, the important question is the availability of real resources. Do we have them? Is enough food being secured? Are the industrial raw materials available? Also the basic and ancillary facilities, such as power and transport, have to be adequate in order to meet the requirements of production and distribution. I believe, as far as we have been able to judge or calculate, adequate arrangements have been made for

these, but there are still some questions to which there may not be any satisfactory answer at the moment. For example, the road development sector has not received adequate attention. For ship-building also we have not made adequate provision.

There is yet another question to consider when we discuss the pattern of the Plan. That is the division between the private sector and the public sector. I think the capacity of each has been judged in relation to our total objectives, and a very fair balance struck.

Besides these, we have to take into consideration the question of consumption in the country and also exports. We have to see whether our various targets provide adequately for exports in order that we may not be faced with serious difficulties regarding the balance of payments position.

Let us now turn to particular issues. First, agriculture. There really is no conflict between agriculture and industry, for they are mutually dependent. In a sense agriculture is not a matter of priority at all. The needs of agriculture have to be fully met before the priorities start. That is the whole foundation of our development, and I can say that we have made sufficient provision for agriculture in that light. In the Third Plan, the tasks laid down for agriculture are very much larger than before, but we have to ensure—and I believe we have ensured—that the necessary resources are also provided in financial and physical terms, like irrigation, fertilisers, seeds, etc. There is now a much greater consciousness of the importance of implements and proposals have been made that the need for improved implements is met and satisfied in a proper way. Since output is not simply a matter of resources but also of organisation, the organisational aspect is being improved very much. The community development organisation is, and has been for some time past making agriculture its principal task. There are also other changes occurring, like the organisation of the Panchayats and of co-operatives. Are we, as a result of all these, going to get a sufficient production of foodgrains? Yes, that has been ensured. Moreover, in regard to jute, cotton, oilseeds, etc. we have tried to ensure that not only the needs of internal consumption but also some availability for export is provided for.

In the matter of industry, which is the central feature of our plan of development, we have done fairly well. The annual rate of increase in industrial production has been very good. Recently it has improved further, and here also the main thing is that we provide enough consumer goods through industry, chiefly cloth and other basic needs of the community. Then the major question is how much we are doing for the capital goods industry. The provision in this direction is such that it is capable of taking us much further in the course of the Third Plan towards the stage of self-sustaining growth. As regards village and small industries, we have, even in the Second Plan, increased both allocations and activities under these two heads. In the Third Plan the provision has been further increased and there is scope for much greater activity in these fields.

Let me turn to social services. In the course of the Third Plan, we are going to see that facilities are created for all children between 6 and 11 to attend schools, and we have calculated that 80 per cent will be in the schools by the end of the Third Plan. That will be a very big advance.

What do all these activities amount to in terms of effort? More of agriculture, more of industries and more of all these things may be very good, but the size of the Plan has also to be proportionately large. The investment in the Third Plan is going to be practically as much as the investments in the First and Second Plans put together. Some doubts are expressed whether we would be able to manage this. There are also doubts whether what we have indicated in the Plan is adequate. I might submit that in the Draft Outline it has been stated that we shall have to consider increasing the provisions under certain heads. Some vital needs are being felt, but we probably do not yet have properly worked out schemes. Therefore, the efforts required may be larger still.

The question of size is naturally linked with the question of resources. I shall not go into each element that enters into the scheme of resources that has been presented in the Draft Outline. But there is one fact which gives us considerable satisfaction and that is that people who are detached and competent observers have found that the whole pattern of our resources and also the separate elements in the scheme are reasonable and attainable, and that if circumstances are more favourable, even better results can be obtained. On broad economic considerations also it can be said that, considering the increase in the incomes that is anticipated, and the fact that what we take out for investment is only about a fourth of the new income generated, it should not be very difficult for the community to raise resources of this size for the purpose of a Plan like this.

The question of prices comes in at this stage, because the size of investment has a very great bearing on the price level. Large investments would generate inflationary pressures if proper safeguards are not adopted. The question of the price level is very much in the minds of many of us. There should not be any complacent view about the level which prices have already attained, and any appreciable increase is something which cannot be contemplated with equanimity. There are many dangers there and the Plan itself may be in jeopardy. How do you raise the necessary resources if the prices go on rising? Our balance of payments position would become difficult if we are not able to increase our export sufficiently. Also, inequalities would arise. Therefore, it is very important that we take good care of the price level. Without price stability there may be economic and social instability. Therefore, everything possible should be done to stabilise prices. What exactly these measures will be depends upon the situation and the circumstances. The greatest attention should be paid to those articles or commodities which enter into the consumption of the mass of the people. We must ensure the mass of our people do not suffer because of the rise in the prices of the articles which form part of their family budgets. It may be that certain other commodities which may be called luxury or semi-luxury articles, may have

to bear certain other imposts for the sake of raising the resources, and that may not cause so much worry to us. Another important thing is to see that the money expended and investments made lead to quick production. If production is halted or delayed, then the dangers are aggravated. Here again, it is a question of efficiency in the implementation of the Plan.

If the resources are so drawn that inflationary pressures become inevitable, then no amount of other safeguards will help us in keeping the price level down. So far as the structure of this Plan is concerned and also the scheme of resources, it will be evident, from the way in which various allocations have been made and targets have been laid down, that the intention is to see that there are enough consumer goods in relation to the demands that may arise when incomes increase.

A very large proportion of the Plan expenditure, about 30 per cent, is accounted for by external finances. It has been rising steadily: more in the Second Plan than in the First and still more in the Third Plan. The stage has come now where we cannot have more. We are not importing consumer goods but capital goods, and with the help of the capacity created by these goods we shall some day, soon enough, be free from dependence on external assistance. Government have to make efforts in certain ways, and assist when big programmes are undertaken by the co-operatives. But largely it has to be of a voluntary and non-official character. This is a thing in which people can find something worthwhile to attempt and to achieve. I still hope that this matter would be taken up in a large way by the people. Even if 30 per cent of the distribution is in the hands of co-operatives, it will have sufficient effect on the price level.

Hon. Members will be telling me that we have not done enough in the matter of employment and that the back-log is bound to increase in the Third Plan. That may be so, but it should also be remembered that in the course of these years, we have been providing more and more employment than before and larger funds. Still, we have not come to a level when all the new entrant in the labour force would be provided for. If the population increase had not been on this scale, the Third Plan would probably have met this requirement entirely, but it has turned out otherwise. We are, furthermore, thinking of taking up other programmes in order to ensure that not only the fourteen millions but also the additional one million, for whom no provision has been made in the Draft Outline, are given employment. Through special studies, we have come to the conclusion that by a more intensive use of all the possibilities at the level of the district and the blocks, and by utilising all such opportunities as exist today, we can, without much increase in financial investment, increase the employment level. Certain pilot schemes are being taken up, and I hope these will indicate how exactly we can increase employment opportunities. The pattern of the Plan cannot be changed very much, but inside the pattern matters can be improved. For example, machinery is employed in a number of irrigation and other projects. These machines are used not because the difference in the

matter of costs and returns is very much but because it is easier to use machines. Instead, we might explore every possibility of labour-intensive activities. We are also envisaging another approach to the question of employment. In the rural areas, there is work and there is idle manpower. Why can't they be brought together by means of a simple arrangement? We may not be able fully to pay everybody engaged—it will have to be subsistence wage—but the economy will benefit and new assets will be created. These things are being explored. We might have said this only in a general way; but more experimentation will have to be carried out through pilot schemes before anything definite and concrete can be said. Something good will come out of the experiments that are being carried out.

We now come to the question of creating a self-sustaining and self-generating economy in the country. This expression can be interpreted in many ways, but what we mean in this context is that we should not depend upon outside aid in the matter of resources or capital goods or equipment. It is not that we should not import anything at all, but the idea is that the bulk of the goods should be produced here. This is one big aim in the Third Five Year Plan. Considerable progress has been made in this direction even in the Second Five Year Plan period. I need not repeat to Hon. Members the figures of advances made in the manufacture of items like machine-building equipment, equipment needed by the Railways, and so on. This advance is going to be very much more in the course of the Third Five Year Plan. But if this has to come about, we have to train our people in larger numbers, build up our technical know-how and undertake research. It is also necessary to create designing facilities so that we are independent of foreign collaboration. These are some of the steps needed to bring about a self-sustaining economy. There are other aspects also; for example, our domestic resources should be raised to a much higher level so that we do not depend on external aid. Our balance of payments position has got to be watched carefully, and we must be able to export more so that we may balance our imports and not depend upon foreign assistance.

I now come to the question of social disparities. As I indicated in the beginning, we have been told that we have neglected this aspect, whereas I do not think this is being neglected. It may be that we are not sure what is happening. That is why the Prime Minister declared in the Lok Sabha that he would have some kind of an expert enquiry made. This is to be initiated very soon, but I might clear some misunderstanding that has been created on this score. It will not be a witch-hunt to find scapegoats. It is going to be an economic, statistical, scientific inquiry. Its results are not aimed at any particular section of the people.

We have also been told that we have not done anything for the common man. It may be that we have not been able to bring about any spectacular change in the living conditions, but many of the things on which money is being spent, for example, health programmes, education programmes, the welfare of backward classes, and social welfare are

all programmes which benefit the common man. The pressure on the supply of goods is itself evidence of the fact that people have improved their economic position. If it were that all the incomes were concentrated in the hands of a few rich people, there would not have been demand for all these things and there would not have been any danger of inflation. It must be understood that reduction of inequalities does not mean so much levelling down as levelling up. We must consider the needs of all sections of the community, and a national minimum has to be established in the matter of environments in the rural and urban areas. All people must be in a position to have enough nutritious food, enough clothing, good housing, education and health. Also, the artisans must be able to get their basic needs. The programme has to be mapped out not in general terms but section by section, and area by area. Equality of opportunity has to be created through our educational programmes. One other consideration about which I am very keen is that those who do not do any genuine economic service should not reap very large rewards. What proportion of income is going into their hands I cannot say, but I believe it is considerable. This has to be corrected. I am sure nobody will be hurt by that. Even business men, who are honest people, will feel happy that we are going to do it.

I find that from each State claims are being made for bigger-sized plans for the development of their area. This is a sign of the pressures that are being created, and of the needs in the different areas in each State. Although it may not be possible to meet all these demands in one Plan we have to take great care that these imbalances are rectified and that those who have been left behind are helped to catch up with the others and go forward. This will be done to the extent feasible in relation to the distribution of available funds.

Lastly, I shall refer to one aspect which has attracted considerable attention in the whole country. The Prime Minister mentioned it in the Lok Sabha and drew pointed attention to it—the aspect of implementation. There is a fair amount of suspicion that the implementation is not quite adequate, not successful; that is, there are many lacunae, many flaws. I think it is true to an extent. But we can also see how much improvement has occurred in the course of the last ten years in many directions. There was no organisation in the rural areas at all, no kind of extension service, but now we have about 30,000 village level workers. No care was taken of village industries and small industries, but now new institutions and boards have been set up. In the matter of running of public enterprises, we have had difficulties, but we are improving the organisation and they are run better than before. The key factor is the training of manpower and I think we have made very good and satisfactory progress in this matter. Compared with the position ten years ago, now the intake in our engineering colleges is more than threefold; in polytechnics it is more than fivefold. In the matter of training of craftsmen, four years ago there were 59 training centres where 10,000 persons were trained. Now we have three times the number of centres and four times the number of persons who are receiving training. This is a very great sign of our going ahead.

In determining our future, it is not so much really the resources that are going to matter as our policy. The question is whether we have adequate organisation, adequate administration and procedures and what is the people's part in the implementation of our programmes; that is, to what extent people's participation is secured at every stage of planning and execution. More managerial talent is being developed, the administration is being streamlined, and the procedures are being set out clearly. So far as costs are concerned, we find that if it is possible to reduce costs of construction by 15 to 20 per cent, that will be a big gain to the construction and execution of various projects. It is possible to reduce costs by better planning, by having more precise estimates and by having a check on the expenditure from stage to stage. These things are being evolved.

An important aspect of implementation is evaluation. The Prime Minister has referred to it as the audit of efficiency, and to some extent this idea has been applied. The Committee on Plan Projects has looked into several projects and its work has resulted in an increase of efficiency and more economy. This process can be extended very greatly, and evaluation has to be built-in. Processes have to be evolved so that everyday will know that investments are being applied effectively and efficiently.

There are certain intangible elements in the situation, but what is far more important for the success of our Plans is the unity and solidarity of our nation, the faith of the people, their enthusiasm. It is not a matter for the Government alone; it is for all of us that we try to create that confidence and that enthusiasm among the people towards those economic and social objectives of which this Third Five Year Plan is made, and I hope that with the help of all the people in the country these objectives will be realised.

II

Excerpts from the Planning Minister's reply to the debate in the Lok Sabha on the Draft Outline, August 26, 1960.

The Plan is not going to fail. It cannot fail, because of our confidence in the capacity of our people. What we have seen during the last few years in regard to the performance in the country inspires confidence.

When I say that I have confidence that the Plan will succeed, I do not necessarily mean that every target is going to be realised 100 per cent. But the point is that the people are going to march forward on the lines of this Plan, and in terms of this Plan. The people of our country are going to make the utmost effort, and that is what matters.

Shri M. R. Masani has given a glimpse of what he thinks should be our plan: to have some varieties of light industry and confine ourselves to the production of consumer goods because such things have a large margin of profit. Such a plan can yield no progress at all in terms of employment, in terms of surplus, in terms of raising the standard of

living of the people in any worthwhile terms. It cannot do it. I thought Shri Masani at least had sufficient understanding of economic processes not to ignore that fact. And his plan cannot fail; it cannot fail because it is no plan at all! If you are not prepared to get up and move, there is no risk of your falling or failing....

One question which has recurred frequently in the course of the discussion is the record of progress and performance. The agricultural sector and the fluctuations in production have been frequently mentioned and we have been asked what we have done. We cannot absolutely control or eliminate these fluctuations, which are controlled by weather conditions. But we have to see whether, over a period of years, the trend is a rising trend or not. It is a rising trend. It is true that the vagaries of weather affect very much the whole trend of production, and therefore, also our national income figures. If during one season production goes down by six million tons, as has happened, the national income would also be affected. We may not be able completely to control weather for a long time; but by our import and by improvements in agricultural practices we can lay a sure basis for an increase in agricultural production. On the other hand, the contribution of industry to the national income has been rising. As it keeps rising, agricultural income, which now figures greatly in the national income, will come to occupy a small proportion. In spite of the shortfalls, we can see that the overall increase in agriculture has been at the rate of 3.5 per cent per annum. This is not all to our liking; we want more; but it is not a negligible increase.

As for the national income, the authentic figures of increase are as follows: 1956-57, 3.5 per cent; 1956-57 to 1957-58, 3.7 per cent and 1958-59 to 1960-61, estimated at 3.75.

The total production in industry has been rather impressive, despite shortfalls here and there. It will be nearly double in ten years. In the First Plan the increase was 39 per cent; in the Second, it was 59 per cent over the First, and we are proposing for the Third Plan a 64 per cent increase over the Second Plan.

More important than increase in production under this or that head is the fact that we have developed our capacity for growth. After long years of stagnation we have started moving. This capacity is symbolised by our steel plants and our machine-building plants. Side by side we are developing our technical know-how, and increasing the numbers of our trained personnel. These make for rapid industrial progress. Our aim is that in the course of the next ten or fifteen years, we should become practically independent so far as import of capital goods is concerned. The progress made in this direction is extremely impressive. We are also giving a great deal of attention to creating designing facilities within the country and I hope that is going to become the basis of a truly indigenous growth of industrialisation.

I should like to point out that, whatever the shortfalls might be, the progress has been phenomenal. I am repeating it because I am convinced that it would not have been possible had it not been for the methods we

have adopted in planning our economic development. The rate of step-up in investment would not have been possible otherwise. The level of investment increased from Rs. 500 crore to Rs. 850 crore in the First Plan; in the Second Plan to Rs. 1,450 crore; in the Third Plan it will go up to Rs. 2,500 crore. These figures represent the total investment. The public investment also shows a similarly high increase. It rose from Rs. 200 crore to Rs. 450 crore in the First Plan, and in the Second Plan to Rs. 800 crore. In the Third Plan it will rise to Rs. 1,500 crore. If the First Five Year Plan had not been there, this would not have occurred at all. This progress was unimaginable on the basis of only of voluntary savings, which has been recommended to us by the Hon. Member, Shri Masani. This could never have come about. That is the justification of planning.

Shri Masani has his own rival doctrines about planning. He says he is for planning, but not for co-ordination. That means no Planning Commission, and no coping with the responsibilities which arise out of planning. Then he says he does not believe in *laissez faire* but believes in planning. That means that Government should create the environment in which the private sector should be able to function effectively. Government should create the basic facilities, give loans and levy less taxes so that they can have a paradise.

That is, there should be no heavy industries. Sometimes where the private sector cannot do a thing, possibly Government should help. But how can Government, deprived of the resources, be able to help heavy industry to be founded? The whole idea of light industry being able to develop the country in a better way is wrong. You may have light industry in order to produce consumer goods. But how much surplus is generated through those industries? Unless we go a stage further and produce machines ourselves, we cannot at all meet the needs of the people and satisfy expectations regarding employment and standards of living. It is not possible to do that on the basis of light industry only.

Shri Masani asks: why have so much steel and machine-building capacity, when they do not give much employment? Can we eat steel? Where will it go when we produce it? The answer is: machines will eat steel, the machines which are going to produce the goods. How else are we going to expand the large number of our industries? Steel becomes the basis of a much more rapid development of consumer goods. It may be that there is a much higher investment content and a lower employment ratio in the steel industry. But the ratio grows at the stage of fabrication. This is so obvious....

Another objection of Hon. Members has been in regard to the public sector. This is an issue which has to be faced. Without industrialisation, without heavy industry and machine-building, it is not possible to increase employment. The objection to the public sector is on grounds of loss of freedom, bureaucracy, waste and extravagance, and interference with democratic traditions. I have seen the private sector at very close quarters; I have been for years enabled to watch it, and I know what

happens there. There are good people there, of course, but I know how much of the things which Hon. Members do not like take place there—waste, nepotism, speculation, black-marketing and other anti-social activities. Let there be the slightest scarcity, and they are ready to exploit it.

There may be defects in the public sector but I am sure that the public sector is going to improve. Remarkable progress has been made in certain cases. If it can be made in one plant, two plants or three plants, why can't it be made in every plant? This will be done more and more. I have seen shareholders' meetings in the private sector. Very few attend them and they are only interested in the declaration of the dividend rate. But here, in the public sector, the shareholders are very much alive and vigilant. The whole public looks on, and this House watches it through its committees. Nothing can escape the gaze of this House. There lies the assurance that the public sector is going to do better and better. We have gained experience and we are employing it in various ways. Take for example the question of personnel. The First Five Year Plan did not make enough preparations for training personnel. But we have taken good care in the Second Plan to see there is adequate arrangement for training personnel. For the Third Plan also we have done that. Further, the Third Plan has made adequate provision for the requirements in the beginnings of the Fourth Plan.

Then there was the question of freedom of monopolies, of bureaucracy, of concentration of economic power and also of Soviet-type planning. These were some of the words and expressions used. So far as the public sector is concerned, it is really a very, very false notion that we in this country are doing anything special for the public sector and that we have gone to excessive lengths. Actually, the public sector in countries which are not called socialistic countries may be doing much more than we are doing, and even controlling 20 or 30 per cent of the national economy. The bogey is raised that because we shall have controls administered by the State, freedom will be lost. What is the comparison with Soviet Russia? We have a democracy. We have Members of Parliament. We have the people. No economic power can be misused; the people will not tolerate it and they will not allow it....

Another point is that the private sector itself has grown. Can anyone say that the private sector suffers? The private sector has grown from Plan to Plan. It would never have grown without the Plan. It has grown because of the resources mobilised by the public sector which has enabled large-scale development in the country which creates opportunities for the private sector also.

It may be asked why we allow the private sector to grow. My answer is simple. Our main objective today is to increase production. We want to utilise every element and every agency in the country which can help us to mobilise the resources and increase production. Ours is a mixed economy. We allow both sides to function. They say, "Do not allow the public sector to function but only the private sector." We say both the private sector and the public sector should function.... The Hon.

Member Shri Ranga* told me I had signed the Sarvodaya plan. I remember my responsibilities. I had the privilege of functioning fairly close to Gandhiji for several years. What he would have done now, nobody can say. I am sure he would have had his own views; he would have tried in his own way to tap the moral and spiritual energies of the people. He would have exercised persuasion rather than legislation, although legislation is also necessary. He would have asked for greater austerity in the country. But the question is whether he would have approved of these Plans. Knowing him, I say that if he had seen that it was through these Plans that the people could be lifted, could be found employment, he would certainly have approved of that. And I am quite sure that he would have totally disapproved what Shri Masani and his friends say, because Gandhiji was totally against exploitation of all kinds; he was for eliminating exploitation and not perpetuating it....I just recollect a significant event. Once I was recasting the constitution of the Textile Labour Association. I thought we must say whether we were only working for a little more wages for the workers or had any social ideals before us. I introduced a clause aiming at elimination of exploitation. Gandhiji looked at it and said, "You mean nationalisation?" I said, "Yes". Then he wrote with his own hand, "and in due course, nationalisation of the textile industry". This is on record; it is part of the constitution of the Association. We have not gone that far at all and we do not intend to. But his idea was that even the textile industry could be nationalised. Let him not therefore be cited when we talk about the public sector.... By the public sector, I do not mean simply that a few officials are running it in the name of the nation. It has to progress in a democratic way. There has to be participation of the workers. This is already happening, because we have it in the Plans.....

I was asked by the Hon. Member Acharya Kripalani about our employment policy. I have been a staunch advocate of cottage and village industries. I still am. I believe in the strengthening of village industries and the industrialising of the rural areas, so that numerous foci of development are created there. If we want to prevent the people from being drawn into the cities and develop the rural areas, it can be done only if there is some industrialisation there. Therefore, there should be village industries. I think there is going to be a full and healthy life in the villages, but without the numerous gadgets of present-day civilisation.....

With the labour force increasing all the time, how are you going to give employment to an increasing number of people? Land is not going to suffice for that purpose. Other occupations have to be created. We want employment not for the sake of employment. We want earnings of a certain size, but if we follow wrong methods, it will be a continually diminishing size of earnings. That is where the idea of Sarvodaya comes in. I belong to the Sarvodaya camp. I do not say that this is a Sarvodaya plan but I do say that it aims at reaching those objectives of employment better than any other course....

*Earlier during the debate Shri N. G. Ranga had observed that Planning as now practised in India was contrary to the Sarvodaya Plan.

There was a great deal of feeling expressed in the House that disparities were increasing and we had not been able to do anything effectively in that regard. Some people say it is not increasing. There is some evidence on that side also, and some figures are given. It is not easy to dispose of the question in this manner. It has to be properly examined on the ground of facts—the processes and channels through which the new incomes move, where they reach—and then we have to interpret the factors and the forces which are at work. For that purpose, the Prime Minister informed the House that we would like to have an expert enquiry. We are now moving in that direction. The terms of reference of that committee will be something like this: "To report on trends in the distribution of income and wealth and in changes in the levels of living during the First and Second Five Year Plans."

What were the remedies so far offered? They are drastic. We are asked to fix a ratio between the minimum and the maximum. It is a very attractive thing, and personally, if it were possible, I would jump at it myself. But how does it come about? By a number of actions on a hundred points through several channels. It is the resultant product of a number of steps taken, laws, policies, etc. Taxation is one of the policies. Licensing is another.

I believe there are two directions in which we have to move and we are already moving in these directions to some extent. The first is that if you want the private sector, you have to give it adequate incentive. You cannot ask it to function and yet starve it. I believe that the incomes which are honest incomes received from genuine economic surveys are possibly a smaller proportion of the total income which is occurring in trade and industry. There are other incomes—from speculation, underhand dealings, black-marketing, etc. If we go at them effectively, strongly and vigorously, I think we shall be able to get a big job done without hurting production.

The other direction in which we have to move is raising the floor (that is, the basic standard of living.) Throughout the country, every person should be enabled to satisfy his basic needs, namely, food, clothing, shelter, education and health. We should be able to ensure this. Even if we cannot give employment to a person, we should at least ensure him these basic needs, because it is through no fault of his that he is going without them.

Various recommendations have been made in the Draft Plan in this direction. Each village must have water-supply, a link road, a school building, spread of education, various facilities of health, etc. A national minimum has to be assured and everyone's needs on that minimum scale have to be fulfilled. Our policy has to be worked out on these lines. Some steps are being taken in this Plan in that direction and more will have to be taken.

There is one aspect of disparities which is exercising the minds of Hon. Members very much, and that is the question of region-wise imbalance. It is very important for the sake of national unity, cohesion

and emotional integration that there should be no sense of frustration anywhere in the country and that every region should have its due. In this matter there are two interests to be reconciled: national interest and regional potentialities. After all, if more is given to some area, it has to come from somewhere else. Therefore, the entire nation has to produce more. But what is more important in this case is that all regions are not equal, even as human beings are not equal. They have different potentialities. These potentialities should be studied thoroughly. We are having enquiries which will enable us to make them reach their full level of possibilities. For example, we have taken up the question of the development of the hilly regions.

The question is asked: have we the proper criteria for judging whether disparities are increasing or going down? We have been developing such criteria, and on the basis of the limited study that has been made in regard to irrigation, power, agricultural production and so on, it has become evident that these disparities are lessening....

The amount of money that is being given to the States from the Centre to assist them in order to make larger plans is, I think, about 70 per cent of the total provision of the Plan. Through this mechanism it is possible to help the States which are backward and also to enable the backward areas in the State to improve their position.

There is then the question of rural versus urban matters. In Delhi there are many slums. I do not know whether the people living in the slums here are different from people living in the village. It is not a question, therefore, of contrast between people here and people there. People, wherever they may be living, have to be looked after, and we should not create a kind of contradiction between the rural and urban areas. But it is very natural that we must think of promoting and developing the well-being of the rural areas. I think the allocations that have been made, in spite of what the Hon. Members have said, for agriculture, community development, irrigation, fertilisers and so on make a very handsome total. But the results are not very evident. It will take time to make them visible. What is it that we get? 1.6 per cent increase in annual consumption. It is not very big. We have to increase it. In the rural areas, through education, health, provision of drinking water and so on, the conditions are being improved, levelled up.

I have already spoken about the question of employment. We are asked what we shall be doing about employment in the Third Plan. A million people will not be provided with employment but 14 million will be, which is much bigger than what we aimed at in the Second Plan. And the employment newly provided in the Second Plan was bigger than in the First Plan. Our intention is that in the Third Plan even that one million should be provided with employment. There are various labour-intensive activities in the rural areas, soil conservation and so on. We are coming to the point where we are nearly even in the matter of employment because of the fruition of plans. The Third Plan will enable us, I think, to cover some of the back-log also. Then, we shall be in a better position.

Shri A. K. Gopalan has referred to land reforms. It is wrong to say that the States have not done anything in the matter. Every large State has laws to regulate, to stop and to prohibit evictions. It may be that in spite of the laws some evictions are occurring, but it will take some more time for the administrative set-up to be properly geared and strengthened to deal with this matter. There has been reduction of rents and security of tenure. I think the rent level has been reduced to one-fourth or one-fifth of the previous rent in some States. It is possible this is not fully effective. But, as I said, we are improving the conditions. We are creating land records which will enable a better administration of our land legislation...

What are we aiming at during this Plan? A five per cent increase in the national income. Two per cent of this goes to match the increase in population. Of the remaining three per cent, one per cent goes for investment, and one per cent goes to the new employee. We should remember that millions of the newly employed are not at the same level as the other people from whom they are drawn. They come to the projects and to places where the wages are higher. That means that out of the 5 per cent growth, the general population gets just about one per cent. Is this a very big aim? Have people who talk against the size of the Plan considered this aspect? The same people ask: Why have roads not been built? Why is shipping not undertaken? How are these things going to be done if the income does not increase? There is no static pool of resources. This is a concept which should be very clearly understood. Only if we increase production at one stage, shall we be able to draw upon it at the next stage....

There is one basic question: what does it mean in terms of the savings of the community? Domestic savings are to be raised from 8.6 per cent to about 11 per cent. This is considered an impossible task. If it were that we were taking away 3 per cent out of the present incomes, it would have been so. But we are adding to present incomes and out of the additional income we are taking away one-fourth to be siphoned off for the purpose of fresh development. What is wrong with it? We are thinking of 11 per cent at the end of the Third Five Year Plan. This figure even now is 15, 18, 20 and 25 per cent in several countries in the neighbourhood. What we are drawing out for the purposes of our resources is really the consequential gains....

In connection with the size of the Plan and resources the question of prices has been raised often in the House. This is a very important question. All of us agree that it will be burdensome for the people to allow prices to rise further. They have already risen high enough. In the Third Plan we have targets for consumer goods based on certain measurements of elasticity of demand in relation to income and prices. If we can produce these goods there should not basically be any difficulty about holding the price line. It is also true that whereas investment comes earlier, production comes a little later. That is only a gap of one stage. If we can meet it by the necessary regulation, buffer stocks, etc.,

there should not be any problem, provided deficit financing has been under control.

Again, deficit financing is not a figure which has been assumed as the balance of our requirements. It is not so. It has been calculated on the basis of a certain growth of national income, production and the needs of money supply for the community. All these have to be kept at the required level. Deficit financing cannot be measured in a rigid way, but we start on the basis that a safe limit will be set to deficit financing.

We shall see to it that the price of at least the essential goods will not be allowed to rise. These will include the mass consumption goods such as food and clothing. I am making another distinction, namely, goods of the intermediate category which are not luxury goods or wage goods. We have adequate production of these also.

The rise in prices that has occurred in the Second Five Year Plan is due to certain reasons. One is that the deficit financing which was incurred during the First Plan was incurred towards the end of the First Plan, with its consequences. There were also certain agricultural difficulties. Production of foodgrains declined in that period. Although one cannot absolutely ensure that there will be no rise whatever, I think there is a good prospect of our being able to prevent it. We shall do this in two ways. The first is selective controls. Selective controls do not necessarily mean rationing. There can be various kinds of controls—fiscal and monetary. If you take away the purchasing power that you are injecting into the economy, you make the problem of prices less difficult. Mopping up purchasing power by taxes acts in two ways. It gives us resources and it enables us to hold down the prices. We are in a very good position now, with a good buffer stock of wheat and rice. It is bigger than what we had before. We should therefore be able to look at this matter with more confidence. Government has been considering this matter recently, and taken a decision that everything possible has to be done to stabilise prices. The National Development Council is also meeting soon and it will look into the effective ways of doing it.

Then there is this question of implementation, on which the Prime Minister has laid great stress. Our administration has improved, but the bigger effort that is now called for and the targets and increases that have to take place in all directions will call for a much better apparatus. Implementation does not concern only the administration. Public participation at numerous stages and the role of non-official leadership also come in. Non-official leadership is as important as official leadership in the matter of seeing to it that the wheels of the economy move smoothly.

Those who want that the prices should not go up must understand that we cannot control every retail shop and every individual. We have fair price shops. But that does not meet the entire problem. Therefore, one thing that has to be done in the country is to develop consumers' co-operatives. It will be an answer to many things. This is a thing which the people have to do, and not the Government.

The essential purpose of the Plan is to do all the things that will develop the intrinsic strength of the country. That strength, economic and social, is going to be the sheet-anchor of the security of the country, progress in the standards of living of the people, employment, cultural advance and all else. For that purpose, a climate of united endeavour has to be created in the country. The little dissensions, the little things which dissipate and distract our attention and therefore retard our advance must be eschewed. People must understand that simply by combining in this big national endeavour, all of them are going to be better off. Everything that they want can be attained in this manner, and not in the other way. And that I believe is the message of the Plan, namely that we have all to put out our best effort, and work hard and honestly. There is no royal road to progress. The price of progress has to be paid. I hope the nation will rise to the occasion.

PART II

Administrative Efficiency

V. T. KRISHNAMACHARI

THE Third Five Year Plan follows logically from the results achieved in the First and Second Five Year Plans and embodies a pattern of development which will enable the nation to realise the goal placed before it, of doubling by 1973-74 the per capita national income as it stood in 1950-51. It should not be viewed in isolation: it constitutes an important stage in the process of social and economic growth. The target of 5 per cent annual increase in national income which is aimed at in the Third Five Year Plan is a modest one in relation to our needs and I am confident that the national effort needed for achieving it will be forthcoming.

An essential condition for the success of the Plan is that, by improvement in the efficiency of our administration, we should get the best results possible in the shape of increased production from investments in large projects that have been made in the First and Second Five Year Plans and are proposed to be made in the Third Plan.

I shall first refer to our outlays on large and medium irrigation projects. The total expenditure on these in the First and Second Five Year Plans is expected to be of the order of Rs. 770 crore. In the Third Plan Rs. 650 crore are expected to be invested. This means the aggregate investment of Rs. 1,400 crore in the three Plans. As the Second Finance Commission has pointed out, in most States even the interest charges on expenditures incurred are not being realised. The Planning Commission has also pointed out in successive reviews that there is much avoidable time-lag in the utilisation of the irrigation supply available. This is one of the factors responsible for the agricultural production targets not being reached. If, by careful planning and execution and by establishing close contact with villagers, utilisation of benefits is expedited, additional resources will become available and national income will increase.

We have also made large investments in power projects. In the First and Second Five Year Plans, it is expected that about Rs. 670 crore will have been spent on power projects, hydro-electric and thermal. Here again, the Second Finance Commission has pointed out that few of the electricity boards have been able to secure adequate returns—i.e., the interest and other charges—from investments. If efforts are made to satisfy the demands for power at the right time and stimulate demand wherever necessary, the financial working of these power projects can certainly be improved and adequate returns can be secured after providing for depreciation. It may be added that in the Third Five Year Plan, Rs. 950 crore are proposed to be invested on power projects. The need for careful administration of these projects in order to secure maximum returns from these investments is obvious.

We may next take up agricultural production. On programmes of

agricultural production, including minor irrigation and community development, considerable expenditures are incurred in our Plans. In the Second Five Year Plan these amounted to Rs. 530 crore. The allocations in the Third Plan are Rs. 1,025 crore. The Draft Outline brings out the vital part agricultural production plays in our economy. Over a large part of the country, increased agricultural production is eminently a matter of organisation of supplies and services and credit so that these might be available at the right time and place and in right quantities. It is realised that in certain areas, agriculturists have to be trained to respond to improvements. Even here steps can be taken by the administration to reduce the time-lag that occurs in the adoption of scientific methods. If we could have achieved the targets of agricultural production fixed for the Second Plan by ensuring maximum utilisation of irrigation facilities, the spread of contour-bunding and other soil conservation measures, and the supply of good seeds and fertilisers and credit, our economy would have been considerably strengthened. We would not only have secured all the foodgrains needed for feeding our population and raw materials for our industry, but also built up exports which would have eased our foreign exchange situation. We would also have been able to hold the price-line effectively.

There are also large investments in industrial undertakings in the public and private sectors. If these undertakings can speed up their production programmes, foreign exchange commitments will be reduced. We may mention the steel plants in the public sector. By increased efficiency within the factories and in organising supplies of coal, iron ore etc., at the right time and in right quantities, the targets of the Second Five Year Plan could be improved upon and foundations securely laid for the achievement of the Third Five Year Plan targets.

Under every one of these heads—irrigation, power, agricultural production, industries—the Draft Outline makes concrete suggestions in regard to the measures needed for obtaining adequate results from investments. It is hoped that these will be carefully studied and suitable action taken.

The examples given above indicate the great part of administrative efficiency plays in our Plans and the need for taking steps to improve standards progressively. The improvement of a vast administrative machinery like ours at the Centre and in the States is a continuous process. Our administrations affect the lives of many millions of families all over the country and it is necessary to ensure as high a level of efficiency and integrity as possible down to the levels at which they come into actual contact with the people. This means that at all stages there is clear demarcation of functions; that officers are suitably trained for carrying out their respective duties; that the working of rules and procedures is watched and defects disclosed are removed speedily; that those whose work lies among the people spend most of their time living with them and getting to know them; and that there is careful supervision with strict enforcement of responsibility. All this means sustained efforts from day to day. There is no doubt that in both the Centre and the States, there is growing recognition of the need for raising standards and there is every hope that steady and continuous efforts will be made to meet the challenge.

Pricing Policy

DR. P. S. LOKANATHAN

THE importance and urgency of adopting a sound price policy and of defining the ends of such a policy have come to be recognised on the eve of the Third Plan. In this respect we have gone quite some way since the Second Plan was adopted and implemented. Price policy as such received but little emphasis in the Second Plan. It was recognised, of course, that there was a problem of regulating inflationary pressures in the economy; but equally was it stressed that generation of new demands somewhat ahead of supplies was itself "part of the strategy of development". There was bound to be a certain lag between the creation of the new incomes and the increase in available supplies on which it was to be spent. Yet the Planning Commission stated "a development programme cannot be abandoned or scaled down at the first appearance of the difficulties or bottlenecks. A measure of risk has to be taken". The emphasis at the beginning of the Second Plan was on development and expenditure, not on inflation and the stability of the price level. The price level on the eve of the Second Plan not only did not cause much concern; actually the country was emerging from a painful period of recession in food prices; expenditure and investment were only slowly getting into stride. Deficit financing found a highly respectable place in the mobilisation of resources.

The contrast between the economic situation then and now is too striking to need an explanation or justification for the new interest in framing a sound price policy and in taking measures against any large increase in the price level. The level of prices today is more than 20 per cent above the level at the commencement of the Second Plan; there is no margin of foreign exchange resources to draw upon to bring in more imports to check inflationary pressures. There has been a serious erosion in the value of the rupee and it has gone to such an extent that there has been a tendency of late for the public shift from currency to goods. In addition the increased price level with its attendant increase in the working class cost of living has let loose social and economic unrest of which the threats of strikes in the Government and industrial sectors are but symptoms. The formulation of a suitable price policy does not mean that the price level should be maintained at an inflexibly uniform level. An absolutely stable price level is neither practicable nor desirable in a developing economy like ours. With an investment target of Rs. 10,200 crore representing nearly 14 per cent of the national income but with savings which at present are only of the order of 7.8 per cent, it would be impossible to resist the inflationary pressure emanating from the gap between investment and savings. If investment cannot be scaled down and if savings through taxation, borrowings and other disinflationary

means will not increase, prices would be subjected to constant and continuing pressures. Hence an upward trend of price is likely.

But provided the increase is not substantial and is limited to about seven to eight per cent during a period of five years and provided also the prices of food and other essential consumption goods are not permitted to rise too much, a slightly increasing price level is on the whole desirable. It would give resilience to the economy; it would keep profits at a reasonable level and thereby act as a spur to further savings and production. It would neutralise the inefficiency of the public and private sectors to some extent.

Unfortunately, however, the above favourable results are conditioned by the extent of the rise and fluctuations of the price level, as well as by the kinds of commodities subject to such pressures. In the context of the Third Plan, it would be unrealistic to think that the problem could be either inflation or deflation; no, the problem can only be one of inflation. It is not merely the scale of investment contemplated that would cause an increase in the general level of prices; equally it is the pattern of investment with its continuing emphasis and high expenditures on the manufacture of machines and capital goods which have a relatively long gestation period. A further 20 per cent increase in the cost of living and general prices, as happened during the Second Plan period, would cause serious injury to the economy, render the task of mobilising adequate resources almost insuperable, create social and economic discontent, reduce the levels of achievement in terms of physical targets, accentuate inequalities of income and wealth distribution and further make nonsense of our goal of a Welfare State. The prevention of any considerable rise in prices and cost of living must be regarded as an imperative in the Third Plan.

Many favourable factors can be noted in the economy today which fortify reasonable optimism that a sound price policy if clearly formulated and sincerely sought to be implemented can be successfully achieved. In the first place the Plan itself goes all the way out to achieve our ambitious food and agricultural targets. Provided the organisational and administrative machinery is geared to this end, and production is increased substantially, there will be no danger of any inflationary pressure. Similarly, import of 17 million tons of foodgrains which has been arranged under U.S.A. P.L. 480 will serve as an anti-inflationary measure. Secondly, during the last four years production potentials have been built up which would soon bear fruit. For example, the impact of irrigation and power for increasing food and industrial production would be considerable. Supply of steel, machine tools, and various other intermediate goods will all increase substantially in the coming years. There is a great deal of built-in safety against inflation.

II

Acceptance of a sound and suitable price policy carries with it certain implications for action along several fronts which are interrelated. A

price policy cannot be dealt with in isolation; it is closely related to fiscal, monetary and production policies, and is conditioned by the nature and effective working of the economic institutions of the country and by the attitudes of the public.

The price level in an economy is the result of the operation of both general and particular factors. It is in one sense a relationship between aggregate demand and aggregate supply—or alternatively between aggregate expenditure and aggregate income. The price level will also be affected by special factors affecting supplies and demands for particular commodities. On account of a failure of production and decline in supplies prices may rise; or on account of scarcity of some factors entering into production of those specific commodities unit costs may rise, thereby leading up to increased prices; or demands for particular commodities may increase substantially, which would cause a rise in the prices. Thus whatever the causes, whenever there is an imbalance between supplies and demand, prices would increase. In our developing economy both the general and special sets of circumstances might operate, and action should be designed to meet both sets of circumstances.

It is necessary to deal at some length with both of the above. A fairly stable price level implies broadly a balance between aggregate demand and aggregate supply in the economy. Among the factors that make up aggregate demand are: (a) the amount of money income determined by private and public spending and investments, and (b) expenditures not matched by real resources. For example every budgetary deficit including deficit financing creates money incomes in excess of resources and causes a pressure on supplies, thus pushing up the price level. Not merely Government deficits but creation of credit by the banking and monetary systems will have the same effect. Thus the limits to expenditure and investments are set by the availability of real resources that can be mobilised and the volume of production of goods on which the additional money incomes can be spent. In a developing economy where public expenditures and public investments and private investments are on a large scale, the pressure on resources and supplies would be continuous. If development expenditure is to be maintained at the level envisaged in the Plan, it is necessary that non-development expenditure should be curtailed. But circumstances beyond the control of the Government may raise the level of such expenditure. Outlay on defence may be one such item.

In such circumstances it is all the more necessary that appropriate action should be taken to reduce private demand. This can be done by taxation, both direct and indirect (thus mopping up purchasing power to the extent possible) by borrowings and by mobilising small savings. In other words, all forms of action designed to reduce the pressure on available supplies are necessary. Indirect taxation has a definite place in reducing the pressure of demand. Only care should be taken to ensure that it does not lead up to a demand for increased wages thereby creating a cost inflation. Credit creation should also be reduced to the minimum

necessary for production—and should not be allowed for hoarding or speculation purposes.

Extensive controls might be framed and enforced; controls of supply and rationing of its use may be resorted to; but a more enduring solution lies only in increasing the production and supply. This can be done by imports (a quick remedy), by speeding up measures to increase production and above all by increasing the production of food and other essential consumer goods on which the bulk of the incomes of the country are generally spent. All this is perhaps trite but it is essential that these simple, basic points are borne in mind.

As stated above prices are affected equally by factors special to particular commodities the supply and demand for which are liable to vary unduly. Such variations are only to be expected because to take an outstanding illustration, food and agricultural production in India is so much conditioned by the weather that variations in supplies (aggravated often by variations in stocks and market arrivals) cause considerable fluctuations in prices. Similarly demand might vary due to unpredictable and unexpected factors. Prices might also rise due to the scarcity of some raw material or other components of production including the price of labour and other factors. Real costs of production might go up, thereby increasing the prices of such commodities.

III

In the light of this brief review it is possible to outline the action that should be taken to enforce the price policy which has been indicated above. Since food is the major item in the cost of living of the bulk of the people, holding the food price line would mean winning more than half the battle. In spite of the fact that since 1943-44 the essentials of our food problem have been surveyed by several committees and commissions, no firm action has followed. Even today the country is bogged down by a number of conflicting proposals and ideas; no consensus of opinion has been established. Yet it is clear that a certain minimum basis of action exists and can be resorted to without any risk.

First, it is necessary to establish floor prices for some of the more important foodgrains like wheat, rice, jowar and two or three more of such articles. The establishment of such floor prices will be no innovation; floor prices were established in 1954 for wheat, jowar and maize. In 1955 this was extended to rice and gram. Floor and ceiling prices have also been fixed for cotton since 1942. The argument that at the present time food prices are high and, therefore, there is no need to have floor prices is very weak. Fluctuations of agricultural commodities are so frequent that the country might be caught unawares once again as it was in 1954. A permanent scheme of incentives provided by a system of floor prices must be part of a sound food production and food price policy.

Secondly, floor prices should be fixed for a minimum period of three years and must allow for regional variations. Thirdly, the floor prices that may be fixed should be about ten to twelve per cent below the present procurement prices in the regions. Fourthly, the building up of buffer stocks must be speeded up and sufficient warehouses should be built to store such foodgrains which may be revolved from time to time. This would involve government purchase and sale operations with their attendant risks, but those risks must be taken.

Recently the method of monopoly state trading has been greatly canvassed. In spite of some of its advantages, on balance it has to be rejected. As the Food Minister had pointed out in one of his speeches, state trading has not achieved the results hoped for. Indeed wherever it was in operation it failed to hold the price line. It was not even able to procure reasonable quantities of foodgrains; the Centre had to rush to assist even the so-called surplus States; prices rose and became higher than under normal trade. It is not surprising that very few of the State Governments seem to be in favour of state trading. To be fair it is necessary to add that it has not had a fair trial. But considering our poor administrative machinery, it would be far better to concentrate on methods of procuring and distributing supplies e.g. through co-operative organisations and efficient transport rather than embark on state trading.

Our food problem has been aggravated by the rapid change in the behaviour of the farmers who have tended to hold more stocks in their hands either for consumption or for deferred sales. While this reflects the growing strength of the rural sector, it has not made the food distribution problem easy. Market surpluses have declined; market arrivals in many surplus States have shown a declining trend. A decline in production has been followed by a greater decline in market arrivals while increased production has not brought about a corresponding increase in market arrivals. Food consumption levels seem to have changed as between rural and urban sectors of the community which have shown increased capacity to withhold sales and hoard stocks.

There is a prevailing view that in the matter of food controls there is no half-way house. It is said that either we should have full and complete control or we should leave prices and supplies entirely to market operation. Such a view is extreme and incorrect. There are degrees of control both in distribution and prices which have been effective in various degrees. Indian economy has been witness to considerable controls in the production and distribution and pricing of industrial commodities. Through the operation of the Industries (Development and Regulations) Act of 1951 and the Essential Commodities Act of 1955 Government has taken adequate powers to control production, price and distribution of virtually every important industrial material and intermediate goods. Coal, steel, petroleum products, fertilisers, cement, caustic soda and a large number and variety of consumer goods like sugar, milk powder, newsprint, etc. have been controlled. Many of these items were distributed through the State Trading Corporation. Altogether regulations and control have been rather extensive. However, considering the

administrative and organisational difficulties involved it is better as a general rule to concentrate on improving distribution and transport arrangements rather than depend on regulations.

Of the two major foodgrains of wide consumption, wheat presents no serious problem. With increased production and large imports planned under P.L. 480 wheat prices can be held pretty firmly. But in respect of rice both production and imports will not be adequate. Some measure of control of rice procurement and distribution would seem to be necessary. It is desirable to keep the margin of prices between rice and wheat sufficiently wide to tempt the consumer to switch over to wheat. Some shift has taken place recently but this should be strengthened. But it is, however, likely that rice will continue to be a problem with us for some time. Besides food and other agricultural commodities, the most important consumer goods to be watched are cotton textiles and a wide range of essential consumer goods. Production, supply and prices of these goods should be constantly reviewed and annual production plans should be revised in the light of the needs of consumption and the maintenance of stable prices.

Finally, there can be no disguising the fact that inflation will continue to beset the Indian economy for several years. It is an inevitable accompaniment of the process of rapid development. The country must accept the consequences of some inflationary pressures and develop certain degree of inflation tolerance. With a view to ensuring that inflationary pressures do not mount up too much and that prices do not fluctuate too widely, it is necessary to have a careful watch of all the parameters that affect the economy: public and private expenditures, level of prices, cost of living, savings, deficit financing, credit creation and so on. This can be done only by a high-powered authority which will have the power to study and report to the Cabinet, suggesting measures necessary to secure a balance in the economy. Such a body should function independently of the Planning Commission but will be in touch with the Planning Commission. It should have a small economic and statistical unit to supply it with the necessary data. But primarily it would function as the authority to advise the Cabinet on price policies and related problems.

Social Purpose in Planning

DR. GYAN CHAND

THE Third Five Year Plan, by common consent, is going to be of crucial importance for our future, for upon the fulfilment of its targets will depend whether the country can go ahead without undue dependence upon foreign assistance and generate its own surplus to sustain a process of continuous economic growth. This aim is valid, and so is the assumption that the proportion of savings and investment to national income has to be raised to say 14 per cent if this pre-eminently desirable object is to be achieved. This view, to repeat, is valid as far as it goes, but it is based upon a number of assumptions (among them one relating to the investment-output ratio) which are without a firm factual basis. It is necessary therefore to bear in mind the inherent limitations of this whole approach, which relies mainly upon the ratio of investment to national income and does not take into account adequately the need for generating and maintaining social impetus.

It is admitted that whatever the achievements of the first two Plans in the country, the most important limiting factor in the realisation of their basic objectives has been our incapacity to enlist the co-operation of the people. On their part there is a lack of intelligent understanding of the essentials of the Plans and their relation to everyday problems and needs. The people have had a very limited share in the preparation and execution of the Plans; and the awareness of their bearing upon their own well-being is almost completely lacking and much more so of any all-permeating social purpose without which an individual project and all the projects taken together cannot acquire essential unity and coherence. Self-sustaining capacity of the economy, upon which so much stress is rightly being laid at present, would depend more upon the social earnestness, understanding and initiative with which the people respond to the challenge of the next Plan than upon the proportion of the investment to national income, significant as the latter undoubtedly is. It is the social purpose of the Plan and the drive it can create which will really carry the people over what is generally called the hump, i.e. it will enable us to 'take-off' from the relatively static position to a position in which the economy would propel itself and move forward on its own momentum. In the face of the general prevailing inertia of the people it will not be possible to produce wealth adequate to their needs even if they are given the necessary tools or the skills to use them competently and well. Much less will it be possible to create conditions under which the wealth can be used for the benefit of the people as a whole and not merely a small minority in positions of power and authority.

The avowed goal of economic growth in India is the establishment of a socialist society in the country. The success that has been already

attained in the first decade of planning is to be measured by the extent to which this objective has in fact been realised or promoted. And the potential of the next Plan should also be measured by the rate of progress towards the attainment of the avowed goal. The rate of development and social transformation in the last decade has fallen short of the needs of the people. A vast majority of them, owing to the inflationary pressures or otherwise, are, absolutely and relatively speaking, in no better position than before. Actually a great many of them are worse off. What is more serious, an atmosphere of frustration and even dismay has been growing and it has created a situation which is precarious in the extreme and cannot but cause grave concern to all discerning students of current affairs and the men in authority who are still sensitive to the signs of the times and are not lost in administrative routine or political manoeuvres.

Capital formation, in aggregate and in the rate of its growth, is important for development and our limited resources have to be conserved and maximised; but more important than capital formation in material terms is the building up of the social reserves of the people, i.e., their faith in themselves, in the social goal which the country has set itself and in the capacity of those who are at the helm of affairs in Government, business, trade, public life and the working of economic and social institutions, to steer the country through the difficult times which are so obviously ahead of us.

These social reserves, instead of being added to or accumulated, have unfortunately been depleted in the last ten years and the need for replenishing them is even greater than that of capital accumulation. We have added to our physical assets. For example, we have carried out great river valley projects, and set up steel mills and other heavy industries, and there has been also an addition to productive capacity in the private industrial sector. There has been, in other words, capital accumulation which for a country like India has been very considerable; but in spite of this fact, regeneration of the people has been arrested and it is clear that in some important respects we have been moving in the reverse gear. In social terms, at all levels, from the village to the national Government, the will and capacity to rise to the occasion are lacking. Internal strife, which is increasing, is sapping the energy of the people and creating social stresses. The de-accumulation of social capital that has taken place, and is taking place, has probably more than negated the good that the capital accumulation, such as has occurred, has done to our economy. The social levers for attaining the 'take-off' stage have been greatly impaired and in the next Plan, even if we attain a 14 per cent national income-investment ratio, we shall not be able to move on to a higher plane of economic effort.

It is not necessary to get into an argument as to what is meant by socialism. There are different schools of socialism and their differences are not only acute, or even acrimonious, but show a degree of sectarian antipathy which is known to repel rather than attract earnest persons in search of a new social dispensation.

But even if the Directive Principles of our Constitution, like equitable distribution of income and wealth, reduction of the concentration of economic power, agrarian changes in the interest of the dispossessed sections of the agricultural community such as the landless labourers and poor peasants, equality of opportunity and attainment of a classless and casteless society, are taken as social imperatives for building up a socialistic society, it is fairly clear that we have done very little to follow this directive in practice or realise the implicit purposes.

Notwithstanding a progressive income-tax rate, the imposition of death duties, capital gains tax and expenditure tax and partial abolition of landlordism, it is clear that the 42 per cent increase in national income and an increase in agricultural and industrial production of 35 and 50 per cent respectively since 1951 have not meant any real improvement in the conditions of the vast majority of rural and urban classes. All available evidence points to the conclusion that their real income has either been stagnant or actually decreased in the last ten years. The two Plans did not provide for any planned redistribution of national income and no information is available as to how the additional income generated in the last decade has been shared amongst different sections of the community and different States of the country. The presumption, however, is that owing to the continuous and growing inflationary pressure and the balance of forces in the country, the industrialists, big merchants and other privileged classes have mainly benefited from the increase of production and national income.

In rural areas only the agriculturists with marketable surplus (less than 20 per cent of the total agricultural population) have benefited by rise of agricultural prices. Development plans have practically done nothing for the landless labourers or poor peasants, and agricultural holdings are still very inequitably distributed—probably even more so on account of the mass eviction of the tenants. Probably less than a quarter of landholders own more than three-quarters of the cultivated land and all our agrarian reforms have done nothing to alter or modify this fundamental fact. The development of village and small industries has done very little to reduce unemployment or raise wages. Artisans as a class have gained very little indeed from the Rs. 200 crore of expenditure on the development of the decentralised sector. Villages remain as they have been in the past, oligarchies in which the higher classes and castes are all-powerful. The Panchayats and co-operatives—two new institutions which have been started for economic and administrative decentralisation—are manned and controlled by them.

Industrial labour, it is also known, has not participated in the increase of national income in real terms and its real wages have practically remained unchanged since 1947. The middle classes, it is not necessary to add, have suffered most because of inflation and their seething discontent has a very serious potential from the point of view of the future.

These facts are well-known and are practically admitted by our planners. They have been recited above in order to bring out the fact that social purpose of planning has in practice been greatly neglected and that

no institutional changes of any real significance (apart from partial abolition of landlordism) have taken place.

A decade of planning has not brought into play any forces of social change at the basic or any other level and there is no indication in the structure of the next Plan that there will be any realignment of forces and that the process of social change will be materially accelerated. Reiteration of the socialist objective and reference to the increasing importance of the public sector cannot make any difference unless the whole climate of public opinion changes, and a sense of urgency is widely diffused and becomes the prime mover of policy.

The gap between policy statements and actual performance, which is such a marked feature of the planning of the last decade, has to be narrowed. The contradiction between words and deeds, however, can be resolved only if real democratic processes operate in the economy. Shortfalls in social terms, that is, failure to put into effect social policies of radical intent, cause disbelief, cynicism and even revulsion in the masses and among the professional people.

Socialism primarily means a new set of social values and not merely changes in property relations and the institutional framework. Socialists of all persuasion would accept this point of view. In a polity like ours, in which force as an instrument of social change is abjured, the need is all the greater for building up the democratic processes by which the community participates at all levels in the framing and implementation of policies and thus becomes the guardian of their integrity. At present the organs through which the community can perform this democratic function do not exist. The result is moral degeneration. Values are shown scant regard in practice, and they have become a polemical point rather than a matter of real concern. This process has gone very far, and must be arrested and reversed. An atmosphere of mutual confidence is essential for the establishment and working of a socialist society.

Social purpose in planning necessarily implies that it has to be all-pervasive. At present socialism is a preoccupation of political parties mostly for demagogic ends and not of educationists, doctors, engineers, writers, artists or social workers. This is so because it is not accepted by workers in different fields as an all-embracing objective to which their thoughts and actions have to be directed and creatively developed.

This applies with special force, of course, to the administrators. The view that administrators have merely to carry out policies with complete neutrality in regard to their inner purpose has lost its validity. Even otherwise it is obviously inapplicable in the new context. Administrators are so important for the consummation of the process of social change that unless their minds and behaviour are in full accord with the social objectives of planning, miscarriage and even distortion of policies is bound to take place. Howsoever well-conceived the policies may be, they cannot be fruitful if they are implemented by men who have no genuine faith in them.

This does not imply that conformism is to be made the rule and dissenters are to be weeded out or eliminated. Dissent is essential for real socialism and democracy, but faith and fervour can express themselves democratically and not merely in an authoritative framework. Actually, they can express themselves best in a democratic context, and an objective like socialism needs executants who honestly and fully accept its implications and render complete and unqualified allegiance to it. Lack of understanding of the importance of this point is in no small measure responsible for the poor results in planning in social terms in the last decade. If this experience is not to be repeated in the next Plan, it is essential that the importance of making the social purpose of planning all-pervasive should be duly appreciated and acted upon.

In the Third Plan, we have to attain self-sufficiency in food, build up heavy industry and meet our essential requirements of machines, chemicals etc. increasingly from our own resources and set up a rate of growth which will not only enable us to raise materially the standard of living of our rapidly growing population but also provide surpluses for building up and adding to the productive assets of the community. It is necessary to realise that self-sufficiency in food, industrialisation and a rapid rate of economic growth cannot be attained unless we bring the masses into action and make them the principal beneficiaries of economic development and the chief instruments and architects of the new economy. If this building up has to become a reality, a much larger measure of economic and social equality has to be realised, a shift of power from the few to the many has to take place, and our economy and polity have to function in the context of a socialist society in the making. This has to be the real core of the Plan. The foundation of the new economy has to be well and truly laid and the superstructure has to be created with clear understanding of the new social purpose and its full implications.

In spite of the fact that socialism has so far been hardly a factor of any importance in the preparation and execution of the Plans, an atmosphere of retreat from it is fast developing. Apart from the overt opposition of a new political party, under which very powerful interests are being mobilised to thwart the growth of socialism, the position of the pro-socialist forces is being eroded. Burrowing from within and the assault from outside are darkening the prospects of the next Plan amounting to a significant advance towards the growth of a socialist society. It is not clear yet whether socialist forces are clear-sighted enough to know the position as it is developing and can muster the necessary resistance to the anti-socialist forces. But the challenge has to be met. The social purpose has to be made the very essence of the new Plan under consideration, and the index and measure of its success.

Objectives of the Third Plan

DR. V. K. R. V. RAO

IT is very difficult to know if the Third Plan has behind it a definite ideology. In fact, the word socialism does not figure in the document at all, and even when the word 'Socialist Pattern of Society' is used, it is intended to deal with the good of the community as a whole rather than specially with the needs and problems of the many poor who form such a conspicuous part of our society. I thought that the Congress Party had decided last year to lay emphasis on its ideology and bring out the content and implications of what it meant by a socialist society clearly before the people. This they wanted to do in order that the necessary motivation may be provided for the country to undertake the gigantic effort needed to put through a bold and big Third Plan. I was also under the impression that this was the major reason behind the A.-I.C.C. convening a special Seminar at Ooty during the summer of last year. The Ooty Seminar also had endorsed the need for a clear statement of the Congress ideology in terms of the implications of a socialist pattern of society. One would have thought that the Third Plan Draft would have opened with an unambiguous chapter on the meaning and implications of a socialist society, discussed the steps taken by the First and Second Five Year Plans for facilitating the establishment of such a society, outlined what the Third Plan proposes to do in this respect, and ended up with the need for austerity and sacrifice in the present in order that one may have a socialist society in the future. But somehow this has not happened. Maybe the skilful and well-directed newspaper propaganda that followed the reporting of the Ooty Seminar discussions had something to do with this change. Maybe the polite but firm opinions on the place of private enterprise and incentives for the capitalist classes that were given expression to singly and collectively by our many foreign friends who have been visiting our country in recent months have also had their effect, more especially as we are now so dependent on them for the implementation of our Plans. May be the Congress Party has had genuine second thoughts on the subject of socialism and is probably veering round to the right of the position it originally took at Avadi and then reiterated at Nagpur. Nobody really knows the answer and I have neither the knowledge nor the authority even to dare at guessing. What is clear, however, is that the Draft Third Plan does not contain an assessment of what the first two Plans have done for taking the country in the direction of a socialist society. Nor does it link up integrally the proposals and programmes of the Third Plan with the transformation of Indian society on socialist lines. At the same time, the Plan is obviously not imbued by the ideology of pure private enterprise nor does it seek the establishment of a capitalist society. That is why the Congress Party can still claim to have fundamental differences

with the Swatantra Party; but that does not make it a party inspired by socialist ideals or committed to the establishment of a socialist society. To the extent the Draft Plan visualises a society in terms of an ideology at all, it is that of a mixed economy, where the economic honours are shared between state enterprise and private enterprise, and where the common man is supposed to benefit by the larger employment and higher income that this mixed economy will bring him. But the social implications of even such a mixed economy, especially when there are no fundamental institutional changes for altering the balance of social, economic and even political power, are lost sight of. It is not surprising therefore to find the planners still failing to find the real reason for the absence of that positive public co-operation which according to their own admission is so essential for the success of the Third Plan.

If the Plan has no ideology, I may be told, has it not got aims and objects? And would not these be sufficient to rouse public enthusiasm and provide the necessary motivation for that gigantic national effort which, all agree, is required for the success of the Third Plan? I will hasten to admit that the Third Plan Draft does outline aims and objects. In fact these are neatly summed up and arranged in serial order thus:

(1) to secure during the Third Plan a rise in national income of over 5 per cent per annum, the pattern of investment being designed also to sustain this rate of growth during subsequent plan periods;

(2) to achieve self-sufficiency in foodgrains, and increase agricultural production to meet the requirements of industry and exports;

(3) to expand basic industries like steel, fuel and power and establish machine-building capacity, so that the requirements of further industrialisation can be met within a period of ten years or so mainly from the country's own resources;

(4) to utilise to the fullest extent possible the manpower resources of the country and to ensure a substantial expansion in employment opportunities; and

(5) to bring about a reduction of inequalities in income and wealth and a more even distribution of economic power.

It is perhaps not entirely unintentional that reduction in inequality figures last in this list. Nor can it be an unconscious omission that the Draft does not contain a chapter on what is being proposed for the implementation of this item. It is, however, no use flogging a dead horse. Problems of distribution are obviously at a discount in the early stages of a developing economy; the fact that they become supremely relevant when the economy is seeking to develop in the context of a democratic and free society is a point that can be made, but that will logically lead to a call for the necessary ideology; and as ideology is ruled out in the framework of the Third Plan, it is no use harping on the omission and thus causing needless irritation among those who have

been activated by undoubtedly good motives in formulating the Third Plan. Only one cannot escape logic, even if considerations of expediency seem to counsel an attempt to do so. The fact is that workers are comprised not only of leaders but also of followers; and the economy of growth has to provide incentives not only for the classes but also for the masses. If this cannot be done in materialistic terms in adequate measure and with sufficient speed, then a non-materialistic supplement will have to be provided; and that is what an ideology does. I have no doubt in my mind that in embarking on the aims that the Third Plan Draft has outlined without prior leavening thereof with a socialist ideology, we are in effect going into a battle without a battle-cry and that does not augur well for success, especially in these days when psychological factors occupy such a high place in the strategy of war and collective effort.

I have no quarrel with the five aims outlined by the Third Plan Draft. In fact, they have a sensible economic basis and have had a lot of technically competent work behind them. But technical competence in formulating aims is only one of the conditions that make for success. What is even more important is the policy that is proposed for implementing the agreed aims. And policy becomes doubly important, when the objectives one seeks are somewhat beyond the capacity of those who are seeking it in the context of the existing institutional organisation of the society concerned and the complex of motives and incentives activating its members. Even if the Plan does not have an ideology, it must have a policy; and in my view the following policy conditions constitute an essential basis for the implementation of the aims outlined in the Third Plan:

(1) A firm and well-formulated price policy that will hold the price line of essential articles of consumption at a given level to be pre-determined before the initiation of the Third Plan.

(2) A clear and unambiguous policy regarding reduction in inequalities of income, wealth, and power, that will outline the concrete steps to be taken up for this purpose and set up an evaluation machinery that will mark the success that these have in implementing the stated objective.

(3) A well-thought-out policy regarding agriculture that will not regard increase in agricultural production as a mere exercise in the arithmetic of input and output, but will take into full account the psychology of the cultivator and provide him with the necessary incentives both to work harder and sell a larger part of his output than he has been doing since Independence.

(4) A clear policy of going all out to better the conditions of the common man; and this has to be done not in terms of general statements or of statistical aggregates, but in the concrete, indicating in detailed fashion in what respect the poorest people in the country and its poorest region are going to have their condition improved by the implementation of the Third

Plan. Here again, there should be an evaluation machinery that should watch and mark at every step what is being achieved in this respect.

Finally, I would like to suggest a major change in the outlining of our objective. Hitherto, we have been talking of increasing the per capita income by such and such a percentage; and we have taken for granted that if this is achieved, it would automatically bring about an equivalent rise in the average levels of consumption. And we have been identifying the *average* with the *mass;* the *per capita income* with the *poor man's income.* Recent events have shown that this is not true. The Second Plan has undoubtedly increased the nation's per capita income but it has been accompanied by such a rise in prices that real income has not increased for significant numbers of low-income workers in the country. This has now been demonstrated so conspicuously all over the country that a rise in per capita income, even if it is promised to be at constant prices, is not going to stimulate enthusiasm, especially on the part of the poorest in the land. Moreover, even if the price-line is held and the per capita income does not rise in real terms, there is no guarantee that it will automatically rise for the poorest and lowest paid workers who all too often do not have the economic strength to enforce their demand but nevertheless are sufficiently powerful to dampen the required rise in productivity. I suggest, therefore, that in formulating the aims of the Third Plan—and I may add subsequent Plans—we should, in addition to the aim of raising the per capita income by a certain percentage, also have the objective of guaranteeing a certain minimum wage in real terms for all workers in the country. In other words, we must add to the per capita income figure, the figure of a national minimum wage. That is the only way in which we can ensure some co-operation on the part of the masses, even though I still would say that a socialist ideology clearly stated and firmly pursued would secure such co-operation in larger and more dynamic measure.

Size of the Third Plan

DR. A. K. DAS GUPTA

DESPITE deficiencies in many fields of operation relative to targets, the achievements of the Second Five Year Plan are greater than one would have expected from one's experience of the first two years of the Plan. The overall investment is likely to come up to about the level that was originally contemplated, even though the distribution has gone a little more in favour of the private sector than was originally provided in the Plan. The overall rate of growth is also expected to be just about 5 per cent below the target envisaged—20 per cent instead of 25 per cent. This is quite an achievement, considering that the economy suffered from bad harvest for the greater part of the Plan period —one of these years being marked by an absolute fall in agricultural output.

What is more important is that increases in the output of strategic commodities, such as iron and steel, cement, fertilisers, etc. have been, in absolute terms, considerable, even though, relatively to the targets, the showing may be a little discouraging. In respect of one of the strategic commodities, machine tools, the target is indeed expected to be exceeded. Even on the food front, the position is not so bad, despite the setback of the early years of the Plan. The increase registered is likely to be 15 per cent above the 1955-56 level, and the output expected to be realised in the final year of the Plan is of the order of 75 million tons, which, let it be noted, just equals the original target while falling below the revised target by 5 million tons. Indeed, if current estimates are reliable, the rate of increase of food production over the Plan period is to exceed the rate of growth of population which probably will be somewhere around 10 per cent.

These are refreshing features of the findings of the Planning Commission, and they should have encouraged the Commission into thinking in terms of a bigger plan than they have offered in their Draft Outline for the Third Five Year Plan. The aggregate investment envisaged in the Draft Outline is Rs. 10,200 crore (at 1958-59 prices), of which Rs. 6,200 crore will be in the public sector and Rs. 4,000 crore will be in the private sector. The order of investment contemplated is in effect less than had been envisaged for the Third Five Year Plan in the model projection shown in the Second Plan. Translated in terms of 1952-53 price level which was the point of reference in the model, the value of Rs. 10,200 crore amounts to about Rs. 9,000 crore, whereas the model projection figure was Rs. 9,900 crore. The Third Plan investment, as indicated in the Draft Outline will be only about 50 per cent higher than the Second Plan investment, while the latter happens to be about double the First Plan investment. It appears that the achievements of the Second Plan have made the Planning Commission relax rather than take courage. The

Plan certainly is conservative, if looked at from the point of view of its size.

The deficiency becomes particularly conspicuous when the volume of investment contemplated in the Plan is judged in relation to the employment needs of the economy. Already at the end of the Second Plan, we are told, the economy will have no less than 2 million persons added to the back-log of unemployed with which the Plan had started five years ago. This indeed is the most disconcerting aspect of the Second Five Year Plan; for the employment target which had been fixed for the Second Plan provided for the absorption of the entire additional labour force that was to arise in the economy as a result of the growth of population during the five-year period, leaving only the current back-log to be taken care of by later plans. The responsibility of the Third Plan, on the employment front, has thus turned out to be greater than was anticipated when the model projection had been drawn.

If, in spite of this, the Planning Commission fixes a lower investment target for the Third Plan, it is not because it is not aware of the problem. It does have employment as one of the crucial targets in the Plan. It leaves out of account the back-log of unemployment that it is to start with, as it did when the Second Plan was formulated. It does expect, however, that the order of investment contemplated would take care of almost the entire addition to the labour force consequent on the growth of population—again following broadly the procedure of the Second Plan.

The Planning Commission's estimate of new entrants to labour force over the Third Plan period is of the order of 15 million; the employment that it envisages in the Plan is of the order of 14 million, of which 10.5 million will be outside agriculture and 3.5 million will be in agriculture. The target of employment is reasonable enough; for, if realised, it will mean maintenance of the proportion of unemployed to total population more or less intact. The question is: can the Plan do it? And even if it can, what is the likely implication of the proposed investment-labour ratio for the productivity of labour? The matter deserves scrutiny; for, one suspects that enough thought has not been bestowed on it by the Planning Commission. Even on a broad view—and nothing but a broad view is attempted here—it appears that there is something wrong in these estimates. The employment that is associated with a given volume of investment depends upon the pattern of investment; the greater the bias that your plan has towards labour-intensive lines of techniques of production, the larger will be the employment that a given volume of investment will generate. We do not have a minute breakdown of the pattern of investment —only broad categories are shown. Nor do we have knowledge of the relevant co-efficients, so as to be able to work out the labour content of the investment contemplated in the Plan. A broad view of the distribution of the Plan outlay in the public sector, however, suggests that the pattern of investment is not likely to deviate much from what it was in the Second Plan. A little more emphasis on agriculture (including community development), industry and power, a little less on transport and social services and a slight shift away from major irrigation over to

medium and minor projects—these are all the deviations that are contemplated; the adjustments that these would involve are of a marginal order. One does not know how these adjustments will affect the overall pattern of investment in relation to labour intensity; some may involve a little more labour-intensive operation and some less. It is probable that the overall pattern of investment will lead up to about the same investment-labour ratio as we have had for the Second Plan. Assuming this to happen, it is easy to see that the employment target proposed for the Third Plan is an exaggeration. For if, as is estimated, an overall investment of Rs. 6,750 crore in the Second Plan provides employment altogether to 8 million persons, the investment-labour ratio turns out to be about Rs. 8,440 per head. Applying this ratio, one finds that the additional employment that an investment of Rs. 10,200 crore is likely to create is of the order of 12 million persons. On this calculation about 3 million unemployed are to be added to the current back-log over the Third Plan period.

The position is perhaps less reassuring when the matter is seen from the point of view of labour productivity. The test of economic progress—which is the avowed objective of economic planning—does not lie merely in an increase in employment, nor merely in an increase in income; the test lies also in additions to labour productivity to which additional investment is capable of contributing. It is just this latter which the Planning Commission's employment target militates against. When investment increases by 50 per cent and employment associated with it is made to increase by 75 per cent, for this is what the Plan is supposed to aim at, it is almost inevitable that labour productivity should fall in the course of the operation of the Plan. The alternatives under the present scheme would thus seem to be either to have a reasonable level of employment along with lower labour productivity, or to put up with a rising proportion of unemployment to total population.

There is, however, a third alternative which some of us would suggest, and that is to make an upward revision of the investment target. The question is still open. The Planning Commission's attitude on the issue is not inflexible. Already it has exhibited some degree of flexibility by adding Rs. 250 crore to the investment figure that was presented to the National Development Council and later to the Panel of Economists. There are indications in the Draft Outline that further revisions are possible. In fact the Draft Outline concludes its section on Balance and Flexibility with this significant observation: "When work on the Plan proceeds beyond the present preliminary formulation and both the phasing of projects and the requirements and availability in different regions are considered, changes will doubtless be needed both in the physical targets which may be proposed and in the consequential financial allotment." (Draft Outline, Sec. 25, pp. 31-32). One does feel that some upward revision of the investment target is called for and, in case the proposed food target of 100-105 million tons is adhered to, it will be found to be possible, too.

Role of Administration

A. C. GUHA

THE First Plan Report had declared that "the objects to be achieved in public administration are integrity, efficiency, economy and public co-operation." The Second Plan Report also observed: "Doubt exists whether in its range and quality, administrative action will prove equal to the responsibilities assumed by the Central and State Governments." It depends on the administration to implement the Plan and properly utilise the allotted money. The Draft Outline of the Third Plan has now been published. It is a more ambitious Plan than the first two. Therefore the responsibility that devolves upon the administration will be greater. The Draft Outline says: "The success of the Third Plan will rest very largely on the efficiency with which it is implemented." While stressing the role of administration, all three reports have also emphasised the importance of public co-operation and all-round economy.

"A plan is an attempt to improve upon the results that can be achieved under an unregulated and uncoordinated play of private decision. It must, therefore, involve certain restraints and incentives." (Second Plan Report). This implies a large amount of public co-operation. Our Plan, proceeding, as it does, on democratic basis, "eschews direct commandeering" of resources and impositions of statutory limitations on consumptions. When we say that the Plan involves certain restraints and incentives, we assume that the people will voluntarily impose these restraints on their desires and impulses and also will supply incentives for greater energy and initiative. Now, what is the machinery that the Government has, to enlist public co-operation and voluntary support in all these works? The machinery primarily is the administration or, to put it, more concretely, the administrative systems and methods and personnel.

From a "Law and Order" state, which India was before Independence, to a "Welfare State", aiming at a socialist pattern of society, is a big change. The Government has realised this and has been making repeated probes into the administrative machinery. Mr. Appleby, public administration specialist of repute, came to this country thrice and submitted two reports. His main task was to see how far our administration had been, and would be, competent to discharge the new duties. Mr. Appleby has said: "India is in fact in a state of emergency such as obtains when a nation is at war. Its success in this emergency depends upon rapid decision-making and rapid action. As in war, the emergency dictates the establishment of procedures that have a maximum potential of acceleration, consistent with the maintenance of democratic values." Have we been able to make the necessary changes in administrative procedure? Rapid decision-making is an important point for any Plan.

He further advocated "the need to educate responsible top organs of Government in the ordinances of self-denial which would restrict their intervention to really important concerns." This means that the usual attitude of a bureaucrat to put his finger in every pie should be discouraged in the public sector, particularly when popular co-operation is involved.

We cannot expect our officers and officials to accustom themselves to the new techniques of administration without effort. A district magistrate or a subdivisional officer has all along had, and even now has, authority in all matters—law and order, revenue, judiciary, education, social service, cottage industry, etc. It would be over-ambitious to imagine that an officer can discharge all these functions properly and at the same time enlist people's co-operation, which involves the cultivation of special aptitude. Moreover, there are some matters which would presuppose some technical knowledge on the part of the officer dealing with them. The S.D.O. or the D.M. is not equipped with everyone of these talents, though he is to deal with all these.

Rural and cottage industries and co-operatives would require the marshalling of rural initiative and of raw materials available nearby for the production of consumption goods. I particularly mention this item as it is of vital importance for the development of rural economy which cannot be built only on agriculture. Yet there is a wide gulf between rural people and Government machinery in this matter. The officials dealing with these matters do not have either the technical know-how or the mental bent for this type of work. In the case of rural industries and co-operatives, the administrative procedures should be simplified. The rules and procedures should not appear to be meant to obstruct rather than help progress. As they are at present, these procedures baffle a simple villager. It is not easy for him to get the necessary aid—loan or grant—or even the formal sanction or licence from the State Government.

Again we have to see whether our administrative personnel is really equipped for the task of running the autonomous corporations of big industries. A corporation or statutory body should have real autonomy for expeditious administrative decisions and actions. It should not depend upon the decisions of the secretariat in all matters. It has to be examined whether the present method of having a Secretary of the Government as chairman or as a member of the board of a corporation under his department is an efficient way of dealing with things. It would mean unnecessary and often embarrassing duplication of work for the Secretary in two different capacities. We have also to consider whether nationalisation should be made almost synonymous with bureaucratisation. Will it be the best way to conduct public sector enterprises?

As regards the question of social service and public co-operation, the position is still more nebulous and vague. Each block has its own Development Committee. The subdivisional officer is the chairman of all such committees. It means that the S.D.O. has to look after the work of ten to twelve such development committees. It is only natural that he cannot function effectively in all these committees. But, simply by his

presence, he dominates the deliberations of these committees and he speaks with the voice of authority. Now the Panchayat Samiti is taking the place of the Development Committee. It would be a great strain on the officials, the S.D.O. or anybody else, to get themselves reconciled with the spirit and the principle of democratic decentralisation. After all they are human beings. We cannot expect a ready surrender of authority from all of them.

So it is of the utmost importance that the Government should strive to train its officials to acquire a new outlook. Refresher courses might be organised for the purpose. Our administration has so long coped with its tasks tolerably, if not fairly well. But the public is critical and discontented with the Government. Despite the development works undertaken and the expansion of social services, there is lack of appreciation and also a feeling of frustration among the public. These are due, primarily, to administrative lapses resulting in targets not achieved and money not utilised—at least properly. In this regard, smaller and rural schemes are of greater importance as these directly affect the daily life of the people.

The tasks and obligations of our administrative machinery are gradually undergoing a change—not only quantitative but qualitative. To be transferred from the job of a district magistrate or from the Secretariat post and put in charge of a public corporation would require a complete mental readjustment in an official. Similarly, at the lower level, that is, in the rural areas, the District Magistrate or the S.D.O. must forget that he is a wielder of power and learn to be a builder of the nation.

All these matters require careful consideration. On the one hand the administrative personnel should be made to feel that they are servants of the people, not masters; and on the other hand they should feel secure from unjustified and uninformed public criticism and from political pressure. The administration should be immune from political influence both from within and without. Inadequately paid clerks can fall easy prey to the wiles of agitators. 'Go slow', deliberate delay, graft and so on, are the common maladies which political influence will encourage so as to bring the Government into disrepute. If the administration is corroded by any political influence, it would be a bad day for the Government and for the country.

When we say that the Plan means accelerated economic development involving restraint and sacrifice, it means that the present generation should put in greater effort and impose sacrifice on itself. Administration is a part of the nation—not distinct from the nation. The nation's poverty or prosperity has to be equally shared by them. A feeling of patriotism and of oneness with the common man is an essential feature of administrative efficiency. In this present position, there is no very definite fixation of responsibility; none can be individually made responsible for any lapse. That is a dangerous position and has to be mended.

Financing the Plan

J. J. ANJARIA

THE Third Five Year Plan calls for an investment outlay of Rs. 10,200 crore, Rs. 6,200 crore by public sector and Rs. 4,000 crore by the private sector. Further, an expenditure of about Rs. 1,050 crore for expanding social services and for certain administrative overheads is also envisaged in the Plan. For the public sector the problem thus is to raise resources totalling Rs. 7,250 crore.

The tentative scheme given in the Draft Outline for financing these public sector outlays is as follows :

(Rs. crore)

	Second Plan	Third Plan
1. Balance from revenues on the basis of existing taxation ..	100	350
2. Contribution of the Railways on the existing basis	150*	150
3. Surpluses of other public enterprises on the existing basis ..	**	440
4. Loans from the public	800	850
5. Small Savings	380	550
6. Provident funds, betterment levies, steel equalisation fund and miscellaneous capital receipts	213	510
7. Additional taxation, including measures to increase the surpluses of public enterprises	1,000	1,650
8. Budgetary receipts corresponding to external assistance ..	982	2,200
9. Deficit financing	1,175	550
10. Total	4,600	7,250

*Inclusive of increased fares and freights.

**Included in (1) above.

The table indicates for purposes of comparison the pattern of financing the Second Plan also.

For financing the outlay of Rs. 7,250 crore it will obviously be necessary to get the maximum contribution from each of the various devices available for mobilising resources. Taxation, surpluses of public enterprises, loans and small savings have all to be drawn upon to the maximum extent. It may be noted also that the problem of financing has to be considered in terms of internal as well as external resources. The Plan has a substantial foreign exchange component. This has to be financed by securing the necessary resources from abroad.

On present estimates, the Third Plan will require additional taxation of the order of Rs. 1,650 crore. This means that the Centre and the States will together have to impose additional taxation of Rs. 110 crore each year from the very first year of the Plan. This, of course, is an average. The phasing of taxation will in practice have to be determined in the light of the economic situation and the phased requirements of the Plan. It is clear, however, that the Third Plan can be implemented successfully only if a tax effort of the order of Rs. 110 crore on an average is put through.

The first question the 'common man' might ask is: could the tax target not be reduced? The answer is in the negative. In the scheme of financing mentioned above every other mode of financing has been stretched to what appears to be the maximum possible. The target for market loans is fairly high considering that certain special factors in the Second Plan period which raised the gross yield under this head will not be operative in the Third Plan period. Small Savings for the Third Plan will have to be Rs. 110 crore a year on an average as compared to less than Rs. 80 crore on an average in the Second Plan. Reliance on external resources which yield, as the table above shows, Rs. 2,200 crore of budgetary resources, is governed by balance of payments considerations.

Why, then, it may be asked, should deficit financing not be raised beyond the level of Rs. 550 crore suggested in the Draft Outline? Here again the answer is fairly obvious. Deficit financing beyond a point raises prices and cost of living. There has already been a rise of more than 20 per cent in wholesale prices in the Second Plan period. It is essential, therefore, to exercise due caution in this matter during the Third Plan. The process of development is bound to exert an upward pressure upon prices and some price rises are probably inevitable. This makes it all the more essential that inflationary financing is reduced to the minimum. The estimate of Rs. 550 crore of deficit financing is based on calculations of what increase in money supply the economy can stand in the Third Plan period considering the expected increases in national income and the trend towards greater monetisation of the economy. The inflationary impact of deficit financing in the past was cushioned by the larger import surpluses financed from a drawing down of foreign exchange reserves. This cushion is no longer available.

As mentioned earlier, the Third Plan requires substantial foreign exchange resources. This is because the machinery and equipment as well as certain raw materials and intermediate products required for the Plan have at this stage to be obtained from abroad. There are also substantial repayments of foreign loans falling due in the Third Plan period. Altogether, the total balance of payments deficit for the Third Plan is estimated at about Rs. 3,200 crore. This takes into account the recent P.L. 480 agreement under which the United States is to provide 17 million tons of food grains, part of which will go towards building up of buffer stocks. A major aim of the Third Plan is to accelerate the development of machine building and of heavy industry and mining

—with which must inevitably go the corresponding power and transport facilities so as to enable the country within a period of ten years or so to produce domestically the bulk of its requirements of machinery and equipment. This objective of attaining a reasonable balance in our external accounts at a high level of investment makes it particularly important that the maximum effort is made to raise the domestic resources required for the Plan. The tax target of Rs. 1,650 crore has to be judged in this light. To achieve viability on external account, the country's exports have to be increased substantially. Taxation can assist in preventing domestic consumption from encroaching on exports.

The scheme of taxation, borrowing, deficit financing, etc. to be adopted for the public sector plan cannot be judged in isolation from the requirements and possibilities in the private sector. Both the sectors draw ultimately on the common pool of the community's savings. The basic question, therefore, is whether the aggregate of domestic savings in the economy can be raised to the extent postulated in the Plan.

From this point of view it is important to emphasise that the Third Plan envisages a step-up in domestic savings from about 8 per cent of national income to about 11 per cent. This is a fairly large step-up. It cannot be assumed that such a step-up will occur spontaneously. National income is expected to increase at a rate of about 5 per cent per annum in the Third Plan period. The necessary increase in savings can be secured if consumption increases at about 1 per cent less than the rate of increase in national income. In a country with low per capita incomes the natural tendency would be for most of the increases in income to be used up for consumption. This tendency has to be curbed in the interests of development. Restraint on consumption, both by the community and by Government, is vital for the success of the Plan.

The function of taxation in a developing economy is to restrict consumption to the limits postulated in the Plan. It must be stressed that there is no question here of an absolute decrease in consumption. Consumption in the aggregate can be increased at a rate of about 4 per cent per annum if national income increases at an annual rate of 5 per cent. The sacrifice involved is thus relative. There is nevertheless a sacrifice and this has to be secured by taxation. Inadequate taxation in this situation would lead to the emergence of undue profits in the hands of traders and middlemen and to a diversion of resources away from the uses indicated in the Plan. The proportion of taxation to national income is at present about 8.5 per cent. This will have to be raised to 11 per cent by the end of the Third Plan. Considering the requirements of development and the proportion of tax revenues to national income in other comparable countries this is not by any means an excessive effort.

The capacity of a country to undertake a plan of given dimensions depends upon whether it can mobilise and organise effectively the real resources required for the various development programmes. These real resources are: labour, raw materials, equipment and food and other

articles of essential consumption required to sustain those who are participating in the production process. Undoubtedly, India has most of the real resources thus required. The more effectively these are utilised, the greater is the quantum of resources available for further development. Some of these resources are potential—for example, oil; they have to be explored and exploited. Certain resources like technical and managerial personnel have to be developed through education, training and actual experience. With the development of metallurgical and engineering industries, the capacity to manufacture plant and equipment will grow rapidly. These are questions of organisation. The point is: resources are not static. They are growing and the problem is to see that the fruits of this growth are reflected in a further growth of investment rather than of consumption. In regard to food, the Plan aims at achieving self-sufficiency by 1966. For the transitional period the necessary imports have already been arranged for. Given these favourable factors and taking into account the increase that has already taken place in the production potential of the economy over the last decade or so, there is no doubt that the investment proposed in the Third Plan as also the target envisaged for domestic resources are about the minimum that can ensure the realisation of the basic objectives accepted in the Plan.

A Self-Generating Economy

DR. I. G. PATEL

ONE of the most remarkable things about Indian planning is the ease with which we have come out with meaningful slogans in the light of our own experience. The First Plan began with our sights set on "self-sufficiency in food grains." The inflationary impact of the Korean War brought with it the slogan of "development with stability" and the growing signs of unemployment and of social stresses and strains symbolised by the bank dispute had us ready with the goal of "a socialist pattern of society." The somewhat meaningless evaluations of the First Plan in terms of money spent or not spent led quickly and naturally to the controversy on "physical *versus* financial planning." And as we set about preparing a big and bold Second Plan with its big uncertainties and bold assumptions, other catch-words such as "basic industries", "perspective planning", "annual plans" and "flexibility" came in view. With the Second Plan now nearly over, with its "core" virtually fulfilled and with a legacy of depleted reserves, sizeable foreign debt and a continuing gap in balance of payments even on maintenance account, the focus has inevitably shifted to "a self-generating economy." Whether the years to come will add further to the list of words and phrases we have chosen to highlight our problems, one thing is certain. Each of these words and phrases has a hard core of meaning and significance and taken together they sum up the essential strategy of economic planning in India.

What then is the meaning or the significance of the objective of "a self-generating economy" which we hope to achieve within the next ten or twelve years? Put simply, our objective is to reach as soon as possible the stage from whereon the further progress of the Indian economy can proceed essentially on the basis of resources from abroad in the form of loans or grants. Whatever may be the attitude to foreign aid in other countries, we in India consider the indefinite continuance of such aid as detrimental to our national resolve and purpose and are anxious, therefore, to end in the shortest time possible the present state of affairs where our plans depend for their fulfilment on foreign aid to a considerable extent.

But before we proceed any further, three points need to be made clear. First, the achievement of a self-generating economy does not mean the end of planning or of purposeful and co-ordinated direction of the economy. The task of eliminating poverty and want in India cannot be completed in ten or twelve years and would require conscious and determined effort over several decades. To read into "a self-generating economy' the overtones of a self-regulating economy or of an

economy governed more or less by the so-called free and unfettered decisions of private enterprise would be to import an "internal" meaning into what is basically a concept pertaining to our "external" relations. One may, if one is so inclined, discuss whether and when we can relax our planning efforts in India. But that is an altogether different problem from the one that we are now considering in the context of the goal we have set for ourselves.

Second, the objective of a self-generating economy cannot be assigned any definite meaning without defining the rate at which we wish the Indian economy to grow after it becomes self-generating or self-reliant. Clearly, if we were to be content with a rate of growth of say 2 per cent per annum, the Indian economy could be self-generating tomorrow, for we could even now expand national production at the rate of at least 2 per cent per annum without any external assistance. It is only because we consider a rate of growth of about 5 per cent per annum as the minimum necessary in our conditions for many years to come that we welcome foreign assistance now and over the next few years and are anxious to continue to grow at a similar rate thereafter without such assistance.

We should also be clear about what exactly we mean when we say that we want to be independent of external assistance over the next ten or twelve years. Do we want to be independent only of the extraordinary form of assistance on a government-to-government basis such as we now receive from the U.S., the U.S.S.R., Canada, the U.K., Germany and Japan? Or do we intend to rely entirely on our own resources in the sense that we would not welcome an inflow of private foreign capital or loans from international agencies such as the World Bank as well, after a time? Private foreign capital flows today to even the most highly industrialised and rich countries of the world and countries such as Japan and Australia borrow large sums from the World Bank. Clearly, in accepting the goal of a self-generating economy it is not our intention to set a deadline beyond which private foreign capital would be refused entry into the country. Nor should it be our policy to pass a self-denying ordinance in our relations with international agencies. At best, what we imply is that whereas certain forms of external capital would continue to flow into the economy, this would be governed essentially by market considerations and that the gross inflow of capital would be rather small in relation to the totality of our needs and would presumably be matched in most years by a corresponding outflow in repayment of old debts—and that if, on balance, we continue to be net receivers of private foreign capital or of international loan capital by virtue of our expanded investment opportunities, we would rather raise our developmental sights than debar such capital as gets attracted to our shores.

Thus understood, the achievement of a self-generating economy requires (a) an increase in the rate of domestic savings from the present about 8 per cent of national income to some 15 per cent of national income; (b) a sufficient diversification of the Indian economy to permit a healthy balance of payments position by adding to our potential for

exports as well as import substitution; and (c) an adequate degree of initiative, enterprise and responsiveness to change among millions of our producers whether on farms or in factories, big or small, public or private.

Experience the world over shows that an increase in total production by about 5 per cent per annum requires a net investment at the rate of some 15 per cent of national income and if this investment is to be financed essentially from domestic resources, domestic savings must also be of that order.

Very often, the balance of payment restraint on investment comes into operation before the inadequacy of domestic savings begins to create inflationary pressures. If the production of certain kinds of goods—be they investment goods or the consumer goods required by the people working in investment goods and other industries or the materials required by all these industries—within the country is inadequate and if the ability to obtain these goods from abroad by exports is also limited, it is clear that investment cannot be pushed beyond a point without running into balance of payments difficulties even though there is readiness on the part of the people to "save" enough to pay for the "investment" in terms of domestic currency. That is why it is necessary to emphasise separately the requirements of a strong balance of payments potential as a pre-condition for a self-generating economy. The emphasis in our plans on basic industries, machine-building capacity, oil, fertilisers, non-ferrous metals, agriculture and promotion of exports is based on this consideration of strengthening our balance of payments by creating and expanding those industries or activities where the chances of increasing our export earnings are particularly good or where there are good prospects of avoiding a dangerous and excessive dependence on imports. In this approach, there is nothing like a mechanistic attempt to be self-sufficient in everything as might sometimes appear from the talk of "increasing the production of investment goods that produce investment goods so as to increase investment." But equally, in a realistic assessment of our balance of payments potential, the need for developing import-substituting industries is as obvious as that for expanding exports.

In the ultimate analysis, a steady rate of growth year after year over many decades is not simply a matter of investment or balance of payments. The myriads of producers must be in a position to adopt new techniques as well as to adapt existing techniques to changing circumstances, to respond to incentives and challenges as well as to evoke a response in others to their own ideas and products. A dynamism of this sort implies a state of education and awareness among the population at large and the existence of an institutional framework in which the energies of small men and big men alike can find a convenient vehicle.

To spell out all that is involved in the three preconditions of a self-generating economy that we have mentioned would take us over the entire field of Indian economic development. But a few remarks may be made here to supply a certain emphasis in our efforts. First, all the

three tasks outlined above are equally urgent and necessary. Taken in hand together, they will reinforce each other. Failure on any front would soon manifest itself in other spheres. While higher and still higher taxation and greater inducements to savings are necessary, the task of achieving a rate of saving of as much as 15 per cent of national income over the next ten or twelve years would require more far-reaching efforts —efforts to reduce or eliminate some of the wasteful social habits and to reverse the present ubiquitous competition among all classes for luxury or less essential consumption into a competition for conspicuous austerity. The severe import regime must be supplemented by an equally severe control over the domestic production and consumption of less essential items in the interest both of augmenting savings and of minimising the pressure on balance of payments by curtailing the demand for maintenance imports. The education of our people—of all our people no matter how inadequately to begin with—and the organisation of all strata of our society into viable units for performing socially useful functions on a non-payment basis and in addition to their normal preoccupations are not frills to our programme but the very core of the effort involved in achieving "a self-generating economy".

Planning Technique in India

DR. S. R. SEN

IN India the first attempt at national planning was made by the Planning Committee set up by the Indian Congress Party in 1938. This was followed by a number of private plans like the Bombay Plan. The Government of India set up a Planning Department in 1944. But planning in right earnest really began with the setting up of the Planning Commission in 1950.

The First Five Year Plan was, in a sense, a rather modest programme for rehabilitating the economy from the damages done by the war and the Partition. But on the other hand, it was a landmark in our history, as it not only laid down the basis and direction for our future economic development but also led to the formulation of a number of fundamental policy decisions, *e.g.* land policy, industrial policy, co-operative policy, community development, etc. The Second Five Year Plan was a more comprehensive national plan covering the public as also the private sector. One of its essential features was an attempt to build a base for the development of heavy industries in the country. The Third Five Year Plan seeks to carry the process further and create conditions which will help accelerate the progress of our economy towards the self-sustaining stage.

Planning in India is essentially different from that in countries like Soviet Russia in one important respect. India has a mixed economy. While there are important sectors of the economy where the Government plays an important role, there are large areas where *laissez faire* is the rule. Moreover, India is not a closed economy. It is an open economy subject to all the pressures of international economic forces.

While administration of a completely *laissez faire* economy and the management of a fully-socialised economy have their own problems, the management of the mixed economy of the kind that we have in India is peculiarly difficult and complicated. No doubt, we enjoy certain advantages of both. For instance, shortcomings of free trade are not allowed to give rise to extreme imbalances and errors of planning are to some extent corrected by market adjustments. But at the same time we have also to contend with some of the disadvantages of both the systems as well. To the extent that planning disturbs the supposed self-balancing mechanism of a market economy, we have to face a number of difficulties. On the other hand, to the extent that the existence of an open market limits the effectiveness of any action taken by Government, we do not have the operational advantages which planning authorities in a completely socialised economy like Soviet Russia often enjoy.

Because in India we have to work in the context of a mixed economy and political democracy, the process of planning has necessarily to be

somewhat of a backward and forward process in which the technicians have an important role to play, but the ultimate decision is not just the result of a technician's analysis and far less the arbitrary decision of a supreme political authority but a series of adjustments between different politico-economic considerations—within, of course, the four corners of the broad social and economic ideals of the ruling political authority.

As in other socialist countries, however, planning in India involves three distinct exercises:

(a) long-term and perspective planning;
(b) five year planning; and
(c) annual planning.

Planning, as opposed to *laissez faire* or a policy of drift, must have a long term goal, a precise map of the stages by which that goal will be reached and a detailed itinerary for each of the different periods in which a particular stage is to be covered. The long-term and perspective plans give a general idea of the goals to be reached in, say, 15 or 20 years' time. They do not go into questions of finance, except very generally. Their main concern is with an assessment of needs and of technological possibilities. The five year plan spells out the policy implications and also gives details as to what should be done and financial implications thereof during the next five years if that distant goal is to be reached. At the same time it also seeks to maintain a certain modicum of continuity from one plan period to another in the very process of change which it seeks to promote. The annual plan gives a detailed programme of work and budget for the next year in the light of the targets and financial provisions of the five year plan.

None of these plans can obviously be very rigid, especially in an economy which is characterised by the co-existence of public and private sectors. In fact, the central idea is one of what some authorities call a 'rolling plan'. We start a particular stage with a perspective and a five year plan. But as we roll on to the end of that stage we get another perspective and another five year picture for preparing the plan for the next stage. For instance, in 1955-56 we first formulated a perspective plan for 1970-71 (or 1975-76 in some exercises) in the light of the facts and figures we possessed at that time. It was in the light of that perspective plan, that the Second Plan for the period of 1956-57 to 1960-61 was formulated. Now we are again repeating the same exercise but we are working on the basis of a perspective plan for 1975-76 (or 1980-81) instead of 1970-71 (or 1975-76), and taking into account the changed outlook and conditions and the different facts and figures which we possess today. It is in the background of this new perspective plan that the Third Plan for the period 1961-62 to 1965-66 has been formulated.

The annual plan is similarly formulated in the light of the five year plan and the latest facts of the situation. Although an attempt is made in the annual plan to follow broadly the phasing given in the five year plan substantial modifications sometimes become necessary. If the economic situation changes drastically from the forecasts made, necessary

changes in the five year plan itself may sometimes be made through the annual plans.

In other words, although the broad direction is given by the perspective plan there is constant adjustment every quinquennium and also every year to new situations that may emerge. Such a process is essential because otherwise one would not be able to tackle the various problems which are constantly emerging in a dynamic economic and political situation.

Usually a distinction is made between a long-term plan and a perspective plan in the sense that the former relates only to one sector and seeks to have a vertical harmony over time while the latter covers all the sectors of the economy and seeks to have a horizontal harmony as it were. For instance, in the field of road building, the road engineers of the country may prepare a long-term plan of road development for a period of, say, 30 years. It will spell out the needs of the country, the stages by which those needs can be satisfied, the various measures that have to be taken and only a general idea of the cost involved. Such a plan is not very much concerned with direct co-ordination with the other sectors of the economy. It will be essentially a plan prepared by the engineers.

On the other hand, the perspective plan is a long-term plan for all the sectors of the economy and is a combined exercise by economists, technicians and administrators. Economists and statisticians first try to make rough projections of the resources and the requirements that the country is likely to have in 15 or 20 years' time and work out inter-sectoral relationships that will yield the optimum results within the limits of the political and social policies which the government have generally accepted. These preliminary projections worked out by them are then discussed with various technical people in the different Ministries and on this basis certain long-term targets for 15 or 20 years are formulated. As the first step, each technical group is asked if they did not have to worry about financial problems and had to contend only with technical and administrative problems what should be the target that they would envisage, say, for the year 1975-76, in their respective field and then keeping their sight at that level what they would think should be necessary and possible for the period 1960-61 to 1965-66. A number of such long-term plans prepared by Working Groups of technicians for different sectors are then brought together and fitted in with the economic projections made by the econometricians. This forms the basis of the perspective plan which has to be finally approved by the politicians because it must essentially subserve their political and social goals.

It is against the background of the perspective plan that the five year plan is formulated. But as has been mentioned earlier, it is worked out in much greater detail than the former. The perspective plan pays more attention to physical targets rather than to financial targets. On the other hand, in a five year plan the financial targets are as important as physical targets.

The first stage in the preparation of the five year plan is to make a number of projections for supply and demand for the next five years

in the light of the current trend of economic forces as also with the perspective plan in view. As a result of these exercises, a few key figures, or what are known as control figures, are worked out by the technical workers in the Planning Commission and placed for consideration before the National Development Council which comprises the Prime Minister, Central Cabinet Ministers, Members of the Planning Commission and the Chief Ministers of the State Governments and represents the highest political authority in the country. After suitable amendment in the light of the modifications suggested by the National Development Council, these control figures are finalised and sent to the various Ministries and the State Governments as a preliminary guide.

It is in the light of these control figures that each Ministry of the Central Government, each State and sometimes even district authorities prepare their own plans. These plans are then co-ordinated by the immediate higher authority and forwarded to the Planning Commission.

Then a process of balancing begins in the Planning Commission, balancing of demand against supply, of imports against exports, of raw materials against finished products, of consumption against production, of financial resources against physical resources and so on and so forth. From this exercise a draft plan emerges which is then published and subjected to countrywide discussion in the press, in the universities, and in scientific, political and social organisations. Then in the light of all these discussions, a final plan is prepared by the Planning Commission in further consultation with the Central Ministries and State Governments and placed before the Government, the National Development Council and the Parliament for final approval.

It will be thus seen that this is essentially a backward and forward process in which the first exercise is undertaken by technicians but then there is a series of adjustments as a result of diverse considerations, technical, social and political. It is obvious that a national plan cannot be a purely technicians' exercise but has to be a process in which the technician, the politician, the public and the various interests in the country have to have their say.

Essentially, however, a five year plan is a budget for the national economy for a period of five years.

It is obvious that for operational purposes, five years is too long a period. The five year plan has, therefore, to be broken into annual plans. The annual plan is really the national economic budget for a period of one year—an economic counterpart of the familiar financial budget. In fact in a planned economy the financial budget has to be essentially the financial reflection of this economic budget, *viz.* the annual plan.

The annual plan has now become a very important part of planning, in this country, especially for the States. In fact, it has now evolved into a very important instrument of federal and state financial relationship. The preparation of annual plans provides the mechanism by which the phasing of the five year plan can be reviewed from year to

year keeping in view the general state of the economy and the various changing technical, economic and social considerations relating to individual programmes of development. An annual plan introduces, on the one hand, a much-needed flexibility in the implementation of the five year plan and, on the other, sets out the programmes of development to be implemented every year with sufficient concreteness and detail.

In drawing up the five year as well as the annual plan, it is necessary to concentrate on the following main features:

(1) targets and tasks;
(2) financial resources and expenditure;
(3) national income and investment estimates;
(4) foreign exchange;
(5) personnel requirements and training programmes;
(6) studies regarding key commodities; and
(7) study of bottlenecks, administrative as well as technical.

A careful balance has also to be struck between different projects, taking note of their horizontal and vertical interrelations. Two tests of a good plan are (i) optimum results from resource allocation and (ii) consistency in different commodity balances and also the balance of power, transport and personnel.

Capital-Output Relationship

DR. V. V. BHATT

CAPITAL-OUTPUT relationship in an economy is measured by the aggregate capital-coefficient, that is, the aggregate capital-output ratio for a given time period. Capital is defined as the domestic reproducible capital, which includes fixed capital (excluding land) and inventories. If gross capital stock is taken as the numerator, the denominator should be gross national income or output; this would give the gross capital-coefficient. The net capital coefficient would be given by the ratio of the increase in the capital stock, that is, investment, to the increase in the national income during a given time-period. For our Five Year Plans, the relevant ratio is the marginal net capital coefficient, that is, the ratio of the net investment to the increase in net national income during a given time period.

For calculating the capital ratios investment-estimates are necessary. However, no year-wise official estimates of aggregate investment are available*. The saving-estimates, however, have been made by the Reserve Bank and published in the Reserve Bank Bulletin, March 1960. Investment-estimates, for the purpose of this article, are made by adding net capital-inflow from abroad to the Reserve Bank's saving-estimates. Saving in the form of gold is excluded from the saving-estimates, as gold represents, according to international convention, foreign investment; gold for ornaments etc., anyway, would represent a consumers' durable. Capital-inflow is calculated by adding to current account deficit (excluding official donations and imports—smuggled—of gold), and retained earnings of branches and subsidiaries of foreign companies, which are estimated on the basis of the data published by the Reserve Bank. The investment-estimates thus derived are presented in the table below for the years 1950-51 to 1957-58 at 1948-49 prices:

SAVING, INVESTMENT AND CAPITAL-OUTPUT RATIO IN INDIA

(Rs. crore at 1948-49 Prices)

Year	Saving	Saving in the form of Gold	Capital-Inflow	Investment	Saving-Income Ratio	Investment Income Rato	Capital-Output Ratio
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(1—2+3)			
1950-51	607	19	—18	570	6·9	6·4	
1951-52	459	32	211	638	5·1	7·0	
1952-53	565	18	—17	530	6·0	5·6	

* For non-official estimates see Bhatt, V.V., Saving and Capital Formation in 'Economic Development and Cultural Change,' April, 1959.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1953-54	537	12	—16	509	5·4	5·1	
1954-55	682	12	54	724	6·6	7·0	
1955-56	854	13	17	858	8·1	8·2	
1951—56	**3,097**	**87**	**249**	**3,259**	**6·3**	**6·6**	**2·0**
1956-57	950	22	346	1,274	8·6	11·6	
1957-58	753	31	476	1,195	7·0	11·0	
1956—58	**1,703**	**53**	**822**	**2,469**	**7·8**	**11·3**	**7·1**
1950—58	**5,407**	**159**	**1,053**	**6,298**	**6·8**	**7·9**	**3·1**
1951—58	**4,800**	**140**	**1,071**	**5,728**	**6·7**	**8·0**	**2·9**
1956—61				**6,500***		**10·8**	**3·1**

* At 1952-53 Prices.

Sources : 1. Reserve Bank of India Bulletin, March, 1960.

2. Reserve Bank of India, Reports on Currency & Finance.

3. Reserve Bank of India, Reports on India's Foreign Liabilities & Assets as on December 31, 1953 and December 31, 1955.

4. Reserve Bank of India Monthly Bulletins, September 1958 and June 1959.

5. Department of Commercial Intelligence and Statistics, Monthly Accounts relating to Foreign Trade and Navigation of India & Supplements to Monthly Statistics of Foreign Trade of India, Calcutta.

It would be seen from the table that the average saving-income ratio increased from 6.3 per cent during the First Plan to 7.8 per cent during the first two years of the Second Plan period, while the average investment-income ratio increased from 6.6 per cent to 11.3 per cent between these two periods. The total Second Plan investment is estimated to be Rs. 6,750 crore at 1952-53 prices; this would mean that Second Plan investment-income ratio would be eleven per cent.

On the basis of these investment estimates and the national income data published by the Central Statistical Organisation, the capital-output ratios for the First Plan period and for the periods 1950-51 to 1957-58 and 1951-52 to 1957-58 are calculated. The First Plan actual capital-output ratio is estimated to be 2 : 1, while the ratio as anticipated in the First Five Year Plan document was 3 : 1. This lower than anticipated ratio was the result largely of a large increase in agricultural output due to favourable monsoons and in the output of cotton textiles due to fuller utilisation of available production capacity. The First Plan ratio, thus, does not represent any normal technical relationship between investment and increase in income and hence cannot be used for the purposes of planning.

The capital-output ratio during 1950-51 to 1957-58 or 1951-52 to 1957-58 is the result of all the possible factors that are expected to operate on this ratio during a planning period and hence is more likely to provide some guidance for the Third and subsequent Plans. This ratio bears the impact of utilisation of excess capacity, good and bad monsoons, and investments of a capital-intensive nature with a fairly long gestation period; these are the factors that are likely to operate on the capital-output ratio during the Third and subsequent Plans also. The capital-output ratio during this seven to eight year period was about 3 : 1.

The capital-output ratio during the Second Plan as a whole is likely to be around 3.2 : 1 on the assumption that national income would grow at an annual rate (compound) of a little more than 3.5 per cent during 1959-60 and 1960-61; during the first three years of the Second Plan period, the national income increased at an annual rate (compound) of little less than 3.5 per cent. The expected ratio during the Second Plan, as given in the Second Five Year Plan document, was 2.3 : 1.

The capital-output ratio during the Second Plan period as well as during the first seven years of planning was probably higher than around 3.2 : 1 and 3 : 1 respectively, as investment in the non-corporate sector in fixed capital as well as inventories is probably underestimated and non-monetised investment is not included in the investment-estimates. It has been suggested by Malenbaum* that the capital-output ratio is likely to be 3.5 : 1 during the Second Plan period.

According to the Draft Outline of the Third Plan, investment-income ratio is expected to rise from about 11 per cent during 1960-61 to 14 per cent during the last year of the Third Plan and national income is expected to increase at an annual rate (compound) of 5 per cent. The capital-output ratio, thus, is assumed to be 2.5 : 1 during the Third Plan period.

On the basis of past experience, it appears that this capital-output ratio is lower than what is likely to prevail during the Third Plan period. It is not likely to be lower than 3 : 1 and may in fact turn out to be higher than this figure. The experience of advanced countries like the United States suggests that the capital-output ratio is likely to rise gradually during the process of development and would tend to fall only after several decades of development.** In the United States, this ratio rose from about 3 : 1 during 1889 to about 4 : 1 during 1934; it then started falling gradually and was around 2.5 : 1 during 1948.**

Of course this ratio may turn out to be 2.5 : 1 during the Third Plan period if the available surplus man power is intensively and efficiently used in construction, agriculture, transport and small industry as China seems to have done during 1950–57. China's capital-output ratio during 1950–57 was probably around 2.5 : 1*. However, India has not been able to use so far its surplus manpower in the different fields in which it can be used. This is the task for the Third Plan; and if efficiently performed, it would be possible to overreach the income and investment targets visualised in the Draft Outline.

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* Malenbaum Wilfred, India and China : Contrasts in Development, American Economic Review, June 1959 and his East and West in India's Development, National Planning Association, Washington 1959.

** See Inter-relation Between Capital and Output in the American Economy by Evsey L. Domer in Economic Progress edited by Dupriez, Lonvain, 1955.

*See Malenbaum op. cit.

Family Planning

C. CHANDRASEKARAN

THE Draft Outline of the Third Five Year Plan is replete with statements showing great concern on the rapid rate of growth of India's population. While similar expressions of opinion were made in the First and Second Five Year Plans also, recent data have shown that these plans had underestimated the increase in population size and had therefore erred in being over-optimistic in the setting up of targets. The main reasons for this error were two-fold: (1) the rapidity with which the death-rate was declining had not been fully realised; and (2) the problems in effecting a reduction in the birth-rate had not been fully appreciated. Evidence of a combination of a rapidly diminishing death-rate and a static birth-rate has now led the Central Statistical Organisation to give a projected figure of 431 millions for India's population in 1961, as compared with 408 millions which was the Second Plan estimate. When the First Five Year Plan was inaugurated India's population was 362 millions. Thus in a comparatively short period of 10 years from 1951 to 1961 the population would have grown by about 70 millions. The gravity of the situation has been aptly summarised by the Draft Outline of the Third Five Year Plan which states: "The objective of stabilising the population has certainly to be regarded as an essential element in a strategy of development."

What does this goal of stabilising the population size involve? The birth-rate at the present time has been estimated by the Central Statistical Organisation as 41 per 1,000 and the death-rate as 22 per 1,000 resulting in an increase of 19 per 1,000 or 1.9 per cent per annum. An attempt at stabilising the population would imply that there should be no gap between the birth and death-rates. If the death-rate should stand at its present level of 22 per 1,000, this would require a reduction in the birth-rate from 41 to 22 per 1,000 or to about one-half of its present level; but as the death-rate can be expected to fall still further, the birth-rate will require to be reduced by more than half if population size is to be stabilised.

How soon is such a reduction in birth-rate to be achieved? The Draft Outline of the Third Five Year Plan has not attempted to set targets but in its working has implicitly accepted the figures for population projections from 1961 to 1976 made by the Central Statistical Organisation, which assume that the birth-rate of 39.6 during the period 1961-66 will reach the level of 32.9 during 1966-71 and 27.3 during 1971-76. Declines in the birth-rate of the order assumed by the Central Statistical Organisation are extremely large; reductions in the birth-rate of 20 per cent during a five year period and 33 per cent during a ten-year period are unprecedented in any part of the world in the early stages of birth-rate decline.

Even in Japan where the birth-rate was reduced by about 50 per cent during the period 1947 to 1957, it has been established by several demographers that the beginnings of the birth-rate decline could be traced to many years earlier. The setting up of targets for birth-rate decline is extremely hazardous in situations, as at present in India, where the birth-rate has been very resistant to change. The nullifying effect which a steady birth-rate could have on the realisation of the social and economic goals of the Five-Year Plan calls for a greater intensification of effort on family planning programmes than has hitherto been attempted.

The First Five Year Plan had a budget provision of Rs. 65 lakh for family planning. In the Second Five Year Plan the budget provision was increased to Rs. 497 lakh and the Draft Outline of the Third Five Year Plan has a budget allocation of Rs. 25 crore for family planning. These figures speak for themselves and show the seriousness with which the Planning Commission has been viewing the subject of family planning. Yet it is doubtful if the budget provision proposed to be made in the Third Five Year Plan is commensurate with the magnitude of the problem, and it will be recalled that the Family Planning Third Five Year Plan Committee set up by the Ministry of Health, Government of India, had suggested a programme for Rs. 100 crore during the Third Five Year Plan. The assurance repeatedly made at the meeting of the Health Panel of the Planning Commission held some time ago that additional funds would be forthcoming for family planning when the need arises, shifts the emphasis from financial considerations to those concerned with the setting up and operation of the programme.

The First and Second Five Year Plans approached the problem of family planning with extreme caution. Until very recently little was known of the attitude of the people—the bulk of whom live in the rural areas—to a national programme of family planning. The procedures by which family planning services could be made available to various sections of the population had also to be investigated. The specific method of contraception which would prove acceptable to our people had to be studied. Even today, after ten years of research and investigation, it is not possible to give categorical answers to all the questions asked. But enough has been learnt to show that with a determined effort an intensive programme can definitely be a success; and it is for the Third Five Year Plan to make a massive attack on several fronts. Three such fronts are pointed out below:

First, a motivation programme directed to the widespread adoption of family planning should be given the highest priority in the Third Five Year Plan. The public, though responsive to the idea of family planning, are not highly motivated by it and are often ignorant of how family planning can be achieved. Through a net-work of operational agencies the importance of family planning should be carried to every city, town or village in the country during the Third Five Year Plan. All the mass media available such as broadcasting, films, newspapers, etc. should be harnessed to create awareness and acceptance of family planning. In the rural areas the programme should be co-ordinated with

the activities of workers in Primary Health Centres, Community Development Blocks, Social Welfare Boards, Agricultural Extension Schemes, etc.

Secondly, the supply of contraceptives should be made readily available to all sections of the urban and rural populations. The emphasis which had been given in the earlier Five Year Plans to use clinics as supply agencies should rapidly give place to a judicious combination of clinic and non-clinic services in making supplies available. As the programme develops further, it is to be hoped that the role of clinics as distribution centres would become less important. A liberal supply of contraceptives as suggested above assumes that indigenous production of accepted contraceptives will be taken in hand and that contraceptives will be distributed at highly subsidised rates.

Thirdly, the growing demand for sterilisation facilities must be met. Opinions may differ as regards the importance of sterilisation as a solution to the demographic problem, but it must be accepted that sterilisation will meet individual needs and may well serve as a beginning for making family planning a universal practice. Hospitals, health agencies and private physicians should be encouraged to conduct sterilisation operations and necessary facilities and incentives should be provided to make large numbers of such operations possible.

The programme indicated above will require the development of voluntary local leadership and trained staff which should be augmented under the Third Five Year Plan. In addition, the necessity to support research programmes in the fields of demography and in medical and biological sciences allied to family planning cannot be overemphasised. In particular, the Third Five Year Plan period should witness considerable action-*cum*-research in the fields of communication and motivation.

Family planning is a State subject and the Central Government's role in the operation of the States' programmes is mainly advisory. It is all the more necessary that a Central Body, with adequate representation from the States should keep a vigilant eye on the implementation of programmes, to see that they are well-conceived and rapidly executed. The Central Body should be assisted by a group of technical experts who are conversant with scientific progress in branches pertaining to family planning. Since family planning is intimately connected with the economic, social and cultural conditions of life, progress in this field can only be achieved by a deep understanding of the context in which the programmes have to be operated. If programmes are developed with understanding and are executed with a conviction that they are essential and urgent, then they must succeed.

Commercial Policy

S. RANGANATHAN

ALTHOUGH India's foreign trade is at present only of a small magnitude in relation to the total national income or the total trade of the country, external trade yet constitutes one of the most strategic factors in the programme of India's economic development. The reason is that India's development programme depends to an appreciable extent on imported plant and equipment and other basic materials, without which the large investments envisaged in the Plan cannot fructify. The Draft Outline of the Third Plan has indicated that the total import bill over the five years 1961-62 to 1965-66, may be around Rs. 5,670 crore, or an annual average of something like Rs. 1,134 crore over the Third Plan period. This country is not yet in a position to fabricate all, or even most of the capital goods required for accelerating the industrial development of the country; and while indigenous production of capital goods has been rapidly increasing, the need for import of machinery will not only remain but may, in fact, be expected to increase over the immediate future. The requirements of industrial raw materials and semi-finished or finished components may also be expected to remain at a high level over the coming years.

As against this, the expected level of export earnings over the five-year period is estimated in the Draft Outline at only around Rs. 3,450 crore, which gives a deficit of Rs. 2,220 crore on merchandise trade account over the five years 1961-62 to 1965-66. Large though the estimated deficit is on merchandise trade account, the gap would have been larger but for the fact that a continuance of the present tight import policy has been implicitly assumed in these estimates.

It is useful to examine these estimates against the actual figures of trade during the first four years of the Second Plan. Over 1956-57 to 1959-60, imports have been of the order of Rs. 3,655 crore while exports have been around Rs. 2,392 crore. These figures of actual performance, as well as the estimates for the Third Plan period indicate the problems of the foreign trade of India over the coming years.

Imports: In so far as imports are concerned, several aspects would have been seen to be at play, which may be expected to shape the pattern of imports over the coming years. In the first place, it is clear that India's balance of payments will continue to be under pressure for the coming few years, and India's developmental import needs would continue to grow. During the Second Plan period, India has had a fairly sizeable adverse trade balance on merchandise account. To the extent that the investment programmes envisaged for the Third Plan are of large dimensions, the deficit on trade account is likely—unless exports rise fast enough—to grow bigger. While at the commencement of the

Record number of firm registered in 1960-61

New Delhi, March 29 (PTI)—The number of new companies registered in the country this year exceeded the levels attained during the last seven years, according to the fifth annual report on the working and administration of the Companies Act during 1960-61, placed on the table of the Rajya Sabha today.

The total number of newly-formed companies this year was 1,683, which was almost double the number of those formed during the first year of the working of the Companies Act in 1956-57.

Since 1956-57, the number of new companies registered has risen steadily and the figures for 1960-61 are very close to the record level of 1951-52.

Of the newly-formed companies during the year, 153 were public companies, with a total authorized capital of Rs 157 crores, and 1,530 were private companies, with a total authorized capital of Rs 130 crores.

The largest number of companies were registered in the States of West Bengal, Madras and Maharashtra, the new registrations in the States being 431, 343 and 335, respectively. New companies formed in the Union territory of Delhi were 197.

The number of new companies registered in the southern region comprising the States of Madras, Andhra Pradesh, Mysore and Kerala, according to the report, was 452 during the year under review as against 433 in 1959-60 and 206 in 1958-59.

The total registrations for the eastern region (West Bengal, Assam, Bihar, Orissa, Manipur and Tripura) was 477; for the western region (Maharashtra, Gujarat and Madhya Pradesh) 431; and for northern region (Rajasthan, U.P., Punjab, Himac Pradesh and Delhi) 323.

The joint stock companies corded a net increase of abou 700 crores over the period 19 in their paid-up capital, of wh Rs 458 crores were on account Government companies and 242 crores in respect of non-G ernment companies. The paid-up capital actually repor to have been raised by the newly-registered companies dur the period was Rs 161 crores.

The effective strength of corporate sector at the end 1960-61 was placed around companies having a total paid capital of Rs 1,725 crores. Of the public and private compa were 6,745 and 19,363, respectiv

During 1960-61, 30 public c panies were converted into vate companies whereas 29 vate companies were conver into public companies.

During 1960-61, 6,272 pro tions were started against companies as against 5,252 pros tions against 1,043 companies 1959-60 and 2,498 prosecut against 631 companies during 59.

As against 3,075 companies liquidation at the beginning year under review, 2,928 com nies were in liquidation at the of the year.

The report said the achievement of the depart the Company Law Admini has been the strengthening professional discipline. The disciplines are those con with cost and works acco management accounting and pany secretaryship.

The administration claim within the limits of its what restricted scope, helped to promote and d sense of fiduciary respo among large sections of the ness community which hitherto impervious to this The cumulative effect changes, the report says, has to create a sense of compre sciousness in the countr whole, which provides the sure foundation on which reforms in the structure and tioning of company manag can be based.

Shares

Dr

Second Five Year Plan, India had a large reserve of sterling balances which could be drawn upon in order to finance the import surplus in the earlier years of the Second Plan, we are likely to start the Third Five Year Plan without any such cushion of expendable foreign exchange reserves. It is inescapable, therefore, that imports may have to be regulated, at least till such time as India does not reach a stage of self-sustaining economic growth when a balance may be reached between needs and availabilities of external resources. It would, therefore, appear to be realistic to assume that the generally tight import control measures at present in force will have to continue in the foreseeable future. We have to make serious efforts to make the maximum use of indigenously available resources. The greatest emphasis must also be placed on the implementation of schemes which are genuinely import saving in character, or which will enhance the country's future capacity to export.

In so far as the pattern of commodity imports is concerned, import requirements over the coming few years may be classified into two major types: first, imports required for the maintenance of the economy; and secondly, developmental imports required for the implementation of the Third Plan. It has been estimated in the Third Plan that the maintenance requirements of the economy may account for imports worth Rs. 3,560 crore over the five years of the Plan period, which itself is around the level of the anticipated export earnings during this period. This not only points at the need for the greatest economy in the use of foreign exchange over the coming year, but also the fact as far as developmental imports are concerned, imports over the coming years will depend very largely on the availability of foreign exchange resources to finance these developmental imports. It is inescapable, therefore, that the sources of supply for India's imports over the coming years will depend largely on the availability of foreign exchange resources to finance these imports.

The other major factor affecting India's trade over the coming years stems from the trading and commercial relations which have developed with trading partners, either through commercial treaties and agreements relating to trade with individual countries, or through the spontaneous development of trade to mutual advantage. As a member of the GATT, India believes firmly in the benefits of multilateral trade. There is no doubt that in the long run, world trade can increase progressively, and to the best interests of all participating countries, only on the basis of free exchange between all nations. While this is true, there are at present many difficulties which tend to hinder or to delay the attainment of a completely multilateral system of exchanges in the world. In the past, trade between underdeveloped countries and the economically and industrially more developed areas had not increased as rapidly as overall world trade for several reasons, one of the important reasons being the policy of "protection" adopted by some industrially developed countries, in order to safeguard some of their high costs industries. While there is need for avoiding sudden and sharp dislocations in any community, in the long run, the benefits of international division of labour and of

specialisation might tend to be corroded by a perpetuation of such uneconomic industries in advanced industrial communities. Increased development of new preference areas, which may seek to enlarge trade within well-defined economic *blocs* at the expense of trade with third countries, has been another factor which has lately threatened to hinder the development of world trade on a fully multilateral basis. While India firmly believes that the long-term development of world trade can only proceed on the basis of multilateral exchanges all the world over, these exchanges need to be developed on terms of equality and reciprocity.

Exports: If India's import needs for the Third Plan are to be fully met, exports would need to be expanded in the immediate future. Experience during the Second Five Year Plan provides grounds for confidence in the capacity of the Indian economy to generate larger exports. Looked at from the point of view of the economy as a whole, exports are merely a form of saving in the community—a part of the national output being set apart for consumption by the rest of the world; and it should not, in principle, be difficult to set apart a mere 6 to 7 per cent of the national output for consumption by the rest of the world, against which India's requirements of investment and producer goods might be obtained from the rest of the world.

While this looks simple enough in theory, in practice difficulties arise partly because the buyer abroad has to be convinced that it would be worthwhile to buy the export products offered by India. To some extent, as has already been hinted, this would depend on the import policies followed in the rest of the world. Partly this will also depend on our salesmanship, on the quality of our products, and on our ability to supply the goods for which there may be demand abroad. There is need, in short, for better organisation and the acquisition of greater expertise in the art of selling abroad; and there is need also for developing our production capacity in the directions in which there is world demand. The development of exports, however, is a long-term affair, and while the export capacity of the country is being developed, stresses are likely to be felt through an excess of imports over exports in the interim period.

In so far as exports are concerned, it is normal to expect that this country would have a natural advantage in the export of finished products for which the basic raw materials are indigenously available, and it is, therefore, partly a matter of development of manfacturing capacity in suitable directions, and partly a matter of organising the trade so as to be able to export increasingly larger quantities of the products of Indian manufacture.

While the long-term development of India's exports would thus be mainly in the direction of manufactured articles of all types, in the near future, exports have to be developed in respect of both manufactures as well as raw materials. Entering into long-term contracts for the supply of ores to other countries, and the development of facilities for the export of such ores, illustrates a type of development that is likely to yield

dividends in the immediate future, through a rapid expansion of export capacity and export earnings.

A major plank in export policy has to be in the way of diversification of our export trade. A beginning has already been made in this regard; the search for new markets for India's products has also to continue. World demand has been fast increasing, and the import needs of large new areas, which were hitherto in a state of underdevelopment and stagnation, are likely to grow at a steep rate. The consumption requirements of industrially developed areas are also expanding at a fast rate, and the benefits to us of growing world trade can best accrue through an increase in the market base for the export products of this country.

One of the methods we have adopted to secure this end has been through trade agreements concluded with various countries over the past several years. One advantage of these trade agreements is to foster increased knowledge in both the signatory countries of the availability of goods in each country for mutual trade. As of today, India has trade agreements with as many as 28 countries, including the U.K. and the U.S.A., and the total value of trade with these (trade agreement) countries has been on the increase at a faster rate than overall trade. Exports to countries with whom we have trade agreements increased from less than 67 per cent of the total in 1957 to 72 per cent in 1959; the total value of exports to these countries being as much as Rs. 449 crore out of a total of Rs. 623 crore during 1959. Exports to East European and North Asian countries have increased over the past few years from the negligible amount of Rs. 7 crore in 1954 to Rs. 54 crore in 1959, largely through trade agreements concluded with these countries.

One of the difficulties in promoting exports is that this country has not, until recently, been export-minded. In order to facilitate exports, in the last one year, a large number of export controls have been lifted; and export quotas have either been liberalised or quota restrictions altogether removed from as many as 200 commodities. Further relaxations in the matter of export controls will be possible with increased production, and consequently of increased availabilities within the country. It is the policy of Government to give every facility to the export trade, and to assist in strengthening the organisation of the export trade of the country.

In so far as export industries are concerned, Government has already adopted a policy of liberal licensing of imports of raw materials, as also liberal licensing of capital goods imports subject no doubt to the overall considerations of availability of foreign exchange from time to time.

As has already been indicated, however, in the matter of export, the policies adopted by the importing countries would be of paramount importance in determining the size, nature and direction of exports from this country. It is our hope that recent developments in the way of new preferential groupings may not act in a restrictive manner but may, on the other hand, increase the total volume of world trade through

increased demand arising in these communities, which may lead to increased exchanges between the nations of the world.

It is also our hope that the industrially advanced countries will realise that in order to help the underdeveloped countries to improve their standard of living, it is not enough merely to give them "aid" in the nature of short term loans, but that it is really necessary to give long term accommodation on terms that may not entirely be satisfactory from a commercial point of view. Equally important is it for them to adopt liberal import policies, which would increase exports from those developing countries, as otherwise there would be no means by which these countries could repay their foreign exchange debts.

Exports and the Third Plan

BHABATOSH DATTA

ONE of the most noteworthy features of the Draft Outline of the Third Five Year Plan is its clear recognition of the large magnitude of the prospective foreign exchange gap during 1961–1966. It has been clearly realised that the import requirements of the Third Plan will be large and that there will be, in addition, the obligation to service and repay the foreign debts incurred in the past. Even if there were no new imports of capital goods during the next five years, the value of imports necessary to maintain the current levels of output and consumption (the so-called 'maintenance imports') would be Rs. 3,570 crore. This figure does not include Rs. 600 crore of food imports from the United States under the American Public Law 480, for which there will be no foreign exchange liability. It is further estimated that the net capital transactions (excluding new capital inflows) would mean an additional foreign exchange liability of Rs. 500 crore, bringing the total of the non-Plan requirements of foreign exchange during 1961–66 to Rs. 4,070 crore.

To this has to be added the total value of imports directly required by the Third Plan projects. With a Plan of the size of Rs. 11,250 crore, and particularly with 53.5 per cent of the total investment allocated to power, large industries, minerals and transport and communications, the import requirements would naturally be large. According to the Planning Commission, the foreign exchange expenditure under the Third Plan, additional to the requirements for the maintenance imports, would come to Rs. 2,100 crore–Rs. 1,900 crore for the imported capital goods for the Plan projects, and Rs. 200 crore for the imports of components, intermediate products, etc. for increasing the production of capital goods within the country. One thus gets an estimated total foreign exchange bill of Rs. 6,170 crore for the Third Plan period.

Against this we have total estimated foreign exchange receipts of Rs. 3,570 crore only, made up of Rs. 3,450 crore from exports and Rs. 120 crore of net receipts from all current 'invisibles' taken together (investment incomes, transportation and freight receipts, tourist incomes, etc.). The total foreign exchange gap during the Third Plan period thus comes to Rs. 2,600 crore under the present estimates. It will be noticed that export earnings are not expected to cover more than 56 per cent of the total estimated foreign exchange expenditure and that they do not even cover the maintenance imports alone.

There are many ways in which a foreign exchange gap may be closed: cutting down imports; using foreign exchange and gold reserves; securing aid, loans or equity investments from abroad; increasing the earnings from invisibles; and expanding exports. It is clear that most of these alternatives will not be available to India during the Third Plan period. The

import estimates may be taken to be the irreducible minimum, unless the Plan itself is substantially cut down or the pattern of investment allocations is thoroughly reshaped. The foreign exchange and gold reserves have reached a level at which further large drafts would be unwise. With the decline in the sterling balances the interest income from these has become small, and the other items of invisibles do not promise much expansion. The only two alternatives left are external assistance and exports.

It should be obvious that any measure that can substantially increase our export earnings would be much better than a large dependence on foreign assistance. Increase in exports has, of course, an inflationary effect on the economy, through creation of incomes in the export sector and diversion of resources from domestic use. But there are, on the other hand, the great advantages that repayment and servicing obligations are not created and that the increase in earnings may be, partially if not wholly, permanent. Foreign borrowing or other forms of assistance do not have an inflationary effect; in fact they have an anti-inflationary effect, if the imports financed by them consist, even partly, of consumer goods or of those capital goods which can bring about a quick increase in the production of consumer goods. But the debts have to be serviced and repaid, and if the foreign assistance comes in the form of risk-bearing capital, profits have to be remitted. And what is more important is that it is very difficult to increase, or even to maintain, the rate of receipt of foreign assistance over a long period of time. An increase in the receipts of foreign assistance does not guarantee that such assistance will continue to come at an increasing rate.

The need for intensifying the export effort is therefore imperative. The Draft Outline of the Third Plan is not, however, over-optimistic about the export prospects. The annual export rate anticipated is Rs. 690 crore, which can be compared with the 1959-60 figure of Rs. 623 crore and the annual average of Rs. 607 crore during the period 1956–1960. With a 5 per cent per year increase in the national income during the Third Plan period, the Planning Commission estimates of exports are based on the assumption that the share of exports in the national income will remain practically constant. It would appear from past experience that the export promotion policy of the Government will have to be very active in order to attain and maintain an annual average export rate of Rs. 690 crore. The effort required to raise the level of exports to, say, Rs. 750 crore per year (this will reduce the foreign exchange gap by nearly Rs. 300 crore in the five-year period) will have to be of a very large order of magnitude.

It is not easy to suggest what actual steps such an effort should consist of. It would, however, help if an attempt is made to understand the factors which have been mainly responsible for the failure of our exports to increase substantially and for their decline in some cases. A few of these can be easily listed. First, the rise in incomes within the country has led in the case of some commodities to an increase in domestic demand;

in this group of commodities one would find not only exportable consumer goods, but also raw materials required for the expanding domestic industries. Among the exportable commodities for which there has recently been a marked increase in domestic demand are goods like cotton textiles, sugar and tea; raw materials and intermediate goods like cotton, tobacco, oilseeds, iron ore, coal, cement and jute textiles; and products of new industries like footwear, hydrogenated vegetable oil or electrical goods. In some cases the decline in exports and the increase in domestic consumption are nearly balanced. There are other cases in which the increase in domestic use has been matched by a nearly equal increase in domestic production, while exports have remained nearly steady. It is difficult to find the exact direction of the causal relationship in such cases, but it is obvious that unless a substantial increase in domestic production can be ensured, an increase in exports will not be possible without some curb on domestic consumption or use. Such a curb will, however, raise difficulties. In so far as the increase in the domestic use of raw materials has been brought about by the rise in the pace of industrialisation, there can be no question of curbs, unless these materials are being used for purposes not placed high in the ordering of social priorities. And even in the case of consumer goods like sugar or tea, one has to note the facts of changes in consumer-preferences and increasing degree of urbanisation, along with increases in incomes.

The second important factor one has to note is that the inflationary situation in general and certain other special forces have created in some cases what is generally described as market imperfections. With the high prices created by the rise in the domestic demand and the presence of monopolistic elements, it would be natural for the producers of exportable goods to seek high profits in the domestic market rather than go through the complexities and formalities of exporting. It is not impossible that the high profit obtainable from the domestic sales have the effect of keeping output capacity in some cases. Full evidence is difficult to obtain about the degree of market imperfection and excess capacity in the different industries, but one can at least suggest the need for a thorough inquiry into this aspect of the problem.

The third important factor hindering exports is the rise in the domestic cost of production of export goods. This rise follows from the general effects of an inflationary situation and is accentuated when the cost of production contains large elements which are highly sensitive to inflation. There are industries which use raw materials subject to speculative operations and there are cases in which wages constitute a large share of the total cost and the labourers are organised into strong trade unions demanding wages rising *pari passu* with prices. Sensitivity to inflation would also be high in the case of manufactured parts, minerals and all imported components of production. There are also cases in which costs have been increased on account of the operation of protective legislation—like minimum price laws—in favour of primary producers. Two cases in which costs have risen markedly are jute textiles and sugar. It is not possible to say definitely that a reduction of costs will necessarily

increase exports in these cases. But the fact remains that any future economic policy should take full consideration of the possible effects of the policy on the cost of production of export goods.

It should be noted that while steps may be suggested for preventing a further rise in costs, it is extremely difficult to bring about an actual reduction of costs in a short period. Such reduction would involve either technical improvements with high initial costs or a large expansion of output. The economies of scale that can bring down costs despite high wages or high prices of raw materials will not in general be available unless there is a large expansion of output and in many such cases the development of new export markets will have to be a prior, or at least a simultaneous, condition for improvement.

The fourth important factor to be considered in this connection is the effect of structural difficulties or rigidities which are hindering the development of exports and of export industries. Sometimes the difficulties are of a purely organisational type, which should be capable of being easily corrected. But there are difficulties in respect of capital supplies, skill scarcities, and shortage of imported machinery, machine parts and materials. Some of the difficulties of this type can be easily corrected by suitable modifications in the import control policy. In fact, a perceptible measure of improvement should be capable of being achieved if there is an integrated application of the permissive powers of the industrial licensing laws and the laws regarding import and exchange control.

The fifth and the last factor, or group of factors, are those which emerge from forces operating abroad and which in many cases would be outside the control of the exporting country. There may, for example, be a general decline in the world demand for a commodity. If the decline is due to a complete structural change in the world demand, there would not be any easy solution. But a decline in the world demand may be due to the discovery of a substitute; in such cases, markets could be regained by cost reduction, or by improvements or modifications in quality. A more serious case would be one in which an increase in the general level of incomes abroad would lead to a diversion of demand away from a particular export from our country. And there is also the case in which there is a growing competition from other countries in the world markets. Three major commodities the exports of which are being affected by factors of this nature are jute textiles (suffering from the development of alternative packing materials), lac (suffering both from the competition of synthetics and from the competition of Thailand) and tea (suffering from strong competition, both in quality and in price, from Ceylon and the new tea-exporting area of East Africa.)

It should be clear that the factors described above are not mutually exclusive. The remedies would in the same manner be of the mixed type. One of the measures that may be suggested is the offer of a subsidy to the producers of exportable goods, either on the actual quantity exported, or on all quantities produced in excess of a prescribed minimum. This of course may not in itself lead to a significant increase of exports in all

cases, particularly where the decline in exports has been due to structural changes abroad. But there is in general a good case for making export as profitable at least as domestic sale, and a restriction of domestic consumption together with an export subsidy should be able to achieve good results in many cases.

A policy in effect similar to the above will be to allow the State Trading Corporation to purchase exportable goods from the producers, with a view to selling them abroad at the prices they will fetch. If the Corporation's purchases are made at the ruling market prices in India, there may be a rupee-loss as a result of the transactions, but it may sometimes be desirable to bear the rupee-loss in the interest of earning foreign exchange. The effect is ultimately similar to that of a multiple currency system, but the method would be less open to objection. On the other hand, the Corporation's purchases in India may be made at prices prescribed by the Government; if these prices are below the ruling market prices, quantitative restriction on domestic consumption and careful prevention of under-utilisation of capacity will be essential.

It has to be remembered in all such cases that what is wanted is an increase in export earnings and that an increase in the physical volume of exports may not always be able to secure the desired results. It is this that is often the most important consideration in deciding against the seemingly easy solution through a devaluation of the currency. And in a country in which the balance of payments gap is not merely a short-period phenomenon, temporary alleviatives do not in any way reduce the need for the adoption of long-term measures.

This brings us to the question of export industries and the long-term policies in regard to these industries. Till now, the main emphasis of the Plans has been on the production of mainly two classes of assets, goods and services: those which cannot be imported, but are high in the ordering of priorities, and those which replace imports. There can be no question about the need for investment in non-importable overheads and on non-importable social services. But it is perhaps possible now to shift the emphasis to some extent towards the development of export industries. The emphasis placed till now on the production of import-substitutes is understandable, in view of the fact that the balance of payments effects of such production are likely to be more certain than those of a policy of encouraging export industries. But one has to consider the long-run need for expansion of exports and the possibility that large foreign assistance may not be continuously available and that we are likely to enter soon what may be called the 'net repayment phase', i.e., the stage at which our servicing and repayment obligations on account of foreign capital are greater than the new capital inflows. And one has also to note that the real cost of developing export industries is likely to be low—comparative advantage will play some part at least in the selection of the industries to be developed—and that the initial capital cost and import contents of many of the export industries are likely to be lower than those of the industries producing import-substitutes.

There are many short-term measures which can help. Anything that brings about a fuller utilisation of excess capacity in export industries, improvements in the licensing procedures and customs and exchange control facilities, quality control in export production, improved liaison service in the foreign markets, specific encouragement through import-entitlement schemes and the like, are all measures the total effect of which can add up to a substantial improvement. And it is probable that the increase in exports that has been experienced in the last two years has been largely due to the combined effects of many small export promotion measures. But all these are no substitutes for long-term schemes for developing an expanding export sector in the economy, with old industries renovated for meeting the increased requirements and with new industries to take the place of decadent old ones.

A deliberate policy of encouragement and creation of export industries as a long-term measure has its difficulties and dangers. There is the preliminary difficulty in regard to the selection of the right lines of development, and there is the risk of investing in lines which ultimately turn out to be failures as export. There is some risk of this type in any selection of projects with any end in view, but it has to be admitted that a large production of non-exportable export goods is a particularly undesirable waste. One way out of the difficulty would be to select for promotion those export industries which are likely to turn out goods for which the domestic demand is likely to be expanding. The increase in domestic demand would not be met by additional supplies in the domestic market as long as exports are possible, but in case the export prospects appear to have disappeared, the domestic market would be there to take up the supplies.

There is no plea in what has been said above for a drastic change in the pattern of investment allocations in our future Plans. The emphasis on non-importable overheads and social services need not be reduced. The emphasis on the production of import-substitutes need not be reduced substantially. What is wanted is a definite recognition of export industries as a category in the broad pattern of investment allocations. If even 8 to 10 per cent of the total investment outlay is allocated with export prospects in view, there should be a substantial change in the whole picture. The need for such a change is easily recognised, when one remembers that our foreign exchange reserves are small, that the servicing and repayment obligations on old debts are increasing and that we cannot go on expecting a continued and rapid increase, Plan after Plan, in the amounts of foreign assistance obtained by the country.

Balance of Payments and Economic Growth

MAN MOHAN SINGH

EVER since the beginning of the Second Five Year Plan, we have been facing serious difficulties with regard to our balance of payments. The country being unable to produce domestically all the machinery, equipment and materials needed for development plans has, of necessity, to look to foreign supplies. Imports, therefore, are being called upon to supply some of the most vital and strategic goods for our economic development. Foreign trade, therefore, has increased the supply of investible resources and thereby has provided a greater degree of flexibility to our Plans so that the pace of development need not be held up by bottle-necks in the domestic sources of supplies. However, in the process of financing these imports, the country has had to suffer from large deficits in the balance of payments and our external payments difficulties have been relieved greatly only because of the generosity of our foreign creditors and other friendly countries.

In the initial stages of economic development of a subsistence type of agrarian economy, a rise in import demand is not an unexpected event. A plan laying emphasis on industrialisation has a large direct import content, in so far as, in the absence of a sound industrial base, machinery and other equipment have necessarily to be imported from abroad. Leaving aside the case of international charity, we can finance an increase in imports either by increasing our export receipts, or by drawing down our accumulated foreign assets, or by borrowing abroad. The process of drawing down of foreign assets is not limitless and in our case it has already gone too far, with the result that the Third Plan, unlike the Second, will start under unfavourable prospects of having no sterling balances to draw upon to finance a part of import surplus. Our export receipts have been stagnant around Rs. 600 crore a year and the official estimates do not visualise much improvement in our export performance during the Third Plan. In view of stagnant export receipts, we have been increasingly resorting to foreign aid to finance our inflated import bill, and already by March 1960, our outstanding foreign debt, to be repayable in foreign currencies, must have risen to Rs. 782 crore. And if the official estimates of likely export receipts during the Third Five Year Plan are to be considered firm, they can finance an import level barely sufficient for the maintenance needs of the economy. This means that foreign loans will have to be raised not only to finance Rs. 2,100 crore of imports of machinery, equipment and materials needed during the Third Five Year Plan, but also the country will be forced to raise fresh loans of the order of 500 crore to service the existing debt obligations falling due for repayment during the Third Plan period.

It is not unsound economics to borrow abroad for building up the country's economic potential but we have to bear in mind that loans only

postpone the liability to pay for our excess imports and, though they provide us with the much needed breathing space, they have ultimately to be paid back. There is a limit to which we can go on borrowing afresh to service old commitments without seriously damaging the country's credit-worthiness in the international markets. This should serve to emphasise the crucial importance of paying our way in our international transactions at a not too distant date, in the sense that we must be able to earn enough of foreign exchange to pay for our normal import requirements as well as for servicing of foreign debt obligations.

In the First Five Year Plan, we were pleasantly surprised with regard to our balance of payments position. The original estimates made while formulating the plan indicated the possibility of an average annual deficit of Rs. 180–200 crore. Actually, however, the total deficit for the five year period was only Rs. 126 crore and as compared to the drawing down of Rs. 290 crore of sterling balances, envisaged in the Plan, the actual draft was Rs. 138 crore only. In the Second Five Year Plan, a deficit of Rs. 1,100 crore was expected in our balance of payments on current account (exclusive of official donations) for the entire five year period. This time the performance has been much below expectation and in the first three years of the Plan alone, the balance of payments deficit on current account at Rs. 1,165.7 crore has already exceeded the expected five-year figure. The causes of the serious exchange difficulties and the measures adopted by the Government to meet the situation are a familiar story and need not be elaborated. But there are a few lessons that we ought to draw from our experience.

First of all, there is need for more accurate and elaborate an analysis of the foreign exchange budget. Of course, the art of economic forecasting is still in a very elementary stage and the difficulties of forecasting are greater with regard to the foreign trade than other sectors of the economy. Yet the very fact that our original estimates of the foreign exchange gap for the Second Plan are likely to prove wrong by more than 50 per cent, shows we should have a second look at our techniques of forecasting, more so because the original estimates of the planning authorities have proved wrong not so much regarding our exports as with regard to imports. Of the two, exports are more difficult to forecast and control, depending as they do on a host of unpredictable and uncontrollable factors, like the state of foreign demand, and the likely competition to be faced in our export markets from our competitors; on the other hand, imports, particularly in a controlled economy should be more easily amenable to forecasting and control. Secondly, as far as possible we should avoid undue lumpiness in our plan expenditure in general and particularly with regard to that part which calls for the spending of foreign exchange. Some amount of lumpiness is, of course, inevitable especially when capital intensive projects with a relatively large 'fruition lag' form an important part of the Plan. Yet there is a case for better phasing of the development expenditure with high import content so as to avoid undue strain on external payments during any single year.

The last paragraph should not be taken to mean that if we could forecast more accurately the likely foreign exchange gap, we should have

planned for a less ambitious plan. It simply means that if we had visualised the likely difficulties on the foreign exchange front more clearly, we would have pursued a more co-ordinated and well-timed approach to securing foreign aid. On balance, it seems that the decision to carry the Second Plan forward despite severe exchange difficulties was the correct one. Indeed, in many ways, the foreign exchange difficulties have produced many welcome effects. For example, it is hard to believe that except under the pressure of severe foreign exchange crisis, the Government would ever have adopted the present stringent import control policy, which keeps out of the country many "unnecessary" imports, thereby helping in diverting a part of foreign exchange receipts to meet the growing requirements of development. Moreover, it seems very unlikely that in the absence of foreign exchange difficulties, we would have got foreign assistance to the extent that we did. This does not mean that we should continue to live recklessly, hoping to be rescued by the charity of others, but it is certainly a plea of not being afraid of taking well thought out and calculated risks, despite the advice of orthodox pundits to the contrary.

As stated in an earlier section, it is not unsound economics to get foreign assistance to finance an import bill, which cannot be paid for immediately, out of current export proceeds. Loans however cannot continue to pour in indefinitely and there is a limit to which we can borrow afresh to repay the old creditors. This means that the problem of maximising the country's foreign exchange earnings must form an integral part of the long-term perspective plan. Broadly speaking, say by 1970, we must aim at producing an export surplus which is sufficient not only to finance our normal requirements of imports but also enables us to service our debt obligations. This requires that on the one hand the country must reduce its dependence on foreign supplies (especially in those spheres where this is not likely to be accompanied by any serious comparative disadvantage vis-a-vis the foreign producers) and on the other, we must make more rigorous efforts to step up the stagnant level of our exports.

Seen that way, the controversy regarding export promotion versus import substitution seems barren. There are difficulties in expanding our traditional exports like tea, jute and cotton textiles and these difficulties make many people think that the only way to solve our balance of payments problem is by import substitution. This is a sound view if it means that the country must produce at home many of the goods that we are importing today but it is dangerous if it means that we can neglect the promotion of our exports. By 1970, the country may well be producing at home many things that we import today but to imagine that our import requirements in absolute quantity are going to fall from their present level is unwarranted in the light of the experience of many countries.

The problem of export promotion, therefore, has to be taken more seriously. This has two aspects: firstly, maximising the receipts from our traditional exports; and secondly, to diversify the structure of our exports so as to reduce dependence on traditional exports. As regards our traditional exports, no doubt there is increasing competition in our traditional

markets but the proper answer is not to accept defeat but to develop an aggressive competitive outlook. How is it that Japan is successfully driving us out of many textile markets in South East Asia that we had developed after the Second War? It only shows that our businessmen have failed to build up sound business connections and they have not paid adequate attention to the winning of goodwill of the consumers in these countries. Perhaps the Japanese are known to be better businessmen than the Indians, but how are we to explain the emergence of Pakistan as a successful competitor to us in many markets? Why is it, in the once exclusive market of U.K. for tea, we are not able to hold our own against Ceylon or the infant East African industry? Even the spokesmen of the trade itself have often stressed that Indian tea could be more acceptable in the U.K. market if its quality was further improved by better methods of planting and manufacturing.

Some people might ascribe our present difficulties to inflationary pressures at home. But whatever may be the other consequences of inflation, it can by no means be easily proved that our current difficulties in our traditional export markets are due to any serious rise in costs and prices of our exports. Nor can one say that the difficulties are due to our inability to find enough of these commodities for export, consequent on rising demand for them at home. This certainly does not apply to textiles, jute and tea today though it may well be true to some extent of the oilseeds. The major reason for our poor export performance must be found in poor business skill of our exporters and the lack on their part of vigorous competitive outlook.

Whatever our long term strategy, there is no getting away from the fact that we cannot afford to neglect the export of our traditional commodities which even today account for over 50 per cent exports (jute, tea and textiles.) But while trying our best to maximise our receipts from traditional exports, our long term strategy must be to diversify the structure of our exports; we must find new commodities and new markets for our exports. While doing our very best regarding the export, say, of cotton textiles, we have to bear in mind that as an export industry, cotton textiles has none too bright a future. This is an industry which lends itself easily to import substitution. Its requirements of capital and technical know-how are such that even a poor country can also start it. Since the economies of scale are not of great importance in this industry, even a country with small population and with low per capita incomes can also run an industry like this economically. As far as jute is concerned, the process of finding successful substitutes for it is well in progress. Therefore, to increase our export receipts, we have to find new commodities in which in the long run our comparative advantage is likely to be high, as may well be the case with steel and some other engineering products.

In planning our export strategy, we have to take due notice of the intense desire of every underdeveloped country to industrialise itself, so that there is likely to be less and less scope for the exports of finished

products which do not lend themselves to further fabrication in the importing countries. On the other hand, the exports of semi-finished commodities, which still leave scope for further processing, are not liable to be that unwelcome to the importers. Further, we have to diversify our contacts with the foreign countries. Too great a dependence on a single country for export of a commodity is sure to lead to early import substitution by domestic production in that country. This is because with a large domestic demand for a commodity being satisfied through imports, it is tempting as well as easier to establish a profitable domestic industry than would be the case if imports are small in quantity. From our point of view, therefore, it will be better if a commodity is exported to more than one country than if we exclusively depend on one or two countries.

As explained earlier, this does not mean that any big results are to be immediately expected from the exports of new products. Firstly our production of many of these products, say, engineering products is still very small and our exports are still smaller. For example our engineering goods exports amount to Rs. 6 crore a year today and even a 200 per cent increase in the next few years is not likely to make considerable difference to our foreign exchange position. All that is meant is that the country must well plan its export strategy. This is needed for more than one reason : firstly, it takes time to capture markets and the process of building goodwill is essentially a long term and costly one. Further, any decision regarding the commodities for future export implies also a decision regarding their future consumption at home. This aspect of the problem requires careful planning. In some industries the economies of scale are of considerable importance and average unit costs are liable to fall for successive increases in output. In such industries, our competitive advantage will very much depend on our ability to utilise these economies fully. In cases like these, in the long run, a flourishing domestic demand, making possible production on large scale and utilising fully the economies of large scale may well be the only guarantee of our successful performance in export markets. A country with austerity as its general slogan will have to ponder carefully about the implications of this view point and how best to fit in a programme of selective boosts to domestic consumption in an overall climate of austerity.

Employment in the Third Plan

B. N. DATAR

ONE of the most difficult problems which the country faces has been to provide employment openings to all those who enter the labour force from year to year. The large population base, predominance in the economy so far of self-employed persons, and dependence on agriculture with its use of traditional methods of production introduce, apart from unemployment, a fair measure of under-employment. In recent years growth in industrial production has not reflected itself in sufficient employment opportunities mainly because new industrial units have adopted techniques similar to those of countries which are short of labour. Technological transformation is still proceeding in the transport sector. This displaces a large number of persons engaged in non-mechanised transport, and additional transport requirements do not provide commensurate employment. In an economy where the standard of living is not increasing rapidly enough, room for engaging a larger proportion of persons in trading activity is limited. All these are manifestations of basic under-development which characterises an economy mainly dependent on agriculture. Diversification of the production is thus the core of our development process. The performance of the economy in terms of employment in recent years has to be viewed against this background.

Though unemployment in varying degrees has been in existence over a period of years, in drawing up and implementing earlier plans of development, other considerations have played a larger part. The First Plan being primarily designed to correct imbalances in the economy which had emerged from the war and post-war periods could not give sufficient prominence to the problem of unemployment. The Plan reckoned on generating about 5.5 million additional employment opportunities. In the middle of the Plan period decisions were taken to strength the Plan in relation to employment. The final picture for the Plan period was that the employment target as originally envisaged was more or less achieved. The target itself, it was recognised, was inadequate for accommodating an equivalent of even the new entrants to the labour force over the period. With the operation of the First Plan, therefore, the number of persons on the live registers of employment exchanges (the only regular source of information on trends in unemployment) went up significantly.

The Second Plan started with a backlog of unemployed estimated at 5.3 million and with the prospect of adding roughly 10 million new entrants to the labour force. It was even then recognised that to absorb 15.3 million persons in the economy was beyond the reach of the Plan as it emerged. While emphasising that the employment problem had to be looked at from the long-term point of view, the Plan aimed at preventing at least deterioration in the unemployment situation in the course

of the five-year period. It was expected that with irrigation facilities provided for in earlier years, development programmes for rural areas and the programmes for village and small industries, some measure of relief to the under-employed would be secured.

As the Plan progressed, the original outlay of Rs. 4,800 crore in the public sector and the expected investment in the private sector underwent a change in real terms. The combined effect of this change was to reduce employment opportunities roughly by two millions (from 10 millions as originally planned to 8 millions). This revised target is likely to be realised. About 1.5 million persons would be absorbed in agriculture and allied occupations and of the balance of 6.5 millions, it is estimated that the first four years of the Plan should have provided non-agricultural employment to 4.5 to 5 millions, and a proportionate number of jobs in the agricultural sector. It is expected that the remaining employment opportunities would be created in the coming year.

This quantitative picture is necessarily in broad terms. There are considerable gaps in data over the whole area of employment and unemployment which are being gradually removed. There is now more information on the mechanism of employment generation and over the last few years the methods used for assessing employment effects have also been improving. The need for strengthening statistics in this field is recognised and it is hoped that over the next few years more precise assessment of the behaviour of the economy in terms of employment will be possible.

Unemployment affecting educated categories requires a separate mention though, as was observed in the Second Plan, the employment needs for this group cannot be viewed in isolation. Basically, the relief to educated unemployed will come only through quickening the process of development. Indeed, rapid development itself makes a large demand for the services of the educated, and it is not surprising that in the midst of educated unemployment, one should find shortages of various kinds of technical personnel. Considerable expansion of technical education has taken place in the last 10 years and more especially since the beginning of the Second Plan, and the products of these new institutions will be available for the development envisaged in the Third Plan.

As against the backlog at the end of the First Plan of 5.3 million unemployed, there will be a backlog of about 7.5 to 8 millions to contend with at the end of the Second Plan. Estimates for new entrants to the labour force between 1961-66 worked out on different assumptions show that the most optimistic of them places the numbers at about 15 millions. It is, therefore, evident that if we desire to make a sizeable impact on the employment problem, the minimum objective must be to try to absorb at least an equivalent of new entrants to the labour force during the Third Plan. Any increase in the backlog of the unemployed from Plan to Plan is undoubtedly a matter for anxious consideration. The current indications are that the Third Plan as outlined will provide about 14 million employment opportunities, 10.5 non-agricultural and 3.5 agricultural.

To a large extent, increase of employment opportunities has to be achieved through rapid economic development. In this connection the importance of basic industries, specially steel, machine building, power and fuel has been stressed in the Plan. There are, however, a few directions in which there is scope for augmenting employment opportunities to cover the gap of one million employment opportunities needed for maintaining the *status quo* in the unemployment front. These are:

(a) The growth of unemployment in urban areas is in part a result of the exodus from rural areas. An important contribution to the solution of the urban problem, therefore, lies in steps taken to expand employment opportunities in rural areas on a permanent basis, especially through—

  (i) the intensification of agricultural operations through the introduction of irrigation and improved practices, including mixed farming;

  (ii) the linking up of the economy of villages with the growing requirements of the neighbouring urban centres; and

  (iii) diversification of the occupational structure of rural areas through the rapid development of a wide range of processing and other industries.

(b) A comprehensive works programme is being planned for each rural area. This comprises the following five categories of works—

  (i) works projects included in the plans of States and local bodies which involve the use of unskilled and semi-skilled labour;

  (ii) works undertaken by the community or by the beneficiaries in accordance with the obligations laid down by law;

  (iii) local development works towards which local people contribute labour while some measure of assistance is given by Government;

  (iv) schemes to enable village communities to build up remunerative assets; and

  (v) supplementary works programme to be organised in areas in which there is a high incidence of unemployment.

  Works in category (v) are specially intended for areas which have heavy pressure of population and in backward areas.

(c) In recent years important developments have taken place in strengthening the facilities for technical assistance, supplies of equipment and raw materials and credit in the interest of small and medium-sized industries. Along with the increase in facilities for small units, steps are being taken to develop new centres of activity, specially through the setting up of industrial estates and the larger availability of power and transport facilities as part of overall planning. By the end of the Second Plan about 17,000 villages and towns will have electricity. This number will increase to over 32,000 by the end of the Third

Plan. Most small towns with populations of 5,000 and over already have electricity. It is expected that through these programmes and the linking of small industries with large industries in the production of ancillary parts etc., it will be possible to increase the employment potential of the Plan to a sizeable extent.

(d) In dealing with the problem of unemployment, as it is reflected through registration in the employment exchanges, it is convenient to break it down to the district level and to tackle as much of it directly as may be possible through district and block programmes of development. The aim in implementing various programmes will be to ensure that their results are utilised so as to support increased employment and production through existing agencies.

(e) In a number of schemes in which the choice lies between the adoption of more labour-intensive methods, or less, preference has to be given to the former.

(f) Since the problem of unemployment is closely related to the educational system and the type of education that is imparted, steps are being taken to bring in a bias towards technical training and science at various levels. A large-scale re-orientation of the programme of education is under way. This has importance for future impact on the problem of unemployment.

Increasing the Employment Potential

DR. A. VAIDYANATHAN

ONE of the most disappointing features of recent economic developments in the country is the slow rate at which employment opportunities have been growing. The Second Plan, as originally conceived, sought to create sufficient new jobs to absorb at least all the additions to the labour force arising out of the growth of population. It now appears that even this modest target will not be realised. According to the latest estimates, against an anticipated 10 million increase in the country's labour force between 1956 and 1961, the number of new jobs created is likely to be of the order of 8 million—1.5 million in agriculture and the remainder in industry, construction and services.

The Draft Outline of the Third Plan estimates that between 1961 and 1966 the labour force will increase by approximately 15 million. The proposed investment programme for Rs. 10,200 crore is expected to give rise to 14 million additional jobs of which 10.5 million will be outside agriculture. On the basis of these calculations it is concluded that the backlog of unemployment will increase from about 5 million in 1956 to 7 million in 1961 and 8 million in 1966.

The situation at the end of the Third Plan will probably be worse than indicated by the above figures. There are several reasons why this is likely to be so. First, both in the Second and in the Third Plans, a large credit is taken for new employment in agriculture. While the demand for farm labour increases as a result of irrigation, application of manures and fertilisers and improvements in agricultural technique, it is doubtful whether the increase will be so much larger as to involve an increase in the number of workers, particularly because agriculture is already overburdened with labour and those who are now engaged in it suffer from acute under-employment. The Planning Commission itself estimates the volume of unsatisfied demand for work due to under-employment at the equivalent of 15 million man-years. The bulk of it is in the rural areas. It is of course possible that the additions to the labour force from the agricultural families consequent on population growth may, for want of alternative employment, report themselves to be engaged in farming. But that can hardly be counted as a genuine addition to employment.

The Third Plan estimates of non-agricultural employment would also appear to be too optimistic. As a rough check, we may compare the increments in employment with the corresponding increase in non-farm incomes in the two Plans. The Draft Outline does not give a breakup of the income targets by different sectors, from figures published elsewhere (**The Economic Weekly**, Special Number, June 1960) it was calculated that non-agricultural incomes increased by Rs. 1,250 crore during

the Second Plan. The anticipated increase during the Third Plan is Rs. 2,450 crore. The corresponding figures for incremental employment are 6.5 million and 10.5 million respectively. Allowing for an increase of productivity in industry, the Third Plan estimates would appear reasonable.

But the reliability of this check is rendered doubtful because the Draft Outline seems to exaggerate the flow of output that will result from the proposed investment programme. The overall capital-output ratio for the Third Plan works out at 2.5 : 1 and a rough calculation based on the sectoral breakup of incomes given in **The Economic Weekly** suggests that the ratio for industry and mining is expected to be about 2 : 1. The comparable Second Plan ratios, based on actual achievements, are 3 : 1 and 3.3 : 1.

A better check therefore would be to compare the average investment per worker in the two Plans. In the Second Plan the total investment required to provide one additional non-agricultural job works out to Rs. 10,400. According to the Draft Outline the cost in the Third Plan will be only Rs. 9,700. There seems, **prima facie**, no reason to expect such a favourable change in the capital-employment ratio. If anything, since the prices of investment goods in the Third Plan are likely to be higher than the average in the Second, we should expect the ratio to go up.

As against these elements of exaggeration in the Planning Commission's estimates, there would appear to be some under-estimation of employment generated in commerce and services. The Commission's calculations assume that income from trade grows at a lower rate than total income and the income from commodity production. It would, however, seem more reasonable to expect the volume of trade and hence of trading income and employment to increase at least as fast as commodity output. Indeed since the proportion of agricultural produce passing through the market will be increasing, it is probable that trading activity would grow at a somewhat faster rate than commodity output. To the extent that the above hypothesis is valid the Plan estimates of additional employment would understate the achievements.

On balance, however, it appears that notwithstanding the substantial increase in investment envisaged during the Third Plan, the employment situation will continue to deteriorate and that the deterioration is likely to be considerably greater than the Draft Outline indicates. Since such a trend is fraught with serious social and political consequences, it becomes important to explore all avenues of increasing the employment opportunities in the near future.

One of the possibilities is further encouragement of labour-intensive techniques in industry. It was with a view to mitigating the effects of growing unemployment that the Second Plan stressed the development of handlooms, Ambar Charka and village and small-scale industries. Some of these programmes, notably handlooms and small-scale industries, appear to have met with a considerable measure of the success and the Third Plan provides for their continuation at an accelerated tempo. But others

like Ambar Charka have run into serious organisational difficulties. In some instances the programmes have been found to be extremely wasteful in the use of capital. The wisdom of continuing such programmes is doubtful. Since the Draft Outline already provides for the encouragement of labour-intensive industries wherever possible, there does not seem to be much more scope for increasing employment from this source. In any case, its potential contribution is quite small compared to the scope offered by construction. It is noteworthy that industry accounted for only 20 per cent of the additional employment anticipated in the Second Plan while construction was expected to contribute nearly 40 per cent.

Employment in the process of capital construction can be increased by switching over to more labour-intensive techniques. The possibilities in this direction do not seem to have been fully exploited. The time is ripe for a careful review of the construction techniques used in all the major categories of projects in order to ascertain the exact scope for substitution between labour and capital and also to work out measures to encourage such substitution in practice.

Even greater possibilities for productive use of idle labour exist in rural areas. Soil conservation, land improvement, minor irrigation, the development of local manurial resources—all of which can yield quick returns in the form of increased agricultural output—can be undertaken almost exclusively by proper organisation of labour. Afforestation and building of village roads, schools and community centres are other spheres for fruitful employment of labour. The existence of these possibilities has been recognised and in fact attempts have been made, primarily through the Community Projects, to exploit them. But from all accounts these attempts have been conspicuous in their failure.

The problem is one of developing representative institutions at the block and the village levels which will command a wide measure of support from the various sections of the local population and which will take the initiative in mobilising resources of the population for local development programmes. The failure of the Community Projects to do this has led some States, notably Rajasthan, to experiment with new forms of organisation but it is as yet too early to say whether they will be any more successful.

Food Production and Village Plans

SHRIMAN NARAYAN

IN the Draft Outline for the Third Five Year Plan, the target fixed for the production of food grains by 1965-66 is of the order of 100—105 million tons. This would mean a substantial increase in food production by about 35 to 40 per cent during the next five years, while food production has increased by only 40 per cent during the last 10 years. It is, therefore, quite obvious that the target of food production visualised in the Third Five Year Plan could be realised only if there is a determined, integrated and systematic attempt to tackle this problem as a top priority. It will also be essential to produce the necessary raw materials for industries in sufficient quantities in order to achieve the industrial targets for sugar, oil, textiles etc.

The question of increasing agricultural production and achieving food self-sufficiency by the end of the Third Plan was recently discussed at Srinagar by the State Development Commissioners as well as agricultural officers. Since agricultural production is essentially a State subject, the Planning Commission will have detailed discussions with the representatives of all the State Governments during the next few months before finalising agricultural targets for the Third Plan which will be published in March 1961. In the meantime, the Planning Commission and the Ministry of Community Development and Co-operation have sent detailed instructions about the preparation of district, block and village agricultural production plans so that this important problem could be tackled in a thorough and well co-ordinated manner. The preparation of village agricultural plans will be mainly the responsibility of the village Panchayats and the village co-operatives with the help of the Development staff. The main elements in the agricultural production plans at the village level will be:

(*i*) full utilisation of irrigation facilities, including maintenance of field channels in good condition by the beneficiaries, repairs and maintenance of community irrigation works and economy in the use of water ;

(*ii*) increase in the area under multiple cropping ;

(*iii*) multiplication in the village of improved seed and its distribution to all cultivators ;

(*iv*) supply of fertilisers ;

(*v*) programme for composting and green manures ;

(*vi*) adoption of improved agricultural practices, dry farming, drainage, land reclamation ; plant protection etc ;

(*vii*) programme for new minor irrigation works to be undertaken in the village, both through community participation and on an individual basis ;

(*viii*) programme for the introduction of improved agricultural implements ;

(*ix*) programme for increasing production of vegetables and fruits ;

(*x*) programme for development of poultry, fish and dairy products ;

(*xi*) animal husbandry, e.g., supply and maintenance of stud bulls, establishment of artificial insemination centres and castration of scrub bulls; and

(*xii*) programme for the development of the village fuel plantations and pastures.

To begin with, it is not necessary to prepare elaborate plans for each family in a village. As the village co-operative societies become more broad-based and cover almost every family, the preparation of village production programmes will become more realistic and comprehensive. It will also be desirable to improve the system of assessing the annual agricultural production of different crops at the village, block and district levels so that the targets fixed for each area are properly checked at the end of the year through reliable agricultural statistics.

While the village Panchayats and the village co-operatives will have an important role in the preparation of village production plans, it will be the duty of the block staff and the extension officers to see to it that the essential supplies of good seeds, fertilisers, improved implements, insecticides and pesticides reach the agriculturists *in time*. The general complaint of the Indian peasant has been, and in many cases legitimately, that the important supplies which the Government makes available to them do not come at the time when they are needed most. It is, therefore, imperative that the administrative machinery is streamlined and made more efficient. Otherwise, the preparation of village production plans will be a futile exercise, leading to utter frustration.

It must be realised that the problem of increased agricultural production is not merely a question of pumping in more money into rural economy. While it is true that the Indian farmer must get adequate short-term, medium-term and long-term credit for his agricultural operations through banking and co-operative agencies, it must be conceded that better administration and organisation has to play a vital role in our crusade for achieving self-sufficiency in foodgrains by the end of the Third Five Year Plan. The Community Development movement has now placed before itself the objective of achieving increased agricultural production as one of its main aims and it has been decided that about 80 per cent of the time and energy of the rural extension workers should be devoted to the attainment of this basic aim. In order to fulfil this objective it would be essential to achieve much greater co-ordination between different departments of Agriculture, Irrigation, Community Development and Animal Husbandry. It will also be necessary to make every effort to increase the yield per acre in different parts of the country. This could be done only if various facilities as well as improved practices are made available to each area in a co-ordinated fashion. The Government of India have recently decided to choose one district in each State of the Indian Union for launching pilot projects for intensive agricultural development. Out of the total expenditure of about Rs. 15 crore on these pilot projects, the Ford Foundation would be meeting about Rs. 3.4 crore, the rest of the expenditure will be met by the Government of India and the State Governments. The programme of work and the pattern of assistance in all these pilot projects will be similar in all the States. The working of these pilot projects will be

watched with great interest by the Planning Commission and the Government of India, because the experience gained through this intensive agricultural programme will be profitably used in all parts of the country.

Above all, it is not merely money or the technical personnel or the administrative machinery that would yield substantial results in the sphere of increased agricultural production. What is absolutely essential is to generate a strong will in the nation for becoming self-sufficient in the matter of foodgrains at the earliest possible opportunity. We have been talking of food self-sufficiency ever since the beginning of the First Five Year Plan. It is, indeed, unfortunate that despite the good intentions of all concerned, it has not been possible to make much headway in this direction so far. Merely importing foodgrains from other countries and building up buffer stocks will not be enough. We must create the necessary atmosphere in our countryside which would create a determined will in the minds of the peasants and the population in general for stepping up agricultural production both of foodgrains as well as essential industrial raw materials in accordance with the targets laid down in the Third Five Year Plan. Without this strong will and determination and without improving our administrative and organisational efficiency it would be very difficult to achieve any substantial results in the sphere of agricultural production which forms the very basis of economic planning in India.

Soil Conservation

S. V. RAMAMURTY

I visited the United States recently and had the advantage of discussing problems of agricultural production with many agricultural scientists and officers. Integration of the factors of production is the secret of agricultural production in U.S.A. The same principle has been the cause of increased production of paddy by the Japanese method. Adequate use of all the factors involved not merely adds to their effects but multiplies them.

Soil conservation is one of the important factors to which attention has to be paid. Even in U.S.A. till ten years ago, a good deal of attention was paid to seed—its quality, food for the seed, proper cultivation for the crops, control of pests, etc.—but comparatively little attention to soil. Individual States in U.S.A. were willing to provide funds for working on plants but not soils. This has now been rectified. In each county or other local area called a district there is a Soil Conservation Service. A farmer may apply to the local officer of the Soil Conservation Service (SCS) asking for advice and undertaking to carry it out. The Soil Conservation Officer then has the land surveyed and layers of the soil examined. He examines the quality of the soil. Then he draws up plans of the holding, showing how contour bunds may be formed, how terraces may be made sloping into a grassy waterway for drainage, what crops may be grown on the various parts of the holding, depending on the survey of the soil levels, soil layers, drainage conditions and suitabilty of soil for crop, what areas may be used as pasture or wood land, and what portions may be used for water storage or ponds. The farmer, in carrying out the advice, gets the aid of the Agricultural Stabilisation and Conservation (ASC) organisation in respect of improvements which are approved as suitable for the area by the local advisory committee. The Federal Government, under this project, gives about half the cost of improvement as grant. Credit for carrying out improvements on the farm may be got either from a bank or co-operative organisation on the basis of security of land, buildings or equipment or where such security is not available, from the Home Farm Administration on the basis of the farmer's competence and character. In making a plan, the SCS officer makes adjustments to meet the farmer's needs. If he raises cattle which need more corn than his best soil can give, then some more of the rest of the soil may be found to raise corn. In northern States of U.S.A., where the holdings are as large as half or one square mile, soil surveys are done by aerial surveys which can yield information about the contours on the ground. Where the soil is shallow, contour bunds are made by scraping the ground on each side of the contour line into low bunds.

Besides the suitability of the soils to crops, the different layers determine also the drainage of the soil. This also determines the crop that can

grow. There is need also to determine when soil needs irrigation. If soil has 75 per cent of moisture, the texture of the soil can show it. So also if it has 50 per cent or 25 per cent. To prevent erosion or mitigate its effects, different plants and grasses are being tried.

S.C.S. officers are furnished with cyclostyled books containing the results so far had as to how to conduct survey of levels and soils and what judgments and advice to base thereupon. The book is frequently revised in the light of fresh experience. Soil conservation work in U.S.A. is thirty years old. First the men who undertook it had, like Indian officers, comparatively little background of practical experience. Gradually this was built up. Younger officers were trained by older, experienced officers. The Soil Survey Officers have a good knowledge of soil conditions and can come to right conclusions.

The need to care for soil also and not only for seed requires to be grasped in principle. Seed is not a unitary entity. It contains several chromosomes and each chromosome contains several genes which are the basis of its characteristics or qualities. The soil too has differences of horizontal levels and vertical depths and also differences of quality. If the seed is the father of the crop, the soil is the mother of the crop. In a dominantly masculine civilisation like ours, the male is emphasised at the expense of the female. But the result is sometimes a puzzle. The word "Pandithaputra" (Pandit's son) in Sanskrit is understood to mean a fool, the missing link between the Pandit and his son is the Pandithani (Mrs. Pandit). The son, like the crop, inherits the characteristics of both father and mother. Eugenically the child's quality is assured when the mother as well as the father come of well-bred stock. To assure a good crop, careful work has to be done on soil as on seed.

In India, as in U.S.A., the exploitation of the soil is increasing in tempo. In U.S.A. new colonists from Europe found vast stretches of soil open to them and they used it extravagantly. It has taken time and painful experience for the people of U.S.A. to reconsider the policy of their wasteful treatment of the soil and they have become alive, both in the interests of the individual as well as the nation as a whole, to the need to conserve the soil. This awareness is even fostered by a tinge of religion, particularly in the mid-west of the U.S.A., where people from various religious stocks of Europe have come together with a feeling of mutual helpfulness and a sense of trusteeship for the natural resources vouchsafed to them.

In India attention to soil conservation was first given 30 years ago in Bijapur district of Bombay-Karnataka by a forest officer who felt the need to afforest denuded hill slopes. He made shallow trenches along contour lines and dibbled seed therein. In a year plants grew to the height of four to five feet. I visited this area and started similar work in the adjoining and equally dry area of Bellary in Madras-Andhra. This work of contour-bunding to conserve both soil and rainfall has been steadily pursued in the old Bombay State and some 2 million acres of land have been so treated in India mainly in the Bombay-Maharashtra area. The work has been given impetus by the Director of Agriculture forming Farmers' Unions in

villages and making them responsible for furnishing labour for the work of contour-bunding. The villagers have come to realise that this job is the job of all of them. It is not only a few fields that gain by it; the whole village gets an underground reservoir of water. Wells in fields so bunded strike good supplies of water. I call such wells a fourth estate in irrigation —the other three being major, medium and minor sources of irrigation. The Third Five Year Plan has a target of 13 million acres of land for contour-bunding and allied dry farming.

Soil conservation is not merely saving the soil. It also includes the using of the soil to the best advantage. Hence, in the U.S.A., the survey of soil levels is accompanied by the examination of the soil layers and on these as well as chemical assessment of the soils, advice regarding the best use of the soils for growing crops or pasture or woods is based.

In India the method of soil conservation has been exclusively applied to dry land. It should indeed apply also to wet land. The provision of water for artificially irrigating land instead of depending only on rain is rapidly increasing. In States like Maharashtra the percentage of irrigated land to cultivated land has been as low as even 6 per cent. In India as a whole the irrigation potential has risen in the last two Plans, from 10 per cent to nearly 25 per cent. The target of planning is to raise it to 50 per cent. It is recognised that dry farming is the only way of helping at least 50 per cent of the cultivated land in India. But even the remaining 50 per cent needs the outlook of soil conservation, if soil conservation is to mean not only saving soil but using it to the best advantage. In irrigation projects like the Tungabhadra project, large quantities of water have begun to flow on land that has been dry and dusty. Without cultivation based on contour lines vast quantities of soil are likely to be washed away through irrigation. The impounding of water for paddy cultivation in small fields has a conserving influence on the situation but the use of water for occasionally irrigated dry crops needs measures of soil conservation. Soil conservation then should receive as high attention as seed improvement in the planning and development of Indian agriculture both irrigated and rain-fed.

Agricultural Targets

K. R. DAMLE

THE priority which agriculture has been enjoying in national planning has not been altogether consistent. At the time of the formulation of the First Plan, the deficiencies in food and major cash crops such as jute and cotton were so marked that agriculture received the foremost priority, as a matter of course. The very success achieved in the First Plan by way of increases in agricultural production, particularly in foodgrains, created a certain confidence which was to a large extent responsible for agriculture receiving comparatively less importance in the Second Five Year Plan, though the actual outlay on agriculture and Community Development together in the Second Plan was substantially larger than in the First.

In the Second Plan period, up to 1958-59, agricultural production has been increasing at the annual rate of about 4 per cent against 2.8 per cent in the First. Apart from the fact that, as in the case of food grains, the annual increases were sharply erratic, the accelerated growth in population, currently running at about 2 per cent per annum, changes in food habits, increase in the purchasing power of the people and the need to earn foreign exchange by enlarging the exportable surplus, called for a reassessment of the priority which food and agricultural development should receive in the Third Plan. The setback in food production in 1957-58 and the somewhat unusual behaviour of food prices in the succeeding year when the crop was the biggest for any year clearly indicated the need for an even larger rate of increase in production and for substantial buffer stocks on which the Government could draw when market arrivals tended to be sluggish. Needless to say, the experiences of the Second Plan, some of them agreeable, others less so, have had a great part in the shaping of policy and methods for agriculture in the Third Five Year Plan. In the Third Plan, food grains production has again claimed top priority. The target of food grains production in the Third Plan is determined by the requirements of a population which is estimated to increase at the rate of about 2 per cent annually, a well-marked growth of urbanisation and the requirements of increased per capita intake, resulting from increase in incomes. These factors represent the demand. Towards a level of supply matching this demand, the potential and prospective resources in land, water, fertilisers, seeds, credit and improvements in organisation and management have to be utilised to the optimum. On these considerations, a target of production capacity of 100 to 105 million tons has been fixed. Even if an output of 100 million tons is secured in 1965-66, it would be equivalent to 18 oz. of cereals and pulses together per head, a quantity which must adequately satisfy nutritional requirements. The extra 5 million tons provided for could be a cushion against unforeseen difficulties.

The Third Plan carries further the diversification of production which was one of the noteworthy features of agricultural development in the Second Five Year Plan. From the standpoint of total quantity and a balanced nutrition, the development of subsidiary foods like banana, papaya and tapioca, livestock products and fish, is important. Mixed farming is also proposed to be given encouragement under the Plan.

Likewise the increasing demand for sugar, for cloth and for all the other innumerable industrial products, for which raw materials have to be secured mostly, if not entirely, from domestic production, calls for intensification of efforts to develop cash crops. Among the major cash crops, the target of sugarcane goes up from 72 lakh tons (in terms of 'gur') which is the anticipated output in 1960-61 to 90—92 lakh tons; that for oilseeds also goes up correspondingly from 72 lakh tons to 92—95 lakh tons; cotton target from 54 lakh bales to 72 lakh bales and jute target from 55 lakh bales to 65 lakh bales. Besides the major cash crops, there are quite a number of crops whose development is indispensable for imparting the necessary balance and resilience to the agricultural economy and to step up export income. For tobacco, while the improvement of quality is to receive relatively higher emphasis, production is to be stepped up from the anticipated 300,000 tons in 1960-61 to 325,000 tons by the end of the Third Plan period. For coconut, against the anticipated 350 million nuts of additional production in 1960-61, a target of 1,250 million nuts of additional production is fixed for the Third Plan. For arecanut, the Third Plan target is 1 lakh tons, representing an increase of 0.07 lakh tons over the anticipated Second Plan achievement. For cashewnut, a target of 150,000 tons is aimed at for the Third Plan against 73,000 tons anticipated for the last year of the Second Plan. The corresponding figures for pepper are 30,000 tons against 29,000 tons; for cardamom 2.62 thousand tons as against 2.26 thousand tons; for lac 0.62 lakh tons against 0.50 lakh tons. The production of fish is proposed to be stepped up to 18 lakh tons from 14 lakh tons. The production of eggs would go up to 5,000 million in 1965-66 as compared to about 2,500 million anticipated in 1960-61. In regard to milk, the objective tentatively envisaged is to raise availability to the level of 6 oz. per adult per day by 1965-66.

For many cash crops, the Third Five Year Plan aim is not only to advance towards self-sufficiency but to provide for or increase exports. Agricultural products will have to contribute more heavily to the country's income through foreign trade. To ensure that as much of the production as possible is available for domestic consumption or for export, the development programmes will pay due attention at every stage to facilities such as storage, transport, packing and marketing.

The increase in production envisaged for the Third Five Year Plan would be obtained to some extent through more land coming under cultivation. But the bulk of the increase would come through more and better balanced inputs, more efficient crop and land use, planning and improvement of agricultural techniques and organisation. Major and minor

irrigation, land reclamation and development of double-cropping, fertilisers and manures, improved seeds, plant protection and improved practices are the major items which go into the programme of intensified cultivation. In the Second Plan, major and medium irrigation projects were more conspicuous. In the Third, minor and medium irrigation programmes would receive the highest attention. An area of 13.5 million acres is proposed to be brought under minor irrigation. The growing demand for fertilisers is to be met by the capacity production of the big fertiliser plants which have come into being or are being built up and through a number of medium size plants scheduled for the Third Plan. A target of production of one million tons in terms of nitrogen has been fixed under the Third Plan. Stress is being laid on saturating as large an area as possible with improved seeds; tentatively a target of covering an additional area of 150 million acres with improved seeds has been fixed under the Third Plan. Further plant protection measures are expected to cover an area of 75 million acres. A concentrated, comprehensive and co-ordinated programme to be applied to 15 selected districts all over India in addition to general programmes of development to be undertaken in other areas is expected to contribute substantially towards the achievement of the Third Five Year Plan food grains target.

It would be the country's endeavour to realise in full the various crop targets; meanwhile, the reorientation which the agricultural economy has started receiving ever since the advent of the First Plan is leading to a gradual transformation in rural life in which more and more enthusiasm on the part of the cultivator is being rewarded with more and more material benefits.

Place of the Rural Sector

AMLAN DATTA

A hundred things may be said about the Draft Third Five Year Plan. Yet what is important in a short article is not to say them all, but to pick and choose, to leave most things unsaid, so that attention may fall on a few things that are more important than on the rest.

Nothing perhaps is more important for the success of the Third Plan than to secure higher agricultural productivity. Most other problems of any importance are related to it. Can the government hold the price line? Can dangerous pressure on the balance of trade be avoided? Can domestic savings be created to the required extent? Can the government raise the additional tax revenue essential to the success of the Third Plan? These are surely vital questions and answers to all of them depend to a great extent on whether, and how far, agricultural productivity can be raised and, at the same time, ways and means found to draw away a part of this increased production so as to add to the revenue of the government.

Let us linger briefly on the last part of this statement.

On the financial side the success of the Third Plan will depend largely on the ability of the government to secure a sizeable increase in its revenue through additional taxation. Can the government do it? On this point, one reads in the Draft Outline: "The additional tax target of Rs. 1,650 crore is within the limits of practicability in view of the expected increases in national income, and especially in food production. It is also the minimum required." It is, indeed, the minimum required; but even if income and production actually rise to the extent stipulated, tax revenue is unlikely to increase by the amount envisaged, unless certain very important supplementary measures are adopted. At this point it will be useful to take counsel from our experience of the Second Plan.

In many ways, though not in all, the Second Plan has come close to success. It has, however, signally failed in one respect. Prof. Malenbaum has recently drawn attention to this aspect of the situation. Investment in the public sector will have increased from a total of Rs. 1,500 crore in the First Plan period to an estimated Rs. 3,300 crore over the Second Plan. This is a sizeable increase but in the same period domestic savings used in the public sector will have increased only to an insignificant extent, from Rs. 1,250 crore under the First Plan to Rs. 1,300 crore under the Second. The sizeable increase in investment in the public sector is almost entirely accountable by additional funds from abroad. The increase in national income over the period of the Second Plan, estimated

at about 20 per cent, has contributed surprisingly little to funds domestically available for investment in the public sector.

We cannot allow this state of affairs to continue and hope for the success of the Third Plan. Means must be found to mobilise a larger part of India's domestic savings for investment in the public sector. There is, I believe, a very good case economic as well as moral, for lowering the exemption limits and raising the rates of the expenditure tax, although, in that case, it will be advisable to make income-tax rates lower at the same time. The need for checking tax evasion can hardly be emphasised too often. But something more is also required. It is particularly important to devise ways and means by which the government can appropriate a larger part of the income originating in the agricultural sector. A country which wants rapid economic development cannot allow agricultural income to go as lightly taxed as it does in India.

The truth of this last proposition is now broadly recognised by all who have thought over this subject. Why, then, has so little been done to act on this basis? One of the chief obstacles in the way is political expediency. But this is a short-sighted view of the matter. What is economically unwise can hardly be politically wise in the long run. What, then, is the way out? Measures of increased taxation will not be so keenly resented when these are accompanied by visible improvment in agricultural productivity.

This brings us back to our original point: improvement in agricultural productivity is essential to the success of the Third Plan. What are we to do to effect this improvement?

Again, many things have been said in this connection. Thus, in a section on "Programmes for Increasing Agricultural Production", the Third Plan draws particular attention to irrigation, land reclamation, supply of fertilisers and manures, etc. Emphasis is also laid on the need for creating "a well-organised democratic structure of administration in which village panchayats would be closely linked with popular organisations at a higher level." Not nearly sufficient discussion seems, however, to have taken place on the question of how to create an enlightened leadership in the countryside to pioneer progress. On this question a few observations may not be out of order.

Basically, there are three different ways in which such leadership can arise. The English or the Prussian landlord illustrates the first way. Due to historic circumstances into which we need not enter, the Indian landlord in the modern period has not shown the same spirit of improvement that we find in the English or Prussian landlord. Today opinion in this country is understandably unsympathetic to landlordism.

The Soviet Union, with her system of collective farming, illustrates a second form of leadership in the agricultural sector. The Communist Party, operating through the Machine Tractor Stations and the committees of collective farms, pioneered progress in Soviet agriculture. In India, few people advocate the Russian type of collective farming. It is,

indeed, inconsistent with democracy of our conception. The majority of the peasantry cannot be persuaded to join collective farms voluntarily; and if force were used to achieve this, no government would afterwards dare face the country in free elections.

Theoretically, at any rate, there is a third alternative, which is also the most democratic. A leadership may naturally evolve out of practising peasants, and make its influence felt through democratically organised mutual help societies, agricultural co-operatives and village panchayats. Something like this seems to have evolved in some societies, e.g. the Scandinavian countries. Even here the necessary cultural climate was created by a great educational movement, the Folk High School movement, inspired by Christian ideals, and pioneered not exactly by ordinary peasants. However, there is one very important difference between the Scandinavian and the Indian situation. Not only are educational standards incomparably lower in India (illiteracy was abolished in Denmark already in the first quarter of the last century), but the ratio between land and population is much more adverse in this country and opportunities for earning a livelihood proportionately limited. Under the circumstances, even people with modest education almost invariably migrate out of villages, thus destroying whatever possibilities there might otherwise have existed for the evolution of an enlightened leadership. Thus, like our soil, leadership itself has been eroded over a long period and our village community left exhausted and in a state of unreplenished vitality.

The purpose of this article is to pose this problem, not to solve it. In Japan, in a crucial period of her economic evolution, leadership in the countryside was reinforced from an unexpected source. A sizeable part of the samurai, an exceptionally energetic and comparatively more enlightened section of society, was driven by circumstances to seek its livelihood in the rural economy. The effect is clearly noted in the autobiography of a contemporary Japanese: "Many samurai families came into every village to live among the farmers....This mixed living disturbed the peaceful life among the farmers....The coming into our community of so many samurai families of all ages was greatly advantageous for us in acquiring various kinds of knowledge. Especially many young farmers who were in contact with them were inspired and greatly stirred." How can we similarly 'disturb' the peaceful life of the farmers, 'stir' them out of age-old inertia and inspire them to new efforts? How can young people, with education and a spirit of innovation, be attracted to agriculture to produce such result? There is no simple answer to this question. But the planner must constantly keep this question at the back of his mind. In planning our education, its form and content and the location of new educational institutions, in laying down the pattern of urbanisation for the future, in deciding on questions of land ceilings, he must treat it as one of the relevant considerations, and not the least important among them. For if one factor more than any other is acting as a brake on the speed of our economic progress, it is the still near-stagnant condition of our vast countryside.

To promote the growth of an enlightened leadership in the rural areas, to create, or widen, the channels through which credit and essential physical inputs, such as water and fertilisers, may evenly flow to the agricultural sector, to introduce the necessary incentives to production, e.g. by ensuring fair and stable prices to the farmer—these are essential requirements for setting Indian agriculture on the road to progress. With increased output achieved, it will still be necessary to ensure adequate taxation of agricultural income. (An alternative scheme—and, under conditions of marked inflationary pressure, but only under which conditions, perhaps a better scheme—would be to make wholesale trade in grain a State monopoly and earn a profit from it.) It should not be overlooked that taxation of agricultural income is useful not merely because it brings much needed revenue to the Government, but also because it helps to expand the grains and other foodstuffs that the farmer places on the market to meet his requirements of cash. However, the peasant must produce more before he can be asked in a democratic country to pay more. Thus, the battle for India's economic development under democratic auspices will be won or lost in the fields tilled by our peasants.

Agricultural Pricing Policy

DR. J. P. BHATTACHARJEE

PRICE policy, particularly in respect of agricultural commodities, seems to have been the Cinderella in the development plans of India. The relative neglect of this important aspect of the strategy of economic development has not, however, been due to any lack of understanding of its importance. In fact, one of the most important recommendations of the First Five Year Plan was for the maintenance of an integrated structure of prices necessary to bring about an allocation of resources and a distribution of sacrifices in conformity with the targets laid down under the Plan. In the Second Plan also, this emphasis on the desired allocation and distribution on aspects of the price policy has been restated. In spite of it, however, neither in the First nor in the Second Plan was a way found to spell out in concrete workable terms the policy and the programmes to be followed in this field. The Plan documents sought to describe the different programmes that could be followed without attempting to lay down a firm positive line. The broad general aim that had been accepted and recommended was for stabilisation of the level of prices in line with the allocation and distribution needs of a developing economy, and keeping to a minimum the use of direct regulation and controls.

Uncertain and inadequate formulation of a price policy seems to have characterised the Draft Outline of the Third Five Year Plan to a much greater extent than the first two. It is mentioned in the Draft that "the level of prices now is more than 20 per cent above the level at the commencement of the Second Plan and it is essential to ensure that for the Third Plan period a suitable price policy is formulated and carried out" (page 45). It appears from this statement that it has not yet been possible for the Government of India to decide on the nature and contents of the agricultural and other price policies to be followed during the Third Plan period. While there are bound to be differences of opinions and views among administrators and economists on an issue of this importance and gravity, it can only be hoped that these will be ironed out and a firm policy laid down. The major fields to be covered by the price policy will include agricultural commodities, non-agricultural raw materials, industrial products produced in the private sector and industrial products of the public sector. Even though our concern here is only with the agricultural prices, it has to be remembered that the different fields mentioned above are inter-related, and the policies and programmes for these should be formulated in an integrated manner. No policy or programme for agricultural prices can, therefore, be formulated in an isolated fashion without at the same time making some assumptions regarding those for the other sectors and the monetary-fiscal policy of the country.

The economic situation likely to prevail during the Third Plan can with confidence be visualised as an extension of the situation in the Second Plan period. There will be a continuing and mounting pressure of the demand on the supply of resources and an open inflationary pressure. The dangers arising from this pressure and particularly from deficit financing have been more fully recognised in the formulation of the Third Plan than it was done in the Second Plan. In spite of this awareness, however, there does not seem to be any possibility of its mitigation through monetary and fiscal measures. What can and should be attempted is to contain the rise in prices within limits—certainly below the 20 per cent rise noticed during the Second Plan period and to regulate this rise into a fairly smooth upward trend. This may be defined as the content of the goal of 'price stabilisation'.

The policy to be adopted for agricultural prices does not automatically follow from a general objective of 'stabilisation' in the above sense. During the ten years of the Plan period agricultural prices have recorded much wider fluctuations than prices of other commodities. Besides, the relative movement of prices of the different groups of commodities have not been the same. The terms of trade of the agricultural sector do not reflect a steady maintenance of sectoral balance over this period. They have in recent years been generally favourable to agriculture. The basic issue on this point is whether the needs of a growing and developing economy require that agricultural produce should receive a favoured treatment in the matter of prices and purchasing power over non-agricultural commodities. While in the developed countries of the Western world agricultural products have been given favoured treatment through price supports and subsidies, it has to be remembered that this has been possible of achievement in these countries only in recent times. Over larger periods of their history of industrial development, agricultural prices in these countries have either remained or been kept depressed to keep the general price and cost level low in other sectors and in the country as a whole.

The importance of this strategy of economic development is even greater in a country which is trying to progress at a quick rate in a race with a rapidly growing population and in a competitive world. And in the context of India, the desirability of relatively low levels of agricultural prices is far greater, because agricultural prices account for more than one-half of the weightage given to all prices in the overall index of wholesale prices. Besides, food items account for between two-thirds and four-fifths of the total consumer expenditure of most groups of the population. An increase in food and agricultural prices, has therefore proportionately a much greater impact on the cost of living than the same increase in other prices.

This line of approach is, however, dictated largely by the interests of the consumers. The point of view of the producers has got to be taken into account also. After all, it is they who hold the key to the success of the Plan. And in the Third Plan the producers are expected to fulfil a target (additional 25 to 30 million tons of foodgrains) which is

larger than the total of either the targets or the achievements in the first two plans. What sort of price incentive is necessary for them?

An overwhelming majority of the producers are small farmers who sell but a very small proportion of their produce of foodgrains. Many of them have again to buy from the market later in the season. Besides, they usually sell in the immediate post-harvest season so that they do not get much advantage from the high prices that usually characterise the eight or nine other months of the year. Their production plans are not based on the expectation of high market prices. It is the larger producers, numerically much smaller, who are influenced by the price factor. Price expectation undoubtedly influences their marketing operations. But the evidence available in this or other countries does not indicate the necessity of relatively high prices for increasing production. In fact, the general trend has been in the opposite direction.

Under these circumstances, the view can justifiably be taken that the more successful the country is in keeping the agricultural prices somewhat depressed in relation to prices of other commodities (this does not mean freezing farm prices at a low level), the greater will be the potentiality for its economic growth. Unfortunately, however, such a policy may not be politically acceptable under the present circumstances. The utmost that can be done is to see that agricultural prices do not go above their level of parity with the prices of other groups of commodities. For operational purposes, the objective may be defined in terms of a possible range of variation between, say, 90 and 100 per cent of parity.

If this be accepted as the goal of agricultural price policy for the country, it necessarily implies an attempt, in the context of the inflationary pressures likely to prevail in the Third Plan, to keep prices as low as possible, and reduce the average prices below their present level in the immediate future. In short, it will be in the national interest to allow for as little increase as possible in agricultural prices during the Third Plan and, in particular, to avoid permitting agricultural prices to rise in sympathy with increase in other prices unless the latter exceed certain limits as defined above. This course of action will draw forth more of the produce in the market than would come out otherwise. Implementation of such a policy may be politically unpleasant, but economically sound. It should be remembered in this connection that the benefits of relatively high agricultural prices are generally reaped by a relatively small group of farmers who usually have large surplus produce to sell. The bulk of the small farmers sell only a small part of their produce and that too usually at relatively low prices prevailing in the harvest season. Their conditions can be improved in other ways, as indicated below.

The pursuit of such a policy does not imply that agricultural prices will have to be kept frozen from day to day, month to month and allowed to increase only once in a year or so. This would be impossible even theoretically. Some amount of seasonal and other fluctuations will have to be there, just as there may be some degree of regional price differences. These are the other two aspects of agricultural price variations that have to be incorporated in the price policy and programmes. Both of

these reflect the vulnerable sides of the trade in, and prices of, agricultural commodities, and should be curbed as much as possible.

The inter-regional differences in level of agricultural prices are largely linked with the regional disparities in levels of urbanisation, of agricultural production, of markets and communications developments etc. They cannot be levelled up within a short time. In the past, some of these differences have again been magnified by zonal and other restrictions imposed upon trading patterns. The regional differences are, therefore, a complex of many forces which require careful handling. Besides, these differences are, in at least one respect, desirable, since the price level in each region is linked to the purchasing power and level of living of the people there. An artificial and quick change therein will cause hardship to the people. Hence it is advisable to go slow in attempting to remove or reduce inter-regional price differentials in respect of agricultural commodities. Here the policy may be formulated in the negative way, namely, not to allow such differences to increase. There are likely to be problems raised in this respect by the divergent interests of surplus and deficit States, and even zones in each State. The existence of such problems merely emphasises the need for an all-India food policy rising above sectional interests.

Finally, there are the temporal variations in agricultural prices. It is mainly these variations that have led to most of the action programmes that have characterised food administration in India from time to time. Here again, a distinction has to be drawn between the policies and programmes for the foodgrains and those for other produce like cotton, sugarcane, jute, oilseeds and tobacco. Most of these commodities are raw materials used by industries, and figure very prominently in their processed form in India's export trade. The supply position in respect of them is generally not as unfavourable as in the case of foodgrains, and for a few of them like sugarcane and cotton, there is a minimum price programme already in operation. A minimum price programme should be extended to all these crops and announced at least before the onset of the respective sowing seasons. Attempts should also be made to curb excessive rise in their prices by regulating forward and other tradings. Ceiling prices may be enforced whenever necessary, through the existing machinery.

The major controversy, however, relates to the programmes in respect of foodgrains. Fortunately for the country, the supply position on the eve of the Third Five Year Plan looks much brighter than ever before, thanks to the new PL 480 Agreement with the United States. This Agreement ensures that there will be no acute physical shortage of foodgrains in the country during the Third Plan period. Besides, there will be a sizeable (5 million tons) reserve stock of foodgrains to be used in an emergency.

With this supply position, it should be easier to work out a reasonable programme for 'stabilisation of foodgrain prices'. Such 'stabilisation' involves attempts to regulate secular, cyclical as well as seasonal variations in prices. During the last few years these three aspects of price

movement have tended to get compounded. What has been happening is that the seasonal variations in prices have been of a speculative and anticipatory nature, and tended to reflect movements of all the three types. In fact, an analysis of movements of foodgrains prices since 1954 shows that along with the progressive increase in the average level of prices, there has been a tendency for fluctuations in each year to become wider. A number of factors are responsible for this. There is, for example, the changing structure of the flow of food grains from the producers to the market as has been pointed out by some of the recent surveys of market arrivals conducted by the Visva-Bharati Agro-Economic Research Centre. There has been a progressive concentration of marketed surplus of foodgrains in the hands of the more resourceful farmers and a marked tendency on their part to defer sales later in the season. This along with the generally speculative nature of the activities of the trading sections has tended to sharpen the seasonal fluctuations so much so that it is now almost impossible to regulate the cyclical or the secular rise in prices, except through measures designed to reduce the seasonal fluctuations.

In other words, stabilisation of foodgrains prices requires effective and firm action to keep fluctuations in prices in each crop year within certain well-defined limits announced in advance of the sowing season of the crop in question. These limits can be decided, keeping in mind the likely flow of supplies into the market at different parts of the year, the position regarding storage, processing etc., and the outlook for other prices during the year. It may generally be said that the fixation of these limits will involve, in some cases at least, supporting the prices received by the cultivators immediately after harvest through a purchase or loan programme, and pumping into the market sufficient supplies later in the year to keep prices from exceeding the upper limit. The first is essential, if the poor farmers are to be helped and incentives provided for production increase. The second is necessary if speculative activities are to be curbed and prices held in check.

The case is thus strong for the so-called buffer stock operations programme. The fact that the country will have a sufficiently large reserve stock of foodgrains makes such a programme realistic and feasible. In fact, if such sales and purchase operations are conducted successfully, these will influence the foodgrains prices in the whole-sale markets which usually determine retail prices. Effective operation of this programme will also reduce the responsibility of the government for either procurement or subsidised distribution of foodgrains. It must be emphasised here that buffer stock administration does not merely mean occasional releases into the market of supplies from government stock. It must be a regular and day-to-day operation involving both releases and withdrawals.

Operations of this sort cannot, however, be conducted departmentally by the Governments of India and the States. In addition to the inflexibility imposed by the departmental routine and procedure, the technical know-how about the market that can be made available by the Food Department is not likely to be sufficient for the requirements of operations

of this size. It would, therefore, be necessary, if this programme is seriously put into operation, to have a separate administration, autonomous in nature, entrusted with the responsibility for supply and price stabilisation within certain limits and guided in its operation by policy goals and programmes set by the government from time to time. The Government of India will also need for formulating and reviewing such price policies and programmes the advisory services of a high-level policy committee, which should have at its command the technical data and information supplied by an efficient economic outlook service.

Industrial Development

T. N. SINGH

THE last ten years have witnessed a remarkable progress in the industrial sector in India. The total financial investments during the Second Five Year Plan in industries have far exceeded the anticipated outlay of Rs. 1,094 crore and the latest estimates indicate that the investments in industries of the public and private sectors taken together will amount to Rs. 1,450 crore—an increase of nearly 32 per cent over the estimates of the Second Plan. The larger investments are no doubt partly due to the rising costs, but this alone cannot account for an investment larger than expected. I am aware of the shortfalls in certain sectors and also of the fact that physical targets of production have not been achieved in many items of importance both in the public and the private sectors. But, considering the difficulties of foreign exchange, the low level of national savings and capital formation and the inadequacies of technological know-how and experience, the progress made during these years does indicate the dynamic nature of recent industrial growth.

The manner in which all kinds of industrial and production activity have sprung up during the short space of five years even in the remote corners of the country, run and organised by a new class of entrepreneurs, mostly small people, is indicative of the great forces that are at work today. I believe that there is hardly any country in the world where the atmosphere for industrial growth is better than in India. Much has yet to be done to achieve the self-sustaining stage of economy but that stage is not far off. It is in this context that the basic ideas and the programmes outlined in the Draft of the Third Five Year Plan have been conceived.

The economic and social problems of the country are many and extremely complex. An already large population growing at the rate of nearly 2 per cent per annum, centuries of subsistence economy, years of neglect in the fields of education and social services and the prevailing technological backwardness as compared to the highly industrialised nations of today, emphasise the difficulties of the task ahead. At the same time, they also underline the urgent need for an early solution of the country's economic problems with boldness and determination. A hesitant and weak programme of economic development cannot meet the needs of the situation. If even the modest objectives set out in the Second Plan, namely, doubling of the national income by 1970-71 and that of the per capita income by 1975-76 and taking the national economy to the stage of self-sustaining growth, are to be achieved, nothing short of the investments envisaged in the Third Plan can meet the situation. It may even be legitimately argued that a bigger industrial plan programme than the one set out in the Draft Third Plan is necessary.

In preparing the Draft Plan one has to strike a balance between the needs of various sectors of the national economy. Our resources, internal and external, are none too plentiful. The stresses which are inherent in any rapid pace of economic and industrial development are factors which cannot be ignored in a system of democratic planning. If the long-term objectives in regard to national income and employment are to be achieved and if the self-sustaining stage has to be reached in the near future, it is essential to press forward with larger investments in the basic and capital goods industries, with special emphasis on machine building programmes. Simultaneously efforts have to be made to acquire the related skills, techniques, know-how, designing capacity, etc. In any great effort for a rapid development of capital goods and producer goods industries, some stresses are bound to develop. To mitigate such stresses and to meet the consumption demands of the people following a rise in the national income, the Plan provides for industries producing a wide range of consumer and other essential goods. It has, however, to be recognised that it will be difficult to meet all these demands to the full and to some extent restraint of consumption will become unavoidable specially in the case of luxury or semi-luxury goods.

There will also be difficulties in creating the necessary skills and know-how related to the pace of industrial development. Then there are the related problems of increased output of power, fuel and minerals. All these not only entail very detailed planning and phasing of various industrial projects both in the private and the public sectors, they also require great skill in implementation and a co-ordinated growth of the various projects under industries, power, fuel, processing of industrial raw materials and provision of necessary skill and know-how. The progress in the implementation of the plan projects will, therefore, have to be watched with great vigilance and understanding.

The Plan gives first priority to agriculture in the scheme of development. At the same time it is recognised that beyond a stage the growth of agriculture and development of human resources alike hinge upon the advance made in industry. The large provision of Rs. 1,500 crore for industry and minerals has been made in this context. One of the important items of the project in the industry sector is the fertiliser industry. It is proposed to increase the production capacity of fertilisers in 1965-66 by about 500 per cent as compared to the present level of indigenous production. Without an adequate supply of fertilisers a large step-up of agricultural production will not be possible. The total investment on fertilisers alone is expected to be of the order of Rs. 200 crore. Fertiliser industry again is a part of the chemical industry which must also be developed simultaneously. The dependence on imports of machinery and equipment for setting up factories is a limiting factor to the expansion of the fertiliser industry. Therefore arrangements have to be made for the manufacture of such plant and machinery in the country. Not only for the fertiliser industry but for the growth of various other industries in the country it is esesntial that India should develop machine building capacity. Just as steel had the pride of place in the industrial

projects of the Second Plan I think the various projects for the manufacture of heavy machinery and equipment occupy the key position among the industrial projects of the Third Five Year Plan. It is fortunate that external credits have already been assured for the heavy machinery, mining machinery, heavy electricals, foundry forge, plate and vessel, machine tools and precision instruments projects. The Planning Commission also attaches great importance to the production of alloy and tool steel. The private sector is expected to take up production of cement, paper and sugar manufacturing machinery. Then there are all kinds of medium and small tools and machines which have to be manufactured and which will be largely the responsibility of the private sector. It is expected that the completion of these projects listed in the Third Plan will take India towards the self-generating stage.

Steel is the base of the development of the machinery industry as well as various other industries. Foundations for a sizeable steel industry were laid in the Second Plan. Production capacity of steel will be stepped up to 10 million tons. While a much larger steel production target may have been desirable, resources have limited the programme to 10 million tons only. That there will be an ever-growing demand for steel, no one can doubt. At the end of the Third Plan period one may find oneself faced with a much greater demand for steel. However, in the meantime, it is hoped that the heavy machinery, heavy structural and heavy engineering projects will make it possible to depend on indigenous production of machinery and plant for the construction of future steel projects in the Fourth and Fifth Plans. It is hoped that even during the Third Plan it will be possible to draw upon the production of the heavy machinery and heavy structurals and heavy forge and foundry plants for the construction of parts of our steel plants. It is my firm conviction that the developments in the machine building and chemical industries envisaged in the Third Plan will have firmly laid the foundations of a self-generating economy, and when that happens, I am sure, the pace of development in India will be something which can only be described as stupendous and breath-taking.

I am fully conscious that there are many more things yet to be done. I am conscious of the various gaps in the scheme of industrial development in the Third Plan, yet when the various projects of the Third Plan are implemented and go into production India will be well set on the path of rapid development. The position of power and exploitation of some of our minerals have been causing the Planning Commission and the Government much concern. We are all aware of the shortcomings in these respects. The projects planned will no doubt mean a considerable step-up in these fields but the economy will continue to work under strain for some time to come. It should be evident to anybody that in the next five to ten years the nation will have to work under great stress and strain. Some of these stresses are inevitable. The people will be required to put up with a number of inconveniences and strains but such strains are inherent in any scheme of rapid economic development. All great nations have made sacrifices and put up with inconveniences in the hope of a bright future. The present generation, I am

sure, is willing to make sacrifices and desirous of sharing the burdens of planned development so that the future generation may have brighter prospects and so that a just and egalitarian society may be built up. The Constitution aims at securing equality of status and opportunity for all. The Directive Principles of the Constitution enjoin opportunities for useful employment for all. They lay down that "the State shall direct its policy towards securing that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment." Equitable opportunities for all and elimination of economic disparity are objects which must be steadfastly pursued. It is such ideals which make a people enthused and it is these which will secure their whole-hearted cooperation in the implementation of our plans.

The nation has made great sacrifices in the struggle for freedom. Swadeshism was the pivot of our great national movement. When we talk of a self-generating economy it is in some respects a re-interpretation of "Swadeshism" in the context of today. The country accepted the objective of Swadeshism more than half a century ago. The concept of a self-generating and self-reliant economy is nothing but a projection of that very ideal. Gandhiji wanted foreign goods to be replaced by indigenous products. Today too, we are trying to manufacture not only various consumers goods in India but also the machines which manufacture those goods. We wish to produce our own steel and various kinds of industrial raw materials and chemicals in our country by Indian labour and capital. Furthermore, emphasis is being laid on the need of doing away with the differences between the high and the low and rich and poor and establishing a just society. The goal of a self-reliant and self-sustaining economy is not far off and I am convinced that the nation is willing and ready to make great sacrifices to achieve this goal. What is very important is that the ideals of establishing a just social and economic order should be steadfastly pursued and that the people should participate enthusiastically in the great national adventure of the implementation of the successive five year plans.

Transport

L. A. NATESAN

THE task of estimating future requirements of transportation is far from easy. In a system of free enterprise, demand calls forth, through the attraction of high rates and large profits, the development of additional transport facilities. As these facilities increase, the expanded capacity for transportation removes the earlier scarcity and brings down the level of the charges. In an economy influenced by State planning, responsibility has to be taken by the authorities concerned for as correct an assessment as possible of the transportation required in connection with the development programmes. There is an automatic corrective to private agencies making mistakes in their estimates, as they have to pay the penalty for any errors in the calculations. Private enterprise is apt to be over-cautious or over-optimistic, leading to wide pendulum swings producing excess of demand over supply or vice versa. The State has necessarily to avoid these extremes, and with the rather comprehensive surveillance, if not control, of the national economy in recent times, is indeed in a better position to attempt a reasonable forecast of future demands and an appraisal of the measures needed to meet them.

In trying to estimate future demands of transport, one is not altogether in an uncharted sea. The easiest—one which is generally adopted —is the genetic approach, that is, proceeding on the basis of established performance and taking into account the currently identifiable future demands for a projection. Another is the teleological approach in which confidence in the destiny of the country is the basic support to the hope of sufficient efforts being made to achieve the desired and announced objectives. This would generate enthusiasm among the people to give effect to the policy. Of the two, planners may prefer the former to the latter approach as providing something material to go upon.

Planning for transportation assumes that there is some indication of the dimensions of the probable volume of traffic likely to be generated in the future. From the estimates of the increases in the output anticipated from the projects included in the agricultural, mining, industrial and other programmes, a fair idea of the physical quantities and the movement involved may be obtained. It should, however, be understood that the aggregate tonnage and the average haul, even if estimated with reasonable accuracy, can only provide the immediate determinants of the volume of transport. These are not the final determinants. To that extent any present estimate based on the figures of tonnage and haul is likely to be wide of the mark.

This is brought out better by the multiplier effect which takes place in transportation with reference to any given increase in production. It is now well-known that a given increase in the production of iron and

steel generates a volume of traffic four to five times greater. The growth of ton miles—the trend of leads—tends to be greater than the expansion of the tonnage. It has been observed that in terms of goods in circulation the coefficient of elasticity of demand for transport services has varied from 1.3 to 1.7 in different countries during the period of economic development.

Even if allowance is made for this the problem is not solved. It is necessary to appreciate the fact that the proportion of the production that enters into the transportation stream varies from commodity to commodity. The location of industry, the sources of raw materials, the transport facilities that have developed, the extent of local consumption, the volume of goods moving to outside markets, all these, to mention the most important, affect the quantities transported. Taking the railways as an example, the individual proportions may vary as much as 80 to 95 per cent of production in the case of coal and coke, mineral ores and cement, and as low as 15 per cent in respect of food grains. These percentages reflect the varying content of transportation affecting the different commodities to reach the centres of production and points of distribution. It is important to note that these proportions are likely to differ with each form of transport. The volume of the individual commodities and the distances over which they are moved by the different forms of transportation are other factors to be considered. We do not have anything like complete statistics for all transport agencies in India. But the nature of the problem to be faced may be illustrated with reference to the results of the sample survey conducted in the United Kingdom for 1958. The tons and the ton miles calculated for the different transport agencies during 1958 are as follows :

U. K. DOMESTIC GOODS TRANSPORT, 1958

	Tons carried[1] (million)	Tons miles (million)	Proportions of the total Tons	Tons miles
Road	1,000	23,000	76%	45%
Railways	260[2]	18,000	19	35
Inland waterways ..	10	—	1	—
Coastal shipping ..	50	[3]	4	20

[1] To the nearest 10 million. [2] Includes free-hauled traffic. [3] Inland equivalent

Source : The Transport of Goods by Road, Report of a Sample Survey made in April 1958, Ministry of Transport and Civil Aviation, p. 27.

It may be seen that the proportions of tonnage and ton miles handled by the different forms of transport are quite different. It should also be appreciated that the proportions are also likely to vary in course of time. In the United Kingdom between 1952 and 1958 the ton miles for the Road have recorded a striking increase over the Railways. Therefore, even within comparatively short periods, important changes of this character are indeed possible, and allowance should be for such variations made in planning for the future.

What has been discussed so far applies mainly to freight traffic. The needs of passenger traffic have also to be taken into account. These have

to be considered separately for suburban needs and for non-suburban or inter-city requirements. With an overwhelming preoccupation with the problems of freight transport, it is not unlikely that less than due attention may be paid to passenger traffic. But any serious shortages here are bound to lead to adverse repercussions on the public and production. To the movement closely associated with economic activity has to be added that which arises from wanderlust, holiday travel, visits to pilgrim centres, etc. Transportation undertaken for all these purposes can be assessed within a fair margin of approximation, which will be exceedingly difficult in the case of freight traffic with its great complexity of numerous constituent commodities, quantities, hauls and operating problems.

In the development stage of the economy, the provision for transportation has according to particular conditions varied from 25 to 30 per cent of the total investment. Taking the United States, for example, the percentages of national wealth invested in railways, shipping and canals were between 27.0 to 28.5 per cent during 1880 to 1900. In 1912, the percentage stood at 25. For Mexico during 1938 to 1950, the figure was 27 per cent. The average percentage (for 4 to 5 post-war years) of gross investment devoted to railways (including tramways), shipping, air transportation, motor traffic and communications in Netherlands and Belgium amounted to 23 and 24 respectively, while for Norway it was as high as 30. Only the United Kingdom and France had lower percentages of 17 and 19 respectively. Surely for an underdeveloped country like India, intent on overtaking generations of sluggish pace, the percentage of investment in transport may need to be nearer the 25–30 level than any lower.

We may now turn to consider how far the Draft Third Plan has taken note of the considerations set forth above in its attempt to outline the proposals for transport and communications.

The economic effort that is contemplated in the Draft Third Five Year Plan is, as compared with its predecessor, of a prodigious character. Agricultural output by 1965-66 is expected to increase by 30 per cent over the anticipated target for 1960-61. Power generated would go up by 100 per cent. Taking coal and iron ore together, the quantity to be produced will be 100 per cent higher than in 1960-61. About the same rate of increase is taken for automobiles. Aluminium production is anticipated to go up by 341 per cent. Paper and caustic soda to be manufactured by the end of the Third Plan are placed at 119 per cent and 172 per cent higher respectively.

The investment required to finance this expansion in production is placed at Rs. 10,200 crore. The corresponding figure for the Second Plan is Rs. 6,750 crore. It is proposed to allot during the Third Plan Rs. 1,450 crore for transport and communications in the public sector. The investment from the private sector is estimated at Rs. 200 crore. The overall investment on transport and communications during the Third Plan thus amounts to Rs. 1,650 crore out of a total of Rs. 10,200 crore.

The investment on Railways is Rs. 890 crore, representing the largest slice of 54 per cent of the total for all transport and communications.

This, be it noted, is a little less than the provision for Railways in the Second Plan. The principal objective for the Railway plan for 1961-62 to 1965-66 is to increase transport capacity so as to handle by 1965-66 a total traffic of 235 million tons. As compared with the anticipated tonnage of 162 million in 1960-61, this represents an increase of 73 million tons or 45 per cent. About 70 per cent of this is on account of higher levels of production under iron and steel (10.2 million tons), coal and coke (95 million tons) and cement (12 million tons). The new lines to be taken up are limited to 1,200 miles. Apart from the spill-overs from the Second Plan, some 200 miles are put down for the development of the coal industry. The remaining lines are justified on grounds of operational or industrial necessity or of urgency on other grounds. The most remarkable feature of the Plan is the decrease in the foreign exchange requirements from Rs. 320 crore under the Second Plan to Rs. 130 crore under the Third Plan, brought about by increasing self-sufficiency in regard to railway materials and equipment. As regards passenger traffic the investment provides for only a 3 per cent increase per annum. It is frankly recognised that at this rate there is no early prospect of conditions of overcrowding being effectively relieved.

As to Roads, the Nagpur targets have been exceeded already in regard to both surfaced and unsurfaced roads. The Chief Engineers' Plan for 1961—81 contemplates the construction of a network which will bring all villages in developed and agricultural areas within four miles of a metalled road and 1.5 miles of any road. The investment proposed for the Third Plan is, however, the same as for the Second Plan, namely, Rs. 250 crore.

Road transport must be developed so that it makes effective use of the roads. What is proposed in the Draft Plan relates only to the nationalised transport with the public sector. The outlay is Rs. 18 crore on 5,000 vehicles. Expansion of commercial transport will be largely dependent on the domestic manufacturing capacity.

Turning to shipping, inland water transport, ports and lighthouses the provision proposed is Rs. 152 crore. The gross registered tonnage planned to be added is only 200,000 as against 1,080,000 (overseas) and 340,000 (coastal), recommended by the National Shipping Board. It is not necessary to take up the remaining items of lesser outlays.

How do these figures accord with the considerations set forth earlier? The Planning Commission has taken the genetic approach in regard to the Railways. An attempt has been made to evaluate such additions in the tonnage over the traffic expected in 1960-61 as can be ascribed to increased production under agricultural, mineral and manufacturing industries. These are, however, only the immediate determinants and not the final determinants. As regards road transport, inland waterways and coastwise shipping quantitative estimation of the probable traffic has not been given. The comparatively smaller volume of traffic involved may perhaps be an explanation in regard to inland waterways and coastwise shipping. Road transport surely does not fall in this category. There is also no indication of the volume of transportation during 1961-62 to

1965-66 in terms of ton mileage that might be handled by railways, roads and other forms of transport.

The other aspects, such as the multiplier effect and the possible shift of emphasis in inter-agency proportions of commodity traffic, do not appear to have been taken into account in the estimates worked out for the trend of transportation during the Third Plan. These are factors of crucial importance, and omission to include them in the calculations may lead to quite serious errors of judgment.

The proportion of the contemplated investment on transport and communications to the total in an underdeveloped economy tends to be rather more than 25 per cent. The investment proposed in the Third Plan works out to about 16 per cent. In spite of the increase in the total investment under the Third Plan, the amount proposed for the roads is about the same as in the Second Plan, namely, Rs. 250 crore, which is less than 20 per cent of the figure of quinquennial average expenditure of Rs. 1,300 crore according to the Chief Engineers' calculations for the 1961–81 Road Plan for the country.

The principal reason for the special emphasis on transportation is the fact that resources devoted to improving transport facilities help to increase output many times the initial cost. The immediate effect may seem to be to detract from the total output, but it is the principal means of creating a larger output than before. The role of transportation in the United States and Canada provides striking examples of its importance in connection with the economic strategy to be applied by underdeveloped countries. It is not unusual to underrate transport requirements of investment in the initial stage. The existence of a reserve capacity which all forms of transport maintain to meet such exigencies as peak loads, emergency demands, etc., may for a time encourage the presumption that railways, roads, and other agencies will somehow manage to meet the increasing demands. But when the reserve capacity is used up, there is no escape from a crisis in transport. Backlogs of unshipped freight begin to pile up and bottlenecks develop in ominous frequency. A situation of precisely this character developed in the USSR during 1928–33, often referred to as the Uzkoe Mestoe period : "The backlog of unshipped freight grew sharply. Mines, steel works, light industry plants and food enterprises became choked up with unshipped output. The railroads could not even deal with shipments of rails, fastenings and pipe, the needs of transport itself." This was in 1933. On January 1, 1934, the backlog of unshipped freight mounted to 1,338,000 wagons or 20 million tons. The delay in the development of transportation was officially recognised to be a threat to the carrying out of the industrialisation of the country and to the effectiveness of national defence itself. Curiously enough, the familiar plea for raising capacity through improved working was also raised. But a crisis had to come to prove that there is no short cut to investment in providing substantial augmentation of capacity which alone can cope with steeply increasing volume of traffic to be carried.

This, of course, does not preclude efforts to increase capacity by greater efficiency. Surely, the average speeds of goods trains on our Railways

need to be increased as quickly as possible. Even a return to the speeds maintained ten years ago will mean an enormous saving in equipment and gain in transport output. A determined effort to remove such deficiencies as these will surely pay good dividends. There is, again, under-utilisation of our roads, because of multiple jurisdiction in inter-State transport and delays in the improvement of the standard of the roads. These, to be put right, call for greater investment under transport.

Judged from any angle, the conclusion is inescapable that the bases of current thinking on the planning of transport requirements have to be revised. It is to be appreciated that transport has to be developed and the facilities to be made available before the activities connected with actual production can begin to function. It is this characteristic of sequence of timing that gives transport the priority and the illusion that it takes too large a slice of the total investment. From what has been discussed earlier a percentage of 20 in the total investment is a modest figure to start with and the provision proposed for road transport, inland waterways and shipping may have to be substantially raised. The possibility that even this proportion may have to be raised should be kept in view. To expect a crisis to provide the persuasion to take necessary steps for the augmentation of transport capacity will be to pay too heavy a price which the experience of other countries should teach us to avoid.

Approach to Small Industries

DR. K. S. KRISHNASWAMY

IN defining small-scale industries, Government have specified only a maximum for the value of land, buildings, plant and equipment owned or used by an undertaking. It is, therefore, possible to include the household and hand industries existing in the villages also in the category of small industries. But we shall for the most part be concerned here only with the narrower class of factory-type units which have affinities with the large-scale industrial rather than the agricultural sector. There are, to be sure, certain features and problems common to these industries and what may strictly be termed village or cottage industries—such as the predominance of proprietary concerns, dependence on moneylenders and traders for finance, prevalence of inefficient techniques of production, lack of suitable marketing facilities and so forth. Nonetheless, there are strong arguments for treating them as separate categories.

Briefly, small industries have the potential to develop into a suitable instrument for dispersal of economic power and activity. They already compete with large-scale industries for trained labour, scarce raw materials, finance and foreign exchange on the national markets. Even more importantly, they are beginning to adopt techniques and attitudes that could enable them to grow in size and operational efficiency as the domestic market becomes larger and more diversified. Village industries, on the other hand, bear no such promise because their range is limited and they are likely to suffer rather than benefit from the transformation of numerous local markets into a vast national one. Their case rests largely on the relief they provide to the rural unemployed or underemployed during the transitional phases of economic development. This is certainly not an unimportant matter; nor is it disputed that this way of providing relief may, in special cases, add to the social net product. But they cannot maintain their present characteristics and yet countervail the economic power of large-scale industry. They cannot do so for the reason that the techniques appropriate to a household and hand industry offer only a limited scope for increases in the productivity and rewards of labour; and this can, if at all, be remedied only by the transmogrification of village industries into modernised small-scale industries.

From the point of view of economic strategy, therefore, the small industries programme should receive greater attention than the programmes for rehabilitation of village industries. This is in fact possible because Government have separate organisations for the formulation and implementation of policies appropriate to small-scale industries and village industries. The latter are entrusted to the care of statutory boards like the All-India Handloom Board, the Khadi and Village Industries

Commission, All-India Handicrafts Board, Coir Board etc. The programme for small-scale industries, on the other hand, is the responsibility of the Small-Scale Industries Board, together with the office of the Development Commissioner for Small-Scale Industries at the Centre, the Directors of Industries in the States and the National Small Industries Corporation Ltd. For working purposes, therefore, we can take the industries falling within the jurisdiction of the Small-Scale Industries Board as small-scale industries in the strict sense.

I

In terms of the outlays involved, the Third Plan programmes for small-scale and village industries are far from impressive. Their share in the anticipated investment outlay of Rs. 10,200 crore amounts to no more than Rs. 435 crore, or about 4 per cent. Again, of the projected public outlay of Rs. 7,250 crore, that on village and small-scale industries is estimated at only Rs. 250 crore or less than 3.5 per cent. These are magnitudes that could well be within the margin of error to which the aggregates may be subject, and one might consequently take the view that they figure in plan allocations largely for reasons of neatness in presentation. Such a view would, however, be misleading; for the small industries programme constitutes an integral part of the total strategy and is conceived as an important means of achieving two of the major objectives of the Plan—viz., substantial expansion in employment opportunities and a more even distribution of incomes as well as of economic power.

This conception of the role of small industries is not just the outcome of a preference for smallness *perse* in industrial organisation. It derives as much, if not more, from the surfeit of manpower alongside of scarcity of the other means of production in the country. Given the imbalance in factor-endowments, and given the large demands of basic industries and utilities for capital resources, many conversion and consumer-goods industries have necessarily to resort to more or less labour-intensive methods of production. Since the presumption is that small-scale industrial units require relatively less capital per unit of labour employed, encouragement of such units becomes almost a natural complement to the programme of building up a complex of capital-intensive industries. This is in fact the core of the argument for small-scale industries in the Third Plan, as it was in the Second Plan. When it is turned around, so that greater employment of labour rather than smaller use of capital is stressed, its appeal is greatly enhanced. And the decentralisation effect adds an ideological flavour to it.

One has, however, to guard against overstating this position, as some advocates of village and small industries are apt to do. There can be no question about the need for expanding employment opportunities in India, and the Five Year Plans have rightly treated this as one of their main objectives. In the pursuit of this objective, there arises a problem of choice between immediate and future benefits. It is not always true that a policy which gives the highest volume of employment today also

yields results in the shape of a faster growth in employment opportunities in the future. This is because after a certain point, substitution of labour for capital fails to yield a net investible surplus to society, even at a relatively low level of wages. Without such a surplus, future employment will suffer on account of an inadequate increase in the supply of capital and other productive resources. Just as a relative scarcity of capital in the present constitutes an argument in favour of labour-intensive methods of production, the need for a rapid increase in it necessitates a careful balancing of large employment with the over-all productive efficiency of labour. Experience has shown that such additions to employment as have been brought about in the field of village industries have not, despite low wages, resulted in conditions favourable to cumulative growth in the opportunities for *enduring* employment in that sector or elsewhere. They have not done so because the productivity of labour in these industries is too low to permit the emergence of a surplus over the wages paid. Indeed in respect of many village industries, even these wages have had to be supported by a variety of subsidies.

We shall return to this question of subsidisation of employment later. We might merely note here that such subsidisation could be justified if it is in the nature of protection to a genuine "infant industry", or if it is explicitly preferred as a means of social amelioration. In either case, its *raison d'etre* lies somewhat paradoxically in its ceasing to be necessary after a period. As mentioned at the outset, small-scale industries have apparently better chances than village industries of becoming efficient enough to dispense with, or minimise the need for, artificial supports. The larger emphasis on small-scale industries in the Third Plan is perhaps attributable to an appreciation of this point.

This is seen not only in the relative allocations but also in the orientation of the policy for small industries. As may be seen from the table below, public outlay on small industries during the Third Plan period will be nearly twice that in the Second Plan, whereas the increases in respect of village industries, handicrafts etc. are of a much smaller order.

PUBLIC OUTLAY ON VILLAGE & SMALL-SCALE INDUSTRIES

(In Rs. crore)

	Second Plan (anticipated expenditure)	Third Plan (tentative allocation)	Increase (3)—(2)
1. Small-scale industries and industrial estates ..	56·3	107·0	50·7
2. Handlooms & powerlooms in the handloom sector	32·1	36·0	3·9
3. Khadi, Ambar Khadi and village industries ..	80·5	89·0	8·5
4. Handicrafts	5·3	8·0	2·7
5. Sericulture	3·8	7·0	3·2
6. Coir industry	2·0	3·0	1·0
TOTAL ..	180·0	250·0	70·0

This is further underlined by the indications in the Draft Outline regarding the nature of the policy to be followed in each case. The main emphasis in the case of village industries will be an intensification of effort in selected areas and co-ordination. In respect of small industries, on the other hand, the stress is primarily on the expansion of facilities and the development of units ancillary to large-scale industry. The significance of this difference in emphasis becomes clearer when we look at the existing policy for small industries and the trends in it.

II

The policy for small-scale industries is in principle directed towards strengthening the competitive position of such industries *vis-a-vis* the large-scale units in the same or related lines of activity. A variety of measures have been adopted for this purpose, some of which aim at helping the small manufacturer in selling his products, while others seek to aid him in raising standards of productive efficiency and bringing down costs of production. All these measures are based on the premise that given certain preconditions, small-scale units can be socially more beneficial than large-scale units. They are, that is to say, believed to be capable of providing large employment without at the same time reducing the quantity or quality of output. Whether this is in fact the case is a matter which we shall consider briefly later. Before doing so, it is necessary to elucidate the main lines of Government policy. These relate to (a) marketing of product (b) supply of raw materials and essential facilities (c) improvement of production techniques and training of personnel and (d) provision of adequate and cheap credit.

First the marketing facilities. Much the most direct step taken in this regard is the preference accorded to small-industry products in Government purchases. Certain items are reserved for procurement from small-scale units only; and in certain other cases, small industries are accorded a price preferential up to a maximum of 15 per cent. Orders from Government departments and purchasing agencies are procured for small-scale industries by the National Small Industries Corporation (N.S.I.C.). The N.S.I.C. also tries to induce the larger firms supplying Government to purchase the components and spare-parts needed by them from small-scale manufacturers. These measures are sought to be buttressed by levying additional excises and cesses on large producers and by laying down separate targets of production for large-scale and small-scale units in certain fields—*e.g.* cotton textiles, agricultural implements, sewing machines, storage batteries and bicycles. The Third Plan Outline has recommended the adoption of this principle over a wider field, and strengthening it by promoting the development of units ancillary to large-scale establishments in both the public and private sectors. Besides these, efforts are also being made to facilitate exports of small industry products and to popularise them domestically through propaganda and the setting-up of sales organisations.

These protectionist measures cannot obviously continue indefinitely without imposing a considerable burden on the community and raising,

in effect, the capital used by the small industries. They have to be viewed essentially as a means to creating a climate in which the small-scale units can reorganise and gain the strength to stand on their own feet. This they will not be able to do if as buyers of factors of production and as manufacturers, they remain as at present in an inferior position. Recognising this, Government have sought to assist the small industries sector in obtaining the raw materials, capital equipment, essential services and finance needed by them. On the raw materials side, depots have been established and the procedure for obtaining permits etc. has been simplified. A scheme for the supply of machinery on a hire-purchase basis is operated by the N.S.I.C. To remove the disabilities of small units in the matter of procuring sites, electric power, transport, water supply etc. a policy of developing industrial estates has been adopted. The number of such estates is to increase from about 60 at the end of the Second Plan period to nearly 360 by 1965-66.

A third aspect of Government policy is the provision of technical assistance and advice through the Small Industries Service Institutes, publication of brochures and reports on production possibilities and establishment of training centres. Small Industries Service Institutes have now been established in all the States, and a number of extension centres will come into being in the Third Plan period. Besides acting as technical counsellors, the Service Institutes undertake economic surveys of new industries or expansion of existing ones.

Finally, a number of measures have been, or are being taken to enlarge the supply of credit and bring down its cost to the small producer. Direct loans on a long-term basis and at low rates of interest are given by the State Governments under the State Aid to Industries Acts. There are also the State Financial Corporations offering mortgage loans for fixed investment purposes. Only recently, Government have introduced a scheme for guaranteeing loans to small industries, with a view to inducing organised credit institution to enlarge their lending to the small producers. This is in addition to the guarantees afforded by the N.S.I.C. and State Governments in respect of advances granted by banks and State Financial Corporations. Besides all these, Government have also decided to provide to a limited extent the equity capital required by small-scale enterprises.

This is indeed an impressive array of facilities. And on paper at any rate it is a logically compact one. But in actual practice, the stimulus of these facilities has been limited for one reason or another. The benefits of Government purchase policy, for instance, have been considerably reduced by the inordinate delay in payment against supply bills. On the financial side, cumbersome procedures and rigorous security requirements have outweighed the attractions of a lower rate of interest. And with the limited staff available to them, the Small Industries Service Institutes have barely scratched the surface of the technical problems. Possibly, with better organisation and greater experience, these shortcomings might be overcome and this is clearly the anticipation in the Draft Outline. But the problem is not just an administrative one. It

concerns the much deeper questions of the appropriateness of the stimuli and the social ordering of objectives.

III

If capital was not so scarce nor labour so abundant in India, then the case for small industries would have had to rest solely on the arguments of diseconomies of size and decentralisation. Both these would become operative at a point at which largeness of size affected, in the community's view, the efficient use of available productive resources. In such circumstances, the objective of securing maximum employment would not be distinguishable from the objective of securing maximum output. Since things are in fact different, provision of gainful employment becomes in India a distinct objective and has been treated so in the Five Year Plans.

So far so good. But between this position and the approach to small industries that obtains in the Third Plan, there is a hiatus. There is no question but that small industries ought to be preferred if they provided larger employment at reasonable wages without using more capital than large-scale units to provide the same streams of outputs. The difficulty arises when small industries are labour-using but not capital saving; or when they yield an equivalent net surplus only by raising the price paid by consumers. It would then mean that the employment provided by small industries is not all a net addition to the total, since in the process of achieving it, certain other possible outputs have been sacrificed. Even so, society might be justified in choosing this form of creating employment if one condition is satisfied—that such sacrifices ensure a much higher level of continuing employment in later periods. And all things taken into account the fulfilment of this condition depends upon small industries becoming inherently capable not only of surviving the competition of their large-scale counterparts but also of growing in the face of it.

Recent studies of small industries in India show that costs of production in such industries are high for two separable but interconnected reasons. In the first place, the techniques they use are such that, allowing for defections in quality and wastage, there is no effective substitution of manpower for capital. Quite often, they need more labour and more capital per unit of output. Secondly, their relatively weak position as buyers nullifies the advantages they might derive from lower overhead costs. This is, in a sense, not due to something internal to each unit but derived from the milieu in which they operate. Viewed thus, the more relevant part of Government policy is that relating to improving the technical efficiency and organisation environment of small industries. Should the measures adopted for this purpose prove effective, the result will be a reduction in the production costs of small enterprises and a corresponding strengthening of their competitive position. The discriminatory benefits conferred on them in regard to marketing and so forth need then be no more than what is required for temporary relief in

special cases. In point of fact, the insulation of the domestic market as a result of import restrictions and the rapid growth of a complex of large industries have already created a big and diversified market for the products of small-scale industries. There is little doubt that this will continue for many years and against this background, reservation of markets and subsidisation of production or prices are, in general, unnecessary. Indeed, they even tend to be self-defeating inasmuch as they reduce the pressure on small units for adoption of cost-reducing techniques and methods of operation.

It is, therefore, important that in the Third Plan period, the emphasis in Government policy should shift from demarcation of spheres of production and preferential prices to technical assistance, standardisation of quality, encouragement of institutional supply of finance, provision of market information etc. The objective in all this should be to encourage small industries to grow out of their smallness, physically and attitudinally. It will be necessary for this purpose to limit, on the one hand, the protectionist measures to specified periods; and to extend, on the other hand, the technical and advisory facilities to units of increasingly larger size. Without such adjustments, the policy for small industries will scarcely be able to make the contributions to economic and social betterment expected of it.

Steel in the Third Plan

S. BHOOTHALINGAM

THE keynote of the Third Five Year Plan is the building up of basic industries for manufacturing capital goods and producer goods, which alone can sustain a programme of rapid industrialisation. The iron and steel industry is one among the most important of these basic industries. The Outline of the Plan, therefore, includes provision for further heavy investments for a substantial, if not spectacular, increase in steel production.

At the end of the First Plan period, India's steel production was only a little over a million tons of finished steel. This was entirely inadequate to meet even current demands, not to mention the rapid increase in demands which have been created by the all-round development of the country envisaged in the Second Plan. The target for the Second Plan, therefore, was fixed to achieve a production of 6 million tons of ingot steel to be rolled into about 4.5 million tons of finished steel. This target was planned to be achieved by the expansion of the two existing steel plants in the private sector and by the setting up in the public sector of three integrated steel plants each with a capacity of one million tons of ingot steel. The expansions planned in the works at Jamshedpur and Burnpur have been completed. Considerable progress has been achieved in the construction of the three new steel plants and many units have been commissioned and it is expected that by the end of the Second Plan period the three new steel plants at Rourkela, Bhilai and Durgapur would be completed in all respects. While the planning for these three steel plants was being done, it was realised that it was only a beginning and that a much larger expansion of the industry would be required in future to meet the needs of various industries that would be coming up in the country's onward march towards industrialisation and prosperity. In the lay-out of these steel plants, therefore, provision was made for considerable expansion and in many units surplus capacities were built in.

It is against this background that we are entering the Third Five Year Plan. The target of production of steel, like that of any other commodity, has to be related to the demand. The demand for steel will depend to a large extent on the realisation of the programmes of development of industries, transport, power and agriculture. It has been estimated that the requirements of steel at the end of the Third Plan will be, in all, a little over 7 million tons of finished steel. The National Council of Applied Economic Research also went into this question and has come to the same conclusion. On the average, one ton of steel ingots will result in three quarters of a ton of finished steel products. Capacity, therefore, has to be set up for an ingot production of a little over 10 million tons of steel. This is for mild steel. In addition, production of

200,000 tons of alloy and special steels has also to be achieved. For the fast growing foundry industry in the country we shall require 1.5 million tons of pig iron.

For the establishment of the additional capacity for 4 million tons of ingot steel in the Third Five Year Plan, it is obvious that we must in the first instance look to the expansion of the newly established steel plants. The steel plants in Rourkela, Bhilai and Durgapur have to be expanded to their economic balanced output. Advantage has to be taken of the heavy investment already made and the nucleus already established. Economy in expansion mainly comes out of capacity already built in and also out of savings in provision of additional transport facilities and savings in higher managerial personnel. Steel however, is a commodity which, before it can be used, has to be finished into various shapes and sizes. The demand has to be met in these final finished products. No steel plant can economically produce all the categories that are required. The Rourkela steel project has been designed to produce flat products; Bhilai has been designed to produce mainly rails and heavy merchant sections; and Durgapur has been designed to produce medium and light merchant sections. In planning the expansions, these broad patterns have to be followed. Thus planning for steel expansion has had to be done within the framework of the demand for various categories of steel and what could be produced at each of the expanded steel plants most economically. Broadly, the intention is to expand the Bhilai, Durgapur and Rourkela steel plants to an ingot capacity of 2.5 million, 1.6 million and 1.8 million tons respectively. In addition, the Mysore Iron and Steel Works are also planned to be expanded to produce 0.1 million tons of steel ingots. This will come to 3 million tons. For the balance of one million tons, a new integrated steel works at Bokaro is to be set up. One of the important considerations in deciding upon the setting up of a new plant at Bokaro has been that a nucleus has to be created for further expansion in the Fourth Plan. The new plant will be designed in such a manner as to be capable of considerable expansion later. It will produce essentially flat products like plates and sheets.

We also expect an expansion of production of the scrap based steel billets in electric furnaces. These electric furnaces are expected to yield at the end of the Third Plan about 200,000 tons of steel annually.

At the end of the Plan it is expected that Bhilai and Durgapur will have 0.3 million tons each of free pig iron for sale. Bokaro will give another 0.35 million tons. The low-shaft blast furnaces are also expected to give about 200,000 tons of pig iron a year. The balance to meet the demand of 1.5 million tons of pig iron will come from the existing private sector steel plants and a new pig iron plant based on low-shaft blast furnace technique at Neyveli. The plant will be designed to use Neyveli lignite and Salem ore.

The target for alloy, tool and special steels has been set at 200,000 tons. Out of this, 133,000 tons are expected to be produced in the public sector and up to 70,000 tons per year in the private sector. Ordnance factories are also expected to produce about 50,000 tons of this type of

special steel. The rest of the production of alloy and special steels has been planned in a new plant, work on which is expected to be commenced shortly.

Not all the steel produced in the integrated steel works will be finished there. There is a large re-rolling industry in the country whose raw material is mainly billets produced in the large integrated steel works. In the Third Plan it is proposed to utilise the capacity in the re-rolling mills to a large extent and it is being planned that about a million tons of steel billets will be made available to them from the integrated steel works which, together with the billets produced in electric furnaces, will give the industry enough to work on two shifts. At present the re-rollers generally produce bars and rods. But it is expected that with the development of steel industry the re-rolling industry in India as in other countries will gradually concentrate more and more on meeting the needs of special items.

For a production of 10 million tons of steel ingots about 20 million tons of iron ore, 23 million tons of metallurgical coal, about 5 million tons of limestone and large quantities of various other raw materials will be required. The mechanised mines at Barsua and Rajhara will be suitably expanded to meet the iron ore demands of Rourkela and Bhilai. For additional requirements of Durgapur and Bokaro, iron ore will have to be supplied from the Kiriburu area. For meeting the needs of coking coal it is proposed to establish more washeries and make all the efforts possible to increase the raisings of suitable coals in the different coalfields.

The experience gained in the establishment of the three new steel plants so far in the Plans will be utilised to the maximum extent in the construction of plants during the Third Plan. The Central Designs Organisation of Hindustan Steel has already taken in hand the work of designing the expansion of the Rourkela Steel Plant. Foreign help in designing will be obtained only where it will be absolutely necessary. The problem of technical personnel for operation is also not likely to be as difficult as in the Second Plan.

Even the production of 10 million tons at the end of Third Plan is not much when compared with the steel production in the industrially advanced countries of the world. It is the barest minimum required to achieve the industrialisation planned for in the Third Plan. For a further development in future Plans much more will have to be produced and many more steel works will have to be set up.

Power Output

BALWANT SINGH NAG

THE economic progress of the people in any country is intimately tied up with the production and utilisation of energy, particularly that of electricity. Planning for electricity constitutes therefore a very important part of economic planning. It should be the aim to provide adequate power at reasonable rates and extend power facilities to as wide an area as possible.

Despite the fact that our hydro-electric potential is of the order of 40 million kW and our known reserves of coal are about 40,000 million tons, power development has been very slow until the beginning of the First Plan. Before the Second World War, most of the power development was centred on a few cities. Although there was widespread demand for power during the war and immediately thereafter, development remained stifled because of the entire dependence on imports for all the electrical and other equipment. Between 1947 and the beginning of the First Plan only about 400,000 kW of power capacity was added.

In the First Plan considerable importance was attached to the rural sector and a large portion of the outlay was directed to works relating to agricultural development. At the same time it laid the foundation for a balanced development of the different sectors of economy. During 1951-56 the installed power generating capacity increased from 2.3 to 3.4 million kW.

Rapid development of basic and heavy industries was one of the main objectives of the Second Plan. Consequently considerable importance was attached to the expansion of ancillary facilities like power supply, transport and mining. Also experience in the past had proved that the demand for power in all parts of the country was outstripping generation. The programme in the Second Plan under power, therefore, provided for raising the installed capacity to 6.9 million kW. Almost in the beginning of the Plan period the power development programme received a setback on account of the foreign exchange difficulties. We had to depend on foreign imports for almost all types of heavy electrical equipment. Also some delays have occurred for various reasons in the completion of some of the major projects. Thus it is expected that a capacity of 5.8 million kW would be reached by the end of the Second Plan.

The pace of industrialisation would be further accelerated in the Third Plan when the facilities created in the Second Plan like the steel and other plants would come into full beneficial use. Such development would call for larger generation of electrical power. Also the needs of other sectors like transport have been showing a steady increase. Three-fourths of the power generated goes for industrial purposes and any

future programme of augmentation of power has therefore to take note of the programmes under industry and transport. Thus it has been estimated that an installed generating capacity of 11.8 million kW would be required by the end of the Third Plan.

Developments in technology permit a large number of alternative means of generating electricity such as hydro-power, coal, lignite, diesel oil, nuclear reactors etc. Hydro-electric power and coal have been the main sources of electricity development in India so far. Harnessing of the water potential has been rather slow as it entails a long construction period and large capital outlay. By the end of the Second Plan only about 2 million kW of hydro-electric capacity would have been commissioned which represents only 5 per cent of the total potential. Hydro-electric generation is the cheapest method of generation, as no fuel is required. However, large quantities of low-grade coal which cannot be used by industry or transport, become available at collieries and coal washeries. The only economical use for such coal is in large coal-fired thermal power stations located near the collieries or washeries. Also, India possesses the world's richest source of thorium, and new uranium deposits have been located in the country. The last decade has seen rapid development in nuclear power technology, and in the foreseeable future, nuclear reaction is expected to become a major source of electric power. A careful choice has to be made in the selection of projects and operating them in an integrated manner for achieving optimum results. Some of the important considerations in this respect are: the capital cost per kilowatt of installed capacity, the foreign exchange component, the cost per kilowatt-hour generated, the construction period, stimulus to the development of new technology etc.

A beginning is proposed to be made in atomic power generation by setting up, in the first instance, plants for generating 300 MW during the Third Plan. Apart from the generation of power, an important objective of the atomic power programme is to build up technological talent and training facilities so as to be ready to take up larger programmes in this field later.

Electricity supply requires greater outlays of capital than most major industries. In the context of scarce resources available for development in India, the maximum utilisation of the installed generating capacity has become a matter of the utmost significance. Efforts will be made in the Third Plan to maximise production with minimum outlay in the electricity supply industry.

The total outlay on power during the First Five Year Plan was of the order of Rs. 260 crore in the public sector and Rs. 32 crore in the private sector. The corresponding figures in the Second Plan are estimated at Rs. 410 crore and Rs. 37 crore respectively. In addition to the investment of Rs. 410 crore, about Rs. 50 crore have been invested outside the Plan by the Damodar Valley Corporation and certain State Electricity Boards from their own resources. Industrial establishments providing their own power accounted for an additional outlay of about Rs. 10 crore in the

First Plan period and Rs. 28 crore during the Second Plan. The Third Plan envisages an outlay of Rs. 975 crore for power, of which Rs. 925 crore will be in the public sector and Rs. 50 crore in the private sector. The provision under the public sector includes Rs. 51 crore for an atomic power station and Rs. 24 crore for its ancillary works such as uranium-mining and plutonium extraction plant.

With the large majority of the population residing in rural areas no significant change in economic growth can be achieved without extending electricity to them. Factors such as the long distances between individual villages, low per capita consumption of power and the varying nature of the demands contribute to make rural extensions comparatively uneconomic. There is need for a carefully formulated development programme for each area covering the activities in different fields of development such as minor irrigation, credit and service facilities for equipment, good seeds and manure, village and small-scale industries, etc. so that rural electrification contributes to increasing agricultural and industrial production. Steps taken in this direction sufficiently in advance of the implementation of the rural electrification schemes are bound to pay rich dividends. By the end of the Second Plan the total number of towns and villages electrified in the country will be about 19,000 as against 7,400 at the end of the First Plan. The Third Plan provides for electrification of further 15,000 villages and towns.

Coal in the Plans

V. KALYANASUNDARAM

AMONG sources of energy, coal occupies an important position notwithstanding the rapidly expanding use of petroleum, natural gas and water-power. This is due to its abundance and the ease with which it can be handled. An additional reason for its importance is that it is the raw material for the iron and steel industry as well as a variety of chemical manufactures. With the rapid growth of the iron and steel industry and expansion of production of organic chemicals., Coal has continued to be King despite competition from the alternative sources of energy mentioned above.

Quantitatively, our resources in coal are quite considerable. According to a recent estimate made by the Geological Survey of India, the reserves are placed at about 43,000 million tons, to which another 80,000 million tons may be added as inferred reserves. With the exception of the alluvial plains of the Ganga and the mountainous region in the north, coal in some form is found in almost all the States of the Union, but the better qualities seem to be concentrated in the States of Bihar and West Bengal, particularly in the Raniganj and Jharia coalfields, which contribute the bulk of the production today in terms both of quality and quantity. Judged by the quality, the position is not quite so good. Reserves of good quality coal and particularly those of metallurgical coal required for steel production are rather limited. This calls for a very careful husbanding of the limited reserves.

Though organised coal mining started as early as the second quarter of the last century, after more than 100 years, production had increased to only 32 million tons by 1950. It was only when the planned development of the country's resources was initiated that production began to show a positive increase. The First Five Year Plan made a modest beginning in the expansion of the industrial base and this meant an increase in the demand for coal by about 6 million tons. No special efforts were needed to step up production which increased from about 32 million tons in 1950 to about 38 million tons in 1955. The main emphasis in regard to coal during the First Plan was on survey and assessment of reserves and on measures for systematic development and conservation.

The Second Five Year Plan with its accent on rapid development of industries and particular emphasis on the expansion of steel production demanded a very large increase in coal production—22 million tons. The increase was of a magnitude which could not be effected without opening new mines and in pursuance of the Industrial Policy Resolution of April 1956, the public sector entered the field of coal production in a large way. Of the additional production of 22 million tons, the private sector was allowed to raise 10 million tons from their existing workings and

areas immediately contiguous, and the public sector was to raise an additional 12 million tons mainly by establishing new mines. The allocation of 12 million tons of additional production to the public sector called for a considerable effort; it involved prospecting and proving of coal reserves in practically virgin areas, preparing plans for their development and building up an organisation for the purpose. A great deal of prospecting has been done in parts of Bihar and Madhya Pradesh and plans prepared for opening new mines. A number of new mines have been opened in outlying coalfields and by the end of the Second Plan a potential will have been created for increasing production. The target of production set for the existing public sector collieries has been more than fulfilled. In the case of the private sector where the additional production was to come mainly from the existing workings, the increase has been larger. Production from both the sectors is expected to reach a level of about 54 or 55 million tons by the end of the current Plan period, which will mean a shortfall of about 5 to 6 million tons in the target.

The Third Plan envisages a rapid building up of the heavy machinery base and further expansion of steel production and the related ancillary facilities like power and transport. On the basis of the targets visualised for the coal-consuming industries in the Third Plan, the demand for coal by 1965-66 is expected to be of the order of 97 million tons and this will mean an increase of 37 million tons over the target set for the Second Plan. An increase of this order will call for much greater efforts than was needed during the Second Plan period. The magnitude of the task involved can be more fully appreciated if the requirements gradewise are taken into consideration.

On the basis of the targets visualised, production of coking coal required for the steel industry and of superior quality non-coking coal will require to be stepped up by anything up to 11 and 10 million tons respectively. These types of coal are restricted in their distribution and are obtained mainly from the Raniganj and Jharia coalfields, which are in the private sector. During the Second Plan, the increase in the production of coking coal was comparatively marginal and the needs of essential consumers of this type of coal were to be met more by diversion of supplies from non-essential consumers. The requirements of coking coal during the Third Plan will be so large as to require special steps to be taken to ensure their availability. While some additional production can be expected from existing workings, additional production of the order indicated will require expansion of facilities for stowing (to remove the coal locked up in the form of pillars to support the roof) and the establishment of new mines in virgin areas in many of which the coal seams may occur at greater depths and under difficult conditions, and this may mean a much larger capital investment per ton of production than in other cases.

The distribution of the additional production between the public and private sectors has not been firmly decided. But it has been tentatively assumed that the private sector will raise 16 million tons and the public

sector 19 million tons. The distribution of the additional production fieldwise and gradewise is being worked out and a clear indication will be available before the Plan is finalised.

The main problems in regard to coal are (a) the limited resources of coking coal and good quality non-coking coal, (b) the gradual deterioration in quality and (c) the low output per man-shift as compared to other countries. The problems posed by the limited reserves of coking coal and good-quality non-coking coal can, to some extent, be overcome by rational use of the limited supply available and the adoption of measures that will reduce avoidable wastage. Attention had been drawn by individual observers as well as by the Indian Coalfields Committee, 1920 to the losses of coal occurring in the Jharia and Raniganj coalfields, and the first major step to reduce this loss was taken in 1939 when the Coal Mines Safety (Stowing) Act was passed. In 1952 this was extended to cover stowing for conservation also. Enforcement of stowing and the prohibition of sectional working of seams contributed in a large measure to reduce wastage in mining. Rationalisation of distribution was effected by the Collieries Control Order promulgated during the war years under which directions were given to consumers regarding the grade of coal they could use and the areas from which they could draw their supplies. In the context of the rapidly increasing demand for coal, further rationalisation of distribution has become necessary and the Fuel Efficiency Committee of the Coal Council after taking into account the requirements of the individual consumer has laid down in broad terms the grade and size of coal that may be supplied to different consumers. The development of outlying coalfields like Karanpura in Bihar and Korba, Chirimiri etc. in Madhya Pradesh and rationalisation of transport have reduced the pressure on Raniganj and Jharia coalfields and have thus contributed to conserve the better quality coal.

Following the recommendations of the Metallurgical Coal Conservation Committee the use of coking coal has been restricted to essential consumers only. As a further measure of conservation of coking coal, it has been decided that generally all coking coal should be washed and where feasible should be blended with semi-coking or non-coking coal. Before the commencement of the Second Plan a small beginning had been made in the establishment of washeries. Two of them have been set up, one at Kargali and the other at the Durgapur Steel Plant. Three more will be set up in the course of the next 2 or 3 years. The Third Plan programme for coal has made provision for a further increase in washing capacity. Washing enables the use of certain grades of coal, which may not otherwise be usable, in the manufacture of iron and steel. Besides washing, the life of the limited reserves of coking coal can be further extended by blending in a definite proportion of strongly coking coal with weakly coking or non-coking coal. This is being adopted in some measure now and will become more important in future. Apart from washing and blending which are designed to extend the life of the coking coal reserves, the possibility of using non-coking coal for the reduction of iron ore is also being investigated. A beginning has been made in this direction.

The deterioration in quality is not peculiar to India. The only solution to this will be the setting up of coal preparation plants. Large scale tests have to be conducted on the washability characteristics of non-coking coal from different coalfields and the economics of washing them have to be worked out. This is being done.

The output per man-shift in India has been very low and this is due largely to the methods adopted—mainly manual labour. Except for a few of the bigger companies there has not been any large scale mechanisation in the mining and haulage of coal. The new mines in the public sector envisage a high degree of mechanisation and with the establishment of indigenous facilities for the fabrication of mining machinery, the pace of mechanisation will increase and the output per man-shift will rise.

Unlike other countries where coal as a source of energy has had to face serious competition particularly from mineral oil, in India the coal industry has been comparatively free from this competition. Domestic production of mineral oil has been small, but with the establishment of new reserves in Assam and the prospects of additional reserves being established in Western India, mineral oil may be expected to come into the picture in a fairly big way. Power stations based on nuclear energy are another competitor just coming into the picture today. However, in a rapidly expanding economy as ours, increased production of mineral oil and atomic power stations may not be expected to cause serious inroads into the domain of coal, at any rate in the next few years. These sources may supplement rather than substitute coal as a source of energy and, coal may therefore be expected to continue to occupy an important position in the energy map of the country.

Education in Economic Plans

MRS. ALVA MYRDAL

THE sturdy structure of India's Third Five Year Plan is truly impressive. The very fact that targets can be raised so much higher and investments claim so much greater sums is a testimony to the success of the previous Plans. This is important to recall: "success" is never measured in a point-for-point correlation between execution and targets, and "targets" are meant to be nothing but intelligent guess-work in order to stretch ambitions towards the future. Still less can, of course, success be measured in the sums of money expended. Real success is to be measured in the solidity of the foundation laid for further achievements. So the very doubling of the size of the Plan—met as it is by practically nation-wide, and even international approval—is the most reliable sign that India has made substantial progress towards a self-generating economy.

Education is the chapter at which I always look with the acutest inquisitiveness. This not just on account of any personal preoccupation with education, but much more because, in my previous sphere of activity, *i.e.* social science, to which I sometimes revert when leisure permits, I have come to realise the primary importance of education for economic and social development. It is therefore particularly gratifying to learn of the advances now being made in regard to education in India. When the coverage of the age-groups 6—11 by primary education has risen from 43 per cent to 60 per cent from the beginning of the First to the end of the Second Five Year Plan, it constitutes exactly that safe foundation of achievement which makes the target of 80 per cent coverage for the Third Plan realistic.

Still, such a target is not to be reached without considerable effort and even sacrifice. The challenge is a particularly stiff one because the age-groups to be covered themselves grow in number. The population increase in India has to be dearly paid for. The same sums which are now to be allotted for primary education, Rs. 180 crore (as against Rs. 92 crore, or only half in the Second Plan) estimated to pay for some 50 million young pupils in 1965-66, would have sufficed for reaching a complete, hundred per cent schooling already in the first years of this Third Plan period, if the number of youngsters would only have remained the same as in 1950-51 (then the total number of children in the age-group was only 45 million against 63 million forecasted for 1965-66). The rather stupendous rate of population increase in India, re-estimated by the Planning Commission to be 2.14 per cent of the total population annually for the Third Plan period or an increase of close to 6-7 million babies now and 10-12 million annually at the end of the Plan period, thus forces the Indian economy to a very hard race just to keep up the educational

levels attained for the nation as a whole and puts it under a sewere handicap when trying to raise them.

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The importance of education for economic development can, however, hardly be overestimated. In the world at large there is rather a tendency in the opposite direction, namely for those thinking in financial terms to underestimate the strategic importance and the real profitability of education. A glance at the history of economic development would, however, convince anybody that countries which have purposely advanced their educational level, have also advanced economically, in industry and trade as well as in agriculture.

There exists in the world of today a practically perfect correlation between the education level and the economic level in the various countries. This is so even if the measurements are simplified and quantified: the correlation between *literacy* and *national income* is astonishingly firm. The verdict will be the same even though not the statics but the dynamics of a national situation are judged: rise of educational level and increase in the rate of economic growth proceed together.

While this correlation is denied by nobody—in a way it is just another expression of the fact that some countries are all-round "advanced"—many, not to say most, people draw from it a wrong or at least a very one-sided conclusion, namely, that the richer a country becomes the more will it spend on education. According to this view, education is primarily a line of consumption, although a particularly laudable one..

I would not deny this very obvious connection but I would venture to defend also a thesis in the opposite direction: that advance in education leads to economic growth. In other words: investment in education as investment in the human resources is a pre-requisite for economic growth.

This thesis is easily exemplified by a comparative analysis of economic and educational history—a border field of social science which is, alas, all too rarely cultivated. The Scandinavian countries, Germany, USA, and now the Soviet Union are telling examples of how a purposive drive and public enthusiasm for education has led to great strides of economic progress. To take just the case of my own country, Sweden; it can well be said that if there is any one secret behind our undeniable welfare growth, it is that we got universal literacy, with compulsory primary schooling, decades before we entered the phase of rapid industrial development. When in 1842 the law about compulsory schooling was promulgated, it was a victory for the foresight of the political leaders of a poor peasant society.

The case of Denmark might be even more telling, as that country has practically no resources endowed by a generous nature, except a fertile soil, but has understood how to build a very progressive economy on the one available resource: that of its human capital, made efficient through a very thoroughgoing and very early emphasis on education

(compulsory schooling from 1814 and universal literacy practically ever since). Also the great advance of USA in the last century and of USSR in this period bear eloquent testimony to the wisdom of this kind of generous investment in education.

The main prerequisite, when the educational structure is judged from the point of view of economic development, is that it should have a very firm and a broad base, *i.e.* as quickly as possible attain universal literacy, both by means of compulsory schooling and by adult literacy drives. Aside from all other values of such a broad-based structure—instead of a narrow pyramid—it is the only guarantee that every citizen in the country can be reached and communicated with, thus *that change can be spread* and felt by all, and thus progress assured.

India's Third Five Year Plan proceeds along this road. "At the base of this entire effort," says the Draft Plan (page 7), "are the various programmes for building up the country's human resources, specially education and health, and programmes for raising the levels of skills and technical and scientific knowledge and for scientific and technological research."

The difficulties are obvious. First of all the costs involved in this tremendous effort at schooling hundreds of millions of citizens. But there are also organisational and other bottlenecks, first and foremost the lack of qualified teachers. It is thus logical that the main emphasis in the programme for education will be on: (i) the provision of facilities for universal education for the age-group 6—11, (ii) improvement of science education at the secondary and university stages, (iii) training of teachers of all grades, and (iv) expansion of technical education. (In this catalogue there seems to be one cheap and efficient method missing, namely drives for adult literacy but they are evidently included in the "social education" which it is said will be referred to at greater length in the final report.)

While the outlay of Rs. 180 crore for primary education was already referred to, the amounts envisaged for the other forms of education (excluding social education) demand nearly as much or Rs. 165 crore. In the schemes presented, the great increase in technical education, including agriculture and veterinary, is particularly noteworthy, the total number of students envisaged at the end of the Third Plan period being multiplied nearly sixfold from the beginning of the First Plan. Still, the relative proportion between technical education and college education is in India as yet what social scientists would call unfavourable; in economically developed countries a much larger proportion of young people are preparing themselves directly for taking part in productive work and professional careers, while the numbers in arts and science and commerce colleges (and in the law faculties) tend to dwindle, comparatively speaking. But, of course, in a democracy such shifts cannot be forcibly instituted. That they are making headway in India is, however, clearly visible in the schemes now projected by the Planning Commission and underpinned by the valuable work of the University Grants Commission.

May it finally be allowed an observer who is a mere foreigner to express an admiration, bordering on envy, for the heroic task that the people of India are undertaking in building up their country. From poverty through progress to prosperity—that is the ardent determination of which there is so much evidence in this country, from its leaders to its masses. They will all have to contribute, not little but much. But they should also feel encouraged not only by the very satisfaction of this working together, but also by the knowledge that it can be done. It has been done before in other parts of the world. And I dare to express the confident hope that these other parts of the world will continue to follow these strivings in India with an attention that seeks its expression not only in words but in more active aid.

Engineering and Scientific Research

DR. A. N. KHOSLA

ADVANCED studies in engineering at the institutions of higher learning and engineering research made a token beginning during the closing years of the First Five Year Plan. Before Independence, post-graduate work and research in engineering were practically non-existent, mainly because development of industry and advanced designs and techniques in the country received little encouragement and these latter as also the results of research were mainly imported from abroad. Indian engineers were largely entrusted with maintenance and operational jobs, the highly specialised work of design and construction of major structures, machinery, electric installations, etc. being left to foreign engineers, manufacturers and firms of consultants. Therefore, there was little immediate need for providing training in advanced engineering.

Since Independence, with the advent of large-scale development in engineering and industry under the Five Year Plans, there has been a growing need for advanced studies in engineering, so that engineers could acquire much higher qualifications and thus be capable of creative thinking and productive enterprise. In course of time, these highly qualified engineers could assume responsibility for all major designs, fabrication and construction, and thereby save this country from undue dependence on foreign countries for know-how, equipment, machinery and personnel, particularly in vital fields. Post-graduate courses in various branches of engineering had, therefore, to be introduced and increasing emphasis laid on engineering and scientific research.

The pattern of the old curricula is also undergoing a change. Until, now, the emphasis has been largely on the practical side of technology, as the vast majority of engineers were and are needed to man the construction of various projects already undertaken and had therefore to be strong on the practical side. But in the projects of the future, the entire responsibility for planning, designs, manufacture, fabrication, installation and operation will progressively devolve on the Indian engineer, and he will have to be equipped to shoulder this responsibility. This will inevitably lead to a shift in the pattern of engineering education, so that an increasing number of engineers can be trained in advanced engineering and in the new research functions and activities that modern engineering encompasses. Recent world trends, for example, research-mindedness of industry, the highly technical nature of modern warfare, the progress in nuclear engineering and in space rocketry, have been the result of advanced engineering studies and sustained research in engineering and basic sciences in the more developed countries of the world. Since Independence, there has been in India an awareness of these world trends and a growing realisation that without such advanced training

and vigorous research in engineering and basic sciences, this country cannot catch up with, and keep abreast of the technologically more advanced nations of the world. It is this realisation that has underlined the importance and urgency of advanced training and research in engineering.

Post-graduate courses in several branches of engineering have been introduced during the Second Five Year Plan at a number of technical universities, higher institutes and colleges, such as the University of Roorkee, the University of Jadavpur, the Indian Institute of Technology, Kharagpur, the Indian Institute of Science, Bangalore, and the colleges at Sibpore, Guindy, Poona and other places. Over 500 engineers are today attending 25 different post-graduate courses at 21 institutions on which about one crore of rupees will be spent during the Second Five Year Plan. In a large country like India, this is an insignificant figure, but considering that post-graduate courses were started only five years ago, it may be regarded as a satisfactory beginning. A considerable number of research schemes have also been undertaken at these institutions under the auspices of the Council of Scientific and Industrial Research and the University Grants Commission. The Atomic Energy Commission is also encouraging research in nuclear sciences and engineering at selected universities and institutions of higher learning.

In view of the vital role of advanced engineering training in the economic development and security of the country, it has been decided to examine and appraise the working of the current post-graduate courses in respect of content, scope, short-term and long-term objective, essential equipment and personnel. The Government of India have accordingly appointed a Post-Graduate Committee under the chairmanship of Prof. M. S. Thacker, Secretary, Ministry of Scientific Research and Cultural Affairs, to make a thorough examination of the whole problem of advanced engineering training in the context of the successive five year plans and make suitable recommendations.

It is difficult to think of any aspect of modern life which does not bear the strong imprint of science and technology. There is increasing awareness of the role of science and engineering in national affairs and their increasing contribution to national security and welfare. In the modern nuclear and space age, technological advances are taking place at a fantastic rate. The demand, therefore, is for more knowledge, specially basic knowledge. The emphasis is shifting from the routine and practical to the advanced and specialised, involving creative thinking and research. The pace and pattern of advanced engineering education in the foreseeable future will be set by the programme of development of natural resources and industry and will essentially have to be based on a co-ordinated blend of engineering and basic sciences. The sharp distinction between science and engineering is fast disappearing and the basic problems and the basic techniques of pursuit are becoming common to more and more disciplines, whether they pertain to solid state research, to high frequency electrical phenomena, to aerodynamics, hydrodynamics or thermo-dynamics; to mechanical systems or nuclear systems. The most

dramatic example of this blending and extension of perspective has developed in connection with nuclear power.

There is close relationship between industrial development and creativity. India is on the threshold of a new industrial age. The development of creative talent among the student body should, therefore, be given the highest priority. While post-graduate or advanced work in engineering has made some headway in the institutions of higher learning, not much progress has so far been made in the field of engineering research, either basic or applied. But a beginning has been made and if the right policies are pursued in respect of scientific research at the engineering universities and higher institutes of technology, these institutions can be expected in course of time to make a contribution to India's development and world's knowledge, progressively approaching that being made by similar institutions in the more advanced countries.

The University of Roorkee (formerly Thomason College of Engineering) did pioneering work in hydraulic research during the nineties of the last century. This was revived during the Second Five Year Plan and additional research problems were taken up, in particular researches in earthquake engineering and structural dynamics. Its School of Research in Earthquake Engineering is the third of its kind in the world, the other two being at the California Institute of Technology, Pasadena (U.S.A.), and Japan. At the Indian Institute of Science, Bangalore, research work is being carried out in both the pure and the applied fields. These include power engineering, metallurgy, internal combustion engines, gas turbines and aeronautical engineering. A large supersonic wind-tunnel has been brought into operation. A fuel injection system for diesel engines has been evolved. At this Institute, research is broad-based as it covers science as well as engineering. The Indian Institute of Technology, Kharagpur, is carrying out researches in electron tube oscillators and amplifiers, transistors and microwaves, naval architecture including ship model tank experiments, development of boiler furnace utilising low grade solid fuels, high pressure gas reactions, etc. Researches in other institutions are still in the initial stages.

Most of the research in the engineering field is at present being carried out in the Central and State Departmental Laboratories and at the chain of National Laboratories. Irrigation and hydraulic research has been in progress since the thirties at the Poona Research Station, now the Central Water and Power Research Station, the Punjab Irrigation Research Institute (now located at Amritsar) and at the Institutes established later in Madras, Bengal, Uttar Pradesh, Andhra Pradesh (Hyderabad), Bihar and elsewhere. The National Laboratories dealing with engineering research are the Central Building Research Institute, Roorkee, Central Road Research Institute, Delhi, Central Glass and Ceramic Research Institute, Calcutta, National Metallurgical Laboratory, Jamshedpur, Central Fuel Research Institute, Jealgora, Mining Research Station, Dhanbad, Central Mechanical Engineering Research Institute, Durgapur, Central Public Health Engineering Research Institute, Nagpur, and Central Electronics Engineering Research Institute, Pilani. Among the achievements of these laboratories may be mentioned the develop-

ment of processes for the production of stainless steel without nickel, special alloys, battery grade manganese dioxide, iron and steel from low grade ores and non-metallurgical coke, optical glass, etc. More valuable work is also being done at the Tata Institute of Fundamental Research, Bombay. In addition, some very advanced and original work particularly in electronic instrumentation is being done at the Atomic Energy Establishment, Trombay. In addition, there are the research centres of the Ministry of Railways, Department of Civil Aviation, Ministry of Information and Broadcasting, the Indian Meteorological Departments and others. These latter deal with design of equipment, testing under working conditions and standardisation including design and development of instruments for measuring vertical and horizontal forces exerted by passing locomotives, standardisation of rolling stock, track, bridges and other structures, equipment such as signalling and inter-locking devices; construction of proto-type gliders with indigenous materials, fatigue life of aircraft components; design of tele-communications equipment for manufacturers; design and development of equipment for posts and telegraphs, which are at present being imported and design and production of instruments for meteorological observations so as to make the Department self-sufficient in this respect.

Rapid advance in national welfare will only be possible through the development of natural resources and industry. Such development will require in increasing measure a large reservoir of talent for high scientific thought. These can be developed only by slow and careful nurture. Universities and institutions of higher learning, in collaboration with Government and industry, can be the main agencies to undertake this vital task. The first essential will be to create an atmosphere in which fundamental research can flourish. Fundamental research is the fountainhead of science, pure and applied. Fundamental research does not in its nature demand large expenditure of money; but to translate scientific knowledge and principle into concrete systems does require an enormous amount of money. Fundamental research involving relatively small expenditure should mainly be the responsibility of the universities and other institutes of higher learning and applied research that of the national laboratories and the departmental, Central and State laboratories. But, as in America, universities should be encouraged to take up sponsored research on behalf of Government and industry as that will provide a much wider field of activity for the university and add to its resources in highly qualified technical personnel and specialised equipment and otherwise facilitate the prosecution of fundamental research. This will also ensure close collaboration betwen the universities, Government and industry and a proper appraisal of the requirements of Government and industry for purposes of evolving new curricula and giving direction to research.

For advanced work in engineering and research, the selection should be limited to the gifted and the first-rate and the emphasis should be towards developing their creative potential. The primary object of advanced technical education is to prepare the student to meet new situations with skill, resourcefulness and leadership and to instil in him the desire to continue to learn in a spirit of enquiry. Independent studies

and research experience will provide the necessary stimulus for the thought process required in creative and constructive professional work.

To place advanced engineering education and research on a firm footing, it will be necessary to give the technical teacher and the research worker opportunity, social status, prestige and remuneration equivalent to those available in alternative professional or administrative services. A recognition of this basic fact will provide the motivation and incentive for the gifted to devote their life to teaching and research. What the research worker needs and expects from Government, industry and public is patience, understanding, and honour given to his status.

According to an American authority, modern basic science and research in America came of age only in the 1930's. For more than a century till then, it derived its intellectual sustenance from Europe. During the last 30 years, America has made tremendous strides in scientific and technological research. The history of scientific and technological research in the U.S.S.R. is not very different. It came of age somewhat later, but in many fields, it already holds the first position. In this age of productive partnership with nations of the world under the auspices of the United Nations, India, with its enlightened policies, can look forward to its scientific and technological research attaining maturity and contributing to national welfare and world knowledge in the not distant future.

Education and the Third Plan

G. D. PARIKH

WHILE there is a relative decline in the total outlay on social services in the Third as against the Second Plan, the outlay on education indicates a relative increase. As against the provisions of Rs. 213 crore for "general" and Rs. 60 crore for technical education in the Second Plan, those in the Third are of Rs. 370 crore and Rs. 130 crore respectively. The expected distribution of the expenditure on general education is Rs. 180 crore for elementary education, Rs. 90 crore for secondary education and Rs. 75 crore for university education while a sum of Rs. 25 crore has been provided for social education. The figures are tentative and may be revised in the light of the programmes of the States intended to achieve the targets of the Plan.

The purpose of the present article is to examine broadly the nature of some of the proposals for development of education and their underlying approaches, policies and assumptions. The Plan as yet is mostly of the nature of a framework with the result that any detailed discussion is hardly possible. The discussion for the present will naturally have to be on the basis of the needs of a rapidly developing society, committed to the democratic way of life.

The role of education in a democracy is obviously much wider than what is generally attributed to formal education or social education programmes. Planning in a democratic society can operate neither through the carrot nor through the stick but has to rely on intelligent and discriminating co-operation and support of the people, which can hardly be secured merely through pep-talks and propaganda. Education is essential for the purpose and becomes the very foundation of the Plan, the success of which largely comes to depend on the reorientation of the outlook of the community. This basic consideration is valid even in respect of the targets and programmes of educational development understood in a narrower sense. We may create, for example, the requisite facilities for universal elementary education for children in the age-group, 6—11; and we may be quite anxious to reduce the sharp discrepancies in the number of school-going boys and girls, as the Plan contemplates. But these objectives can hardly be realised in a full measure in the absence of a basic change in the outlook of the people. Similarly, if the rapid expansion of technical education is not to result in reducing us to mere imitators, an outlook which encourages the initiation, promotion and assimilation of change and innovation must get widely diffused in the community. The inadequacy of a "programme of social education with special reference to adult literacy" becomes obvious in such a context. Social education cannot have a peripheral

position in democratic planning; it has to be, on the other hand, a permanent feature of all developmental efforts which have chosen the preservation and development of free life as their basic point of departure.

Viewed from another angle, the problem leads to a similar conclusion. Even if universal elementary education is actually realised, it could hardly be expected to furnish the average individual with the requisite equipment for intelligent decision-making in a rapidly growing society. True, universal education, in course of time, may be expected to extend up to the age of 14 as directed by the Constitution but that will still not mean any significant improvement in the aforesaid position. A growing number of children will, of course, proceed further to the secondary stage. But the increasing splintering of the secondary curriculum under the impact of the requirements of technical and vocational courses will still mean the disappearance of a common core of basic general education for all. The perspective thus opened up can hardly be conducive to the growth of free life and institutions and the need for effective social education programmes will remain as imperative as ever.

The problem, in fact, may not lend itself to solution through properly planned social education programmes alone; it will demand a delicate and imaginative handling of the situation within the framework of formal education itself. The objectives of education in a society like ours necessarily become complex. We cannot afford to think in terms of merely an adequate supply of technically trained personnel at all levels for the purposes of development. We have also to have a widely diffused basis of education in science so that creative efforts in the field of technological development may be possible in times to come. The creation of such a basis must involve the promotion of a critical and discriminating outlook over the whole range of social existence and activities without impairing in any manner the spirit of confidence and co-operation in the growing generations. And all this has again to be on the basis of an awareness of the basic commitment to, and an activisation of, the urge to experience human values so fundamental to an educational or a democratic experiment.

The strategy of educational development is the strategy of blending together these objectives smoothly and harmoniously so as to ensure that their pursuit will not result in any serious social divisions or stratifications. In the absence of such blending, the very differentiation of educational activities might sow the seeds of future tensions and conflicts, thus putting grave pressures on the working of democratic institutions. This indeed is an extremely difficult and delicate task. But who ever has claimed that blazing a new trial, as our planning proposes to do, is a simple affair? A challenge to intelligence and ingenuity is implicit in it and any easy relapse into imitation of others can only amount to an evasion of the challenge.

The proposals for development of education embodied in the Plan are in a sense an extension of earlier efforts, and reflect our needs as a nascent

democracy, based on widest possible franchise, bending all its energies on an expeditious achievement of living standards conducive to political stability and cultural development. The extension of elementary education so as to cover all the children in the age-group, 6—11, becomes meaningful in that context. The rationale of the Directive Principle in the Constitution can be easily appreciated in this respect. While education at higher levels is bound to remain selective, no matter how much we encourage its expansion, universal elementary education must be viewed as an objective of speedy attainment. The approach of the Plan in this respect has, therefore, to be regarded as legitimate and fully justified. But the same cannot be said of its insistence on moulding the entire elementary education on the "basic" pattern. Even a cursory glance at the Report of the Assessment Committee on Basic Education (Ministry of Education, Government of India, 1956) will reveal the difficulties in any attempt to achieve such an object. And let it be added that the Committee hardly viewed the basic pattern in an experimental spirit; their approach, on the other hand, was of finding out how far an allotted task was carried out by the different States, an approach somewhat bureaucratic rather than educational. Even then, the Committee had to acknowledge *inter alia* that the compact area method had failed; that even in States in which reasonably successful experiments were carried out in certain areas, the pattern did not spread elsewhere; that different States had put different meanings into the concept of basic education and that there was widespread scepticism about such education becoming productive. The report thus obviously indicates to anyone, excepting perhaps the faithful, the need for a tentative and experimental attitude towards the pattern; and this is further underlined by the peculiar difficulties encountered in the urban areas. With economic development, the process of urbanisation is bound to grow. The Plan does provide evidence of an awareness of these difficulties, but instead of drawing the obvious operational conclusion, it still speaks in terms of universalising the pattern.

It is again hardly possible to compartmentalise elementary education from the secondary and the higher levels. While the Committee pleaded for extension of the pattern beyond the elementary stage, the planners have continued to view the secondary level as essentially a preparation for either higher education or for one or the other of the productive functions in society. Perhaps the enthusiasts of basic education themselves may appreciate that any extension of it beyond the elementary stage will clearly reveal the impoverishment of intellectual content to which it leads as also the untenable nature of its productive character. Perhaps it is possible to maintain that the assumptions underlying the basic pattern are assumptions of a social life and organisation entirely different from what is being built around us. But if that be so, why ignore it? It is high time that some re-thinking is done on this whole question. Formal conformity to the basic pattern coupled with a variety of interpretations in the course of its implementation or the imposition of a uniform pattern everywhere is fraught with danger.

This does not amount to ruling out the basic pattern in any sense.

In fact, in a free society, fullest scope must be available to educational experiments of all kinds; and equally free must be the process of their critical and relative assessment so that possibilities of improvement may never be ruled out. Insistence on a particular pattern, in a context not very encouraging or complimentary, can only indicate a doctrinaire, if not dogmatic, attitude, so killing for the very essence of education itself.

It may be useful to turn at this stage to the other major priority in the Plan *viz* expansion of the facilities for technical education. An encouraging feature of the plan is the somewhat definite shape our thinking of manpower resources has assumed in it. The progress made by the manpower studies initiated earlier has enabled us to think in advance of programmes for the training of personnel in Engineering, Science, Agriculture and Community Development, Education and Social Welfare, and Administration and Statistics. It is needless to go into the details of the various proposals. Comment for the present may be limited to the more general features of these proposals and their implications. In doing so, however, it may be useful to emphasise one or two simple considerations. The field of technical education is obviously a vast and growing field; and increasing provision will naturally have to be made for such training and education at all levels. The general questions that have to be raised in respect of the training pertain, in the first instance, to its adequacy not only from the point of view of the immediate personnel requirements but also that of laying the necessary foundations for a rapidly advancing technology, and secondly, to the overall impact of such training and education on the wider educational activities of the community. It is these two types of questions that may be fruitfully examined here, although, of course, they cannot be viewed as two entirely independent sets of questions.

Assuming the estimates of personnel requirements in the Plan to be sound and leaving out of consideration for the time being the various training programmes of different ministries and State Governments, the additional intake visualised for the degree and diploma courses in Engineering and Technology seems to raise certain difficulties. It is hoped that the working papers on which these expectations are founded will soon be made available; for no informed discussion is possible in the absence of such basic data and other materials. Suffice it to point out that the expectation of increasing the intake by over 35 per cent in the existing institutions raises certain difficulties. The Five Year Integrated Course which institutions working at the degree level have adopted or have been asked to adopt will necessitate provision for the teaching of the basic sciences in them. Whether such provision can at all be made on sound lines is a different question. What is important for the present context is the possibility of expansion consistently with the change thus proposed. Again, the working time of these institutions cannot possibly be increased in view of the additional intake for part-time, sandwich or correspondence courses envisaged in the Plan. The latter again raises a number of questions. It is obvious, for example, that in shifting a diploma seat from a degree college to a polytechnic, there is no net

expansion in training facilities; or when a diploma-holder or a man employed on a technical job, goes through further training and qualifies for a degree, there is no net addition to the number of trained personnel. Correspondence courses again can be handled not by any set of qualified teachers but only by those who have the special aptitude to do so; and the wastage in all these courses is fairly large with the result that the intake figures cannot be taken as a dependable index to the output in any particular proportion, in the absence of actual experience. These and similar other problems must have been examined at an expert level; but it is difficult to comment on such examination so long as the basic data are not available.

A basic issue arising in respect of all this development pertains to the place of the universities in promoting it. It may not be without significance that in the entire chapter on "Technical Manpower and Scientific Research", there should be no reference to the universities at all excepting in respect of raising the number of science students from 30 to 40 per cent of the total number of students. It can, of course, be argued that the degree colleges are mostly a part of the university set-up and that the latter will, therefore, have to be concerned with technical education at a higher level, training at the lower level being no part of their appropriate function. But if that be so, was it in no way necessary to consult the University Grants Commission and the individual universities about the academic feasibility and desirability of imparting education through methods other than the enrollment for full-time courses? There is nothing to show that such consultation was actually there. Nor, again, is there any justification for the trend to take away post-graduate training and research from the universities to institutions specially set up for the purpose. Will not such arbitrary separation between instruction and research result in a deterioration of the standards of instruction? Will it also not result in a separation of education in science and that in technology, with consequences harmful to both? Does it not amount to depriving the universities of their rightful function of training the leadership of the community? It is time that we examine the possible consequences of the growing trend in the direction of keeping higher technological education out of the universities. It only robs them of a valuable cementing force between the Humanities and the Sciences, as Sir Eric Ashby has urged in another context. The humanist outlook and values, inherent in a democratic order, can hardly be transmitted fully and properly nor can the scientist be made sufficiently conscious of the social consequences of his activities by keeping technology out of the universities. The latter must be fully encouraged and supported in playing their rightful part in this field. It will not be possible to sustain without them a steady improvement in technology or to stimulate a creative interest in it.

What seems to dominate the entire thinking in the plan is a technical view of personnel needs and their fulfilment through training. While this is no doubt useful, it has its obvious limitations. What stimulates technological development is a wide diffusion of an attitude to innovation

throughout the community which steadily sustains all efforts at improvement. And the age in which we live today demands that such an attitude will further be reinforced and improved by a proper understanding and appreciation of science.. The more routine elements in technology are rapidly being taken over by mechanical devices of various kinds and empirical practice is steadily and increasingly yielding place to intellectual content. True, the problems, of a community emerging from an inertia of ages are more complex, in so far as it necessarily seeks to compress what was achieved in centuries elsewhere into a short span of a few decades. It is, therefore, simultaneously concerned with promoting improvements in routine practice and laying a sound foundation for scientific advance. In fact, in an age of what Sir C. P. Snow has aptly termed as Scientific Revolution, the requirements of scientific advance can no longer be confined to the training of scientific personnel. The scientific attitude and a seminal understanding of the nature and achievements of the scientific enterprise must permeate throughout the community if the citizens are to have a capacity for intelligent and discriminating decision-making.

Science thus has to play a dual role in our universities. It can furnish, on the one side, the necessary intellectual foundation for a rapidly advancing technology, and on the other, enormously influence if not entirely reorientate, the whole realm of thinking of social problems, thus redeeming the latter from revivalist urges or commitments to new dogmas. The dangers to democracy from both these ends are too obvious to be enumerated here ; suffice it to point out that our ability to ensure that the deliberately accelerated pace of industrial development remains within the democratic framework, will depend entirely on the achievement of this educational objective. The functional role of science and its broad cultural impact must both be properly integrated in the universities which as a consequence will necessarily have to function in an atmosphere of freedom. Its assimilation in the universities can hardly be achieved in the context of an authoritarian system of values or faith in teachers or particular books as the custodians or repositories of final truth.

It may be argued that the planners could not be expected to think in terms of the content of education, that their preoccupation has naturally to be with the means, the resources and the facilities. But the question still remains : Is the overall strategy adopted by them conducive to the achievements of objectives basically sound and acceptable? And it is precisely in this respect that a major doubt arises. The question goes much beyond the mere role of universities in the field of technical education. The present trend in the direction of putting technical education outside the sphere of universities will involve a further possible risk of the functional role of science being considerably emphasised in the universities. The facilities for scientific education may be expanded and the objective of the Plan to raise the proportion of students taking science courses to 40 per cent of the total student-body may be achieved ; but those who come to the study of science in the universities will primarily tend to look upon it as a preparation for some form of training or the other to be received outside and therein lies the danger of

lowering of standards in scientific education itself. The problem, on the other hand, cannot be solved by merely putting technical education inside the universities, at any rate, so far as its higher levels are concerned. The universities may be too willing to accept this role in view of the fact that necessary resources would be very readily forthcoming in this particular field. But that by itself cannot mean assimilation of technology by the university. If the broad authoritarian trend in the field of humanities or revivalist or dogmatic thinking in social sciences continues to persist, science and technology may come in only as uneasy partners somehow to be tolerated in the higher educational enterprise. This will not help us however in orientating education for the purpose of building up a strong democratic order. All that may be maintained is that technology in the universities can create the essential pre-condition for a solution of the problem. It is, therefore, worth considering as to whether the present somewhat sharply defined distinctions between technical and general education leading to their requirements being looked after by two independent central organisations is desirable. It may perhaps be a far more sound strategy to have a single authority like the University Grants Commission to look after both, and to promote the development of universities in the country along lines as will increasingly enable them to assimilate fully and integrate properly the fields of Humanities, Science and Technology. Appropriate institutional and operational modifications resulting from the situation may be far more helpful in achieving our educational objectives than a mere continuation or strengthening of the *status quo*.

It is natural for a community, which has started educating all its members, to think in terms of education which will enable them to perform some useful function to maintain themselves. But this cannot and ought not to lead to a neglect of their functions as citizens already allotted to them in a democratic polity. What is valuable is a blending of the technical or technological education and education for democracy. Just as the average educated person must be able to do something well, he must also be able to think well, and critically too. The temper of the Plan however indicates that the latter object may be neglected in the interests of the former. The account of technical education might encourage an approach which seeks to emphasise "community–centred" education; and it is not at all difficult to imagine the possibility of such an approach being reconciled with the 'functional' view of the child implicit in basic education. But a reconciliation of this kind would be wholly inadequate, if not positively dangerous, for the future of our democracy. Here therefore is a problem for our educational planners. It is high time that some basic thinking takes place about the soundness of our overall educational approach from the point of view of the requirements of not merely a developing society but also those of a society committed to the democratic way of life.

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