FOURTH FIVE YEAR PLAN 1969-74

SUMMARY

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I. INTRODUCTION

Planning in India was adopted nineteen years ago to organise the efficient exploitation of the resources of the country, increase production and step up the tempo of economic activity in general and industrial development in particular to the maximum possible extent. The basic goal is a rapid increase in the standard of living of the people, through measures which also promote equality and social justice. Emphasis is placed on the common man, the weaker sections and the less privileged. It is laid down that planning should result in greater equality in income and wealth, that there should be progressive reduction of concentration of incomes, wealth and economic power and that benefits of development should accrue more and more to the relatively less privileged classess of society. In particular, the economic and educational interests of the Scheduled Castes and the Scheduled Tribes have to be promoted with special care.

Rapid economic development which is oriented towards establishing social justice must involve refashioning of socio-economic institutions. It means that major economic decisions and policies regarding socio-economic relationships, will be informed with social purpose, that there will be a devolution of functions and scope for experimentation. Democratic values are given effect to by encouraging the growth of a feeling of participation on the part of the small man, the promotion of enterprise among the disadvantaged classes and the creation of a sense of involvement in the transformation of society among all sections of the community.

The First Three Plans

When the First Five Year Plan (1951-56) was formulated, our economy was in a bad shape and it was in urgent need of rehabilitation. The First Plan, therefore, aimed primarily at rehabilitating the economy and building up institutions which were necessary for developing the economy in the desired direction.

The Second Five Year Plan (1956-61) sought to carry this process further. It aimed at accelerating the rate of growth and initiating a strategy to bring about the necessary structural changes in the economy. While agriculture continued to get high priority, there was due emphasis on industrialisation. A "socialist pattern of society" was explicitly accepted as the goal of the country's programme for social and economic development.

The Third Five Year Plan (1961–66) raised the sights and set the achievement of a "good life" for every citizen as the ultimate goal of socialist society. It defined the immediate task as laying down the foundation of a self-reliant economic growth. The Third Plan was conceived as "first stage of a decade or more of intensive development leading to a self-reliant and self-generating economy".

Achievements and Obstacles

The First Plan achieved considerable success. The performance during the Second Plan was also satisfactory. The Third Plan period, however, turned out to be far from normal in several respects. The economy of the country was affected considerably by the conflict with China in 1962 and with Pakistan in 1965. The two severe and widespread droughts in 1965-66 and 1966-67 added to the problems faced by the economy. A brief review of the economic and social situation since the beginning of the Third Plan follows.

During the Third Plan national income at 1960-61 prices rose by 20 per cent in the first four years and registered a decline of 5.6 per cent in the last year. Per capita income in 1965-66 (last year of the Third Plan) was about the same as it was in 1960-61.

The 2.5 per cent rate of growth of population almost completely neutralised the meagre growth rate of national income. In 1966-67, due to a severe drought, there was only a nominal increase of 0.9 per cent in national income. However, in 1967-68, a record harvest and a significant increase in agricultural output, raised national income by 9 per cent. The national income in 1968-69 has been estimated at 1.8 per cent higher than in the previous year.

Fluctuations in the aggregate income thus were a reflection of the erratic behaviour of agriculture. The performance of agriculture during the first three years of the Third Plan was not satisfactory. In 1964-65, which was a year of favourable weather conditions, a record harvest was raised. Agricultural production fell sharply in the subsequent two years due to widespread drought. In 1967-68, however, a sharp recovery took place as a combined result of new varieties of seeds, higher price incentives, increased use of fertilisers, pesticides and water and, not the least, favourable weather conditions. On account of a less satisfactory season, the production in 1968-69 was marginally lower than in the previous year. The production of foodgrains in 1969-70, estimated at 100 million tonnes, is higher than the 1968-69 production by about 6 million tonnes.

The slow rate of growth in agricultural production also led to an alarming increase of imports of foodgrains and other agricultural commodities. During the Third Plan the country imported 25 million tonnes of foodgrains, 3.9 million bales of cotton and 1.5 million bales of jute. During the subsequent three years, the imports continued to be heavy. Despite increased imports of foodgrains, per capita availability was lower than the 1961 level, except in 1965, and there was severe pressure on prices.

The growth rate of production of organised industry over the Third Plan period was 8.2 per cent compared to the target of 11 per cent. The slowing down of the public investment programme led to a further reduction in subsequent years. The index of industrial production (base 1960—100) increased by only 0.2 per cent in 1966-67 and the growth was very little (0.5 per cent) in 1967-68. The sharp deceleration in the growth of industrial production was accompanied by an increase in unutilised capacity in a number of industries. Many factors contributed to the fall in production : decline in purchasing power because of the setback on the agricultural front; stagnation in investment; shortage of foreign exchange due to high imports of foodgrains and raw materials and for completion of a number of projects started earlier. The stagnation was not general. It was most pronounced in certain capital goods industries. In some important industries such as fertilisers, petroleum products, non-ferrous metals, electrical machinery and pumps, a satisfactory rate of growth continued. As a result of several measures taken by Government—such as import liberalisation following devaluation, decontrol of certain commodities like steel, coal, paper, fertilisers and commercial vehicles, delicensing of a number of industries, some increase in the public sector's demand for domestic manufactures and a rise in the exports of engineering goods, an all-round industrial recovery began in January 1968. It resulted in an increase of 6.2 per cent in industrial production in 1968-69.

Up to 1962-63 the rise in the wholesale prices was mild. In subsequent years the rise was sharper and prices became relatively stable only during 1968-69. The consumer price index (1949-100) advanced from 124 in 1960-61 to 169 in 1965-66, 191 in 1966-67 and 213 in 1967-68. The grant of increased dearness allowance to Government employees and industrial workers following the rise in prices pushed up non-Plan expenditure which adversely affected Government's capacity to step up investments. Again due to the higher price level the cost of production in the economy increased and reduced the profitability of enterprises.

On the balance of payments side, strains had begun to develop at the very beginning of the Third Plan. Rising food and other imports and insufficient increase in exports worsened the situation. To mobilise domestic resources a bold effort at raising taxes was made during some years of the Third Plan and in particular in 1963-64. The larger commitments of non-Plan expenditure especially increase in defence expenditure and the rising costs of investment, could not, however, be fully met by domestic resource mobilisation. Dependence on foreign aid and also larger deficit financing was on the increase. There was also frequent recourse to borrowing from the International Monetary Fund. The temporary suspension of foreign aid in 1965 and the need to import large quantities of food that year put further pressure on the already strained foreign exchange position The rupee was devalued in June 1966. This did not immediately improve the balance of payments. There was some improvement in 1967-68 which has since continued.

There were other difficulties as well. Despite larger outlays, actual developments fell short of targets. In several key sectors, delays in construction, escalation of costs and the failure to utilise capacity fully have added to the difficulties. Even after allowing for initial difficulties, in the public sector, the concern for speed, economy and efficiency has not been as pervasive as it ought to be. The public sector has the responsibility to set better standards of performance and it has yet to fulfil its role of generating adequate surpluses for investment.

Long Term Favourable Features

A number of circumstances have changed the agricultural situation during recent years. Successful research has resulted in the establishment of high-yielding varieties of cereal seeds. A new awareness of the importance of irrigation has resulted in intensive use of subsoil water in many areas. Farmers in many parts of the country have readily accepted new practices and inputs and there has been an increase in demand and use of chemical fertilisers, insecticides and other inputs. There is greater possibility of an upward surge in agricultural production.

In industry there has been a continuous increase and diversification of production capacity. Increases in capacity have been most notable in production of steel and aluminium, machine tools, industrial machinery, power generators, electrical and transport equipment, fertilisers, drugs and pharmaceuticals, petroleum products, cement, minerals and a variety of consumer goods. All this has contributed to the strengthening of the industrial structure and a valuable potential for sustained industrial progress in the future has been created.

Recent rise in prices and costs and the prevailing stagnation induced considerable cost consciousness in industry. The existence of unutilised capacity and poor domestic demand has made the industry seek export outlets for their goods. The recent increase in "non-traditional" exports indicates that with continued awareness of cost and given some incentives, our industrialists can compete in the international market. If internal prices are stabilised and there is no further increase in dearness allowance, it should be possible to reach, during the Plan period, a balance in relative internal and external costs and prices.

Social Justice and Equality

Reduction of concentration and a wider diffusion of wealth, income and economic power, and improvement in the condition of the common man and the weaker sections, especially through provision of employment and education are the two main aspects of social justice and equality. As regards the former, the land reforms legislation, including the ceiling on land holdings, in the rural sector and the expansion of the public sector, industrial licensing and taxation measures in the urban industrial sector have been the important achievements.

There has been marked progress in the extension of health and educational facilities which is reflected in the striking increase in the expectation of life at birth from 35 years in 1950–51 to 52 years in 1967–68, and the impressive increase in school enrolment from 23.5 million in 1950–51 to 74.3 million in 1968–69. But the Constitutional directive regarding free and compulsory education up to the age of 14 has yet to be fulfilled and facilities like those of primary health centres have yet to cover the whole country adequately.

In the refashioning of institutions for establishing socio-economic democracy, the most notable achievements have been the abolition of intermediaries in areas where landlords predominated, the "land to the tiller" legislation in some ryotwari regions, legislation to afford security to tenants and the imposition of ceiling on landholding in most States, community development programmes and the creation of panchayati raj institutions, and programme of rural cooperativisation.

There has been a natural tendency for new enterprises and investments to gravitate towards the already overcrowded metropolitan areas because they are better endowed with economic and social infrastructure. While a certain measure of dispersal has been achieved, a much larger effort is necessary to bring about greater dispersal of industrial activity.

For Government to play a more dynamic role in accelerating the pace of development, spreading its benefits widely, seeking to mitigate inequalities or to correct regional imbalances, it must have greater command over the economic resources of the country. While there has been progress in this direction, much remains to be done and there is a need for suitable long term policies.

In conclusion, the record of past years shows that the basic strategy of Indian planning as defined at the beginning of the Second Plan is not at fault. The need is to adopt measures to maintain relatively stable conditions while development proceeds. The supplies and prices of agricultural commodities, particularly of food, play a crucial role in attaining stability. Therefore, continued increase in agricultural production and food supplies and careful management of available supplies has a pivotal position in Indian plans. The method of financing the Plans is also an important relevant factor. It is time too to think of progressive reduction of net foreign aid and take quick strides towards self-reliance.

II. APPROACH TO FOURTH PLAN

The Fourth Plan has to provide the next step forward in attaining accepted aims and objectives of Indian planning. It aims at acceleration of the tempo of development in conditions of stability and reduced uncertainties. It proposes to introduce safeguards against the fluctuations of agricultural production as well as the uncertainties of foreign aid. Together with programmes to increase agricultural production the Plan provides for the building of sizeable buffer stocks to even out the supplies of foodgrains and other measures to stabilise foodgrains prices and the price level in general. In regard to the financing of the Plan emphasis is being placed on additional mobilisation of internal resources in a manner which will not give rise to inflationary pressures.

It is planned to do away with concessional imports of foodgrains under PL 480 by 1971. Foreign aid net of debt charges and interest payments will be reduced to about half the current level by the end of the Fourth Plan. Other imports will be reduced to manageable proportions. A sustained increase of exports by about 7 per cent a year will be aimed at.

The process of development might lead, in the absence of purposive intervention by the State, to greater concentration of wealth and income, overgrowth of metropolitan centres and uneven regional development, technological unemployment and rural underemployment. The plan proposes a number of measures to counter these trends

Social Justice and Equality

Action under the Monopolies Act, judicious use of the powers of licensing and allocation, and purposeful policies of public financial institutions and the nationalised banks are expected to play a significant role in bringing about reduction of concentration of economic power.

To some extent disparities in income can be reduced by subjecting incomes at top levels to higher taxes. But in a poor country like India reduction in income disparities can be brought about more advantageously through certain positive measures. These measures include : a more rapid growth of the economy, greater diffusion of enterprise and of the ownership of the means of production, increasing productivity of the weaker units and widening opportunities of productive work and employment to the common man, particularly of the less privileged sections of society.

Such diffusion and growth of activity and employment involve detailed, specific, as also local planning and implementation. To make changes in planning procedures for this purpose, some studies have been initiated and some specific provisions made in the Central sector. In agriculture, schemes for area development planning and for helping small farm economy have been included in the Central sector. Special attention is proposed to be given to the development of rural industries in the local area plans. The main work has to be done in the States. In some States experimentation in district or regional planning is already under way.

Problems of Weaker Sections

Area and activity development planning will by itself not suffice to meet the needs of the less privileged or the weaker sections, or of those who have an inadequate productive base. These classes form a large variety of categories whose problems and requirements are widely different. In the case of each of these, the handicaps which prevent them from taking advantage of existing general programmes will have to be studied and specific remedial measure adopted.

The objective of the programme for all producer classes will be to make them in the first instance viable and next to start them on the path of development.

The problem of scheduled tribes living in compact areas is essentially that of economic development of those areas and of integrating thier economy with that of the rest of the country. Development plans must be formulated to suit the specific potentialities and levels of development of separate regions or areas. With the scheduled castes the problem is rather of social integration within the rural community in which they live. In both cases, the special programmes are designed to operate as specific additional programmes.

Programmes for the very large class of landless labour having no productive base aim at turning some of them into producers as through animal husbandry enterprise or by distribution of land, and at providing larger employment opportunities.

Correction of Regional Imbalances

Differences in development between one state and another arise out of variations in activity in the three sectors—cooperative, private and public. Development of cooperative sector will depend on the efforts of Government and the people of each State towards building up cooperative organisations. No specific new programmes or policies of the Central Government could help materially in this regard. Private sector activity depends on the extent of entrepreneurship available within the State and the resources commanded by it and on the infrastructure and other developments within the State. Attracting entrepreneurs from outside the State is also dependent mainly on the services and facilities available within the State. To a limited extent this can be stimulated by special concessions. Public sector outlays are provided for programmes of building up the infrastructure or of conservation and development of natural resources and for direct entry of the State in industrial or other productive activity. The first could promote development of activity in all sectors, and the second may partly make up for lack of development in the cooperative and private sectors. Both depend on the extent of financial resources of the State and their proper utilisation by Government.

The directions in which the Centre can help to promote balanced regional development are : (1) allocation of Central assistance; (2) location of Central projects; and (3) adjustments in procedures and policies of national financial and other institutions. The new formula for the allocation of Central assistance to the States takes into consideration the backwardness of States for such allocation and sets apart 10 per cent for States with per capita income less than the national average, 10 per cent for continuing major irrigation and power schemes, and 10 per cent for special problems of States. Policy of locating large Central projects in backward States and areas, wherever such deliberate placement is possible, is already accepted. Recent decisions on policies and procedures of financial and other institutions will help in inducing additional public and private sector investment in the backward areas.

Balanced regional development and dispersal of economic activity are closely interrelated. Growth and diversification of economic activity in an under-developed area is dependent on adequate infrastructure facilities and conservation and development of natural resources. Apart from these, measures included in the Plan to promote dispersal of economic activity are : schemes for dry areas, animal husbandry programmes to broaden and strengthen the economic base of small farmers and other rural producers, measures to so direct industrial development as to meet local demand through local processing and to use locally available material, and rural electrification programme which will facilitate diffusion of industrial activity.

Social Services

In education attempt will be made to provide at the first stage free and compulsory education up to the age of 11 and to the extent the resources of the State permit to cover the age group 11-14. Emphasis is being laid on vocationalisation of education at the secondary stage and on the provision of part-time and correspondence courses. In health, the plan is to cover all the rural area blocks with an integrated form of medical services having the primary health centre at its base and to strengthen them to the maximum possible extent. It is also proposed to take vigorous steps to control and eradicate major communicable diseases. The outlay on family planning has been substantially increased. The programme of nutrition of growing children is being extended and integrated.

Employment and National Minimum

The effects of the Plan proposals in improving the employment situation may be expected to be significant. In the rural areas, this will be brought about through the various programmes to increase agricultural production and specially due to labour intensive schemes such as minor irrigation, soil conservation, ayacut and special area development and private house building. In determining the volume of urban employment recent experience indicates that employment in the manufacturing industry plays a crucial role. The growth of employment depends to a considerable extent on public sector investments in industry and minerals, in transport and communications and in power. Plan investments and the expected increase in national income should lead to activisation of the economy. As a consequence of the increased tempo of agricultural and industrial activity, larger employment is expected in the tertiary sector, particularly in road transport.

It is necessary to aim not only at an increase in total income and employment but also at an appropriate distribution of such increase to attain the goal of a national minimum. Calculations indicate that with the expected growth in national income during the next two plans, a reasonable level of average per capita income may be attained at the end of 10 years. However, the consumption standards of the poor would still remain unduly low and the possibility of progress in the desired direction during the Fourth Plan depends on the success of a number of programmes proposed in the Plan.

Panchayati Raj and Planning

The Panchayati Raj institutions are agencies of Government and administration at the local level. It is expected that the planning apparatus at the State and the district level will be strengthened. This can most appropriately be done at the district level through Panchayati Raj organisations. Such a development should lead to formulation of plans closely related to the preference of the people and to the physical conditions of the area, and better coordinated and synchronised implementation. Also, with more active popular participation resource raising for local plans should prove easier and a proper appreciation of national objectives and policies can be induced among local communities.

Cooperatives

Growth and strengthening of cooperatives has been consistently pursued in successive Plans and encouraging results have been obtained in many States. Though their benefits have not yet reached the small man in a large measure, the cooperatives have been successful in many regions in freeing the middle peasant from the money-lender trader system and making him development-oriented. Cooperative banking and credit already play a significant role in the rural economy of a number of States; cooperative processing has contributed substantially to the growth of agro-industry in some States and the cooperative marketing structure has proved an important agency in implementing Government's food policy in recent years.

It is important to bring about growth of cooperatives in all parts of the country and to ensure the coordinated operation of various types of cooperative organisations. Cooperative organisations should embrace all activities from production, through credit, sale, supply, processing and storage to consumer stores, and act as an integrated system to fully discharge their social and economic responsibilities. The Plan includes a variety of proposals such as strengthening and proper supervision of primaries, assistance to processing activity where it is economic, and linking of the credit, marketing and consumer systems. It lays emphasis on better management and provision of management training, and on encouraging the autonomous functioning of State and national federations.

With the utmost effort cooperatives may only partially meet the requirements in many areas and alternative institutional arrangements with the help of the public sector or, where appropriate, the private sector have to be devised.

It is important to ensure that cooperatives fully recognise that their operations are expected to be informed with a social purpose. The first requirement in this respect is that they should function as democratic organisations and secondly they should specially attend to the needs of the weaker members. A lot more needs to be done in respect of the latter requirement in particular. The federal units of the system should supply correctives where necessary, failing which it may be necessary for the Government to intervene.

Nationalisation of banks

The nationalisation of 14 major commercial banks is expected to help progress in the direction of socio-economic democracy by ensuring adequate credit for various types of small producers and other business units on reasonable terms. This will require not so much the diversion of large resources as the creation of appropriate institutions, spreading them through all areas and evolving suitable procedures.

Regulation of the Economic System

For the effective implementation of national policies it is necessary that all strategic economic decisions are made by agencies informed with social purpose. The decisions relate to production, credit, trade and storage. The nationalisation of banks should lead to major credit decisions being informed with social purpose.

The Plan makes substantial provision for increasing storage capacity in the hands of public agencies. In trade the main sensitive areas are those of allocation of scarce imported commodities, wholesale trade in agricultural commodities, especially foodgrains, and trade in essential goods of mass consumption. It is proposed to establish substantial control of public agencies over these sensitive areas during the Plan period. Import and distribution of the more important imported commodities will be entrusted to concerned public agencies. The Food Corporation of India will play an important role in managing the buffer stock of foodgrains, procurement operations and inter-State movements of foodgrains. The fair price shops system will continue and cooperatives will take a larger share in distribution of not only foodgrains but also other essential commodities.

Agricultural production will be guided through extension, assistance and price stabilisation measures and not through control over crop patterns. Programmes for village and small scale industries will be for giving protection and assistance and promoting better organisation.

Modern large scale industry is subject to some specific controls of price, allocation of scarce raw materials and finance, general capital issue and licensing. In some measure these arose out of an earlier situation of scarcities. The foodgrains position has improved and plant, machinery and other equipment to establish new industries are available within the country to a greater extent now. In view of this, as also of the fact that the legislation on monopolies and restrictive trade practices and regulation of credit through the nationalised banks will curb tendencies to corner essential supplies, that production in the basic and strategic sectors will be fully planned and that trading in sensitive areas will be in the hands of public agencies, a relaxation of the existing controls is considered desirable and is, therefore, proposed.

The main objectives of this revision are :

(1) To encourage fully responsible decision making on the part of entrepreneurs. It becomes necessary as the fixation of targets, licensing and some price and allocation controls seem to have affected the care with which entrepreneurs should weigh the long-term prospects of their investment decisions.

(2) To introduce an element of competitiveness in the economy which would keep up cost consciousness.

Though a relaxation of controls is proposed it is imperative to prevent location of industries in metropolitan and large city centres. Two courses that are open are :

(I) giving assistance and incentives for dispersal of industry; and

(II) imposing disincentives in metropolitan areas and taking steps for their decongestion.

Public Sector Operation

Though investments in the public sector have been large and their composition varied, the different units within the sector do not act sufficiently in concert. To remove this defect, the Plan suggests creation of an appropriate machinery for effective coordination. It is proposed to effectively decentralise detailed decision making in individual units.

III. PLAN IN OUTLINE

A total outlay of Rs. 24,882 crores is envisaged for the Fourth Plan. Of this, public sector outlay is Rs. 15,902 crores and private sector investment Rs. 8,980 crores. In the public sector Rs. 13,655 crores have been provided for investment and Rs. 2,247 crores for current outlay. The total investment for the creation of productive assets aggregates to Rs. 22,635 crores.

Table on page 19 indicates the distribution of the public and private sector outlays by major heads of development.

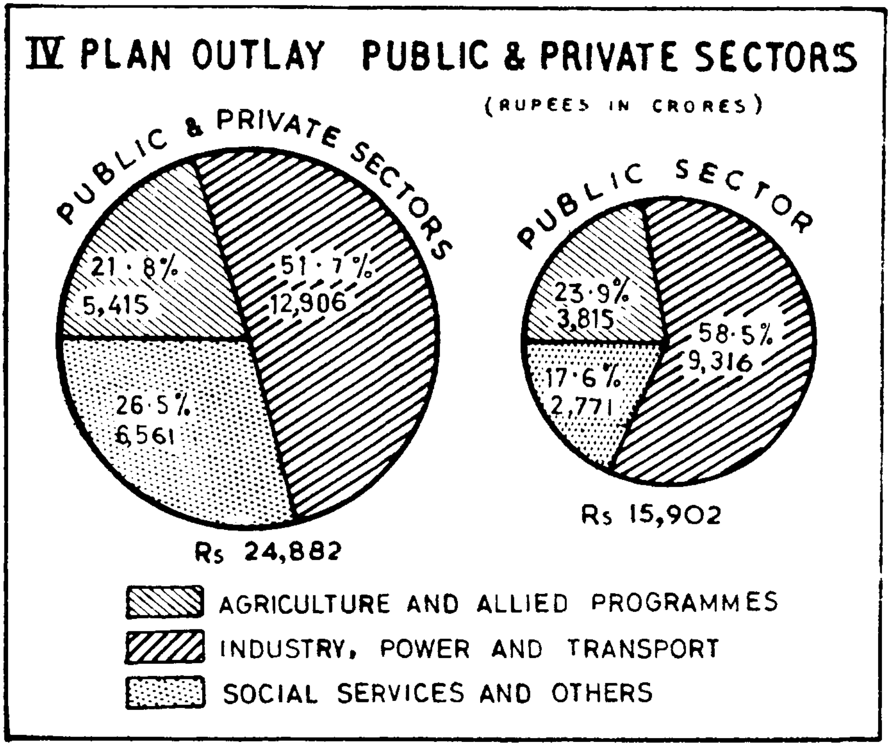
The estimates of development outlays do not include most of the expenditures by local bodies out of their own resources on development schemes. Expenditure on the maintenance of developmental services and institutions established during the earlier Plans as well as the Annual Plan years (1966-69) will be provided for in the normal budgets and does not form part of Plan outlay.

Table on page 17 shows the pattern of investment by the public and private sectors as envisaged in the Fourth Plan compared to that in the Third Plan.

Pattern of Investment : Third and Fourth Plans

(Rs. crores)

S.No.	Head of Development	Third Plan			Fourth Plan		
		Public sector	Private sector	Total	Public sector	Private sector	Total
	1	2	3	4	5	6	7
1.	Agriculture and allied sectors	660	800	1,460	2,118	1,600	3,718
2.	Irrigation and flood control	650	. .	650	1,073	. .	1,073
3.	Power	1,012	50	1,062	2,448	75	2,523
4.	Village and small industries	150	275	425	186	560	746
5.	Industry and minerals .	1,520	1,050	2,570	3,298	2,000	5,298
6.	Transport and communications	1,486	250	1,736	3,197	920	4,117
7.	Social services and other programmes . .	622	1,075	1,697	1,335	2,225	3,560
8.	Inventories	200	600	800	. .	1,600	1.600
	TOTAL . .	6,300	4,100	10,400	13,655	8,980	22,635


IV PLAN OUTLAY PUBLIC & PRIVATE SECTORS
(RUPEES IN CRORES)
PUBLIC & PRIVATE SECTORS
21·8%
5,415
51·7%
12,906
26·5%
6,561
Rs 24,882
PUBLIC SECTOR
23·9%
3,815
58·5%
9,316
17·6%
2,771
Rs 15,902
AGRICULTURE AND ALLIED PROGRAMMES
INDUSTRY, POWER AND TRANSPORT
SOCIAL SERVICES AND OTHERS

Outlays and Investment : Public and Private Sectors

(Rs. crores)

S. No.	Head of Development	Public Sector			Private Sector	Public and Private Sectors	
		Total outlay	Current outlay	Investment	Investment	Total investment (4+5)	Total outlay (2+5)
	1	2	3	4	5	6	7
1.	Agriculture and allied sectors	2,728	610	2,118	1,600	3,718	4,328
2.	Irrigation and flood control	1,087	14	1,073	..	1,073	1,087
3.	Power	2,448	..	2,448	75	2,523	2,523
4.	Village and small industries	293	107	186	560	746	853
5.	Industry and minerals	3,338	40	3,298	2,000	5,298	5,338
6.	Transport and communications	3,237	40	3,197	920	4,117	4,157
7.	Education	823	545	278	50	328	873
8.	Scientific research	140	45	95	..	95	140
9.	Health	434	303	131	..	131	434
10.	Family Planning	315	262	53	..	53	315
11.	Water supply and sanitation	407	2	405	..	405	407
12.	Housing, urban and regional development	237	2	235	2,175	2,410	2,412
13.	Welfare of backward classes	142	142	..	..	..	142
14.	Social welfare	41	41	..	..	..	41
15.	Labour welfare and craftsmen training	40	20	20	..	20	40
16.	Other programmes	192	74	118	..	118	192
17.	Inventories	..	..	..	1,600	1,600	1,600
	TOTAL	15,902	2,247	13,655	8,980	22,635	24,882

The following table compares the Fourth Plan public sector outlay with the expenditure in the Third Plan and Annual Plans (1966-69) under each head of development:

(Rs. crores)

S. No.	Head of Development	Third Plan	1966-69*	Fourth Plan
1.	Agriculture and allied sectors . .	1,088.9	1,166.6	2,728.2
2.	Irrigation and flood control . . .	664.7	457.1	1,086.6
3.	Power	1,252.3	1,182.2	2,447.6
4.	Village and small industries . . .	240.8	144.1	293.1
5.	Industry and minerals	1,726.3	1,575.0	3,337.7
6.	Transport and communications . .	2,111.7	1,239.1	3,237.3
7.	Education	588.7	322.4	822.6
8.	Scientific research	71.6	51.1	140.3
9.	Health	225.9	140.1	433.5
10.	Family Planning	24.9	75.2	315.0
11.	Water supply and sanitation . . .	105.7	100.6	407.3
12.	Housing, urban and regional development	127.6	63.4	237.0
13.	Welfare of backward classes . . .	99.1	68.5	142.4
14.	Social welfare	19.4	12.1	41.4
15.	Labour welfare and craftsmen training .	55.8	35.5	39.9
16.	Other programmes	173.1	123.5	192.3
	TOTAL . .	8,576.5	6,756.5	15,902.2

*Subject to final adjustments

Central Assistance

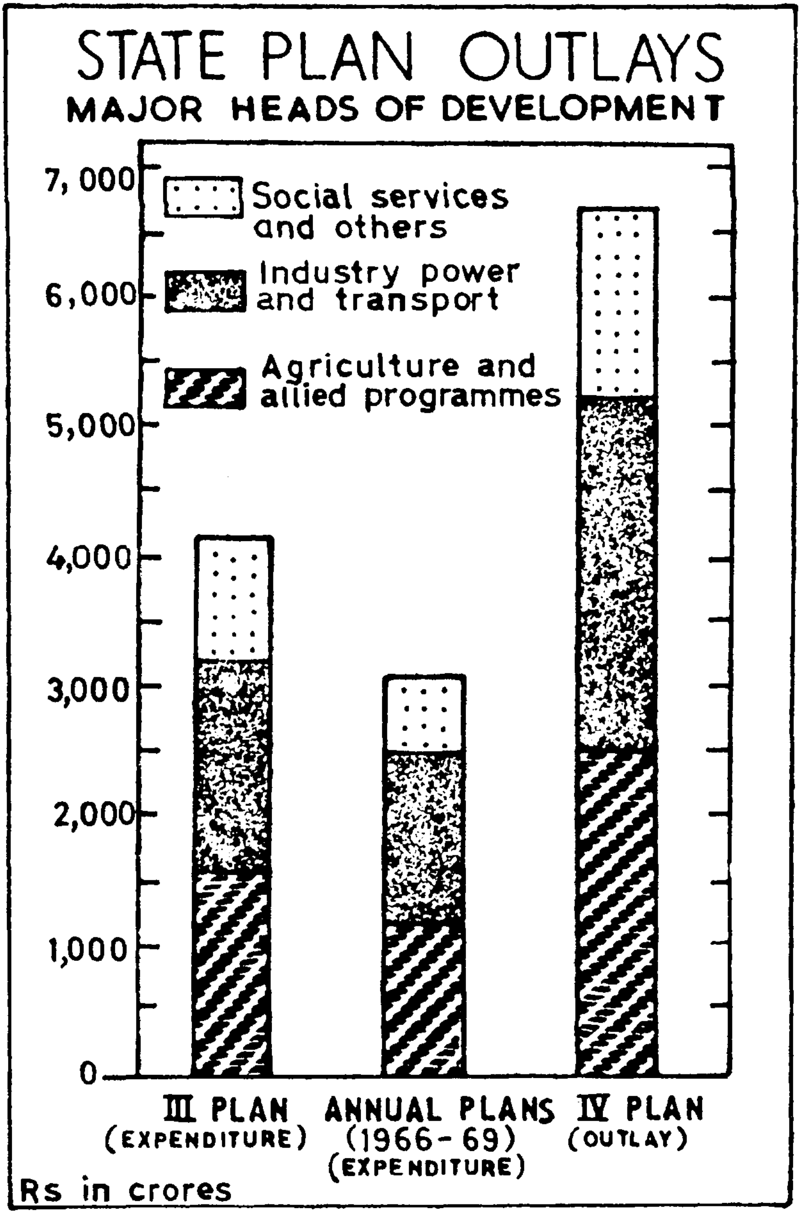
The principles of allocation and the pattern of Central assistance to the States have undergone a change. Out of the quantum of Central assistance the requirements of the States of Assam, Nagaland and Jammu and Kashmir are met first and the balance is distributed among the remaining States, to the extent of 60 per cent on the basis of their population, 10 per cent on their per capita income if below the national average, and 10 per cent on the basis of tax effort in relation to per capita income. Another 10 per cent is distributed in proportion to the commitments in respect of major continuing irrigation and power projects. The remaining 10 per cent will be distributed among the States to tackle certain special problems, like those of metropolitan areas, floods, drought and tribal areas.

Procedures for Central assistance have also been simplified. It will not be related to any specific scheme or programme under the State plans but would be given to the States through block grants and block loans. Each State will get 30 per cent of Central assistance in the form of grant and the balance 70 per cent by way of loans. To ensure that the overall priorities of the Plan are adhered to, outlays for certain programmes are earmarked and will not be diverted to other heads of development. Thus the States will now have much greater initiative in the formulation of schemes and programmes in their sphere.

The State plan outlay in each State and its composition in the form of States' resources and Central assistance is given in the following table.

(Rs. crores)

S. No.	State	States' resources	Central assistance	Total outlay
1.	Andhra Pradesh	180.50	240.00	420.50
2.	Assam	41.75	220.00	261.75
3.	Bihar	193.28	338.00	531.28
4.	Gujarat	297.00	158.00	455.00
5.	Haryana	146.50	78.50	225.00
6.	Jammu and Kashmir	13.40	145.00	158.40
7.	Kerala	83.40	175.00	258.40
8.	Madhya Pradesh	121.00	262.00	383.00
9.	Maharashtra	652.62	245.50	898.12
10.	Mysore	177.00	173.00	350.00
11.	Nagaland	5.00	35.00	40.00
12.	Orissa	62.60	160.00	222.60
13.	Punjab	192.56	101.00	293.56
14.	Rajasthan	82.00	220.00	302.00
15.	Tamil Nadu	317.36	202.00	519.36
16.	Uttar Pradesh	439.00	526.00	965.00
17.	West Bengal	101.50	221.00	322.50
	TOTAL	3,106.47	3,500.00	6,606.47


STATE PLAN OUTLAYS
MAJOR HEADS OF DEVELOPMENT
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
Social services and others
Industry power and transport
Agriculture and allied programmes
III PLAN (EXPENDITURE)
ANNUAL PLANS (1966-69) (EXPENDITURE)
IV PLAN (OUTLAY)
Rs in crores

The outlay in the Plan of each Union Territory is :

	(Rs. crores)
Andaman and Nicobar Islands	14.00
Chandigarh	7.75
Dadra and Nagar Haveli	2.30
Delhi	162.65
Goa, Daman and Diu	39.50
Himachal Pradesh	101.40
Laccadive, Minicoy and Amindivi Islands	2.00
Manipur	30.25
NEFA	17.99
Pondicherry	12.50
Tripura	34.66
Total	425·00

Centrally Sponsored Schemes

The total number of Centrally sponsored schemes in the Plan is 47. These schemes will be wholly financed by the Centre and are mainly under agriculture, health, family planning and welfare of backward classes.

Only such schemes are sponsored by the centre which fulfil the following criteria :

(a) they should relate to demonstrations, pilot projects, surveys and research;

(b) they should have a regional or inter-state character;

(c) they should require lump sum provision until they could be broken down territorially; and

(d) they should have an overall significance from the all-India angle.

The distribution of public sector outlay between the Centre, Centrally sponsored schemes, States and Union Territories under major heads of development is shown in the following table :

(Rs. crores)

S.No.	Head of Development	Centre	Centrally sponsored	Union territories	States	Total
	1	2	3	4	5	6
1.	Agriculture and allied sectors	1,104.26	126.83	71.58	1,425.51	2,728.18*
2.	Irrigation and flood control	23.50	..	12.68	1,050.39	1,086.57
3.	Power	424.72	22.00	81.78	1,919.07	2,447.57
4.	Village and small industries	148.65	5.10	10.41	128.97	293.13
5.	Industry and minerals .	3,150.86	..	3.79	183.06	3,337.71
6.	Transport and communications	2,622.00	42.00	90.72	482.54	3,237.26
7.	Education	241.00	30.00	51.77	499.89	822.66
8.	Scientific research . .	140.26	..	..	..	140.26
9.	Health	53.50	176.50	19.28	184.25	433.53
10.	Family planning . .	..	315.00	..	..	315.00
11.	Water supply and sanitation	3.80	2.00	43.33	358.16	407.29
12.	Housing, urban and regional development . . .	48.60	..	21.33	167.10	237.03
13.	Welfare of backward classes	0.50	59.50	4.95	77.43	142.38
14.	Social welfare . . .	27.43	2.00	1.41	10.54	41.38
15.	Labour welfare and craftsmen training . . .	10.00	..	2.88	27.02	39.90
16.	Other programmes . .	90.68	..	9.09	92.54	192.31
	TOTAL . .	8,089.76	780.93	425.00	6,606.47**	15,902.16

*Excluding investments from some of the financial institutions, namely, agro-industries corporations, land development banks, central cooperative banks and commercial banks which are likely to amount to Rs. 950 crores. The Rural Electrification Corporation will make a supporting investment of Rs. 150 crores.

**The total Plan expenditure in States will be substantially larger than the State plan outlays as a significant proportion of the central sector outlay is designed to support the development programmes included in the State Plans. They are : a provision of Rs. 545 crores through institutions like Agricultural Refinance Corporation, land development banks, Rural Electrification Corporation and Indian Dairy Corporation, and schemes like the one for small farmers and agricultural labourers (Rs. 115 crores), dry farming (Rs. 20 crores) and area deveopment (Rs 15 crores).

Growth Anticipated

On the basis of the programme of investment proposed and the level of outputs expected to be reached in different sectors by 1973-74, it is estimated that the overall rate of growth during the Fourth Plan will be about five and a half per cent a year.

The national income is expected to increase from Rs. 28,800 crores in 1968-69 to Rs. 37,900 crores by 1973-74. Population is expected to grow at the rate of 2.5 per cent per year during the five year period. The increase in per capita income over the Plan period will be about 3 per cent per year which will take the figure to Rs. 636 by 1973-74 from Rs. 546 in 1968-69.

To realise the rate of growth postulated, the rate of domestic savings will have to be stepped up from 8.8 per cent in 1968-69 to 13.2 per cent and that of investment from 11.3 per cent to 14.5 per cent by the end of the Plan.

The visualised increase in foodgrains output will enable the country to dispense with concessional food imports under PL 480 by 1971. Efforts will be made to limit the growth of non-food imports to 5.5 per cent per year, while securing an annual increase of 7 per cent in exports. As a result, the requirements of foreign aid, net of debt repayment and interest payments, in 1973-74 will be brought down to about half the level in 1968-69.

IV. FINANCING THE PLAN

The scheme of financing the Fourth Plan has been specially designed to serve the objective of growth with stability and to promote progress towards self-reliance. The share of domestic budgetary resources in total resources for the public sector plan will be about 78 per cent, compared to 59 per cent in Third Plan and 54 per cent in the three Annual Plans. External assistance (net of loan repayments but without allowing for interest payments) is to go down from 28 per cent in the Third Plan and 36 per cent in the three Annual Plans to nearly 17 per cent in the Fourth Plan. As a percentage of total net investment in the economy during the Fourth Plan, foreign aid, net of debt servicing (repayment as well as interest), will be only 8.2 per cent. Deficit financing is placed at about 5 per cent of the public sector resources as against 10 per cent in the three Annual Plans and 13 per cent in the Third Plan.

The scheme of financing the public sector programmes of Fourth Plan is as follows :

(Rs. Crores)

		Centre	State	Total
1. *Domestic budgetary resources other than negotiated loans from LIC, etc. and State enterprises' market borrowings*				
Balance from current revenue at 1968-69 rates of taxation		1,625	48[1]	1,673
Contribution of public enterprises at 1968-69 fares, freights and tariffs		1,534	495	2,029
Railways	265			
Posts & Telegraphs . .	225			
IDC, ARC, REC, DVC and Central power generation .	259			
Others (Centre 785 and States 495)	1,280			

		Centre	State	Total
Retained profits of Reserve Bank . .		165	37[2]	202
Market borrowings of Central and State Governments (net)		900	515	1,415
Borrowings by financial institutions and Food Corporation of India		405	..	405
Food Corporation of India .	155			
Others	250			
Small Savings		274	495	769
Annuity deposits, compulsory deposits, prize bonds and gold bonds (repayment)		(—)104	..	(—)104
State provident funds		343	317	660
Miscellaneous capital receipts (net) . .		2,090	(—)405[3]	1,685
		7,232	1,502	8,734
2. *Additional resources mobilisation*				
By Centre[4]		2,100	..	2,100
1969-70 measures	725			
Measures to be undertaken in subsequent years . .	1,375			
By States		..	1,098	1,098
1969-70 measures	414			
Measures to be undertaken in subsequent years . .	684			
		2,100	1,098	3,198
3. *Loans from LIC, etc. and State enterprises' market borrowings (gross)*				
LIC loans to State Governments for housing and water supply		..	100	100
Market borrowings of State enterprises .		..	258	258
Loans from LIC, etc. to State enterprises .		..	148	148
			506	506
4. *Total domestic budgetary resources* (1+2+3) .		9,332	3,106	12,438
5. *Budgetary receipts corresponding to external assistance (net)*[5]				
Other than PL 480		2,234	..	2,234
PL 480 assistance		380	..	380
		2,614	..	2,614

	Centre	State	Total
6. *Deficit financing*	850	..	850
7. *Aggregate resources* (4+5+6)	12,796	3,106	15,902
8. *Central assistance for State plans* . .	(—)3,500	3,500	..
9. *Resources for the Plan* (7+8)	9,296	6,606	15,902

1. Inclusive of share in additional resources mobilisation by the Centre 1969-70.
2. Reserve Bank loans to State Governments for participation in share capital of cooperatives.
3. Inclusive of resources to be raised by local bodies and loan repayments by State Government enterprises.
4. Figures are net of States' share.
5. Net of loan repayments only. Interest payments have been allowed for in calculating the balance from current revenues.

Balance from Current Revenues

It could be seen from the pattern of financing that the States' share of balance from current revenues at 1968-69 rates of taxation inclusive of the share in additional mobilisation by the Centre in 1969-70, is only Rs. 48 crores. Ten States are expected to yield a surplus of Rs. 368 crores; seven States, however, are expected to incur deficits aggregating to Rs. 320 crores.

Contribution of Nationalised Banks

It is estimated that bank deposits would grow at a compound rate of 11 per cent per year as against the 7 per cent estimated earlier. This will result mainly from the drive by the nationalised banks to open additional branches and to attract deposits, particularly from the rural areas. The aggregate increase in deposits over the Fourth Plan period is expected to be Rs. 3,000 crores. The contribution of the banking sector to plan finance through the borrowings of the Central and State Governments, and various public sector institutions is taken at Rs. 955 crores. This amount has been arrived at after allowing for the other pressing demands on the banking sector from agriculture, small industry and small business. The requirements of industry and business consistent with the estimated increase in industrial production at 8 to 10 per cent per year and of exports at the rate of 7 per cent per year has also been kept in view.

External Assistance

Gross external assistance for the public sector of the Fourth Plan has been taken at Rs. 3,830 crores. Deducting Rs. 1,216 crores of repayment of external loans—Rs. 1,036 crores by the Central Government and Rs. 180 crores by public enterprises—net external assistance is estimated at Rs. 2,614 crores.

Deficit Financing

The Plan envisages deficit financing of Rs. 850 crores. With the stipulated growth in real income during the Plan period, there is a case for corresponding expansion in money supply. Deficit financing may also be necessary for further activation of the economy. The annual amount of deficit financing will be determined in the light of emerging trends.

Additional Resource Mobilisation

The broad areas to which the specific measures could be directed to mobilise additional resources are :

(1) Raising in a phased manner the rate of return on capital employed in electricity undertakings to 11 per cent per annum and so frame the tariffs as to make the better off consumers pay a higher price.

(2) Mobilising resources from that section of the agricultural sector which benefits directly from the irrigation projects.

(3) Making efforts to raise the rate of return on capital employed in public sector industrial and commercial undertakings other than public utilities to 15 per cent.

(4) Floating rural debentures or adopting similar devices for raising resources in rural areas to finance programmes directly benefiting the rural population.

(5) The contributions of the agricultural sector, which has benefitted substantially from Plan investments, to the public exchequer has not been appreciable. There is, therefore, need for raising more resources from the agricultural sector through measures like agricultural income tax or a surcharge on land revenue at progressive rates.

(6) Stepping up commodity taxation to restrain conspicuous consumption by the rich and raising sales tax to bring about inter-State uniformity.

(7) More stringent taxation of income and wealth to earn larger revenue and to effectively prevent the growth of disparities in income and wealth.

(8) Mopping up the unearned increment in income and wealth that accrues due to the increase in land values in and around developing urban areas.

(9) Withdrawing tax incentives where the purpose served by them is not commensurate with the revenue loss.

Private Investment

Roughly, the private sector is expected to generate a saving of Rs. 14,160 crores; the household and cooperative sectors will be contributing Rs. 12,210 crores and the corporate sector Rs. 1,950 crores. From this Rs. 5,210 crores will be drawn for the public sector Plan, leaving Rs. 8,950 crores for private investment. With the addition of net foreign funds directly flowing to the private sector, Rs. 30 crores, the total resources would aggregate to Rs. 8,980 crores.

Savings and Investment

Domestic savings during the Fourth Plan period would amount to nearly Rs. 20,000 crores, Rs. 14,160 crores being private savings and Rs. 5,830 crores public savings. It would mean that the average rate of savings in the economy will have to be stepped up from 8.8 per cent in 1968-69 to 13.2 per cent by 1973-74.

The size of investment proposed in the Plan implies raising the average rate of investment from 11.3 per cent in 1968-69 to 14.5 per cent in 1973-74. This compares with the increase in the average rate of investment from 11 per cent to 13 per cent during the Third Plan.

V. FOREIGN TRADE

During the Fourth Plan the economy will require total imports valued at about Rs. 9,730 crores. Of this, Rs. 7,840 crores willl be maintenance imports, Rs. 1,300 crores project imports or imports of plant and machinery and Rs. 590 crores food imports. Invisible transactions are expected to result into a net outgo of Rs. 140 crores mainly due to remittances of dividends, commissions, consultancy charges and insurance. In addition to total debt service payments of Rs. 2,280 crores, repayments due to the International Monetary Fund would amount to Rs. 280 crores. Thus, exclusive of debt servicing, the total requirement of foreign exchange will be Rs. 10,150 crores. This will have to be met out of the net receipts from external assistance plus export earnings.

In accordance with the policy objective of the Plan to reduce foreign aid to half the present level, aggregate external assistance, net of debt servicing has been taken as Rs. 1,850 crores. The balance of foreign exchange requirement, namely, Rs. 8,300 crores will have to come out of export earnings. This will require export earnings to go up from Rs. 1,360 crores in 1968-69 to around Rs. 1,900 crores in 1973-74, or grow at a compound rate of about 7 per cent per annum.

Export Programme

Among ores and minerals, a substantial increase in export value is expected from iron ore alone. In manufactures, the largest increases are expected in engineering goods, iron and steel, chemicals and allied products and footwear apart from increases in leather manufactures (excluding footwear) and jute manufactures. Of the agriculture and allied products, the main increases are expected in fish and fish products and cashew kernels.

For the fulfilment of the export programme the production targets set in the agricultural, mineral and industrial sectors should be realised according to schedule. It may be necessary to restrain the growth of consumption of some commodities to make adequate surpluses available for export. The requirements of exports need to be kept constantly in view in licensing additional industrial capacity as also in permitting diversification of capacity. Maintenance of reasonable internal price stability is also an important element of export promotion. Outright bans or export quotas should be kept to the minimum. Constant and determined efforts will need to be made for reducing costs and for improving the quality of export products.

To cope with the projected rise in exports, particularly of bulk commodities, provision is made for the development of major ports and their modernisation, and enlargement of the shipping tonnage. Handling, loading and berthing facilities at the ports and outer harbour facilities in major ports to receive larger ships are being improved.

Adequate provision has been made for modernisation and rehabilitation of units manufacturing our major traditional exports, namely, cotton textiles and jute manufactures. Similarly, funds have been provided for replantation of tea bushes and modernisation of processing and packaging facilities. In respect of certain traditional items particularly those facing competition from synthetics, further programmes for industrial research will be necessary. To increase non-traditional exports, special emphasis will be placed on wider publicity and adequate after-sale service. Efforts will have to be intensified to locate and develop export markets. Technical and financial assistance, along with deferred payment terms, available for facilitating exports of machinery and equipment to developing countries, will be strengthened.

The public sector will play an increasing role in export trade. In line with a substantial expansion of the public sector in industry, notably metallurgy, engineering and chemicals, exports from public sector enterprises are expected to increase progressively.

Import Requirements

Maintenance imports form a substantial portion of the total import requirements of the economy during the Fourth Plan. Major items include fertilisers and fertiliser materials, petrol, oil and lubricants

(POL), chemicals, non-ferrous metals, special varieties of steel, components and spare parts of machinery.

In making estimates of maintenance imports it has been assumed that : (i) the targets of production in various sectors will be achieved according to schedule; (ii) present restrictions on imports of consumer goods will continue; (iii) the raw material requirements of consumer goods industries, other than those for export production will continue to be severely restricted; (iv) strict economy will be exercised in the use of commodities like kerosene, newsprint and paper where demand may continue to exceed supplies; and (v) all possible efforts will be made to economise the use of scarce non-ferrous metals through the adoption of processes and technologies and through substitution by domestically produced metals, as of zinc and copper by aluminium.

In line with the present import policy, the entire demand of capital goods industries for imported raw materials, components and spares will be met. In view of the wide and diversified engineering capacity already built up in the country, maximum use will be made of indigenously produced machinery.

Project imports have been estimated on the assumption that only plants and machinery of the more complex and sophisticated kinds which are yet to be produced within the country will be imported. The major part of project imports will be for industry and minerals, transport and communications and irrigation and power sectors.

It is taken that the basic ingredients of the import policy evolved in the years since devaluation would be continued, so that liberal import facilities for the priority industries, export industries and units in the small-scale sector would be provided.

A determined and sustained drive will have to be undertaken towards import substitution and rationalisation. Special attention is necessary to bulk areas like POL (crude and refined), metals, fertilisers and machinery and equipment of all kinds.

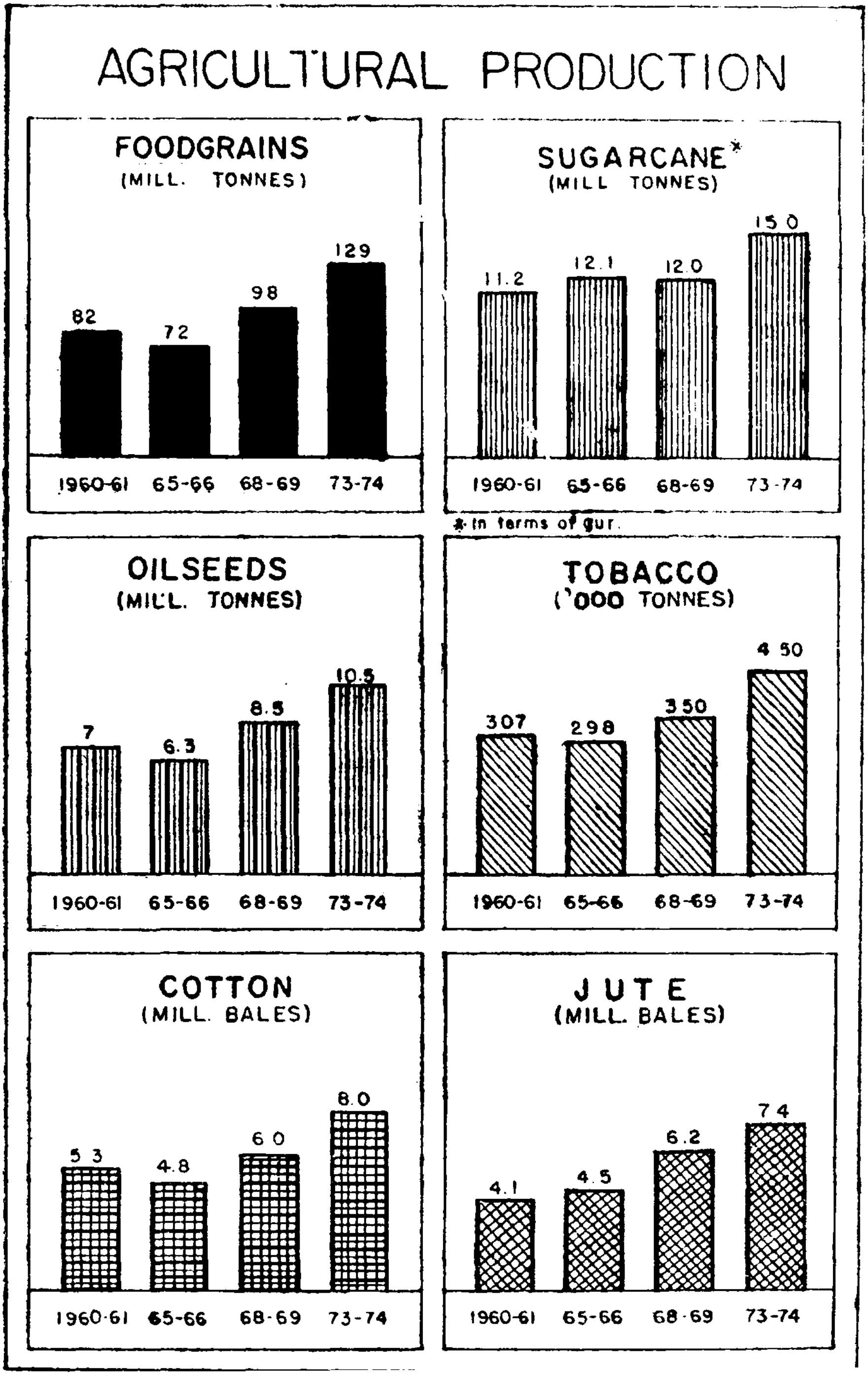
VI. AGRICULTURE

The Fourth Plan has two main objectives in the agricultural sector. The first aims at a growth of about 5 per cent per annum over the next decade. The second objective is to enable as large a section of the rural population as possible, including the small cultivator, the farmer in dry areas and the agricultural labourer, to participate in development and share its benefits. Accordingly, the priority programmes fall into two categories, namely, those which aim at maximising production and those which aim at remedying imbalances.

The pace of development in the agricultural sector sets a limit to the growth of industry, of exports, and of the economy as a whole and constitutes a major condition for achieving economic and social stability and improving the levels of living and nutrition for the mass of people. The success of the Fourth Plan will, therefore, be judged, above all, by performance in agriculture.

A few selected targets of production for foodgrains and major commercial crops are indicated below :

S.No.	Commodity	Unit	1968-69 production	1973-74 targets
1.	Foodgrains	million tonnes	**98**	**129**
	Rice	million tonnes	39.0	52.0
	Wheat	million tonnes	18.0	24.0
	Maize	million tonnes	6.2	8.0
	Jowar	million tonnes	10.0	15.0
	Bajra	million tonnes	5.1	7.0
	Other cereals . . .	million tonnes	7.2	8.0
	Pulses	million tonnes	12.5	15.0
2.	Sugarcane (gur) . . .	million tonnes	12	15
3.	Oilseeds	million tonnes	8.5	10.5
4.	Cotton	million bales	6	8
5.	Jute	million bales	6.2	7.4
6.	Tobacco	million kgs.	350	450
7.	Coconut	million nuts	5,600	6,600
8.	Arecanut	thousand tonnes	126	150
9.	Cashewnut	thousand tonnes	131	207
10.	Pepper	thousand tonnes	23	42
11.	Lac	thousand tonnes	35	52


AGRICULTURAL PRODUCTION
FOODGRAINS
(MILL. TONNES)
82
72
98
129
1960-61
65-66
68-69
73-74
SUGARCANE*
(MILL TONNES)
11.2
12.1
12.0
15.0
1960-61
65-66
68-69
73-74
* In terms of gur.
OILSEEDS
(MILL. TONNES)
7
6.3
8.5
10.5
1960-61
65-66
68-69
73-74
TOBACCO
('000 TONNES)
307
298
350
450
1960-61
65-66
68-69
73-74
COTTON
(MILL. BALES)
5.3
4.8
6.0
8.0
1960-61
65-66
68-69
73-74
JUTE
(MILL. BALES)
4.1
4.5
6.2
7.4
1960-61
65-66
68-69
73-74

Stratgy of Production

The Plan targets are much higher than the production accomplished in the past. The strategy of production places very little reliance on bringing additional land under cultivation. It is anticipated that the addition to the net sown area will be only about one million hectares which is the target of land reclamation. The production targets are proposed to be achieved primarily through intensive agriculture based on coordinated research, optimum use of irrigation facilities, and use of fertilisers, plant protection material and farm machinery.

The targets for specific elements of the intensive approach to agriculture are as follows :

S. No.	Item	Unit	1968-69 (anticipated)	Fourth Plan targets
1.	High-yielding varieties . .	million hectares	9.20	25.00
	Paddy	million hectares	2.60	10.10
	Wheat	million hectares	4.80	7.70
	Maize	million hectares	0.40	1.20
	Jowar	million hectares	0.70	3.20
	Bajra	million hectares	0.70	2.80
2.	Multiple cropping . . .	million hectares	6.00	15.00
3.	Consumption of chemical fertilisers			
	Nitrogenous (N) . .	million tonnes	1.14	3.20
	Phosphatic (P_2O_5) . .	million tonnes	0.39	1.40
	Potassic (K_2O) . .	million tonnes	0.16	0.90
4.	Organic manures and green manuring			
	Urban compost . .	million tonnes	4.00	6.50
	Green manuring . .	million hectares	8.46	12.00
5.	Plant protection . . .	million hectares	40.00	80.00
6.	Minor irrigation . . .	million hectares (additional)	1.40	7.20
7.	Soil conservation on agricultural lands	million hectares (additional)	1.44	5.65
8.	Loans advanced through cooperatives			
	Short and medium term .	Rs. crores	490	750
	Long term . . .	Rs. crores	120	700*

*For the Fourth Plan period as a whole. It excludes loans of the order of Rs. 200 crores on schemes refinanced by Agricultural Refinance Corporation.

Outlay

The Plan outlay for agriculture and allied programmes is Rs. 2,728 crores. Details of distribution of this outlay over various programmes are as follows :—

(Rs. crores)

S.No.	Head of development	Third Plan	Annual Plans (1966-69)	Fourth Plan
1.	Agricultural production	203	252	420[b]
2.	Development of small farmers and agricultural labour	..	..	115
3.	Research and education . . .	a	a	85
4.	Minor irrigation	270	314	516
5.	Soil conservation	77	88	159
6.	Area development	2	13	38
7.	Animal husbandry	43	34	94
8.	Dairying and milk supply . . .	34	26	139[c]
9.	Fisheries	23	37	83
10.	Forests	46	44	93
11.	Warehousing, storage and marketing .	27	15	94
12.	Food processing and subsidiary food .	a	a	19
13.	Central support to financial institutions .	..	40	324
14.	Buffer stocks of agricultural commodities	..	140	255
15.	Cooperation	76	64	179
16. 17.	Community development Panchayats }	288	99	115
	TOTAL . .	1,089	1,166	2,728

a. Included under Agricultural production.

b. Includes provision for Research and education and development of small farmers made in the State Plans.

c. Includes outlay of Rs. 95 crores for Indian Dairy Corporation.

Of the total outlay, a substantial sum, namely Rs. 1,425.51 crores is earmarked for State schemes, Rs. 71.58 crores for Union Territory schemes, Rs. 126.83 crores for Centrally sponsored programmes and Rs. 1,104.26 crores for Central schemes.

Besides direct Plan outlays, investment in agriculture also flow from institutional and private sources. On the institutional side, the operations of land development banks, the Agricultural Refinance Corporation and the agro-industries corporations will expand considerably. In addition, agricultural credit corporations are to be set up in States where cooperative credit agencies are weak. A new credit guarantee corporation will come into operation to facilitate flow of finance for distribution of fertilisers and allied inputs. Commercial banks are expected to cater increasingly to the agricultural sector. Private investment is expected to be Rs. 1,600 crores.

Agricultural Research and Education

Application of science and technology to agriculture being the key-note of the strategy for the Fourth Plan, agricultural research and education has been accorded an important place. In the Central sector Rs. 55 crores have been provided for agricultural research and Rs. 30 crores for agricultural education. The principal agencies involved in the research programmes will be the central research institutes, agricultural universities and, to a limited extent, research stations of some States. The Indian Council of Agricultural Research, the apex organisation for agricultural research and education in the country, will be strengthened. Efforts will be made to avoid overlapping of effort between various institutions or proliferation of institutions.

An important feature of agricultural research will be the all India coordinated research projects which call for inter-institutional cooperation and combined effort of agricultural scientists of various disciplines. The Plan provision for these projects is Rs. 34.70 crores. On the eve of the Fourth Plan, 38 projects had been sanctioned and 32 projects were in operation. In the Fourth Plan 44 new projects will be taken up.

Emphasis will be laid on research in dry farming, the problems of plant protection and depletion of soil nutrients consequent on the use of high-yielding varieties, and those of post-harvest technology such as threshing, drying, storage and processing.

In respect of research relating to soil, plant and water relationship important developments envisaged are the establishment of a water technology centre at the Indian Agricultural Research Institute, New Delhi, and a Central Soil Salinity Research Institute at Karnal.

Six new agricultural universities are proposed to be established. A sum of Rs. 21.5 crores has been allocated to enable ICAR to assist agricultural universities in regard to specified developmental items.

Farmers' education and training will be given a new orientation to meet the requirements of a complex and technology based production programme. The principal element is a programme of national demonstrations with an outlay of Rs. 2.45 crores. Demonstrations will be organised in 100 selected high-yielding varieties programme districts at the rate of 15 per district.

Supply of Inputs

An integrated approach is planned to ensure adequate and timely availability of agricultural inputs. Supplies will be ensured through indigenous production supplemented, where necessary, by imports. A widespread network of retail distributors in all the sectors—public, private and cooperative—will be sought to be established to place the inputs within easy reach of the farmer. Adequate credit will be provided to cooperative and private distributing agencies. A Fertiliser Credit Guarantee Corporation is proposed to be set up for guaranteeing distribution credit for fertilisers and other approved inputs. Storage facilities are to be provided both at the wholesale and retail points. A distinct change will be made in the present policy in that no subsidy will be available for inputs except in backward and inaccessible areas and, to a limited extent, for certain export-oriented crops.

Improved Seeds

Special attention will be devoted to multiplication and distribution of improved seeds. It is intended to cover nearly 72 million hectares under improved seeds—about 25 million under HYP, 15 million under multiple cropping and about 8 million in assured rainfall areas and 24 million hectares in dry cultivated areas. The main components of this programme which will receive the necessary attention are : (i) continuous supply of breeder stock, (ii) adequate arrangements for production of improved seeds, (iii) arrangements for seed processing and storage, and (iv) seed certification.

The Central Government has established six-large sized farms for reclamation of land which have shifted the focus of their attention to producing seeds since recently. Two more farms are proposed to be established. So far, 11 seed producers' cooperatives have come into operation and 30 more will be set up. Under the Terai Seed Development Project the production of quality seeds of high-yielding varieties will be taken up over an area of 16,000 hectares with double cropping. It is estimated that on completion in 1973, the project will produce about 56,000 tonnes of quality seeds per annum of HYP wheat, rice, maize, sorghum and pearl millets.

It is proposed to establish suitable seed godowns during the plan period. It is estimated that about 350 processing plants each with a capacity of 1000 tonnes of seeds over two seasons would be required by the end of the Plan period. About 100 plants have already been set up. Installation of the remaining plants will be encouraged in the public, private and cooperative sectors. A suitable seed certification machinery would be brought into being.

Fertilisers and Manures

The Fourth Plan target of consumption of fertilisers has been fixed at 3.2 million tonnes of N, 1.4 million tonnes of P_2O_5 and 0.9 milion tonnes of K_2O. This is more than three times the 1968-69 consumption of 1.1 million tonnes of N, 0.39 million tonnes of PC5 and 0.16 million tonnes of K_2O. The growth in demand for fertilisers is dependent on the development of soil-testing facilities. At the end of 1968-69, there were 65 soil-testing laboratories all over the country with a total annual handling capacity of 1.08 million samples. The available facilities are not being properly utilised. It is proposed to take measures to rectify the shortcomings and also increase the number of soil-testing laboratories, some of them mobile.

A programme of setting up mechanical compost plants for the manufacture of good quality organic manure out of urban waste is envisaged in the Plan. Three to four plants of more than one type will be set up on a pilot basis to evaluate the suitability of various types.

Plant Protection

About 80 million hectares will be covered by various plant protection measures such as seed treatment, weed control and post-sowing prophylactic treatment. Seed treatment, which involves dressing the seed with chemicals before sowing, will cover 26 million hectares and is proposed to be given priority. Targets of coverage under other plant protection measures are 2 million hectares for weed control, 34 million hectares for post-sowing intensive prophylactic treatment and 10 million hectares for anti-rat operations. The annual consumption of pesticides is estimated to go up to 66,000 metric tonnes of technical grade material, as against the present 40,000 metric tonnes.

Implements and Machinery

There are nearly 70 million draught bullocks in the country. As such there is an enormous scope for improved animal drawn equipment which can make a significant contribution to productivity. The Plan, thus, lays stress on the programme for animal drawn implements and hand tools.

Power operated farm machinery becomes necessary to complete important farm operations within the short periods available between crop seasons as also to shift labour to more labour intensive agricultural activities. There is a substantial demand for modern machinery. The accumulated demand for tractors now pending is about 80,000. By 1973-74, the annual demand for tractors would be well over one lakh. Efforts will be made to increase the indigenous capacity to manufacture tractors and the shortfall will be met by imports. For facilitating creation of additional capacity, the wheeled tractor industry has been de-licensed. The power tiller industry has also been de-licensed for a similar reason.

The facilities available for training in the use of agricultural machinery at the Central Tractor Training Centres, Budni and Hissar, will be expanded and a third training centre will be established in one of the regions not covered by the present ones. Agro-industries corporations now functioning in 15 States will take up sale of equipment and machinery on hire purchase basis.

Soil Conservation and Land Reclamation

Pilot projects are proposed to be taken up over 8,000 hectares of shallow ravines to evolve an economically feasible scheme for their reclamation. A similar pilot approach will be adopted where shifting cultivation is practised, particularly in the north-eastern region.

In the State sector, 5.39 million hectares of agricultural land and 0.45 million hectares of non-agricultural land will come under various soil conservation measures like bunding, levelling, terracing, etc. Under the Centrally sponsored sector the major scheme of soil conservation will be in the catchments of river valley projects to prevent excessive silting and consequent reduction of the effective life of storage. During the Third Plan, work was initiated in 13 projects and nearly 7 lakh hectares were treated up to the end of 1968-69. It is proposed to take up 8 additional projects and cover 5 lakh hectares.

It is estimated, 2.2 million hectares will be available for reclamation and cultivation of which over one million hectares will be reclaimed during the Fourth Plan.

High-yielding Varieties and Multiple Cropping

The high-yielding varieties programme is expected to make a substantial contribution to increase in foodgrain production. The Plan anticipates an increase of 31 million tonnes in foodgrains production of which 21 million tonnes is attributed to HYP. This is expected to be achieved largely by the extension of the programme from 9.2 million hectares in 1968-69 to 25 million hectares in 1973-74.

The multiple cropping programme will be expanded to cover an additional 9 million hectares. As the programme progresses it will offer a potential for increase in production comparable to that provided by HYP.

Agricultural Credit

In recent years, there has been a significant increase in institutionalising rural credit and at present, over 30 per cent of the borrowings by cultivators are from institutional sources. A substantial step-up in the institutional credit will be necessary as the programmes of intensive agriculture, involving use of costly material and labour inputs, will require massive credit support. The All India Rural Credit Review Committee (1969) has estimated that the short term production credit requirements in 1973-74 will be about Rs. 2,000 crores. The estimates for medium and long term credit for the whole Plan period are Rs. 500 crores and Rs. 1,500 crores respectively.

Cooperatives will continue to be the principal agencies for agricultural credit. Cooperative short-term and medium-term credit is expected to expand from the present Rs. 450 crores per annum to Rs. 750 crores in 1973-74. For long-term credit, a target of Rs. 700 crores has been fixed. In areas where the cooperative credit structure is weak, special efforts will be made to provide alternative institutional sources.

Full benefit has not been realised from the functioning of the Agricultural Refinance Corporation. This is due to the uneven growth of land development banks, which receive refinance from the Corporation, in different States and also due to the gap between sanctions and disbursements of loans from the Corporation occasioned by procedural and other delays. These drawbacks need to be rectified soon. The Corporation is expected to provide refinance of the order of about Rs. 200 crores in the Fourth Plan.

For meeting the gap in agricultural credit, the potentialities of commercial banks have to be fully mobilised. The nationalised banks are expected to further increase their finances for agriculture. Certain steps have already been taken in this regard. Each district in the country has been allotted to one bank called the 'lead' bank. The lead bank will have a major role in the development of banking in that district, though not a monopoly. This tempo of branch expansion with emphasis on unbanked towns or centres will be kept up throughout the Plan. The commercial banks are also setting up some mobile units to increase their coverage of villages from their existing branches. Direct lending to farmers from the commercial banks is expected to increase to Rs. 400 crores by the end of the Plan as against Rs. 53.59 crores in June 1969.

Agricultural Marketing

The Fourth Plan's aim is to improve agricultural marketing system to benefit the producer and to meet the needs of increased agricultural production. The system of regulated markets is proposed to be expanded. At the beginning of the Plan the number of regulated markets and sub-market yards was 1,616. Efforts will be made to bring under regulation the remaining 2,100 markets and sub-market yards. Further, facilities like market yards and other ancillaries like market intelligence and feeder roads will be expanded. Market committees' resources will be improved and functions restructured. More market committees will be enabled to resort to bank finance to improve market facilities.

At present, though 450 grading units operate, the overall share of grading is only around one per cent of the total value of the agricultural produce marketed. It is proposed to set up another 600 grading units.

To facilitate agricultural exports, compulsory quality control and grading under Agmark, which is in operation in respect of 34 agricultural commodities, will be continued. In addition, pre-shipment inspection and quality control under Agmark is proposed to be extended to 10 new commodities. The laboratory facilities for testing the purity and quality of the produce, existing at Bombay, Cochin, Jamnagar and Madras, will be further expanded and new laboratories set up at Tuticorin, Mangalore and Alleppey. A Central Agmark Research and Training Institute will be set up, particularly to evolve techniques in the marketing of perishable products like fruits and vegetables.

Storage and Warehousing

The Fourth Plan programme of storage is based on an integrated view of the requirements of storage for various purposes. It takes into consideration the requirements for storage of buffer and operational stocks of foodgrains by the Food Corporation of India, warehousing facilities for producers and the trade, the Central and State Warehousing Corporations, and the storage requirements of cooperatives for both inputs and agricultural produce. The entire programme is estimated to cost Rs. 151 crores, of which a part will be met by the Agricultural Refinance Corporation and commercial banks. The balance is provided in the State and Central Plans.

The total storage capacity available at the beginning of the Plan was 10.93 million tonnes—7.50 million tonnes owned and 3.43 million tonnes hired. For the storage of buffer stocks of foodgrains alone an additional effective capacity of 3.4 million tonnes would be necessary. This will require a capital outlay of Rs. 73 crores, to be financed partly by governmental loans and partly by loans raised by the Food Corporation from the banks. A sum of Rs. 2 crores has been separately provided for about 200,000 tonnes of additional storage facilities for storing fertilisers at ports and other strategic points.

For the expansion of warehousing facilities for the Central Warehousing Corporation the Plan provides Rs. 12 crores. The State Plans include a provision of about Rs. 6 crores for State Warehousing Corporations. They are expected to augment warehousing capacity by one million tonnes. The provision for cooperative storage is intended essentially as margin money as they will have recourse to banks with refinancing facilities from the Agricultural Refinance Corporation. They will establish about 2 million tonnes of additional storage capacity.

Programmes for Special Classes and Areas

One of the two main Plan objectives in the agricultural sector is to extend the benefits of development to the smaller cultivators and the under-privileged sections of the rural population. The small holders with holdings of less than 2 hectares and the agricultural labourers represent 52 per cent and 24 per cent respectively of total rural households. But small holdings constitute only about 19 per cent of the cropped area. In this uneven situation, the new agricultural technology tends to add a further dimension of disparity between those who have the resources to make use of the new technology and those who have not.

Small Farmers and Agricultural Labour

The Plan envisages a number of measures, both general and specific for the benefit of small farmers. The general measures, which extend to the country as a whole, are complementary in character and pertain to a number of spheres including minor irrigation, agricultural credit and animal husbandry. A large amount of public investment is proposed for community works such as tanks and tubewells to benefit small farmers who would not be individually able to provide themselves with these facilities. The general loaning policies and procedures of cooperative credit institutions are proposed to be reoriented in favour of the small farmers. The Agricultural Refinance Corporation will provide assistance for schemes designed to enable the small farmers as well to take advantage of agricultural, dairying, poultry and other programmes on an area basis.

The problems of small farmers in different areas vary and there can be no generalised scheme for uniform application. To tackle the problems of small farmers in compact areas it is proposed to set up a small Farmers' Development Agency in each one of the 45 selected districts. One of the main functions of the Agency will be to identify the problems of small farmers in its area, prepare appropriate programmes, help ensure availability of inputs, services and credit, and evaluate progress from time to time. The Agency may give assistance to small farmers in respect of such other services as land levelling, machinery and marketing, or itself undertake certain services.

To stimulate flow of cooperative credit to such cultivators, it will provide grants to the central cooperative bank, the agricultural credit societies and the cooperative land development banks in the area and help them to build up special funds for covering the risks, if any, apprehended in such financing. In addition, it will provide a subsidy to these credit institutions for strengthening their managerial and supervisory staff for this purpose. It will also draw up model plans for investment and production activities to be undertaken by small farmers operating under different sets of conditions. The scheme has been included in the Central sector of the Plan.

It is proposed to deal with the problem of sub-marginal cultivators and agricultural labourers by two sets of measures—land reforms and measures which aim at generation of employment-oriented activities. Employment-oriented activities such as poultry and dairy farming are proposed to be generated through a series of 40 projects located in different districts all over the country. These projects would, as far as possible, be market-based (*e.g.* centred round towns or other areas of demand).

The Plan provision for the programmes for small farmers and agricultural labour is Rs. 115 crores. The schemes are likely to attract about Rs. 300 crores from various institutional sources.

Dry Farming

It is estimated that, in the country as a whole, there are as many as 128 districts which have low to medium rainfall under 1,125 mm annually and which also have limited irrigation facilities. These districts account for nearly 68 million hectares or about half of total net sown area. Of the 128 districts, 25 districts are very high intensity dry farming areas and 12 districts have a comfortable irrigation position. The remaining 91 districts, spread out mainly in Madhya Pradesh, Gujarat, Maharashtra, Andhra Pradesh, Mysore, Uttar Pradesh, parts of Haryana and Tamil Nadu, and represent the typical dry land farming tract. These districts having a net sown area of 42 million hectares hold good promise of responding to a new package of technology.

Besides coordinated research, specific programmes for application of packages of technology will be taken up in the dry farming areas. For this purpose, the Plan includes a new Centrally sponsored scheme with an outlay of Rs. 20 crores. The main constituents of the package of technology will be : (i) soil management, (ii) harvesting of water to conserve moisture derived from monsoon, (iii) new short duration crop varieties, and (iv) new agronomic practices. For its application, pilot projects would be organised under the Centrally sponsored scheme. In the first year, about 1,000 hectares of compact area may be covered by each project which will in the last two years be about 10,000 hectares.

Other Plan outlays of about Rs. 150 crores will be available for helping to improve the economy of dry land farming. A Central sector scheme of desert development with a provision of Rs. 2 crores has been formulated under which pilot projects involving schemes of soil conservation, afforestation, minor irrigation and agricultural development would be taken up in Gujarat, Haryana and Rajasthan.

Selected Command Areas

Ten area development schemes will be executed in different command areas, namely, Tungabhadra, Nagarjunasagar, Kosi, Kangsabati, Rajasthan Canal, Mahi-Kadana, Tawa, Jayakwadi stage I, Cauvery Delta and Pochampad. Under these schemes the necessary facilities for speedy agricultural development of the areas covered by the respective irrigation projects will be sought to be created. The facilities include marketing complexes and certain ancillary facilities such as link roads and storage, facilities to make optimum use of water, custom service for agricultural operations and processing facilities.

LAND REFORMS

A review of land reforms reveals much that has been achieved as well as a great deal that requires urgent attention. One of the important tasks of the Fourth Plan will be to try and ensure that land reforms become a reality in the village and the field. The principal measures relate to the abolition of intermediary tenures, reforms of the tenancy system, ceiling on ownership of land and consolidation of holdings.

Abolition of Intermediaries

Intermediary tenures have been abolished practically all over the country. Certain non-ryotwari tenures, however, still remain. Legislation has yet to be enacted for abolition of temporarily settled estates in Assam, certain inams and tenures in Kerala, Maharashtra and Tamil Nadu, Goa, Diu and Dadra and Nagar Haveli. Legislation has yet to be completed in respect of muttadari and malguzari tenures in Agency tracts and inams in Telengana area of Andhra Pradesh and Devasthan inams in Gujarat. It has been decided to take action on abolition of these remnants of the intermediary tenures by 1970.

Lands which should have vested in the State or settled with tenants have been retained by some intermediaries by evasion and obstruction. Action should be taken by the State *suo moto* for scrutiny of such cases and effective implementation of intermediary abolition laws.

Progress made in the payment of compensation to ex-intermediaries in some States has been slow. The assessment and payment of compensation could be expedited, particularly in Bihar, Orissa, Rajasthan, Uttar Pradesh and West Bengal.

Tenancy Reform

Legislation has been enacted in a number of States for converting tenants and sub-tenants into owners. Considerable progress has been made in this regard in Uttar Pradesh, Maharashtra, Gujarat, Madhya Pradesh and Rajasthan. In spite of these measures, it is estimated that tenants' household constitute 23.56 per cent of total cultivating households. The proportion is higher in certain States such as Bihar, Haryana, Jammu and Kashmir, Kerala, Mysore and Punjab and the Union Territories of Himachal Pradesh, Pondicherry and Tripura. Tenants and share-croppers with insecure tenure are estimated to constitute 82 per cent of the total number of tenants, mainly in the States of Andhra Pradesh, Assam, Bihar, Haryana, Punjab, Tamil Nadu and West Bengal. The insecurity of tenancy has not only impeded the widespread adoption of the high-yielding varieties due to reluctance on the part of both the owner as well as the tenants, but in some cases led to social and agrarian tensions.

For bringing a sense of security among tenants and sub-tenants, the following measures are proposed to be taken :

(*a*) To declare all tenancies non-resumable and permanent, except in cases of landholders who are serving in the defence forces or suffering from a specified disability.

(*b*) Where resumption has been permitted and where applications have already been made arrangements for quick disposal of such applications; where there is a likelihood of larger number of evictions as a result of resumption, for further restricting it with a view to reducing the number of cases of resumption.

(*c*) Regulation of "voluntary surrenders" prohibiting landowners from taking possession of land at present tenanted and empowering the Government or local authority to settle other tenants thereon.

(*d*) Provision for complete security of tenure in respect of homestead lands on which cultivators, artisans and agricultural labourers have constructed their dwelling houses.

(*e*) Implementation of legislation relating to security of tenure to sub-tenants and ensuring that the provisions of law are not circumvented by the landlords.

(*f*) Provision for penalty for wrongful evictions.

In addition to ensuring security of tenure, steps will be taken, among others, to regulate the rent payable by the tenant, provide easy access to loans to make improvements in the land cultivated by the tenant, to enable him in case of compulsory eviction to receive compensation for improvements made, and to secure the right to the tenant to hypothecate his interest in land for obtaining institutional credit. Provision has been made regarding these in some States. It is proposed to include suitable provision in land laws in other States.

It is proposed to expedite the programme of converting tenants into owners, started in the Third Plan, and complete its implementation by the end of the Fourth Plan. Some State Governments are considering proposals for financing purchase of ownership rights by tenants through land mortgage banks and nationalised commercial banks.

Leasing is proposed to be permitted in future only in special cases, such as a person suffering from disability or joining the defence services. In such cases, the tenancy would be for a period of 3 years at a time subject to renewal.

Ceiling on Land Holding

Legislation has been enacted in almost all the States providing for a ceiling on land holdings. Following the experience of a number of shortcomings, it was decided at a recent Chief Ministers' Conference to review the provisions in the existing legislation in regard to level of ceilings, transfers and exemptions in the light of recent technological developments and social requirements and expeditious implementation of the programme of ceiling and distribution of surplus land to landless agricultural workers. State Governments have responded favourably to the suggestion. In Kerala and Tamil Nadu, the level of ceiling has been brought down substantially by a recent legislation. Similar action is likely to be taken by a number of other States.

Consolidation of Holdings

The State Plans provide Rs. 28.4 crores for consolidation of holdings. The programme can be enlarged if an appropriate charge is levied on the farmer who benefits from the operation.

VII. ANIMAL HUSBANDRY, DAIRYING, FISHERIES AND FORESTS

ANIMAL HUSBANDRY

The Fourth Plan aims at increasing the supply of protective foods like milk, milk products, meat and eggs and at improving the output of certain animal products of commercial importance, such as wool,s hides, skins, hairs, bristles and bones. Animal husbandry programme are also intended to strengthen the economy of sub-marginal farmers and agricultural labour.

The following production targets of selected animal products have been fixed :

Item	Unit	1965-66	1968-69 Estimated	1973-74
Milk	million tonnes	20·00	21·20	25·86
Wool	million kgs.	35·66	37·60	41.50
Eggs	million nos.	4,100	5,300	8,000

The outlay on animal husbandry is Rs. 94.06 crores; Rs. 70.91 crores in States sector, Rs. 5.40 crores in Union Territories, Rs. 12.50 crores in Central sector and Rs. 5.25 crores in Centrally sponsored schemes. The public sector outlays are proposed to be supplemented from various institutional sources.

Cattle and Buffalo Development Programmes

In addition to 31 ICD (intensive cattle development) projects in existence, 15 large ICD projects will be set up in milk shed areas of dairy plants with a minimum capacity of 20,000 litres as well as 20 new medium type ICD projects with a capacity of 15,000 litres. The key village scheme now operates in 490 blocks. Sixty new key village blocks will come up to cover small dairies.

A Centrally sponsored scheme will provide for progeny testing units at 10 State farms to select bulls for the improvement of breeds.

Three Central cattle breeding farms and eight bull rearing farms will be set up. Sire evaluation cells will be established in each State.

An All-India Coordinated Research Project on buffaloes is envisaged. The objective is to improve the production potential of buffaloes through assessment of vital characters, selection for high economic value and development of breeds with the help of different systems of breeding.

Sheep and Goat Development

To improve the quality of wool from indigenous sheep, the development programme envisages cross-breeding of local sheep with exotic fine wool varieties as well as upgrading with some of the important local breeds. It is proposed to set up 8 large sheep breeding farms with a flock strength of 5,000 or more sheep, expand and re-organise the 15 State sheep breeding farms and establish 5 new sheep breeding farms. It is also proposed to set up 50 sheep and wool extension centres, besides undertaking expansion of 80 centres established during the Third Plan. Fine wool breeds of sheep and of mutton types will be imported to popularise improved methods of sheep shearing, wool grading and marketing. The programme will be taken up in 8 States. It is proposed to organise farms for Pashmina, Angora and dairy goats.

Poultry Development

It is proposed to take up a coordinated poultry breeding programme at three Central and ten State farms to evolve superior lines and to cross them in various combinations with a view to exploiting hybrid vigour. One hundred new intensive egg and poultry production-*cum*-marketing centres will be set up.

Piggery Development

To improve the economic condition of those who have adopted pig-rearing as a traditional occupation, breeding stocks will be supplied to them at subsidised rates. The bacon factory at Haringhatta will be provided with additional facilities and work will be completed in the remaining three bacon factories and one pork processing plant. Four more pork processing plants are to be set up in different States. To ensure regular supply of improved pigs, 10 piggery farms will be expanded and 25 new piggery development blocks set up.

Feed and Fodder Development

Stress will be laid on developing feed and fodder resources under the ICD projects and key village blocks. For meeting emergent requirements 5 fodder banks are to be set up in suitable areas where the available grass production will be harvested and conserved. It is also proposed to popularise silage and hay-making demonstrations will be organised on cultivators' holdings in the milk sheds of dairy projects. Seven regional forage demonstration stations will be set up. Foundation seeds will be multiplied at 20 seed farms.

Livestock Marketing

A livestock marketing cell will be set up in the Directorate of Marketing and Inspection to exercise supervisory and advisory control over the grading schemes for livestock products.

It is proposed to set up corporate bodies to develop a few large, medium and small slaughter houses and meat markets. Four more bacon factories and one new poultry dressing plant will be set up to take their total to 12 and 18 respectively. For the production of stock feed, such as meat meal and bone meal from fallen animal and slaughter wastes, carcass utilisation centres will be established in most of the States.

Animal Health

It is proposed to set up 200 new hospitals, 1,000 veterinary dispensaries and 2,000 stockman centres and to provide 60 mobile dispensaries. Five hundred existing dispensaries will be converted into hospitals and 60 clinical and investigation laboratories established. The rinderpest eradication campaign in the southern States and follow-up programme in others will be continued and the immunisation programme against the disease will be intensified. The production of tissue culture vaccines against rinderpest and foot and mouth disease will be augmented as cross bred animals are more susceptible to these diseases than indigenous breeds. To prevent ingress of exotic diseases, an animal quarantine and certification service will be set up.

Research

The existing research facilities at the two central research institutes, namely, Indian Veterinary Research Institute (IVRI), Izatnagar, U.P., and the Central Sheep and Wool Research Institute, Avikanagar, Rajasthan are proposed to be strengthened and a new Plant Animal Virus Research Institute would be set up.

DAIRYING AND MILK SUPPLY

On the eve of the Fourth Plan, the total number of dairy plants in operation was 91—47 liquid milk plants, 7 milk product factories and 37 pilot milk schemes. Of these, 53 plants are in the public sector, while the rest are in the cooperative sector. As some of the existing dairy projects are operating at a loss, one of the principal Plan tasks is to review the work of the projects and to take corrective measures. This will include changes in the milk pricing policy and introduction of modern management practices and even changing the management of public sector projects from departmental to corporate form. A phased programme is to be drawn up to increase production in the milk shed areas and gradually eliminate dependence of a number of dairy projects on imported milk powder. Cooperatives are to be developed as links between small producers and public sector projects.

The organised sector of dairy industry will be extended to smaller towns with emphasis on milk production in the rural areas. Economically viable projects will be organised, as far as possible, in the cooperative sector.

The total outlay will be of the order of Rs. 138.97 crores; Rs. 39.77 crores and Rs. 1.95 crores in State and Union Territory Plans respectively, and Rs. 97.25 crores, including an outlay of Rs. 95.00 crores for Indian Dairy Corporation, for Central schemes.

The first priority in the plan will be to complete the 33 dairy schemes which spill over from the earlier period. Twenty-four new schemes are to be taken up in towns with a population of about 50,000 and four milk product factories will be established. To provide chilling and marketing facilities in isolated pockets of milk production, 64 rural dairy centres will be organised in areas with a population of less than 50,000.

The Government of India with the cooperation of the World Food Programme have formulated a project for stimulating milk marketing and dairy development. Under this project, the World Food Programme will supply free of cost over the next five years 1.2 lakh tonnes of skimmed milk powder and 42,000 tonnes of butter oil at the international valuation of Rs. 41.90 crores. These when re-constituted into liquid milk by the four public sector dairies at Bombay, Calcutta, Delhi, and Madras, will yield about Rs. 95.40 crores. The funds so secured will be used for dairy development in the country.

FISHERIES

The three main plan objectives for fisheries development are increase in fish production to meet protein requirements, development of export potential and improvement in the economy of fishermen.

The target for fish production in the final year of the Plan has been fixed at 1.97 million tonnes as against 1.50 million tonnes in 1968-69.

The outlay is Rs. 83.31 crores—Rs. 44.88 crores for States, Rs.4.43 crores for Union Territories,Rs.28 crores for Centre and Rs. 6 crores for Centrally sponsored schemes. Suitable schemes are also to be framed to ensure flow of institutional finance which will be in addition to these outlays.

Inland Fisheries

Inland fisheries are particularly significant for the rural economy of West Bengal, Bihar and Orissa. The Fourth Plan programmes provide for production and supply of fish seed, reclamation of derelict water areas for fish farming and development of reservoir fisheries. Fish seed production will be increased by 500 million of additional fry and fingerlings. New nursery area of about 900 hectares is to be constructed, as against 550 hectares available at the end of the Third Plan. An area of 30,300 hectares will be brought under intensive pisciculture and reservoirs covering an area of 0.3 million hectares will be developed. Another important programme is the stocking of 6,000 hectares of brackish water with suitable species. By these programmes inland fish production is expected to increase by about 33,000 tonnes, from 541,000 tonnes in 1968-69.

Marine Fisheries

The Indian Ocean with an area of 72.52 million sq. km. is the least exploited of oceans. There will be increased stress in the Plan on marine fisheries, particularly deep sea fishing. An additional

5,500 mechanised boats will be introduced to augment the 7,800 boats in operation by 1968-69.

To develop deep sea fishing it is proposed to introduce 300 fishing trawlers. The Industrial Development Bank of India has agreed to provide deferred payment facilities for the indigenous trawlers and a subsidy will be available from Plan funds towards the cost of such trawlers to enable them to compete with imported trawlers. More larger vessels will be introduced from the second or third year of the Plan when shore facilities will be available. A survey will be undertaken with UNDP (United Nations Development Programme) assistance into the deep sea fishery resources.

Marketing

The role of the Central and State Fisheries Corporations will be reviewed and cooperative fishermen's federations will be promoted. Necessary arrangements for packaging, preservation and storage will be made to derive optimum benefits from the appreciable landings by mechanised crafts. The proposals are to set up 10 composite plants and 73 ice factories and cold storages as well as 20 additional refrigerated rail vans for transport of fish.

FORESTS

The main objectives of forest development are to increase the productivity of forests, to link up forest development with various forest-based industries and to develop forests as a support to rural economy. Forests in India occupy about 23 per cent of the land surface of the country and yet the contribution of forestry and logging in the net domestic product, at current prices in 1967-68, was only 1.2 per cent. The average per hectare production per annum of forests is only about a fourth of the world average.

The outlay for forestry programmes is Rs. 92.55 crores—Rs. 73.12 crores for States, Rs. 14.31 crores for Union Territories, Rs. 3.73 crores for Centre and Rs. 1.39 crores for Centrally sponsored programmes.

The supply of industrial wood will be increased to about 13.5 million cubic metres by 1973-74. To increase forest production large scale plantation of valuable quick-growing species and species of economic and industrial importance are proposed to be created. The programmes will aim at achieving self-sufficiency in forest products as early as possible, specially for major forest-basedi ndustries such as pulp, paper, newsprint, wood panel products and matches. This will help to replace the imports of some of these items and building up of sizeable exports of paper and wood panel products.

Some of the physical programmes of forest development are :—

Scheme	Unit	Base level (1968-69)	Fourth Plan target
Plantation of quick growing species	'000 hectares	247	302
Economic plantation for industrial and commercial uses	'000 hectares	593	339
Farm forestry-cum-fuel wood plantation . . .	'000 hectares	140	75
Communications in inaccessible forests . . .	'000 kms.	40	11

VIII. COOPERATION AND COMMUNITY DEVELOPMENT

COOPERATION

Agricultural cooperatives and consumer cooperatives will occupy a central position in tune with the key-note of the Fourth Plan, growth with stability. Growth of agriculture involves a substantial increase in credit, inputs and services. If these needs of the farmer are met through institutionalised channels he will stand to benefit. In this process the cooperative form of organisations will have ample opportunities to expand and become viable and efficient as well. The Plan will ensure that the opportunities before cooperatives are as large and varied as they can utilise effectively. While it will be for the cooperatives themselves to make the needed effort and reach competitive standards of efficiency, Government for its part will assist them to equip for the task by means of finance, organisation and trained personnel.

The Plan outlay for this sector is Rs. 178.57 crores—States Rs. 119.21 crores, Union Territories Rs. 4.61 crores, Centre Rs. 30.25 crores and Centrally sponsored schemes Rs. 24.50 crores.

Cooperative Credit

One of the most important tasks before the cooperative credit movement is to accelerate the pace of reorganisation of primary societies and place the short and medium-term credit structure on a viable footing. The Plan will accord high priority to this reorganisation. It is also proposed to undertake suitable programmes for rehabilitation and reorganisation of weak district central cooperative banks.

Another point of concern is the huge overdues and the Plan seeks to remedy the situation by suitable measures. Credit cooperatives will also make a sustained bid to increase the deposits substantially. Such an increase would help to absorb overdues and keep up the flow of credit, facilitate increase in loanable resources, and help to mop up a part of the increased rural income for productive investment.

If these programmes are effectively implemented, cooperatives can aim at disbursing Rs. 750 crores as short and medium-term credit in 1973-74. By the same year about 60 per cent of the agricultural families are expected to be covered by cooperatives and the membership of primary credit societies is expected to reach 42 million.

Land development banks, which handle long-term credit, will be expanded to provide adequate support for schemes of basic importance to agriculture such as land reclamation, soil conservation and minor irrigation works. A loaning target of Rs. 700 crores has been fixed for the Plan. The Agricultural Refinance Corporation will be able to provide refinance of about Rs. 200 crores. Provision has been made for lending support to the debentures of land development banks.

The lending policies and procedures of the Land Development Banks will be reviewed in a comprehensive manner so as to meet the requirements of sound investment credit and to ensure optimum use of scarce long-term resources. In the formulation of these policies, the special problems of small farmers will be kept in mind.

On a pilot basis, primary credit societies will be allowed to act as agents of the central land development bank for scrutiny of applications, disbursement of credit, supervision and recovery of instalments.

The policies and procedures of credit cooperatives and land development banks will be oriented in favour of small cultivators. The recommendations of the All-India Rural Credit Review Committee will be sought to be implemented, the more important recommendations being :

(1) If the resources are inadequate to meet the requirements of all members of a society, the needs of the small cultivators should be adequately met on a priority basis.

(2) The larger cultivators will be asked to contribute a relatively higher proportion of their borrowings towards share capital, while the smaller cultivators will invariably be allowed to pay their share amount in convenient instalments.

(3) Stress will be laid on effective implementation of crop loan system. To ascertain whether the small farmer is receiv-

ing adequate attention, the credit limit statements are to be so separated as to identify small farmer *vis-a-vis* others.

(4) Loaning policies of land development banks will be liberalised, say, in respect of valuation of landed property offered as security, issue of joint loans for groups of small cultivators, emphasis on the operational and economic viability of the proposed investment and not merely the value of tangible security, and phasing of the repaying programme.

(5) Bigger cultivators who can repay loans in shorter periods will be encouraged to avail of medium-term credit so that more long-term credit can be made available to small farmers.

Cooperative Marketing

On the eve of the Plan, there were nearly 3,300 primary marketing societies of which 500 were special commodity societies. At the State level there were 20 apex societies and three commodity marketing federations and at the all-India level one National Agricultural Cooperative Marketing Federation. There were also 173 central marketing societies, including 15 special commodity societies, mainly at the district level. The existing cooperative marketing structure, especially at the primary level, will be strengthened.

The system of grading and pooling is adopted at present only by marketing cooperatives in Gujarat and a few processing cooperatives in other areas. This and other improved marketing techniques will be introduced in as many cooperatives as possible.

Cooperatives will aim at handling 8 million tonnes of foodgrains 36 million tonnes of sugarcane, 0.6 million tonnes of groundnut, 10,000 tonnes of fruit and vegetables and 1.8 million bales of cotton in 1973-74. At current prices, the value of agricultural produce likely to be handled by marketing and processing cooperatives is expected to be about Rs. 900 crores. Cooperatives are also expected to handle agricultural commodities worth Rs. 25 crores in inter-State trade and worth Rs. 10 crores in the export trade.

Cooperative Processing

The Plan envisages the organisation of an additional 550 cooperative processing units such as sugar factories, rice mills, oil mills, ginning and pressing units, etc.

Cooperatives and Agricultural Inputs

To meet a substantial step-up in the demand for inputs, it is proposed that cooperatives should intensify their activities and enlarge their distribution system. By 1973-74, cooperatives are expected to handle fertilisers worth about Rs. 650 crores, improved seeds worth Rs. 50 crores, pesticides worth Rs. 50 crores and implements worth Rs. 15 crores.

Cooperatives have recently made a beginning in the production of agricultural inputs. A major venture is the establishment of the fertiliser project complex at a cost of Rs. 85 crores by the Indian Farmers Fertiliser Cooperative Ltd., at Kalol and at Kandla in Gujarat State. This is expected to produce 318,500 tonnes of ammonia, 382,000 tonnes of urea and 637,000 tonnes of complex fertilisers per annum. Another factory is also proposed to be set up in Maharashtra State.

At the beginning of the Plan, the total cooperative storage capacity was estimated to be 2.6 million tonnes. An additional storage of about two million tonnes is proposed.

Consumer Cooperatives

Stress will be laid on consolidation and strengthening of existing consumer cooperatives. The weakest link is the primary consumer cooperatives. Viable or potentially viable primaries will be strengthened or developed. Cooperative retail structure consists either of big retail outlets like department stores or very small retail outlets, mostly single-roomed shops handling rationed and controlled items. The latter category accounts for over 96 per cent of the total outlets. Retail outlets of the intermediate size are proposed to be developed In the rural areas, the effort will be to develop an effective consumer service so that cooperatives become part of a permanent distributive set-up.

Rural Electric Cooperatives

Pilot rural electric cooperatives are in the process of being set up in five States. The Rural Electrification Corporation will finance these cooperatives. They will undertake supply of electricity for agricultural and agro-industrial purposes. A notable aspect of the scheme is the encouragement of active participation of the people by giving them some degree of control on electricity supply.

COMMUNITY DEVELOPMENT AND PANCHAYATI RAJ

All villages are now covered by community development blocks. There are at present some 5,265 blocks, including 489 tribal development blocks. Village panchayats exist in all States and most Union Territories. The other tiers of Panchayati Raj—Samitis at the block level and Zila Parishads at the district level—have been constituted in all States except Madhya Pradesh, Kerala, Jammu and Kashmir, part of Bihar and Nagaland.

It was assumed in respect of community development that by the end of the initial ten-year period, there would be adequate mobilisation of resources by the local institutions and any separate provision thereafter for the blocks would be unnecessary. In other words, community development was expected to become self-reliant and locally rooted. This assumption has not proved correct. By and large the programme continues to be dependent on Government initiative and even more so on Government funds.

On the brighter side, community development and Panchayati Raj institutions have provided a new dimension to rural development and introduced a significant structural change in the district administration. Improvement of agriculture has received considerable attention throughout. Investment from block funds on agricultural development has, over the years, almost equalled the total provisions for all other sectors of development. In many States, the block organisation has been virtually the only field agency for carrying out development programmes.

The basic need remains to be an integrated approach to rura development, including coordination between official and non-official agencies Agriculture and family planning programmes continue to be priority programmes and would require a large field organisation for their implementation. The State Plans accordingly provide Rs. 84.69 crores for the programme of community development.

Pilot Study on Growth Centres

As a part of studies on area planning, a Centrally sponsored scheme of pilot research project in growth centres is being launched. The aims of the project will be to identify emerging growth centres, their growth potential and their overall development needs, and integrating these centres into the frame of the district to help planning from below. To facilitate such integration, the growth centres will, to the extent possible, be located in districts for which detailed plans are already being drawn up.

IX. FOOD AND NUTRITION

FOOD POLICY AND ADMINISTRATION

The policy for the management of food supplies would obviously have to be changed if the envisaged rate of growth in foodgrains production materialises. The main objectives of food policy in the Fourth Plan are :

(*i*) to ensure stable consumer prices and, in particular, safeguard the interests of low income consumers;

(*ii*) to ensure reasonable prices to producers as an incentive for increasing production; and

(*iii*) to build up an adequate buffer stock of foodgrains to ensure both these objectives.

Instruments of Food Policy

The achievement of these objectives calls for skilful management of food supplies and a flexible strategy depending on factors like available food resources, price trends etc. The measures which are necessary include :

(*a*) continuance of the public distribution system;

(*b*) purchase by the public sector of a sizeable percentage of marketable surplus to meet the needs of public distribution system and buffer stock;

(*c*) imposition of movement restrictions to help the attainment of procurement targets or to prevent, in a condition of shortage, an excessive rise in prices throughout the country;

(*d*) regulation of private trade to curb speculation and hoarding;

(*e*) regulation of bank advances against foodgrains; and

(*f*) continuance of the ban on forward trading.

All these measures are at present being adopted as instruments of policy. A judicious combination of these will be necessary during the Fourth Plan, though the precise role of each may change from year to year.

For an effective public distribution system reliance will be placed on cooperatives rather than on the present system of fair price shops. As it has been decided to do away with concessional imports of foodgrains by 1971, public distribution system and buffer stock operations will depend on internal procurement alone. The procurement target, thus, cannot be less than 8 to 10 million tonnes in a year.

With the emergence of surpluses and the operation of an effective buffer stock in foodgrains, inter-State movement restrictions may be progressively relaxed.

Buffer Stocks

Buffer stocks are of crucial importance for two reasons. First, it is an insurance against marked falls in production as the shortfall could be made up by drawing from the buffer stocks. The second reason is that the buffer stock operations can help to maintain price stability. When prices fall, demand could be created and prices raised by buying for the buffer stock. Similarly, when prices rise, supply could be increased and prices brought down by selling from the buffer stock. A buffer stock of five million tonnes of foodgrains has been considered adequate. The requisite financial provision for an additional buffer stock of 3 million tonnes of foodgrains, after allowing for the 2 million tonnes created in 1968-69, has been made in the Plan.

NUTRITION

The Fourth Plan sets out an integrated nutrition programme. More food is the first step towards better nutrition and the programmes to develop agriculture, along with animal husbandry and fisheries, form the base of all efforts in nutrition.

The important problem to be tackled is the widespread malnutrition among certain vulnerable categories of the population. Nearly two-thirds of expectant mothers belonging to the poorer sections of the community are found to suffer from serious malnutrition.

Infant mortality continues to be high. The health of young children, both pre-school and school-going, needs special care. Protein malnutrition is acute in some parts of the country and deficiency diseases have a high incidence. Specific programmes of nutrition, therefore, must also receive high priority.

The number of new schemes has been kept to the minimum. Some schemes are planned to meet the special needs and requirements of specified groups of people, as those likely to be affected by nutritional anaemia, blindness or protein deficiency. Programmes for pre-school children and expectant and nursing mothers will be concentrated in known areas of acute malnutrition. They will become an important item in the activities of *balwadis*. Various pilot schemes will be started for promoting cheap, nutritious or fortifying foods which will replace in due course what is now received as aid from abroad.

To improve the quality of cereals and thus raise the nutritional level, research efforts have been initiated recently to breed cereal varieties, especially wheat, with a high protein content. In regard to rice, there is still no strain in commercial production which has an improved distribution of amino acids. Another promising area of research relates to pulses. Research on fortification of wheat products and salts will also be extended.

The main scheme relating to unconventional protein foods concerns production of Balahar. Other schemes relate to production of cottonseed flour, weaning food, groundnut flour and soyabean products.

Nutrition education involving dissemination of knowledge regarding proper food habits is proposed to be promoted through a variety of schemes. The principal scheme in operation now is the applied nutrition programme. On the eve of the Fourth Plan, the applied nutrition programme covered 734 blocks and will now be taken up in 450 new blocks.

Nutritional feeding programmes are likely to have the maximum impact when they involve both pre-school and school children. Hence, all the relevant age groups at the centres selected are sought to be covered in the Fourth Plan.

The availability of Balahar will be stepped up from its current level of 26,500 tonnes to about 50,000 tonnes per annum. The number of school children covered is expected to increase from 11 million to 14 million.

A scheme is proposed to avert blindness in children caused by deficiency of vitamin A. This scheme will benefit about 8 million children aged five years and less in areas of high incidence of blindness.

The mid-day meals programme to be executed by the Social Welfare Department will cover annually 10 lakh children each in tribal areas and in the slum areas of metropolitan cities. Similarly 10 lakh children below three years in age, residing in the slum areas of metropolitan cities will be supplied with nutrition food.

The total outlay on nutrition programmes is Rs. 45.18 crores.

X. IRRIGATION AND FLOOD CONTROL

IRRIGATION

Irrigation receives a high priority in the Fourth Plan, as in earlier plans. The awareness of the need to develop irrigation speedily was heightened because of the two severe droughts of 1965-66 and 1966-67. Further, only with assured irrigation fuller benefits can be reaped from intensive cultivation with new seeds and fertilisers.

The surface water resources of the country have been placed at 168 million hectare metres, of which about 56 million hectare metres can be used for irrigation. During the Fourth Plan, an additional 5 million hectare metres will be used for irrigation, taking the total utilisation to 25.5 million hectare metres or 46 per cent of the usable flow.

The usable flow, it is estimated, can irrigate 60 million hectares of land. Hence, the country's irrigation potential may be placed at 45 million hectares under major and medium irrigation and 15 million hectares under minor irrigation. The potential created by 1968-69 is about 26.6 million hectares—18.5 million hectares from major and medium schemes and 8.1 million hectares from minor schemes.

The exploitable ground water resources of about 22 million hectare metres are capable of irrigating 22 million hectares. The potential created by 1968-69 is placed at 10.9 million hectares. To have assured irrigation, it is important to create the balance of potential over a period of about 15 years for ground water and about 20 years for surface water.

Plan Objectives

The Plan objectives include integrated use and efficient management of surface and ground water resources; extension of irrigation, major, medium and minor; and, location of new projects, wherever practicable in areas which lack assured rainfall as well as irrigation

The recent shift of emphasis towards optimal production from irrigated tracts will be kept in mind not only in the location and design of future works but also in important details like the provision of field channels and drainage. Due attention will be given at the time of project formulation itself to other connected aspects of agricultural development in the command areas of the projects such as land shaping, requirements of good seeds, fertilisers, credits, roads and marketing facilities.

Programmes of minor irrigation will be dovetailed with rural electrification schemes for energising clusters of wells or tubewells. The focus of rural electrification will be the pump-set that is to be energised rather than the village which is to be electrified. Among the new trends in the minor irrigation programme are the reduction of subsidies and stress on State or community works for helping the small farmer.

Efforts will be made to reduce further the time lag between the creation and utilisation of irrigation potential.

Major and Medium Schemes

All the medium schemes on which appreciable progress has been made will be completed in the Fourth Plan period. Many of the major schemes on which substantial expenditure has already been incurred will be completed or otherwise reach a stage when benefits will start accruing. The rest of the schemes—outlay of Rs. 86 crores—will reach various stages of construction, and some of them will start yielding partial benefits in the first year of the Fifth Plan.

It is proposed to start new schemes, estimated to cost about Rs. 750 crores, mostly in the latter part of the Fourth Plan. An outlay of Rs. 140 crores is provided for them. More than one-third of this outlay will be for medium schemes and the rest for major schemes. The medium schemes would be located mostly in scarcity and drought-affected areas.

The outlay on major and medium schemes is:

	(Rs. crores)
Continuing schemes	771.4
New schemes	140.4
Investigations and research	42.0
TOTAL	953.8

During the Plan, irrigation potential of about 4.8 million hectares would be created, of which 4·7 million hectares would be from continuing schemes and 0.1 million hectares from new schemes. Utilisation is expected to be about 3.9 million hectares.

Comprehensive river basin planning will be given increased attention. Master plans have to be prepared for long-term development of irrigation in each river basin, including inter-State rivers. In preparing these plans, the optimum economical development of a river basin has to be kept in view, covering various aspects, such as irrigation, flood control, navigation and soil conservation. Preparation of a new basin-wise plan will be taken up in the central sector of the Plan so that future schemes dovetail into these plans.

Minor Schemes

Schemes with a maximum outlay of Rs. 25 lakhs in the plains and Rs. 30 lakhs in hill areas are classified as minor schemes. The outlay on minor irrigation in the Agriculture sector is Rs. 515.7 crores —Rs. 501.5 crores for States, Rs. 6.2 crores for Union Territories and Rs. 8 crores for Centre.

The major portion of public sector outlay is expected to be spent on construction of community works by State Governments, Panchayati Raj institutions or other authorities. Such community works—tanks, diversion projects, State tubewells and river pumping projects—mostly benefit small farmers who are not otherwise able to provide themselves with irrigation facilities. Loans and subsidies from the public sector outlay will be restricted to small farmers. *Taccavi* loans are proposed to be restricted to areas where institutional financing is not adequately developed.

Minor irrigation works are expected to derive further finances of Rs. 650 crores from the institutional sector, including commercial banks, and Rs. 300 crores from cultivators' own resources.

Rural electrification will have an outlay of Rs. 444.69 crores—States Rs. 285.15 crores, Union Territories Rs. 9.54 crores and Centre Rs. 150 crores. A Rural Electrification Corporation with a plan outlay of Rs. 150 crores has been set up in the public sector. It will provide loans to the State electricity boards for energising irrigation pump-sets and for generally promoting the electrification of rural areas, specially of the less advanced areas. The Corporation will also provide loans to a number of rural electric cooperatives which will be set up during the Plan period.

It is estimated that 1.25 million pump-sets and tubewells in all will be energised during the Plan period.

The Plan schemes of minor irrigation are expected to add 4.8 million hectares to irrigated area. After deducting depreciation on existing works, net new irrigated area will be 3.2 million hectares. Benefits of improvement of irrigation supplies would cover 2.25 million hectares and of drainage and embankments 0.15 million hectares.

FLOOD CONTROL

The average annual area affected by floods during 1953 to 1968 was six million hectares, of which the area under crop was about two million hectares. Flood problems are serious in certain States like Assam, Bihar, U.P. and West Bengal.

The national programme of flood control was initiated in 1954 to undertake various flood control measures like construction of new embankments and drainage channels, and to draw up schemes for town protection and for raising villages above flood level. The programme has made considerable headway. As a result, nearly 5.9 million hectares of land, usually subjected to flood damage, have been afforded reasonable protection. An additional 1.5 million hectares will be covered by the Plan programmes.

Flood control, drainage and anti-waterlogging works are closely related to irrigation. Schemes have, therefore, to be formulated in an integrated manner so that measures adopted in one place do not accentuate the problem in a neighbouring area.

It is proposed to lay greater emphasis on the setting up of a scientific flood forecasting system. Some of the other programmes will be for undertaking a more precise survey of the areas prone to flooding, drainage congestion and waterlogging and for experimental dredging operations for the flood management of the Brahmaputra.

The outlay on flood control is Rs. 132.7 crores.

Soil Conservation

Soil conservation measures are intended to prevent excessive flow of silt and sediment from catchment areas, which affect the effective storage and life of large storage reservoirs. The programme was executed in 13 river valley-catchments in the Third Plan. Up to the end of 1968-69, 7100 sq. km. were treated. All the States except West Bengal, Jammu and Kashmir and Bihar have enacted legislation for soil and water convservation.

The Plan programmes provide for work on eight new projects and for extending it on existing projects. The outlay is about Rs. 27 crores.

XI. POWER

The sources of electric power are coal, oil, natural gas, atomic fuel and water and they are available in plenty in the country. Actually, only a seventh of the potential water resources available has been harnessed for electricity by now.

The following table indicates growth of electricity generation and consumption :

Year			Installed generating capacity at the end of the year (mill. kw)	Electricity generated during the year (mill. kwh)	Electricity consumed during the year (mill. kwh)
1960-61	Hydro	1.92			
	Thermal	3.40			
	Diesel	0.33	5.65	20,123	16,644
1965-66	Hydro	4.10			
	Thermal	5.65			
	Diesel	0.42	10.17	36,825	30,366
1968-69	Hydro	5.91			
	Thermal	7.88			
	Diesel	0.50	14.29	51,700	41,400

It can be seen from the table that about 4.12 million of generating capacity, nearly equal to the total added during the Third Plan, was installed between 1966 and 1969. This appreciable addition, coupled with a slower rate of growth in demand, has made the power position at the beginning of the Fourth Plan satisfactory on the whole, except for marginal shortages in some areas.

Interconnection between State grid systems enabling inter-State transfer of power, was a significant developmen during the Third Plan and it continued to receive priority during the Annual Plans. The

Third Plan envisaged that all power stations should be interconnected to form State, zonal or super-grids so that the generation capacities are pooled and used to the best advantage of the region. For formation of grids, the country has been divided into five regions, Northern, Western, Southern, Eastern and North-Eastern each with a regional electricity board. In the Third Plan the additions made to transmission and distribution were not commensurate with the increase in generation capacity. Over the three Annual Plans, however, the position has improved to some extent. At the end of the Second Plan 25,630 villages had been electrified and 71,280 by March, 1969. By 1968-69 about 1,087,567 pumps were energised as against about 192,000 in 1961 and 513,000 in 1966.

Outlays and Programmes

The outlay for power in the public sector in the Fourth Plan is Rs. 2,447.57 crores—Rs. 1,254.64 crores for generation, Rs. 721.58 crores for transmission and distribution, Rs. 444.69 crores for rural electrification, and Rs. 26.66 crores for investigation and other schemes. The private sector is expected to provide about Rs. 75 crores, primarily for strengthening of their distribution network.

The States would be able to add 6.937 million kw to their installed capacity. Major hydel projects such as Beas (Dehar), Yamuna, Ramganga, Ukai, Subernarekha, Sharavati, Idikki, Balimela and large thermal stations at Santaldih, Kothagudem, Nasik, Koradi, Dhuvaran and Ukai will go into operation during the Plan period. The new schemes for which provision has been made in the State Plans are yet to be identified.

To offset the persisting imbalance between generating capacity and transmission and distribution facilities and to facilitate an acclerated programme of energising pump-sets the States have made a provision of Rs. 645.51 crores for transmission and distribution. Emphasis has been laid on inter-State and inter-regional lines so that the power system in each region can be operated on an integrated basis.

The regional power systems are proposed to be interlinked to form an all-India grid within the Plan period. For constructing these lines to form the all-India grid a provision of Rs. 22 crores is made. It will be taken up as a Centrally sponsored programme.

Within the States Plan provision of Rs. 285.15 crores for rural electrification programmes, they would be able to energise about 750,000 pump-sets. The investments from the Rural Electrification Corporation would supplement the States' programmes to energise an additional 500,000 pump-sets, taking the total to 1.25 million.

The Union Territories depend largely on the neighbouring States for supply of power. During the Plan period, 0.17 million kw of installed capacity will be added by completion of schemes in hand. No new generation schemes are included in their Plans. Four thousand pump-sets are expected to be energised in the Union Territories.

For continuing schemes of atomic power generation Rs. 120 crores are set apart in the Central Plan. The first atomic power station at Tarapur of 380 MW capacity has gone into operation in 1969. At the second station at Rana Pratap Sagar, the first unit of 200 MW is expected to be commissioned by 1971, and the second unit about two years later. In the third station at Kalpakkam (400 MW), the first unit (200 MW) is expected to go into operation in 1973-74. A provision of Rs. 15 crores has been made in the Plan for advance action on a new atomic power station, the location of which has yet to be decided.

Of the other Central sector schemes, the D.V.C. programme includes installation of two thermal sets of 120 MW each at Chandrapura. The Badarpur thermal station of 300 MW installed capacity is expected to have its first unit in operation in 1971-72 and the other two units in 1972-73. Three new Central hydro-electric projects—Loktak in Manipur, Baira-Siul in Himachal Pradesh and Salal in Jammu and Kashmir—are included in the Central plan. The former two are scheduled to go into operation towards the end of the Plan.

Indigenous public sector manufacturers will supply plant and equipment for more than 50 per cent of the generating capacity being added during the Plan period. They would also be having in various stages of manufacture plant and equipment to cover a good portion of the generating capacity of spill-over State projects, and for new generation schemes which are yet to be identified. There is adequate capacity in the country for manufacture of other heavy electrical equipment and no import of such equipment is envisaged in future.

By the end of the Plan a net installed capacity of 23 million kw can be achieved, allowing for retirement of 0.4 million kw of old and obsolete plant. Out of this, 9.42 million kw will be from hydro, 12.75 million kw from thermal and 0.98 million kw from nuclear stations.

A number of hydro and thermal schemes will be under construction towards the end of the Plan. On completion during the Fifth Plan these will provide an additional capacity of about 3 million kw.

XII. VILLAGE AND SMALL INDUSTRIES

Modern small scale industries have grown largely over the last decade. Up to the end of 1968-69, about 140,000 small scale units had been registered as compared to about 36,000 in 1962. Their growth is assisted by government by supply of machinery on hire-purchase and by purchases by the Central Government departments from them. There has been a four-fold increase in the value of these assistances between 1960-61 and 1968-69. Industrial Cooperatives have registered considerable progress between these years in terms of their number, membership and sales.

Apart from quantitative growth, there has been significant improvement in the quality of the products of many small scale industries. This is reflected in the increased variety of items produced to the standards and specifications of the defence services, railways and several large scale industries and production of a number of new items, parts and components requiring high technology and precision.

Industrial estates have provided an impetus to the growth of small industries and some 346 industrial estates had been completed by March 1969 as compared to 66 in 1960-61. The small units set up in these estates provided employment to about 82,700 persons and produce goods worth Rs. 99.25 crores annually. A large number of industrial estates started in rural and semi-urban areas, however, languished owing mainly, to unsuitable location, lack of integrated planning and marketing facilities and shortage of raw materials. By 1969, one hundred and twenty five cooperative societies had been registered to establish cooperative industrial estates.

Substantial progress had been made in the rehabilitation of the handloom industry. Its share in the total production of cloth was about 30 per cent in 1960 and 45 per cent in 1968. The industry employed nearly 3 million weavers.

There has been a considerable progress in the production of khadi. The industry provided employment, which was mostly part-time, to nearly 1.34 million persons. The Khadi and Village Industries Commission assists production centres of various village industries which produce hand-pound paddy, village oil, gur and khandsari, palm gur, village leather, non-edible oils and soap, and hand-made paper. Apart from contributing to the growth in production of these commodities, it has contributed to a substantial growth in full-time and part-time rural employment.

Production of raw silk increased from 1.49 million kgs. in 1960-61 to 2.32 million kgs. in 1968-69. The value of exports of silk fabrics and waste rose from Rs. 1.37 crores in 1960 to Rs. 5.97 crores in 1968. Sericulture provided part-time employment to three million persons over the Third Plan.

During the Third Plan the production of coir and coir products maintained steady progress. The value of exports of coir yarn and products increased from Rs. 8.7 crores in 1960-61 to Rs. 14.50 crores in 1968-69. The industry is estimated to provide employment to over 0.8 million persons.

The total gross output of handicrafts in 1966 was estimated at Rs. 317 crores as against Rs. 253 crores in 1961.

Approach and Outlay

The objectives of the programmes in the Fourth Plane are : to improve progressively the production techniques of small industries to enable them to produce quality goods and to bring them to a viable level; to promote decentralisation and dispersal of industries; and to promote agro-based industries. Fiscal and other measures are required to enable small industries to stand competition with large industries. Since a large number of industries is proposed to be delicensed during the Plan period a variety of positive measures becomes necessary. Mechanised small scale industries should be assisted to grow into larger and more viable units.

Apart from benefiting from general industrial programmes, small industries can have a large scope to set up agro-industries or units to provide repair and service facilities for agricultural machinery. The cooperative form of organisation will be encouraged wherever appropriate.

The problems of khadi and village industries, are of a different character. At their present technological level, these industries will not be able to sustain themselves without appropriate fiscal support. The recommendations of the Khadi and Village Industries Committee (Asoka Mehta Committee) are under consideration. Some of the recommendations are: a seven-year programme for progressive improvement of techniques; reduction of subsidy in respect of traditional and Ambar khadi so that additional production will be on self-sufficiency basis; free scope for introduction of technological improvements and power; and transforming Khadi and Village Industries Commission into a Rural Industries Commission.

The Plan outlay in the public sector for the development of village and small industries is Rs. 293 crores. It is exclusive of the outlays on village and small industries made in other programmes such as those for industrially backward areas, displaced persons, cooperative processing and industrial areas. In addition to the public sector outlay, about Rs. 560 crores are expected to be invested from private sources, including financial and banking institutions. Thus, a total outlay of Rs. 850 crores is estimated to be available.

Programmes

Adequate finances will be ensured to small units both under the State Aid to Industries Act and from financial and banking institutions. For units engaged in production of priority items for exports or to replace imports, efforts will be made to ensure regular and adequate supplies of imported and scarce indigenous raw materials, including intermediates.

Facilities for research, improving production techniques, designs development, industrial extension services and testing facilities will be enlarged. Studies will be undertaken, to identify intermediate technologies. Training programmes for improvement in skills in selected trades particularly of rural artisans and for industrial management will be enlarged.

A phased programme of modernisation of machinery and equipment for a group of selected industries such as machine tools, foundry and re-rolling; encouraging the production of items which are now being imported and other items required by priority industries including agro-industries and schemes for training and financial assistance to technically qualified persons to enable them to set up industries are among other aspects of the programme.

Schemes for supply of machines on hire-purchase will be expanded with the assistance of banks. Efforts will be continued to collect and disseminate information about the parts and components needed by large units and to encourage the large industries to buy from small units. Items capable of being produced in the small scale sector will be excluded while licensing capacities in the large scale sector.

The programme of industrial estates will be consolidated. Ordinarily, new estates will not be set up in the vicinity of cities and large towns; they will be established in small towns and promising rural and backward areas. Encouragement will be given to public sector undertakings to establish estates for small ancillary units, and to the cooperative industrial estates. The funds allotted for the industrial development areas would be used also for promoting small scale industries.

Production of cotton cloth by handloom, powerloom and khadi industries, estimated at 3,596 million metres at present, is expected to increase to 4,250 million metres in 1973-74. Handloom cooperatives will be enabled to meet their working capital requirements from the State Cooperative Banks. Steps will be taken to arrange regular supply of yarn and other essential raw materials at reasonable rates, to train the weavers in improved equipment and appliances, to enforce more effectively restrictions reserving specified varieties of cloth exclusively for the handloom sector, to concentrate on production of varieties which provide higher earnings and which are required for exports, and to set up common service facilities centres. It is proposed to reduce the rebate on sale.

The value of the exports of the handloom products is expected to increase from about Rs. 8 crores in 1968 to about Rs. 15 crores by 1973-74.

Additional production of traditional and Ambar khadi in future will be on self-sufficiency basis. The larger outlay for khadi and village industries will be used to improve their production techniques and to make them viable.

Under the programme of the Central Silk Board, priority will be given to research to determine suitable combinations of silk worms for large scale use in future. In the silk growing States, the main effort will be to increase the production through greater use of fertilisers. For improving the quality of reeled silk, cottage basins will speedily replace traditional charkhas, and efforts will be made for organising them into inexpensive cottage filatures with the use of power and steam. The value of exports of silk fabrics and waste is expected to increase from about Rs. 6 crores in 1968 to about Rs. 10 crores by 1973-74. Production of raw silk is expected to increase from 2.32 million kgs. in 1968-69 to about 3.0 million kgs. in 1973-74.

A Study Group on Coir Industry has recently been set up to recommend changes in the development of coir industry to increase its production, improve quality and to develop internal sales and exports. The Coir Board will also pursue its research for improving quality and evolving new products for domestic and export markets. Mechanisation of the mat weaving and spinning sectors will be assisted as also the establishment of mechanical de-fibering plants. State Cooperative Banks are to advance loans for coir cooperatives. The value of the exports of coir industry is expected to increase from about Rs. 14.5 crores in 1968-69 to about Rs. 17 crores in 1973-74.

The programme of development for handicrafts will aim at improvement in the productivity of artisans by such means as supply of improved appliances and introduction of new designs. Special efforts will be made for the development of those selected crafts which have an expanding demand in the export market. It is proposed to set up model centres for stimulating the growth of well-organised units. For preservation of skills, facilities will be provided for the training of young apprentices under master craftsmen. New emporia will be set up for increasing sales. The sales through public emporia are expected to rise from the present Rs. 4 crores to Rs. 10 crores and the value of exports from about Rs. 76.5 crores to Rs. 100 crores by the end of the Fourth Plan.

For setting up rural industries projects 45 areas were selected. There has been encouraging progress only in about a third of them. It has now been decided to wind up the projects where the progress has not been good and continue only the rest.

XIII. INDUSTRY AND MINERALS

Industrial progress has been markedly uneven during the eight years which comprise the Third Plan and the subsequent Annual Plans. The percentage of increase in industrial output (1960 as base) was 8.2 in 1961-62, 9.6 in 1962-63, 9.2 in 1963-64 and 8.8 in 1964-65. Thereafter there was a sharp deterioration in the rate of growth of output. It fell to 5.3 in 1965-66, 0.2 in 1966-67 and 0.5 in 1967-68 The decline in these years was mainly due to low rates of growth in textiles, food industries and metals and machinery industries. Industrial production, however, showed a sharp recovery during 1968-69 with a rise of 6.2 per cent.

The post-1964-65 decline is attributable to several factors. The most important factors were the series of dislocations caused by the hostilities in 1965 and the two successive droughts. The pause in external aid in 1965 resulted in a shortage of raw materials and components and the droughts occasioned a shortage of agricultural raw materials. Although aid was subsequently resumed and the import policy for raw materials was liberalised after devaluation, other problems arose. The two bad agricultural years led to considerable decline in savings, in investments and in purchasing power. At this stage of reduced domestic demand completion of projects already initiated, brought about significant additions to capacity and accentuated the problem of unutilised capacity, more particularly in the capital goods industries. The cost of projects also went up consequent on devaluation. To some extent, the position was relieved by a determined attempt to find external markets. In a variety of industrial goods, a sellers' market was transformed into a buyers' market for the first time in the last two decades.

With the improvement in agricultural production in 1967-68, industrial production and investment have picked up. Capacity utilisation has considerably improved in many industries, except in a few industries like machine tools and cables. A fuller utilisation of capacity in these industries is dependent on faster economic development and larger exports.

Diversified Structure

In spite of a rather uneven performance, a diversified industrial structure was created during this period. Substantial capacity has been created in many new lines. A fairly sound base for future growth has been laid. In particular, the commencement of production of the different units in the Heavy Engineering Corporation, Mining and Allied Machinery Corporation and of heavy electrical projects has now made it possible, largely through indigenous effort, the expansion of further capacity in iron and steel, mining and power generation. Virtual self-sufficiency has been realised in equipment and rolling stock for railways, and road transport and communications. Machinery manufacturing capacity for textiles, sugar and cement has been developed. Design and engineering capabilities have been expanded. Process technology has been either acquired or developed to build industrial projects like fertilisers, rayon and dissolving pulp with maximum indigenous effort. Production capacity of steel and non-ferrous metals, and petroleum, fertiliser, and petro-chemical industries has been expanded. In a wide range of industries, it will be possible merely by the fuller utilisation of existing capacity—as distinguished from new investment—to achieve substantially higher levels of production in the initial years of the Plan.

A certain measure of dispersal of industries has also been achieved. Several of the public sector projects of this period, such as the heavy electrical projects at Hardwar and Ramachandrapuram and the instrument project at Kota, were established in industrially backward regions. Establishment of industrial areas by several State Governments and such measures as exemption from capital gains tax for industries moving out of metropolitan towns also contributed in some measure to dispersal.

Approach

The approach is based on the following considerations :

(1) Increasing opportunities for employment, particularly, non-farm employment.

(2) Achieving self-reliance speedily particularly in respect of capital equipment, metals, and petroleum products the demand for which is increasing rapidly. Dependence

on imports is specially large in these areas. Consequently, the domestic production in these industries should be expanded over the next decade or so. As these industries are capital intensive and their units relatively large, they should be carefully planned and put into operation without much delay.

(3) Bringing about dispersed industrial development. Such a dispersal is necessary to create non-farm employment throughout the country. Further, the cost of providing necessary infrastructure for further expansion of existing large urban and industrial centres is often much higher than what it might be if development was purposefully directed to occur in smaller towns and rural areas.

(4) Avoiding technological unemployment among workers in traditional industries following the spread of modern technology. In the long range, technological advancement is a must for increasing productivity of traditional industries. Hence protective measures like subsidy should be undertaken only for a fixed period. Emphasis should be placed on positive schemes of assistance which ensure proper location and continuous progress.

Objectives

In broad terms, the objectives of investments in the industrial field are :

(1) completing investment in relation to which commitments have already been made;

(2) increasing existing capacities to levels required for present or future development, in particular, providing for more adequate internal supplies of essentials in increasing demands or needed by import substitution or for export promotion; and

(3) taking advantage of internal developments or availabilities to build new industries or new bases for industries.

In making these investments and otherwise the policy will be to achieve as widespread an industrialisation of the country as possible, to encourage emergence of new entrepreneurship and to bring about greater dispersal in the ownership and control of industries.

The programmes in the public sector envisage further expansion in high priority fields and investments in certain industries in which the development of private sector has not been enough to meet requirements of the economy. Cooperative and private sectors will make a significant contribution in all other areas and necessary facilities for such expansion will be provided, except to the extent that restrictions are considered necessary to prevent concentration of economic power

Licensing Policy

To accelerate industrial development and improve administrative efficiency, a review of the system of controls has been considered necessary. The primary purpose of control is to ensure proper allocation of scarce resources. Thus, import control to ensure scarce foreign exchange resources and control on commodities in short supply would have to continue. Within the broad frame-work of control in strategic areas, there is advantage in allowing the market much fuller play. The supply of a variety of industrial commodities has considerably eased and it is necessary to stimulate demand and production. With the growing availability of capital equipment and raw materials from within the country, control of further expansion of industries largely based on domestic resources has assumed less importance.

In this context, the Government has recently announced certain changes in industrial licensing policy after considering various recommendations of the Planning Commission, the Administrative Reforms Commission and the Industrial Licensing Policy Inquiry Committee. The broad features of this modified licensing policy are as follows :

(1) There would be a list of 'core' industries consisting of basic, critical and strategic industries for which detailed industry plans will be prepared and essential inputs made available on a priority basis. A list of 9 broad groups of industries has been drawn up for inclusion in the 'core' sector for the Plan period.

(2) All new investment propositions of over Rs. 5 crores shall be deemed to be in the 'heavy investment' sector. Except

for industries reserved for the public sector under the Industrial Policy Resolution, 1956, as amended from time to time, undertakings belonging to the larger industrial houses together with foreign concerns would be expected, along with other applicants, to participate in and contribute to the establishment of industries in the 'core' and 'heavy investment' sectors.

(3) In the middles ector, involving investments ranging from Rs. 1 crore to Rs. 5 crores applicants other than 'larger industrial houses' shall be given special consideration and licences shall be issued liberally, except where foreign exchange implications necessitate careful scrutiny. Applications from the 'larger industrial houses' and foreign branches or subsidiaries shall be considered for normal expansion necessary to develop to a minimum economic level which would ensure greater cost efficiency.

(4) New undertakings or substantial expansion requiring investment of Rs. 1 crore or less, will not be required to take a licence under the Industries (Development and Regulation) Act. This exemption is applicable only to undertakings having existing assets of less than Rs. 5 crores and which (a) do not belong to the 'larger industrial houses', (b) do not require more than Rs. 10 lakhs or more than 10 per cent by way of foreign exchange for import of machinery and equipment, whichever is less, and do not also require foreign exchange except for the marginal import of raw materials, components and the like, (c) are not foreign companies or branches or subsidiaries of foreign companies, and (d) are not 'dominant undertakings' as defined in the Monopolies Act.

(5) The existing policy for reservation of small scale sector will continue and the area of such reservation will be extended. In respect of agro-industries, preference will be given to the cooperative sector.

Consistent with the new approach to industrial planning, it is not proposed to lay down, for the Fourth Plan, targets for all industries. Definite targets are proposed to be fixed only for industries included in the 'core' sector. For the remaining industries, estimates of requirements and production have been projected.

Monopolies

To guard against the creation of monopolies and increase in concentration the following measures have been suggested under the modified industrial licensing policy : In the middle sector involving investments ranging from Rs. 1 crore to Rs. 5 crores applications from largerindustrial houses would normally be considered only under special circumstances. Even in the 'core' and the 'heavy investment' sectors a new industrial licence would be given to an industrial house only in the light of proved performance in relation to earlier licences. Credit policies of the financial institutions will be so oriented as to prevent an undue flow of financial resources to 'large industrial houses'. It may be desirable to stipulate that their own contribution in a project should be proportionately higher and funds should not be made available to them for non-priority industries. Where public financial establishments, including the Life Insurance Corporation, have substantial shareholding in a company, they may preferably exercise their full rights, including the appointment of representatives to the board of directors. They will also, as part of their financial assistance arrangements, exercise option in future for converting loans and debentures into equity.

Industries in Backward Areas

It has been decided that financial and credit institutions should provide certain general concessions for financing industries in backward areas. The Central Government would subsidise establishment of industrial units in backward areas to the extent of one-tenth of the capital for projects costing up to Rs. 50 lakhs. For projects involving larger capital outlay, grant of subsidy would be considered on merits. This subsidy will be available to two districts in each of the nine States—Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Nagaland, Orissa, Rajasthan and Uttar Pradesh—and for one district in each of the other States and backward areas of Union Territories. Other aspects of developing backward areas such as provision of infrastructure facilities and measures to prevent further concentration of industries in metropolitan regions are also receiving attention.

Foreign Collaboration

The basic policy in regard to foreign collaboration and foreign investment will not undergo any change. But in its detailed application, care has to be taken to ensure that foreign collaboration is resorted to only for meeting a critical gap and does not inhibit the maximum utilisation of domestic know-how and services. For example, foreign collaboration in the production of consumer goods, will not ordinarily be permitted except in the interest of larger exports. Where indigenous effort can, within a short time, provide the services or goods or a substitute, collaboration ought not to be allowed. Every proposal for foreign collaboration will undergo fairly rigid tests. Import of foreign know-how, particularly in sophisticated industrial fields, would continue to be required. Even here, simultaneous efforts should be made to adopt such know-how through indigenous effort and to improve on it to avoid future purchases. A Foreign Investment Board has been set up to deal with collaboration matters.

Public Sector

Over the last decade, massive investments, around Rs. 3,400 crores, have been made by the Central Government in industrial and mineral projects. A substantial proportion of these have been in heavy industries, such as steel, coal, lignite, heavy engineering including electrical equipment, petroleum and fertilisers.

While these investments have contributed significantly to the strengthening of the industrial structure, the overall performance has not been uniformly satisfactory. The experience with several projects was of delays in completion schedules and large increases in original investment estimates. Output also remained substantially below installed capacity. Expectations of a significant contribution to Plan resources from the internal resources of these enterprises have not been realised; on the other hand, several of them have to rely on budgetary support to meet their cash losses. Though these basic and heavy industries with long gestation periods are not expected to achieve full rated capacity or production in a short time and show large profits, there is considerable scope for improvement in efficiency and performance.

The Administrative Reforms Commission has recommended that appropriate relationship between the enterprises on the one hand and Government and Parliament on the other, should develop so as to leave adequate initiative and operational autonomy to the management. While Parliament must oversee and review the performance of public undertakings to promote and safeguard public interest, the manner of achieving this should not weaken initiative in the management and thus affect its efficiency. Similarly, Government should reserve for itself only such powers as are required to determine questions of policy and to ensure that their programmes conform to the accepted plans so that the enterprises are run on commercial lines. Equally important is the delegation of powers between the various tiers of management within the enterprise.

The system of deputing officers from the administrative services for short periods with frequent transfers at the top level detracts from continuity and consistency in management policy. It does not provide for a commitment of the top management to the success of the public enterprises. There is need to develop a cadre of professional managers with adequate expertise in the fields of financial, production, personnel and marketing management. Opportunities should exist for suitable persons from within the enterprise to rise to top management positions.

Each public sector enterprise must set down its objectives and targets, prepare an appropriate budget and periodically compare performance data with budget estimates.

There is need for close coordination between the manufacturing plants and other public enterprises or Government agencies who are the buyers in many instances to dovetail supply and production.

Outlays

The Plan envisages an investment of about Rs. 5,298 crores in organised industry and mining—Rs. 3,048 crores in the public sector and Rs. 2,250 crores in the private and cooperative sectors.

The outlay in the public sector would be Rs. 3,337.7 crores, since it includes Rs. 250 crores for transfer to private and cooperative sectors through financial institutions and Rs. 40 crores for supporting plantation programmes having a bearing on export earnings and for State Industrial Development Corporations.

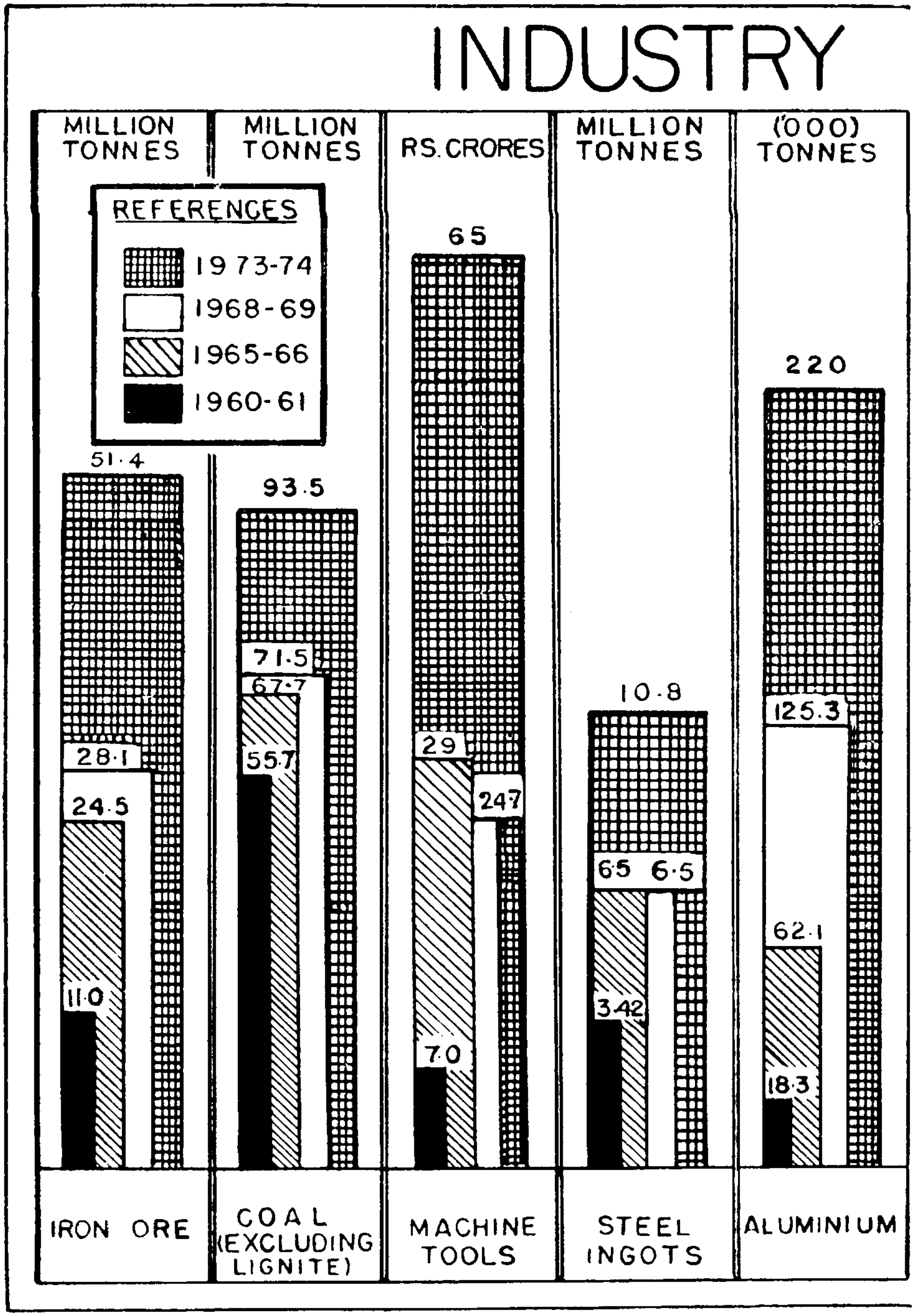
Of the total outlay in the public sector, Rs. 3,150.9 crores will be in the Central Sector and Rs. 186.8 crores in States and Union Territories.

The pattern of utilisation of the Central sector outlay will be :

Ministry/Department of	(Rs. crores)
Steel and Heavy Engineering	1,120.67
Industrial Development	214.41
Mines and Metals	510.02
Chemicals	589.38
Petroleum	303.20
Foreign Trade	39.91
Finance	268.02
Transport and Shipping	41.00
Atomic Energy	64.25
Total :	3,150.86

The public sector investments would strengthen the control of Government over the commanding heights of the economy. It wil account for 60 per cent of the total investments envisaged and a little over three-fourths of the investments envisaged in the 'core' sector. Looked at from another angle, 'core' industries would represent about 80 per cent of the total public sector investment of around Rs. 3000 crores in large industries and minerals. Thus, both in terms of the proportionate magnitude of investments and the nature of the investments, the public sector will occupy a pre-eminent position by the end of the Plan.

The major proportion of the outlay in the public sector is intended for completion of projects already under implementation and projects on which investment decisions have been taken. New projects are envisaged in high priority fields like fertilisers, pesticides, petrochemicals and non-ferrous metals, and development of such resources


INDUSTRY
MILLION TONNES
MILLION TONNES
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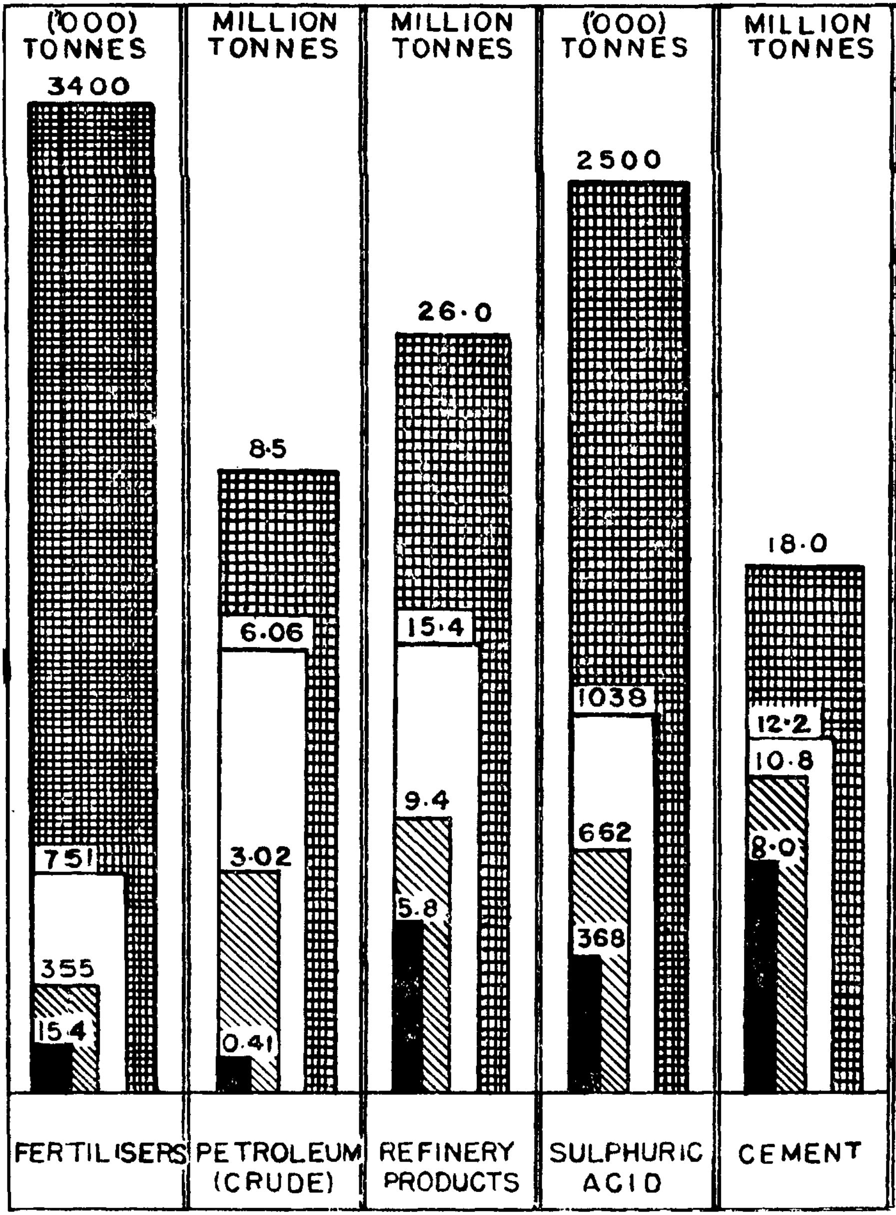
REFERENCES
1973-74
1968-69
1965-66
1960-61
51·4
28·1
24·5
11·0
93·5
71·5
67·7
55·7
65
29
24·7
7·0
10·8
6·5
6·5
3·42
220
125·3
62·1
18·3
IRON ORE
COAL (EXCLUDING LIGNITE)
MACHINE TOOLS
STEEL INGOTS
ALUMINIUM

AND MINERALS



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as iron ore, pyrites and rock-phosphate. New investment in the engineering industries is limited to a few comparatively small projects for filling critical gaps. A Textile Corporation is to be set up with an outlay of Rs. 17.5 crores primarily for reconstruction and modernisation of viable mills taken over by Government. A provision of Rs. 60 crores has been made for the Paper Corporation. The Cement Corporation will complete the two projects already under way and establish three more projects during the Plan period.

INDUSTRIAL PROGRAMMES

Iron and Steel

The domestic demand for finished steel and market pig iron by 1973-74 is estimated at about 7.12 million tonnes and 1.95 million tonnes, respectively. It is envisaged that the capacity will be stepped up from the level of approximately 9 million tonnes in 1968-69 to 12 million tonnes of ingots by 1973-74.

The specific programmes are the expansion of the Bhilai steel plant and completion of the Bokaro first stage of 1.7 million tonnes ingot capacity. The expansion of the Bhilai steel plant programmed originally was for stepping up capacity from 2.5 million tonnes to 3.2 million tonnes; however, an alternate scheme of expansion to 4.2 million tonnes is also under study. A plate mill is proposed to be set up. Further, it is proposed to take up the expansion of Bokaro plant (to a capacity of 4.0 million tonnes) to achieve a capacity of 2.5 million tonnes by 1973-74.

The production of pig iron is expected to be 3.8 million tonnes during 1973-74. Exports by the end of the Plan will be about one million tonnes of finished steel and 1.5 million tonnes of pig iron.

In view of the long gestation implicit in the creation of additional capacity for steel, action has to be initiated during the Plan for meeting the future requirements of steel and pig iron. Provision of Rs. 110 crores has been made for this purpose. Detailed studies are in progress in respect of Hospet, Salem and Visakhapatnam plants.

Non-ferrous Metals

It is proposed to expand considerably the aluminium industry and make significant additions to copper and zinc.

Aluminium production is expected to be stepped up from about 125,000 tonnes in 1968-69 to 220,000 tonnes by 1973-74. In the public sector two smelters will be established at Korba and Koyna with alumina production facilities. In view of substantial deposits of good grade bauxite in Kutch and Saurashtra an export-oriented alumina plant has been proposed in the area. In addition to the public sector programme, capacity in the private sector will also be expanded.

The production of copper is at present confined to the output from the Indian Copper Corportaion at Ghatsila, Bihar. The existing capacity of 9,600 tonnes per annum is to be stepped up to 16,500 tonnes. In the public sector, the major project is the exploitation of the Khetri-Kolihan deposits in Rajasthan to produce 31,000 tonnes of copper per annum. In addition, it is proposed to take up exploitation of the Rakha copper deposits in Bihar.

Zawar mines near Udaipur are the only mines producing zinc ore. It is proposed to expand the mining activities so as to increase the output of 2,000 tonnes per day and meet the requirements of the existing smelter at Udaipur for producing 18,000 tonnes of zinc per annum. During the Plan, further expansion of the mines is envisaged for producing 4,000 tonnes per day and meeting the expansion of the smelter from 18,000 to 36,000 tonnes per annum. The Tundoo Smelter in Bihar is to be reconditioned for more efficient working. In the private sector, zinc is produced at Alwaye from imported concentrates. The capacity of the plant is 20,000 tonnes per annum and, during the Plan, it is proposed to double this capacity.

Engineering Industries

In engineering industries, the investments are primarily for completion of projects. The installed capacity for some of the major electrical equipments will increase to 3.58 million kw for steam turbines and generators, 1.7 million kw for hydro-turbines, generators and power boilers, 1.63 million HP for electric motors above 200 HP and 14.94 million KVA for transformers. Expansion is also envisaged in machine tool production, transport and communication equipment and agricultural machinery.

Shipbuilding

The production capacity of Hindustan Shipyard, Visakhapatnam, is to be increased from the present level of two-three ships of 12,500

Dwt. each to six ships per annum, including one or two ships in the range of 14,500 Dwt. By the end of the Plan period the Shipyard's capacity will be 80,000 Dwt. per annum. Another shipyard will be set up at Cochin with a building dock for ships of size 66,000 Dwt. and a ship repair dock to accommodate ships up to 85,000 Dwt. The total cost of this shipyard is estimated at Rs. 45.42 crores.

Fertilisers

To meet the growing demand for fertilisers, minimum capacity and production targets of 3 million tonnes and 2.5 million tonnes of nitrogen are envisaged for 1973-74. The schemes under implementation are expected to give a capacity of approximately 2.54 million tonnes. In addition. eight projects involving a capacity of 1.31 million tonnes have been approved in the private sector. In the public sector, six projects involving a capacity of 0.95 million tonnes are in an advanced stage of preparation for being taken up for implementation. Thus, the additional capacity approved or under consideration is substantially higher than the minimum target envisaged for the Fourth Plan. A provision of Rs. 262 crores has been made in the public sector for new fertiliser plants.

In regard to phosphatic fertilisers, the firm capacity adds up to about one million tonnes. In addition, another 0.4 million tonnes is expected to be taken up for implementation shortly. A minimum capacity of 1.2 million tonnes and production of 0.9 million tonnes is envisaged for 1973-74.

Petro-chemicals

The main developments envisaged in the public sector are the aromatics project and the naphtha cracker project at Koyali. They will make available the basic intermediates required for synthetic fibres and synthetic rubber, apart from adding to the capacity for plastics. An important development in the private sector is the establishment of a caprolactam project by the Gujarat Fertilisers. These developments are expected to make a significant impact on import substitution. A substantial beginning will be made in the establishment of an aromatic project along with associated facilities at Barauni, where a wax cracker is also proposed in the private sector.

Petroleum Refining

The demand for petroleum products is expected to increase to around 26 million tonnes by 1973-74. This will call for a refining capacity of approximately 28 million tonnes. Of the two new refineries planned, each with a capacity of 2.5 million tonnes per year, the Madras Refinery went on stream in 1969-70 and the Haldia Refinery is expected to go on stream by the end of 1972. Further additional requirements of refining capacity are proposed to be met from the expansion of existing refineries, such as Cochin, Koyali, Barauni and additional capacity in Assam.

Coal

The requirements of coal in 1973-74 have recently been estimated at 93.5 million tonnes; 25.4 million tonnes coking coal and 68.1 million tonnes non-coking and blendable coal. This involves a considerable increase from the current level of production.

High priority has been assigned to the coking coal programmes. The public sector projects are expected to produce about 9 million tonnes of coking coal; the rest will come from private mines. The capacity already established is expected to be adequate in respect of blendable coal. In respect of non-coking coal, the capacity in both private and public sectors is about 65.2 million tonnes and only marginal investments would be necessary.

Within the target of 93.5 million tonnes, the public sector is expected to contribute about 32 million tonnes; in other words, 34 per cent of the total production by 1973-74 from about 20 per cent in 1965-66.

An outlay of Rs. 110.53 crores has been provided in the Central sector.

Lignite

The present level of production of the only producer of lignite, Neyveli project in Tamil Nadu, is about 4 million tonnes. It is expected to be enhanced to 6 million tonnes in the Plan to meet the increased capacity of the power station from 400 MW to 600 MW. A provision of Rs. 4.5 crores has been made for mine expansion.

Iron Ore

Production of iron ore was about 28 million tonnes in 1968-69. The demand envisaged in 1973-74 is about 51 million tonnes. Out of this, the demand on account of export is placed at 31 million tonnes as against 13 million tonnes in 1968-69. The production required for export is expected to be met from Bailadila (Madhya Pradesh), Barajamda (Orissa and Bihar), Daitari (Orissa), Bellary-Hospet (Mysore) and Goa. Of these projects, Bailadila and Bellary-Hospet which are under the National Mineral Development Corporation (NMDC) are to go into production in the Fourth Plan.

The current capacity of 2 million tonnes of the Kiriburu mines is to be increased to 4.5 million tonnes to meet the requirements of the Bokaro steel plant. The Kiriburu ore, exported to Japan, will be diverted to the Bokaro plant after its construction and the export commitment will be met by Bailadila. Out of the envisaged production of 51 million tonnes of iron ore, the projects under NMDC are expected to contribute about 14 million tonnes.

Mineral Oil

The programme for exploration and production of mineral oil will be continued by two agencies, namely, Oil and Natural Gas Commission (ONGC) and Oil India Limited. The production of crude oil increased from 3 million tonnes in 1965-66 to 6 million tonnes in 1968-69, and is to be stepped up to 8.5 million tonnes by 1973-74.

Programmes relating to Atomic Energy

The industrial and mineral programmes of the Atomic Energy Department include the expansion of production of atomic minerals and their processing, diversification of the Electronic Corporation of India to produce the electronic equipment, and the establishment of a new heavy water plant in addition to the one under implementation.

Other Industries

Significant investment is contemplated in respect of cement, paper and newsprint. The production of cement is expected to be stepped up to 18 million tonnes by 1973-74 which would leave a surplus of about a million tonnes for export.

The capacity estimated for paper is one million tonnes and production 0.85 million tonnes in 1973-74. Newsprint capacity is expected to be stepped up to 165,000 tonnes. Apart from the expansion of the factory at Nepa to 75,000 tonnes, a new newsprint mill of about 60,000 tonnes capacity is proposed in the public sector.

In sugar industry an output level of 4.7 million tonnes will be reached by 1973-74, partly through the expansion of existing units and partly through new units, primarily in the cooperative sector. As for plantation industries, an intensive programme of replantation is envisaged for tea and coffee and the production of natural rubber would be substantially stepped up. A provision of Rs. 2 crores has been made for the Kerala Plantation Corporation.

On the basis of the programmes outlined above, it is envisaged that industrial production would show an average annual increase of 8 to 10 per cent during the Fourth Plan.

A few selected targets/estimates are given in the Appendix.

XIV. TRANSPORT AND COMMUNICATIONS

The following table shows the progress in transport and communications since 1960-61 :

S.No.	Item	Unit	1960-61	1965-66	1968-69
	(1)	(2)	(3)	(4)	(5)
1.	*Railways*				
	route length . .	. kms.	56,247	58,399	59,553
	tonnes originating .	. million	156	203	204
	tonne kilometres .	. thou. mill.	88	117	125
	passengers originating	. million	1,594	2,082	2,213
	passenger kilometres	. thou. mill.	78	96	107
2.	*Roads*				
	surfaced roads .	. thou. kms.	236	287	325
	commercial vehicles on the road . .	. thou. nos.	225	333	386
	trucks	. thou. nos.	168	260	301
	buses	. thou. nos.	57	73	85
3.	*Traffic carried by Road Transport*				
	goods	. thou. mill. tonne-kms.	17	34	40
	passenger . . .	. thou. mill pass-kms.	57	82	98
4.	*Shipping* . . .	. thou. grt.	857	1,540	2,140
	coastal	. thou. grt.	313	323	330
	overseas . . .	. thou. grt.	544	1,217	1,810
5.	*Major Ports*				
	traffic handled .	. mill. tonnes	40	50	55
6.	*Civil Air Transport*				
	Indian Airlines .	. capacity tonne-kms. (million)	113	155	208
		revenue tonne-kms. (million)	83	108	153

(1)	(2)	(3)	(4)	(5)
Air India . . .	capacity tonne-kms. (million)	162	324	462
	revenue tonne-kms. (million)	76	149	225
7. *Communications*				
telephones . . .	thou. nos.	463	858	1,120
post offices . . .	thou. nos.	77	97	102
8. *Broadcasting*				
transmitters . . .	numbers	59	110	127

Plan Outlay

The outlay on transport and communications in the public sector is Rs. 3,237 crores—Rs. 2,664 crores in the Central sector and Rs. 573 crores in States and Union Territories. The distribution of the outlay between different programmes is shown below :

(Rs. crores)

S. No.	Programme	Third Plan expenditure	Annual plans 1966—69	Fourth Plan outlay
1.	railways	1,326	509	1,050a
2.	roads	440	307	871
3.	road transport	27	53	92
4.	ports	93	53	195
5.	shipping	40	32	141
6.	inland water transport	4	6	12
7.	light houses	4	2	7
8.	Farakka Barrage	b	49	70
9.	civil air transport	49	66	203
10.	tourism	5	7	36
11.	communications	117	124	520c
12.	broadcasting	8	11	40
	total : . . .	2,113	1,219	3,237

a Includes Rs. 50 crores for projects connected with metropolitan transport.

b Expenditure during the Third Plan was kept outside the Plan.

c Includes expenditure on works financed from Posts and Telegraphs Department's own resources.

Railways

The railway development programme provides for anticipated increase in freight and passenger traffic. Equipment and operations will be modernised to improve efficiency of the system and reduce costs. The pace of conversion from metre gauge to broad gauge will be accelerated.

The Plan estimates of production of major commodities is likely to increase the originating freight traffic on the railways in 1973-74 to about 280 to 290 million tonnes. As in the past, the bulk commodities are expected to account for a large part of the increase in traffic. With the programmes already completed and those included in the Plan, adequate line capacity is expected to be available to meet the requirements of likely growth of traffic.

The provision made for rolling stock at present may be adequate for about 265 million tonnes of originating freight traffic. It will be possible to meet the requirements of additional traffic by more intensive utilisation of rolling stock and to the extent necessary by acquisition of additional stock.

The programme provides for an increase of about 20 per cent in passenger vehicle kilometres for non-suburban services, as against an increase of about 17 per cent during the Third Plan period. For suburban traffic, provision has been made for an increase of 31 per cent in electrical multiple unit services.

It is proposed to run highs peed trains on long distance routes, where overcrowding is comparatively heavy.

A specific provision of Rs. 50 crores has been made in the Plan for schemes for mass transit facilities in the metropolitan cities of Bombay, Calcutta, Madras and Delhi.

The main components of the outlay on railways are :

(Rs. crores)

S. No.	Item	Plan Outlay	Expenditure from depreciation reserve fund	Total
1.	Rolling stock	397	223	620
2.	Workshops	28	2	30
3.	Machinery and plant	7	8	15
4.	Track renewal	—	200	200
5.	Bridge works	8	20	28
6.	Line capacity works	275	40	315
7.	Signalling and safety	27	13	40
8.	Electrification	81	1	82
9.	Other electrical works	4	8	12
10.	New lines	83	—	83
11.	Staff welfare	13	2	15
12.	Staff quarters	27	3	30
13.	Users' amenities	20	—	20
14.	Other specified works	5	5	10
15.	Road services	10	—	10
16.	Inventories	15	—	15
	Total :	1,000	525	1,525
17.	Metropolitan transport	50	—	50
	Grand Total :	1,050	525	1,575

The rolling stock programme of railways provides for the following additions and replacements :

S. No.	Item	Rolling-stock on line at the end of 1968-69	Programme for the Fourth Plan		
			Addition	Replace-ment	Total
1.	*Locomotives*	11,555	652	607	1,259
	steam	10,046	—	161	161
	diesel	996	369	389*	758
	electric	513	283	57	340
2.	*Wagons* (in terms of 4-wheelers) . .	484,985	76,192	25,340	101.532
3.	*Coaching Stock*				
	coaches) . .	32,729	3,250	3,168	6,418
	rail cars) . .		50	—	50
	electric multiple units . .	1,562	596	172	768

*For replacement of steam locomotives.

The programme for acquisition of rolling stock is based entirely on indigenous production. In 1968-69, about 16,500 wagons were manufactured in the country and the production will be stepped up to about 21,500 by 1973-74. The production of diesel locomotives including diesel shunters will increase from 87 in 1968-69 to about 195 in 1973-74. Similarly, the capacity for production of electric locomotives is proposed to be stepped up from 48 in 1968-69 to about 70 in 1973-74.

Dieselisation is proposed to be extended from 19,200 route km. in 1968-69 to about 22,000 route km. in 1973-74. Electric traction will be extended from 2,900 route km. to about 4,600 route km. in 1973-74. It is proposed to electrify or dieselise fully the high density routes which are at present under mixed traction.

The programme of conversion of metre gauge lines into broad gage is intended to eliminate delay and damage, particularly at the transhipment points. In the Plan, a programme of converting 1,500 km. of metre gauge lines into broad gauge lines will be taken up as part of long-term plan and conversion of 750 km. completed during the Plan period . Doubling of track is proposed on 1,800 km.

In addition to making provision for work on 1,022 km. of new lines in progress, the Plan provides for a limited programme of new lines.

Roads

Despite substantial progress made in road development over the last eighteen years, the road system has still large deficiencies. The national highway system has about 400 kilometres of missing road links and 17 missing major bridges. Of the total length of 24,000 km. of national highways, about two-thirds have single-lane width. In the State road systems also, besides inadequate road length, the existing roads in many areas have substandard surfaces, narrow width and weak bridges. Many economically backward regions and hilly areas have poor communications. A large number of villages still lack road links with market towns and with one another. In metropolitan cities, the development of the road system has fallen far behind the growing requirements of traffic.

The road development programme in the Central sector provides for the following schemes :

	(Rs. crores)
Improvement to the existing national highways)	328
New national highways . . . . .)	
Roads of inter-State or economic importance (Centrally sponsored programme)	25
Lateral road	22
Special roads	43
Total :	418

It is proposed to complete all the missing road links and improve all the low-grade sections. Of the 17 major missing bridges, 16 will be completed and work on the remaining one will be in progress by the end of the Plan. The programme provides for reconstruction of weak bridges and culverts and widening of important sections of the national highways to two lanes. Provision has been made for completion of the lateral road from Bareilly in Uttar Pradesh to Amingaon in Assam. It is proposed to add a limited length of roads to the national highways.

For the road development programmes in States and Union Territories, a provision of Rs. 453 crores has been made. The road system will be strengthened to some extent to meet the requirements of metropolitan cities, industrial and mining areas and hilly and backward regions. The length of surfaced roads will increase from about 325,000 km. at the end of 1968-69 to about 385,000 km. by 1974.

With the emphasis on rural roads, State Governments have agreed to set apart about 25 per cent of the total outlay on road deve.opment for rural roads. Priority is to be given to roads leading to market towns.

Road Transport

Goods traffic by road transport is expected to increase from about 40,000 million tonne-kilometres in 1968-69 to about 84,000 million tonne-kilometres in 1973-74. The passenger traffic is expected to increase from about 98,000 million passenger-kilometres in 1968-69 to about 140,000 million passenger-kilometres in 1973-74. It is reckoned that the number of trucks on the road will need to be increased from about 301,000 in 1968-69 to about 470,000 at the end of 1973-74. The number of buses will need to be increased from about 85,000 to about 115,000. The production of commercial vehicles is estimated to increase from 35,000 in 1968-69 to 85,000 in the last year of the Plan.

A provision of Rs. 89 crores is made for augmenting the services of the nationalised transport undertakings in the States. In addition, Rs. 10 crores have been provided in the Railways' plan for contribution to the capital of State transport undertakings. In the Central Plan, Rs. 3 crores are set apart for the Central Road Transport Corporation which operates in the north-east region and for financial assistance to the Central Road Transport Training and Research Institute, Poona,

A large part of the expansion of road transport is expected to be in the private sector and their investment during the Fourth Plan period is estimated at Rs. 935 crores.

Ports

The traffic handled by major ports is expected to increase from about 55 million tonnes in 1968-69 to about 77 million tonnes in 1973-74. A major part of the increase in traffic is on account of bulk commodities, such as petroleum products, iron ore and fertilisers (including raw materials), which will necessitate development of specific facilities at ports for handling such traffic.

Of the total cost of major ports development programme in the Central sector, namely Rs. 280 crores, the Port Trusts are expected to contribute about Rs. 100 crores from their own resources, Rs. 160 crores are provided in the Plan and there will be a spill-over of Rs. 20 crores beyond 1973-74.

The more important schemes in progress which are proposed to be completed in the Plan are the Haldia dock system and the Mangalore and Tuticorin port projects. Provision has been made for completion of the dock expansion scheme at Bombay and the oil dock in Madras outer harbour, started in the Third Plan. Among the new major schemes, mention may be made of the installation of modern ore handling facilities at Mormugao and Madras harbours, construction of an outer harbour at Visakhapatnam for handling deep draft ore carriers, construction of a satellite port for Bombay at Nheva Sheva and an oil terminal at Cochin. It is proposed to set up a Central Dredging Organisation to meet the capital dredging requirements of major and minor ports.

The traffic handled by minor ports was about 8 million tonnes in 1968-69. For their development, a provision of Rs. 35 crores has been made in the Plan. Important among the programmes are the ones for a Minor Ports Dredging and Survey Organisation, development of port facilities in Andaman and Laccadive groups of islands, and in Porbandar, Mirya Bay and Cuddalore.

Shipping

At present, the Indian shipping tonnage is catering for about 15 per cent of the country's overseas trade; 40 to 45 per cent in the case of liner trade, and less than 10 per cent in the bulk cargo trade.

A provision of Rs. 135 crores has been made for acquiring ships.

By the end of the Fourth Plan, it might be possible to reach about 3.5 million grt (gross registered tonnage) as against the 1968-69 tonnage of 2.14 million. Bulk of the addition will be of overseas tonnage and in respect of liners, tramps (including bulk carriers) and tankers. It is expected that Indian shipping would cater for about 40 per cent of country's overseas trade at the end of the Fourth Plan.

Inland Water Transport

The main schemes of inland water transport—Rs. 9 crores provided in the Central sector—are the development of Pandu and Jogigopa ports and modernisation of the Rajabagan Dockyard at Calcutta.

Farakka Barrage

The Farakka Barrage, taken up mainly to improve the navigability of the Calcutta Port is expected to be completed in the Fourth Plan.

Civil Air Transport

The Plan outlay for development of civil air transport in the Central sector is Rs. 202 crores. Of this, Rs. 72 crores will be for the Civil Aviation Department, Rs. 55 crores for Indian Airlines, Rs. 60 crores for Air India and Rs. 15 crores for the India Meteorological Department.

It is proposed to improve runway, terminal and communication facilities at the four international airports at Bombay, Calcutta, Delhi and Madras, to make them suitable for operation of heavier and larger capacity aircraft like Boeing 747 (Jumbo) jets. The Plan also provides for the development of various airports for domestic air services.

The capacity of Indian Airlines is expected to increase from 208 million tonne-kilometres in 1968-69 to 392 million tonne-kilometres in 1973-74. The Plan provides for an increase in the fleet strength of the Corporation, which proposes to acquire Boeing 737 jets.

The capacity of Air India is expected to increase from 462 million tonne-kilometres in 1968-69 to 990 million tonne-kilometres by 1973-74. During the Plan period, Air India is expected to acquire four Boeing 747 (Jumbo) jets.

Tourism

The broad approach in the Fourth Plan is to expand and improve tourist facilities with a view to promoting 'destinational' traffic as distinct from 'transit' traffic. It is proposed to take up integrated development of selected areas and encourage charter traffic. Emphasis is being laid on provision of accommodation, transport and recreational facilities. Efforts will be concentrated in areas where there is an identified large flow of foreign tourist traffic.

An outlay of Rs. 36 crores is proposed. The provision in the Central Plan—Rs. 25 crores—includes Rs. 14 crores for the Central Department of Tourism and Rs.11 crores for the India Tourism Development Corporation. The programme of the former consists mainly of loans to the hotel industry in the private sector, and for the purchase of tourist vehicles by private operators, as well as integrated development of selected centres. The programme of I.T.D.C. provides for construction of hotels, motels and cottages, renovation and expansion of tourist bungalows and setting up of transport units and duty-free shops.

The State and Union Territory Plan provision—Rs. 11 crores—is intended for creating facilities for home tourists.

Communications

The Plan outlay for development of communications is :

	(Rs. crores)
Telecommunications	466.25
Postal services	26.00
Overseas Communications Service	12.04
Wireless planning and coordination	1.00
Hindustan Teleprinters	1.75
Indian Telephone Industries	12.96
Total	520.00

The number of telephones at the beginning of the Fourth Plan was about 1.1 million and 760,000 more connections will be added during the Fourth Plan. For the development of trunk telephone services, it is proposed to install 7,000 route-kilometres of co-axial system, 12,000 route-kilometres of the micro-wave system and 17,300 lines for trunk automatic exchanges. The Plan provides for about 31,000 new post offices.

Expansion of the telephone factory at Bangalore and the setting up of a new factory for manufacture of long distance transmission equipment at Naini are envisaged. The Hindustan Teleprinters Limited is expected to have manufacturing capacity of 8,500 teleprinter units per annum by the end of the Plan as against the production of 5,010 units in 1968-69.

It is proposed to set up an additional satellite earth station at Delhi, besides completing the one at Arvi near Poona.

Broadcasting

A provision of Rs. 40 crores has been made for expansion of broadcasting facilities. At the end of the Fourth Plan, nearly 80 per cent of the population in all the States and Union Territories would be covered by medium-wave broadcasts. Under the external services, the two super-power medium wave transmitters at Calcutta and Rajkot will be completed, and two new 250 kw short-wave transmitters will be established at Aligarh. Provision has been made for the construction of a new broadcasting house at Delhi. Commercial broadcasting will be extended on a regional basis with the main centres at Lucknow, Ahmedabad, Bhopal, Jaipur, Bangalore, Hyderabad, Trivandrum, Jullundur and Srinagar. Television will be extended to five new centres, namely, Bombay (with relay facilities at Poona), Calcutta, Madras, Kanpur/Lucknow and Srinagar and the existing facilities at Delhi will be strengthened.

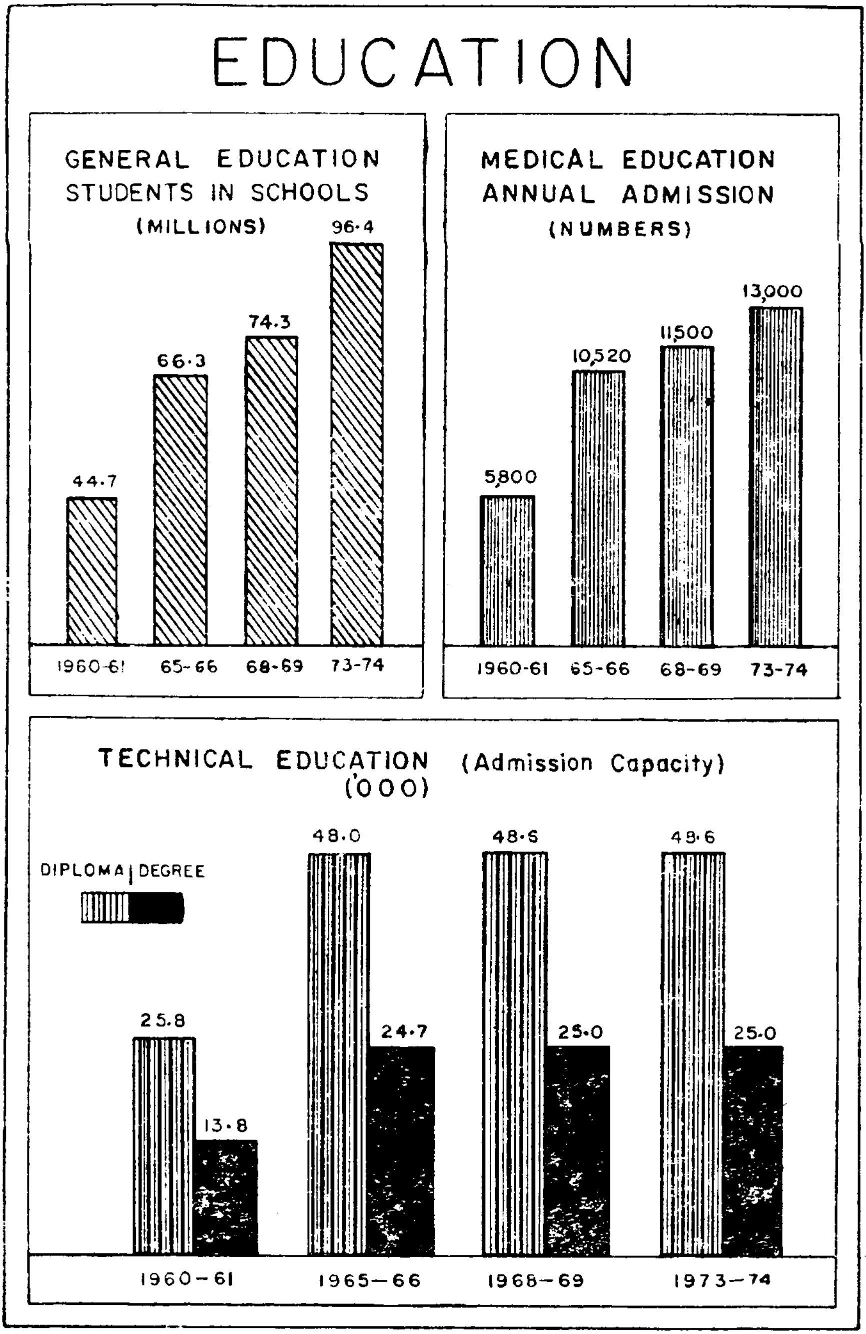
XV. EDUCATION

There has been expansion at all levels of education during the last eight years. The enrolment in classes I—V increased from 35 million in 1960-61 to 55.5 million in 1968-69; in classes VI—VIII from 6.7 million to 12.3 million; in classes IX—XI from 3 million to 6.6 million; and at the university stage for arts, science and commerce faculties from 0.74 million to 1.69 million. The admission capacity in engineering and technological institutions increased from 13,824 to 25,000 at the degree level and from 25,800 to 48,600 at the diploma level.

But the unfulfilled tasks are many. Much delay has already occurred in complying with the Constitutional directive which enjoins on the State to "endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years". By 1968-69, only 62 per cent of the children in the age-group 6—14 were going to school; 77 per cent in the age-group 6—11 and 32 per cent in the age-group 11—14. The corresponding percentages for girls were 59 and 19 respectively. The percentage of children going to school in rural areas and from the Scheduled Castes, Scheduled Tribes and other backward classes is much lower.

Approach

Priority will be given to the expansion of elementary education and the emphasis will be on the provision of facilities for backward areas and communities and for girls. A survey of the deficiencies in respect of buildings and equipment of educational institutions will be made with a view to removing them gradually. Other programmes of importance will be : improvement of teacher education; expansion and improvement of science education; raising standards of post graduate education and research; development of Indian languages and book production, especially text books, and the consolidation of technical education including reorganisation of polytechnic education and its closer linking with the needs of industry and its orientation towards self-employment. Youth services will be developed.


EDUCATION
GENERAL EDUCATION
STUDENTS IN SCHOOLS
(MILLIONS)
44·7
66·3
74·3
96·4
1960-61
65-66
68-69
73-74
MEDICAL EDUCATION
ANNUAL ADMISSION
(NUMBERS)
5,800
10,520
11,500
13,000
1960-61
65-66
68-69
73-74
TECHNICAL EDUCATION (Admission Capacity)
('000)
DIPLOMA | DEGREE
25.8
13·8
48·0
24·7
48·5
25·0
48·6
25·0
1960-61
1965-66
1968-69
1973-74

Elementary Education

The targets of elementary education and progress since 1960-61 are set out in table on page 114.

Bihar, Madhya Pradesh, Rajasthan and Orissa have the problem of low enrolment of girls and of children of Scheduled Castes and Scheduled Tribes. Efforts will be made to remove the imbalances within the States in regard to educational facilities at the elementary stage.

The problem in the age-group 11—14 is much more difficult as a large majority of the parents in rural areas withdraw their children from schools. It needs special attention in Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. Provision has been made for pilot projects for part-time education to children of this age-group. Detailed district plans will be drawn up for the setting up of schools within the reach of every child as the first necessary step towards universality of enrolment. Each State will formulate a phased programme for the introduction of universal education for all children in the age-group of 6—14.

Secondary Education

In the Fourth Plan, it is expected to enrol 3.1 million additional pupils in classes IX—XI.

The trend of expansion of facilities at the secondary stage is as follows :

Year	Enrolment (in million)			Percentage of age-group (14—17)		
	Boys	Girls	Total	Boys	Girls	Total
1960-61	2.47	0.56	3.03	17.5	4.3	11.1
1965-66	4.08	1.20	5.28	25.6	7.9	17.0
1968-69	4.95	1.63	6.58	28.5	9.8	19.3
1973-74 (*target*)	7.00	2.69	9.69	34.3	13.7	24.2

Expansion of Elementary Education and Plan Targets

S. No.	Stage (age-group)	1960-61		1965-66		1968-69		1973-74 (target)	
		Enrolment in million	Percentage of age-group	Enrolment in million	Percentage of age-group	Enrolment in million	Percentage of age-group	Enrolment in million	Percentage of age-group
1.	Primary (6—11) (classes I—V)								
	Boys . . .	23.59	82.6	32.18	96.3	34.92	95.2	41.25	99.6
	Girls . . .	11.40	41.4	18.29	56.5	20.57	58.5	27.33	70.1
	Total . . .	34.99	62.4	50.47	76.7	55.49	77.3	68.58	85.3
2.	Middle (11—14) (classes VI—VIII)								
	Boys . . .	5.07	33.2	7.68	44.2	8.76	45.4	12.19	54.3
	Girls . . .	1.63	11.3	2.85	17.0	3.51	18.8	5.91	27.7
	Total . . .	6.70	22.5	10.53	30.9	12.27	32.3	18.10	41.3
3.	Elementary (6—14) (classes I—VIII)								
	Boys . . .	28.66	65.2	39.86	78.5	43.68	78.0	53.44	83.7
	Girls . . .	13.03	30.9	21.14	43.0	24.08	44.7	33.24	55.1
	Total . . .	41.69	48.7	61.00	61.0	67.76	61.7	86.68	69.8

The main effort in the Plan will be to enrich the content and improve the quality of secondary education. A major task is to provide a large variety of vocational courses for those who want to discontinue their education further. The industrial training institutes, polytechnics, schools for nursing and agricultural schools will meet a part of this demand. Provision is being made for pilot projects for a number of additional courses in response to new demands.

Girls' Education

Girl students, as a percentage of total enrolment in the relevant age-group, increased from 28 in 1950-51 to 37 in 1968-69 in classes I—V, 17 to 28 in classes VI—VIII and 13 to 25 in classes IX—XI. The gap between the enrolment of boys and girls is still considerable. During the Plan, the enrolment of girls will be further increased through special programmes, the nature of which will vary from State to State. The Plan target is to increase the percentage of enrolment of girls to total enrolment to 39.9 in classes I—V, 32.7 in classes VI—VIII and 27.8 in classes IX—XI.

Teacher Education

At the elementary stage, the number of teachers is estimated to have increased from about 1.09 million in 1960-61 to about 1.60 million in 1968-69. The number of elementary trained teachers during the period increased from about 0.71 million to about 1.24 million, raising the percentage trained from 65 to 77. At present, the problem of untrained teachers is confined largely to the eastern region.

The programmes which need special attention are : improving the quality of teacher education, training of more women teachers and teachers from the tribal communities, training of mathematics and science teachers for the middle classes and in-service training. Wherever necessary, correspondence courses will be organised for untrained teachers now working in schools.

At the secondary stage, the number of teachers in 1968-69 was estimated at 0.525 million of whom 0.381 million or 73 per cent were trained. The training facilities available, at present, at this stage are considered adequate and can be easily expanded if the need arises. The main programmes during the Plan will be to improve standards of teacher education at this level and to organise a large in-service education programme especially for mathematics and science teachers.

Higher Education

The estimates of university enrolment and target for 1973-74 are as follows :

	1960-61	1965-66	1968-69	1973-74
Total enrolment (million) . .	0.74	1.24	1.69	2.66
Percentage of age-group . . .	1.5	2.3	2.9	3.8
Enrolment in science courses (million)	0.19	0.51	0.68	1.19
Enrolment in science courses as percentage of total enrolment . .	25.7	41.1	40.2	44.7

Of the additional enrolment in 1973-74, estimated to be about one million, 0.15 million students will be provided education through correspondence courses, evening colleges and part-time classes. So far, the correspondence courses have been confined to humanities only. It is proposed to extend them to other disciplines as well.

Higher education will be consolidated and improved through the strengthening of staff and library and laboratory facilities.

Facilities for post-graduate education and research will be increased and their quality improved. It is proposed to develop advanced centres and clusters of advanced centres in related subjects. The requirements of increased facilities for post-graduate studies will be met by establishing university centres in cities with a number of colleges and a large student population. These centres will have adequate library and laboratory facilities and a nucleus of university teachers.

Scholarships and Fellowships

The present schemes of scholarships administered by the Central Government will be stepped up. The University Grants Commission will also continue to provide fellowships for post-graduate education and research. The number of post-matric scholarships for students from the backward classes will increase from 145,000 in 1968-69 to about 200,000 in 1973-74.

Adult Literacy

The programme of farmers' education and functional literacy in the high-yielding variety areas will be extended to 100 districts and will cover one million adult farmers. Adult education will continue to be an integral part of the community development programme.

Youth Services

Youth services will be developed, both for students and non-students, to meet their needs in respect of personal development, idealistic yearnings and channelisation of energies—intellectual, emotional and physical. For students, the programmes will include improvement in curricula and methods of teaching and evaluation, provision of amenities such as hostels, reading seats and libraries including text-book libraries, strengthening of guidance, counselling and health services and increased provision for physical education, games and sports. Programmes of community or social service will be developed at the school stage as an integral part of the curriculum. At the university stage, the NCC will continue on an optional basis and, in addition, the National Service Corps Programme will be implemented on a selective basis, in the first instance, to involve students in programmes of national or social service.

For non-students, the programme will include wider opportunities for further education and vocational or professional advancement through part-time or correspondence courses; development of facilities for physical education, games and sports and cultural activities; and provision of guidance and counselling. Special attention will be paid to the needs of rural youth and training of youth leadership.

Efforts will be made to develop, both among student and non-student youth, a wider national outlook by bringing them together from different parts of the country for studies, social service and recreation.

It is proposed to set up a national youth organisation to advise the Government on the development of youth services.

Employment

Job opportunities will increase as the development programmes visualised in the Plan get implemented. Special efforts will be made to increase opportunities for self-employment. Assistance will be provided in the form of technical guidance and, to the extent possible, loans for establishing small enterprises. The university employment information and guidance bureaux will be strengthened and brought into closer contact with employing agencies. Other schemes include stepping up of vocational guidance at the school stage and strengthening and expanding guidance and counselling and supply of employment market information to non-student youth.

Technical Education

Technical institutions have been planned for an annual admission capacity of 25,000 at the degree level and 48,600 at the diploma level. The actual admissions in 1968-69 were about 18,000 in degree and 27,000 in diploma courses. The main emphasis during the Plan will be on improving quality and standards. They would relate to pre-service and in-service training and training in industry of teachers the reorganisation of diploma courses to suit the needs of industry, expansion and improvement of post-graduate engineering studies and research, curriculum development and preparation of instructional materials including laboratory equipment. The Apprentices Act is proposed to be amended to include graduates and diploma holders.

Centres of advanced study will be developed in aeronautics at Bombay, in material sciences at Kharagpur and in electronics and automation at Bangalore

The Plan outlay on education and its distribution are as follows :

(Rs. crores)

	Outlay			
	Central and Centrally sponsored	States	Union Territories	Total
General Education				
Elementary Education . . .	5.56	214.84	14.34	234.74
Secondary Education . . .	0.27	104.25	13.80	118.32
University Education . . .	103.99	76.06	3.47	183.52
Teacher Training	8.00	12.20	0.97	21.17
Social Education	3.57	3.91	0.82	8.30
Other Programmes	75.36	30.88	12.51	118.75
Cultural Programmes . . .	7.26	4.87	0.36	12.49
Total .	204.01	447.01	46.27	697.29
Technical Education . . .	66.99	52.88	5.50	125.37
Grand Total .	271.00	499.89	51.77	822.66

The Plan outlay will be in addition to an average annual non-Plan expenditure of Rs. 550 crores.

XVI. SCIENTIFIC RESEARCH

Under the Council of Scientific and Industrial Research (CSIR) a number of research institutions have been set up. Six national laboratories have also come into being. The CSIR laboratories have been able to work out methods for the use of waste mica for insulation bricks, manufacture of optical glass which is a strategic material, protein food based on oil cakes and cereals, baby food, coinaage and ferro-alloys, carbon rods and slabs, ion exchange resins, ceramic capacitors, and hard and soft ferrites.

It has been estimated that about Rs. 211 crores in foreign exchange have been saved during 1961—67 by taking measures of import substitution and by changes in production processes in chemical industries.

The objectives of the programmes of the Department of Atomic Energy (DAE) are to develop the use of atomic energy for the production of electric power and evolve new uses of stable and radioactive isotopes for agriculture, biology, medicine and industry. Three experimental nuclear reactors were built; the last one Zerlina attained criticality in 1961. The Department set up a 5.5 Mev Van-de Graff accelerator, commissioned a plutonium recovery plant, produced and marketed isotopes and labelled compounds, fabricated nuclear instruments and counting systems and high vacuum equipment plant for freezing of blood plasma, and sold electronic components. DAE has also prepared project reports and undertaken the construction of nuclear power stations. The first of these of 380 MW capacity at Tarapur has been commissioned in 1969. A base for space research has now been built up with the setting up of an equatorial rocket launching station at Thumba. A space science and technology centre at Veli Hill near Thumba is expected to be completed during 1970-71.

The Survey of India is responsible for topographical studies and basic maps necessary for the various tasks, such as irrigation and power projects and mineralogical exploration. The Botanical and Zoological surveys in addition to classification of flora and fauna have helped exploitation of some plant and animal products.

According to a recent study the total expenditure for scientific research and development (R & D) under Central, State and private sectors has increased from Rs. 27 crores in 1958-59 to about Rs. 136 crores in 1969-70. About 94 per cent of the expenditure on R & D is in public sector in one way or the other. The scientific and technical manpower employed on R & D has increased from about 18,000 in 1958-59 to about 62,000 in 1968-69 in the Central, State and private sectors.

The outlay and expenditure on scientific research is :

(Rs. crores)

	Plan	Non-plan	Total
Third Plan	71.49	73.00	144.49
Annual Plans (1966-69)	47.15	83.44	130.59
Fourth Plan	140.26	198.32	338.58

In addition, estimates of the Fourth Plan outlays for R & D under the Central sector for agriculture, university education and health, including family planning, are of the order of Rs. 55 crores, Rs. 10 crores and Rs. 22 crores respectively.

A number of priority projects have been identified by a working group of experts which relate to technologies for special glass and ceramics, non-ferrous metals like magnesium, special batteries required by defence, high polymers and synthetic fibres, biochemicals, materials for electronic industries such as pure silicon, synthetic quartz crystals and special classes of ferrites. Food research, mining and mineral benefication, tropicalisation, welding technology and design of micro-wave towers, reactor pressure vessels, grain storage structures and studies on anti-fertility agents are other important subjects engaging attention.

A central machinery for providing guidelines to CSIR laboratories has been set up under the chairmanship of the Member (Industry), Planning Commission. Three priority areas have been identified : steel, chemicals and instruments and sub-groups are engaged in identifying important problems for research and development in these areas.

There is sometimes avoidable duplication in the research work of different laboratories within CSIR as well as between laboratories of other Central agencies and those of CSIR. It is proposed to take steps to avoid such overlapping.

The atomic energy programmes provide for building of nuclear power stations, development of ancillary technologies based on indigenous resources and production of special materials, fuels and equipment. The Plan programme of the Department under research and development sector would increase the component of indigenous expertise and materials in the nuclear power projects. Other important activities during this period will be setting up of a reactor research centre with prototype fast breeder reactor at Kalpakkam and a variable energy cyclotron for nuclear research at Calcutta. The reactor research centre will intensify efforts on thorium utilisation. The variable energy cyclotron will provide facilities for research in nuclear physics and isotope production.

Advanced rockets would be developed for space research, particularly dealing with meteorology and diverse fields of equatorial aeronomy. Work will be conducted in the development of a satellite launcher for a medium altitude scientific satellite. Research and Development work will be undertaken for the use of synchronous satellites for providing direct broadcast television reception.

The outlay for schemes of Department of Atomic Energy is Rs. 67.48 crores Plan and Rs. 93.15 crores non-Plan.

XVII. HEALTH AND FAMILY PLANNING

HEALTH

The Third Plan and 1966-69 expenditure and the Fourth Plan outlays are :

(Rs. crores)

	Centre	Centrally sponsored	States	Union Territories	Total
Third Plan . . .	14.83	5.46	193.24	12.33	225.86
Annual Plans (1966-69) .	16.76	11.14	105.24	6.97	140.11
Fourth Plan . . .	53.50	176.50	184.25	19.28	433.53

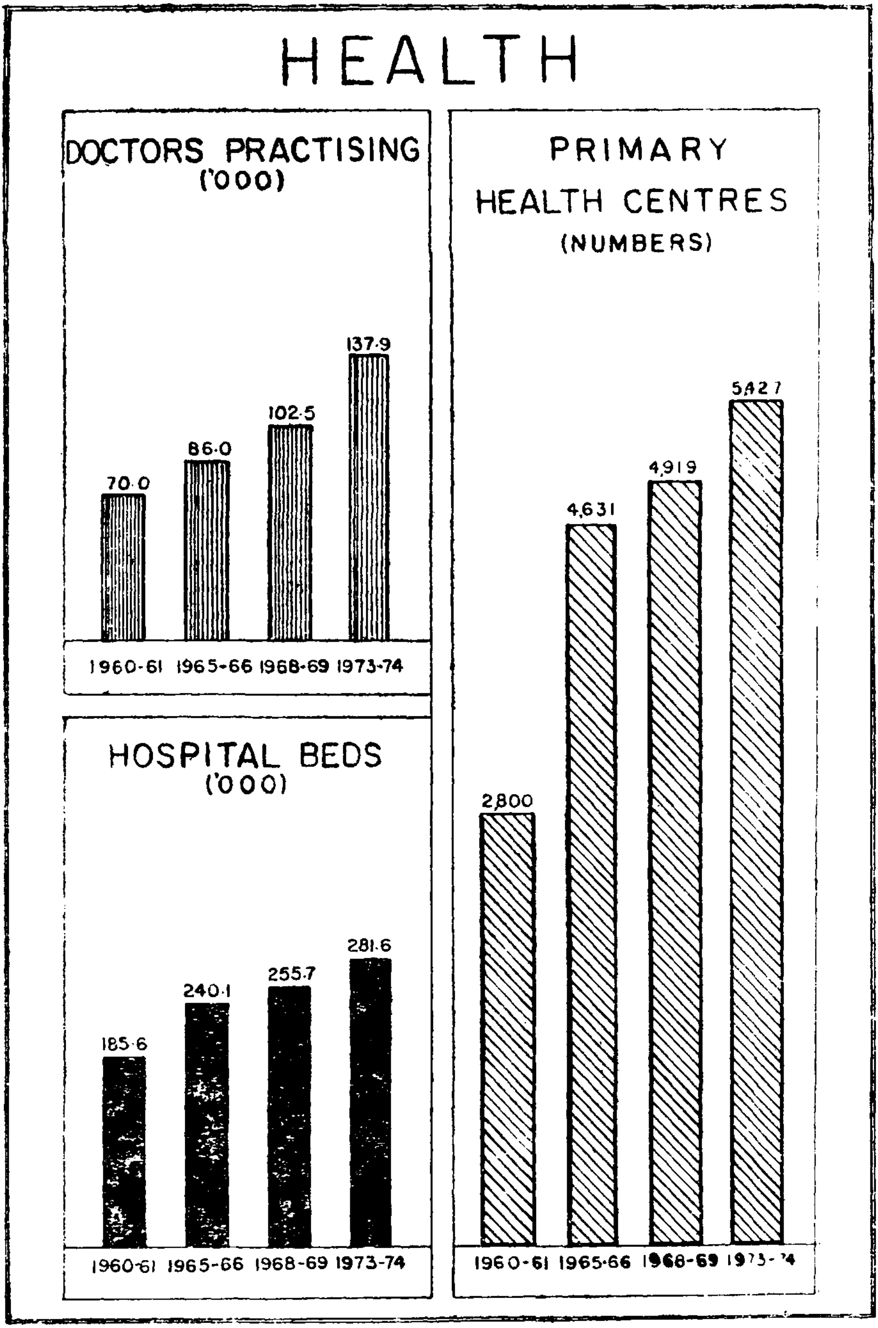
The distribution of the Fourth Plan outlay will be as follows :

(Rs. crores)

Medical education and research (including dental)	85.29
Training programmes	12.93
Control of communicable diseases	127.01
Hospitals and dispensaries	88.29
Primary health centres	76.49
Indigenous systems of medicine	15.83
Other programmes	27.69
Total .	433.53

Programmes

The programme of eradication of malaria is carried through three phases, namely, attack phase, consolidation phase and maintenance phase. Out of 393.25 units, 209.88 units were in the maintenance phase at the beginning of the Fourth Plan. In the maintenance phase, the programme is integrated with the regular health services. The


HEALTH
DOCTORS PRACTISING ('000)
70.0
86.0
102.5
137.9
1960-61 1965-66 1968-69 1973-74
HOSPITAL BEDS ('000)
185.6
240.1
255.7
281.6
1960-61 1965-66 1968-69 1973-74
PRIMARY HEALTH CENTRES (NUMBERS)
2,800
4,631
4,919
5,427
1960-61 1965-66 1968-69

National Malaria Eradication Programme originally scheduled to end in 1967-68 is now expected to be completed by 1975. By the end of the Fourth Plan there will be 30 units in the attack phase and 93.25 units in the consolidation phase.

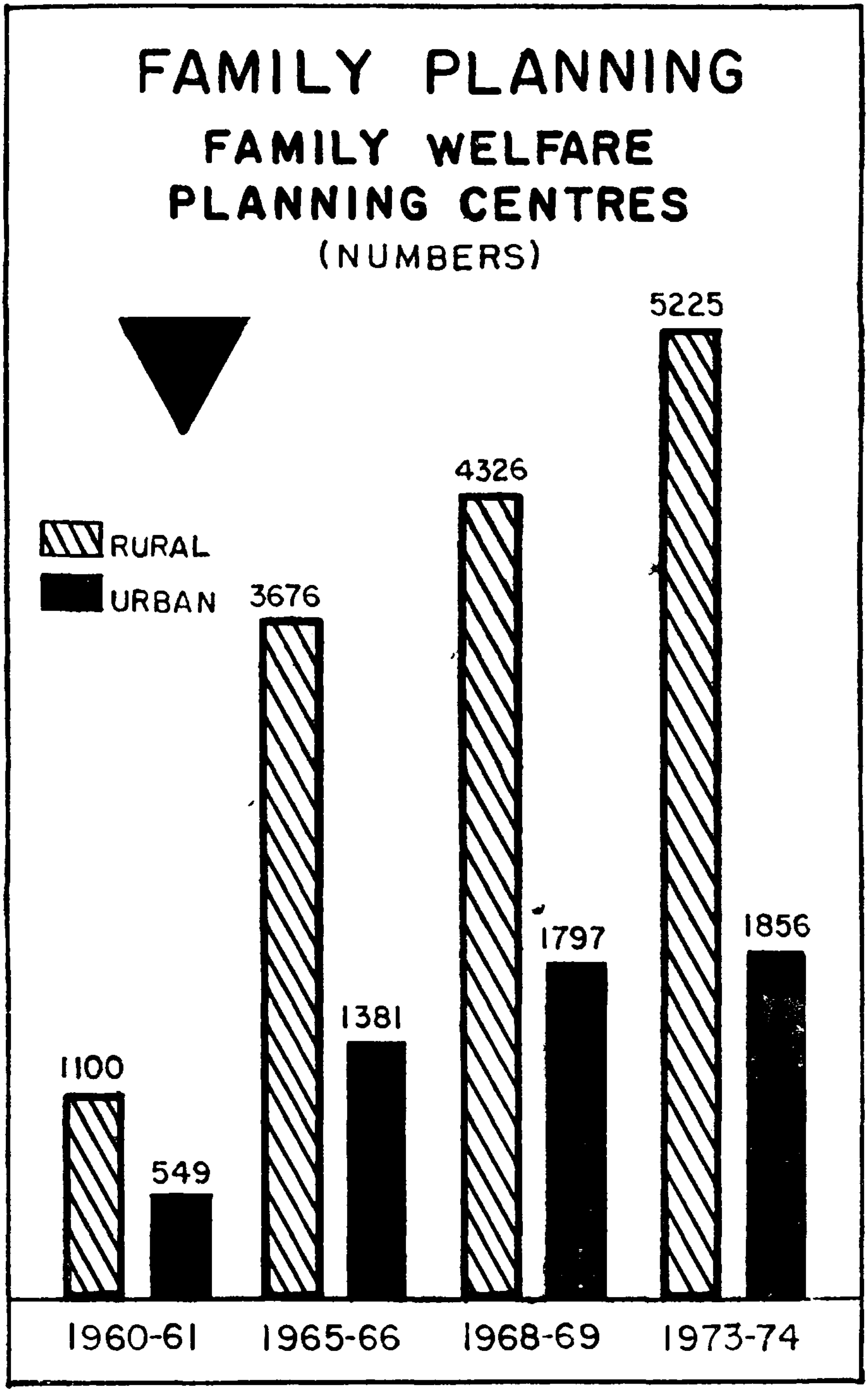
The National Small-pox Eradication Programme, launched in 1962-63, was conceived as a three-year programme. At the end of the three years, it was expected to reduce considerably the incidence of small-pox and carry out the programme as a normal feature of the general health services. This expectation was, however, not realised as a large and susceptible population, particularly in the vulnerable age group of 0—14 years and also the migratory and labour population, remained unprotected through re-vaccinations. It is proposed to strengthen the staff at the block and district levels to ensure primary vaccination of all new born children and to re-vaccinate vulnerable groups of population at intervals of three years. The production capacity of the freeze dried small-pox vaccine in four institutes will be increased to achieve self-sufficiency during the Plan period.

As part of the national trachoma control programme, it is proposed to provide eye ointment through the primary health centres in the rural areas where trachoma is endemic.

The schemes for the provision of safe drinking water and proper disposal of sewage are the first steps towards control and eradication of cholera. Under the health programme, Rs. 2.34 crores have been provided for establishing mobile medical units and strengthening laboratory services in endemic districts for diagnosis, inoculation and control of cholera.

During the Fourth Plan, ten new medical colleges are likely to be opened, increasing the annual admissions to about 13,000 by 1974. The doctor population ratio has improved from 1 : 6100 in 1961 to 1 : 5150 in 1968. This is expected to improve further to 1 : 4300 by 1974.

To meet the shortage of teachers in medical colleges, increased emphasis will be laid on post-graduate education. It is proposed to strengthen the post-graduate institutes existing at Delhi, Pondicherry, Calcutta and Chandigarh.


FAMILY PLANNING
FAMILY WELFARE
PLANNING CENTRES
(NUMBERS)
RURAL
URBAN
1100
549
3676
1381
4326
1797
5225
1856
1960-61
1965-66
1968-69
1973-74

About 34,000 nurses have qualified in the last eight years, bringing the total to 61,000 by 1968-69. Their number by the end of the Plan will go up to 88,000.

An outlay of Rs. 22 crores has been earmarked for medical research, which includes Rs. 11 crores for the Indian Council of Medical Research, Rs. 2 crores for research under indigenous systems of medicine, Rs. 2 crores for research institutes and Rs. 7 crores for family planning research.

During the last eight years, 70,100 general beds have been added to Government medical institutions, bringing the total to 255,700. During 1969-74, it is intended to add 25,900 beds. Emphasis will be on better health care facilities at sub-divisional and district hospitals by provision of specialists' services.

The primary health centres form the base of the integrated structure of medical services in the rural areas. At the beginning of the Plan 4,919 primary health centres were functioning and 340 blocks had no centre. About 50 per cent of the primary health centres had hospital buildings and only 25 per cent residential quarters. Suitable buildings for primary health centres, sub-centres and staff are not easily available in rural areas and it is one of the main obstacles in posting doctors and nurses. Suitable steps are proposed to be taken to tackle this problem speedily. To reach the goal of at least one primary health centre in each block, 508 centres are to be set up in the remaining 340 blocks.

FAMILY PLANNING

The increase in population from 365 million in 1951 to 445 million in 1961 and 527 million in 1968 has been the result of a sharp fall in mortality rate without any significant change in the fertility rate. The birth rate appears to have remained unchanged—around 41 per thousand population during the greater part of the past two decades up to 1965-66. According to recent surveys, it appears to have come down to 39 for the country as a whole. The population growth rate is estimated to be 2.5 per cent per annum.

In order to make economic development yield tangible benefits for the ordinary people, it is necessary that the birth rate be brought down substantially as early as possible. Accordingly, family planning finds its place in the Plan as a programme of the highest priority. It is proposed to aim at the reduction of birth rate to 25 per thousand population within the next 10-12 years. Three main components of the family planning programme are (i) group acceptance of the small sized family, (ii) personal knowledge about family planning methods, and (iii) ready availability of supplies and services.

Some salient features of family planning programme are set out in the following table :

Item	Unit	Third Plan	Annual Plans 1966-69	Fourth Plan
Expenditure/outlay	Rs. crores	24.86	69.48	315
District family planning bureaux .	nos.	199	303	335
Rural family welfare planning centres (cumulative)	nos.	3,676	4,326	5,225
Rural sub-centres (cumulative) . .	nos.	7,081	22,826	31,752
Urban family welfare planning centres (cumulative)	nos.	1,381	1,797	1,856
Family planning training centres (including central institutes) . .	nos.	30	48	51

Family planning will remain a Centrally sponsored programme for the next ten years and the entire expenditure will be met by the Central Government. It will be ensured that performance does not lag behind expenditure. The effort will be to achieve enduring results through appropriate education and motivation. General health services will be fully involved in the programme.

Of the outlay proposed, Rs. 269 crores will be for organisation of services and supplies by rural and urban centres and compensation for sterilisation and IUCD. Rs. 46 crores will be spent on training, research, motivation, organisation and evaluation.

Keeping in view the aim to reduce the birth rate to about 32 per thousand population by 1973-74 from the present 39, it is proposed to step up the target of sterilisation and IUCD insertions and to widen the acceptance of oral and injectible contraceptives. The use of conventional contraceptives will also be stepped up so as to cover

3.24 million persons in 1969-70 and 10 million persons by 1973-74. As a result of these measures, 28 million couples are likely to be protected by 1973-74. The births expected to be prevented will aggregate to 18 million for the Plan period.

The oral pills were introduced in the family planning programme in August 1967 as a pilot project. The pill programme will be expanded both in urban and rural areas in a phased manner, depending on experience gained during the expansion of the programme.

Surgical equipment will be provided in all rural and urban family welfare planning centres (nearly 7,000 in number) for vasectomy operations. The efforts of the centres will be supplemented by more than 1,000 mobile service units attached to district family planning bureaux. Salpingectomy is becoming popular and it is estimated that 25 per cent of all sterilisations will be on women. To supplement the use of general beds for salpingectomy, 3,300 beds will be provided. Some new schemes like post-partum programme, supply of surgical equipment to hospitals, intensive districts and selected area programmes, supply of vehicles at all primary health centres and strengthening of Central and State health transport organisations have been included in the Plan.

In addition to the present system of free distribution of conventional contraceptives through family welfare planning centres and voluntary workers (depot holders), a massive programme of distribution of condoms (Nirodh) through 600,000 commercial retail outlets will be developed. It is estimated that 1,200 million pieces will be indigenously manufactured.

Arrangements will be made for training 10,000 medical and 150,000 para-medical personnel.

XVIII. REGIONAL DEVELOPMENT, HOUSING AND WATER SUPPLY

REGIONAL AND URBAN DEVELOPMENT

Regional and urban development was accorded particular recognition in the Third Plan. By 1968, almost all the States had introduced town planning legislation with varying scope. During the period 1963-69, interim development plans, providing guidelines on land use were completed for 40 cities. But, for lack of adequate resources much headway could not be made with their implementation except in a few metropolitan and new towns.

According to present projections, the urban population is expected to increase from 79 million in 1961 to nearly 152 million in 1981. The number of towns with a population of 50,000 and above is likely to increase from 250 in 1961 to 536 in 1981. The situation in regard to growth of population in metropolitan centres, particularly of Calcutta and Bombay, is already so difficult as to make it almost a law and order problem. In cities like Calcutta and Bombay it may be necessary to think not only of preventing further growth of population but also of decongestion or dispersal of population. In the case of the other cities, future planning must be oriented towards stabilisation of population at a desirable optimum figure and towards planning suitable new centres in the region for the likely spill-over.

The social and economic costs of servicing large concentrations of population are also prohibitive.

There is a provision of Rs. 188 crores in the State sector for urban development, housing and metropolitan schemes. To supplement these resources, Rs. 10 crores have been provided in the Central plan as share capital for the establishment of a Housing and Urban Development Finance Corporation. The Corporation is expected to build a revolving fund of the order of Rs. 200 crores. Loans will be advanced from this fund to finance projects of housing and urban development promising quick turnover.

A provision of Rs. 42 crores has been made in the West Bengal plan for schemes relating to water supply, sewerage and drainage, roads and traffic, slum clearance, housing and urban development in the Calcutta metropolitan region. This amount excludes the provision for a second bridge on the Hooghly and the Dum Dum—Princep Ghat suburban railway expansion.

The scope and effectiveness of these provisions could be enhanced by integrating their use with that of other provisions for land development in sectors such as industry, urban water supply, roads and social and educational institutions.

HOUSING

Schemes in the housing sector cover only a small portion of the total effort. Substantial expenditure on housing is made by public sector undertakings, railways, posts and telegraphs and defence. The major share of the investment on housing comes from the private sector. It is estimated at Rs. 1,400 crores in the Third Plan and is expected to rise to Rs. 2,140 crores in the Fourth Plan.

Urban housing programmes consist of housing schemes and loan schemes. The following table indicates the number of tenements estimated to have been built by 1968-69.

	Scheme	Year of introduction	Tenements built by 1968-69
I.	Subsidised housing schemes		**235,179**
	For industrial workers and economically weaker sections.	1952	165,623
	Slum clearance and improvement . . .	1956	69,556
II.	Loan schemes		**172,271**
	Low income group	1954	135,196
	Middle income group	1959	19,040
	Rental housing schemes for state employees . .	1959	18,035
	Total (I & II) .		407,450

The migration of people from villages to towns in search of employment has accelerated the growth of urban population. This trend has contributed to a fall in standards of housing and in many cities led to creation of slums. In solving urban housing problem emphasis should be on limiting the rise in the prices of land, providing financial assistance to cooperative and private effort, and assuming legal powers for reconditioning slums. The cooperative form of organisation could be enlarged, especially for low and middle income groups. State housing boards should be encouraged to float bonds and debentures.

Cheaper houses should be provided by organising the supply of material and by pursuing research into practicable schemes of cheaper ways of building. The proposed Central Housing Finance Corporation would also promote the organisation of mass production of cheaper building materials. At the Centre, the National Buildings Organisation is engaged in the introduction of new techniques and materials to reduce costs of construction. Provision has been made for the establishment of a cellular concrete plant at Ennore in Tamil Nadu.

Provisions in the Fourth Plan for housing and urban development are :

Item		Outlay (Rs. crores)
States and Union Territories		188.43
Central sector schemes		
Office and residential accommodation for central govt. employees	30.00	
Central Housing Finance Corporation .	10.00	
Plantation labour housing . . .	2.00	
Cellular Concrete Factory in Tamil Nadu .	2.60	
Dock labour housing	2.50	
Experimental housing and research . .	0.35	
Housing statistics	0.35	
Town planning	0.50	
Local self-government (training and research)	0.30	
		48.60
	Total .	237.03

Village Housing

The essential tasks in village housing will be to get appropriate lay-outs made for the growing villages, to provide basic amenities such as water and sanitation facilities,and to stimulate private building and renewal activity. Encouragement will have to be given to cooperative effort. Special housing schemes in favour of scheduled castes or other disadvantageously placed classes should be integrated into the village lay-out.

Introduced in 1957, the village housing projects scheme provides for assistance to villagers for construction or improvement of houses, for house sites to landless agricultural workers, and for streets and drains in selected villages. The scheme has not made much progress. In the next two years, effort should be concentrated on completing the houses under construction. New villages may be taken up thereafter.

Laws conferring proprietary rights will have to be passed to protect the homesteads of families of landless agricultural labour.

WATER SUPPLY AND SANITATION

In the Third Plan and during the three Annual Plans respectively, 529 and 150 new urban water supply and sanitation schemes were taken up.

In regard to rural water supply, 1,764 schemes were completed during the Third Plan and 478 schemes undertaken during the three Annual Plans. The work done in 1961-69 ensured piped water supply to 6,000 more villages. Programmes of community development, local development works and backward classes welfare also include rural water supply works like construction or renovation of wells and installation of hand pumps. The number of such wells at the end of 1968-69 is estimated at 1.2 million.

The Fourth Plan outlay is Rs. 407.29 crores. In metropolitan areas water supply schemes would, as far as possible, be accompanied by sewerage and drainage schemes. In the remaining urban areas, priority will be given to the completion of spill-over schemes. A number of new schemes will be taken up in areas endemic to water-borne diseases. The bulk of the provision for rural water supply, which is of the order of Rs. 125 crores and has been earmarked, will be utilised in areas of acute scarcity. Other areas will meet their need from programmes for community development, welfare of backward classes or through local effort.

In tackling the problem of sanitation the emphasis, will be on improving the conditions of those in unclean occupations. It is necessary to think in terms of doing away with present arrangements by either adopting a proper system of underground sewerage or converting all dry latrines into some type of improved latrines. As an immediate step, this can take the form of providing improved sanitary conveniences in all public institutions as also in public places.

Under a Centrally sponsored programme, assistance is being given to State Governments for special investigation divisions attached to their public health engineering departments. They will prepare technical designs and estimates of rural water supply schemes, particularly in difficult areas. A provision of Rs. 2 crores has been made for this purpose.

A provision of Rs. 3.5 crores has been made in the Central sector to accommodate assistance from UNICEF in the shape of high speed drilling rigs for exploration and exploitation of ground-water resources in hard and rocky areas.

The training programme in public health engineering is proposed to be continued with a provision of Rs. 25 lakhs.

Central legislation for prevention of pollution of water sources by indiscriminate discharge of wastes from industrial plants and sewerage effluents is under consideration. An allocation of Rs. 7.60 lakhs has been made for the establishment of a central board envisaged under the new legislation.

XIX. SOCIAL WELFARE

The expenditure on social welfare programmes in the first three plans and the outlay in the Fourth Plan are :

(Rs. crores)

First Plan	1.60
Second Plan	13.40
Third Plan	19.40
Annual Plans (1966-69)	12.08
Fourth Plan	41.38

The past eight years have been important for the development of welfare services since they signified participation by the State not only in the sphere of statutory enactment but also in the organisation of basic services for education and rehabilitation of the handicapped and the extension of welfare services for women and children in rural areas. But certain weaknesses have also been noticed. In the previous Plans, inadequate attention was paid to the needs of destitute children. Other limitations related to counselling or advisory services, statistical data, management and supervision at the field level, and coordination between the Central Social Welfare Board and State departments of social welfare. In the Third Plan, only Rs. 19 crores were spent as against the Plan outlay of Rs. 31 crores. The utilisation improved during 1966-69 and four-fifths of the Plan outlay was spent.

Programmes

It is proposed to establish 181 more family and child welfare projects during the next five years. Each family and child welfare project has one main centre and five sub-centres. They provide integrated services to children, specially to pre-school children, and basic training to women in homecraft, mother craft, health education, nutrition and child care. The existing welfare extension projects of community development blocks are being converted into family and child welfare projects.

An outlay of Rs. 6 crores has been made for the feeding of pre-school children, to tackle the problem of their nutritional deficiency. The organisational machinery of family and child welfare projects, women's welfare organisations and *balwadis* will be utilised for the purpose.

In the scheme of pre-vocational training centres, the recommendations of a study team for diversification of training, starting of part-time courses and of new centres for girls, and extension of the period of the course are under consideration.

It is proposed to place greater emphasis on the provision of services for destitute children, as distinct from delinquent children, either directly by Government or through voluntary effort. The grant-in-aid programme of the Central Social Welfare Board is proposed to be utilised to a larger extent for giving assistance to voluntary organisations engaged in the welfare of destitute children and for experimenting with non-institutional services like foster-care and adoption. Rs. 2 crores is proposed to be allocated specifically for institutional and non-institutional services.

The services in the National Centre for the Blind at Dehra Dun, which already has a model school, a training centre, a workshop for the manufacture of Braille appliances for education, a central Braille press, and a national library for the blind, will be expanded and improved. It is also proposed to start a school for partially sighted children. The training centre for the adult deaf which offers facilities to boys of 16–25 years of age in engineering and non-engineering occupations will be expanded and workshop facilities provided. It is proposed to make a beginning with a national centre for the physically handicapped to serve as a demonstration project. As a first step it is proposed to start a school for the cerebral palsied children and a vocational training centre for the severely crippled.

It is proposed to initiate some pilot schemes for the integrated education of the blind, the partially blind and the partially deaf. Training facilities for the teachers of the handicapped will be expanded and improved.

In the Fourth Plan it is proposed to organise and expand programmes for the prevention and treatment of juvenile delinquency, probation, suppression of immoral traffic in women and girls, social and moral hygiene and eradication of beggary.

Voluntary organisations will be assisted to create public opinion in favour of prohibition through publicity and propaganda.

XX. BACKWARD CLASSES WELFARE

Members of the Scheduled Castes and Scheduled Tribes together comprise more than one-fifth of the total population. In addition, there are the nomadic, semi-nomadic and denotified communities. To raise the social, educational and economic standards of the backward classes special schemes have been taken up which supplement the general programmes in various sectors.

In the first eighteen years of planning, about Rs. 277 crores were spent on such special programmes. Of this, Rs. 100 crores were for the Scheduled Castes, Rs. 150 crores for the Scheduled Tribes and Rs. 27 crores for other backward classes. Programme-wise Rs. 117 crores were spent on educational schemes, Rs. 91 crores on economic development and Rs. 69 crores on health, housing and other schemes.

The expenditure on some of the important programmes in the Third Plan and the three Annual Plans and the Fourth Plan outlay are :

(Rs. crores)

Item	Third Plan expenditure	1966-69 anticipated expenditure	Fourth Plan outlay
1. *Centre*			
Tribal development blocks	15.53	20.04	32.50
Post-matric scholarships	9.48	13.01	11.00
Girls' hostels	0.14	0.58	2.00
Coaching and allied schemes	..	0.11	1.00
Research training and special projects	0.39	0.39	1.50
Cooperation (special schemes)	3.06	1.13	2.50
Improvement of those in unclean occupations	3.44	1.13	3.00
Denotified tribes and nomadic tribes	3.82	1.77	4.50
Aid to voluntary organisations	1.05	0.76	2.00
	36.91	38.92	60.00

Item	Third Plan expenditure	1966-69 anticipated expenditure	Fourth Plan outlay
2. *States*			
Education	32.70	19.22	77.43
Economic development	14.73	4.06	
Health, housing and other programmes .	11.26	4.36	
	58.69	27.64	
3. *Union Territories.*			
Education	0.49	0.45	4.95
Economic development	1.96	1.09	
Health, housing and other programmes .	1.09	0.39	
	3.54	1.93	
Total (1+2+3) .	99.14	68.49	142.38

Emphasis will be laid on consolidation, improvement and expansion of the services so that the process initiated in the earlier Plans is accelerated. The objective of integration of Scheduled Castes with the rest of the society is proposed to be related mainly to the equalisation of opportunities for development.

Problems of development of members of the Scheduled Tribes vary in different regions. The development strategy for tribal welfare has to take into consideration the level of attainment among the communities in different parts of the country. The more backward groups among the tribals in a region require special attention.

The first step necessary for raising the economic condition of the tribal population is protection from exploitation, among others, by money-lenders and forest contractors. This has to be supported by legislative and executive measures.

The most important programme in tribal welfare is that of tribal development blocks started in the Second Plan. There are now 489 suac blocks for intensive development of areas with large concentrations of tribal population. The period of supplementary allocations in a tribal development block is proposed to be extended from 10 to 15 years and involves the introduction of a stage III with an allotment of Rs.10 lakhs per block for a five-year period. Accordingly, the Plan has provided for tribal development blocks which have completed stage II to enter stage III. There will be no further expansion until the existing blocks are stabilised. Programmes for increasing agricultural production and live-stock produce should get the first priority and for diversifying and modernising the occupational pattern of landless labourers should come next.

In addition to the outlay provided for the award of post-matric scholarships to Scheduled Castes and Scheduled Tribes, about Rs. 33 crores would be available for the scheme as committed expenditure. Facilities of pre-examination coaching are proposed to be expanded. Special efforts will be made to spread education among members of the Scheduled Castes and Scheduled Tribes who are educationally at a very low level and to reduce dropouts and wastages at the middle and secondary stages.

Programmes for assisting nomadic and semi-nomadic groups to lead a settled life through housing and creating a means of living like agriculture, cattle breeding or cottage industries, will be continued.

For denotified communities, a combined correctional-*cum*-welfare approach started in the earlier Plans will be continued. It will be supported by schemes of general education, social education, economic uplift and housing.

In the past 18 years various measures have been initiated for the removal of untouchability through legislation, publicity, education and certain special programmes of social and economic betterment. A sustained drive is still necessary. An outlay of Rs. 3 crores has been provided at the Centre for improvement in living and working conditions of those in unclean occupations.

XXI. LABOUR AND EMPLOYMENT

LABOUR

The number of industrial training institutes for training craftsmen increased from 163 at the end of March 1961 to 356 in March 1969 and the seating capacity increased from 43,000 to 147,000. Under the Apprenticeship Act, 1961, 195 industries and 50 designated trades where apprentices are to be engaged have been specified. Nearly 37,000 apprentices are at present undergoing training in more than 3,000 establishments. The Central Institute for Research and Training in Employment Service and the Indian Institute of Labour Studies were established in 1964.

Progress under various schemes is as follows :

Scheme	1961	1969
1. *Employees' State Insurance Scheme*		
Centres	120	313
Insured persons	1.94 million	3.78 million
Insured families	0.68 million	3.76 million
Medical, cash, etc. benefits to workers in the year (1960-61/68-69)	Rs. 6 crores	Rs. 28 crores
2. *Coal Mines Labour Welfare Fund Scheme*		
Expenditure on medical, educational, housing and other facilities in 1960-61/68-69	Rs. 1.63 crores	Rs. 4.33 crores
3. *Employees' Provident Fund Scheme*		
Workers covered	2.9 million	5.38 million
Industries	46	123
Establishments	12,000	45,000
Contributions	Rs. 266 crores	Rs. 1,391 crores

DPD/70—10

Scheme	1961	1969
4. *Coal Mines Provident Fund Scheme*		
Mines and ancillary units covered . . .	..	1,327
Workers benefiting	..	349,000
Contributions	Rs. 27 crores	Rs. 91 crores
5. *Workers Education Programme* (Started by the end of the Second Plan)		
Workers trained	..	921,000
Worker teachers trained	..	17,000
6. *Cooperatives for the benefit of workers*	..	2,760

Among the labour legislations enacted, mention may be made of the Payment of Bonus Act, 1965, Shops and Commercial Establishments Act and Labour Welfare Fund Acts in States. A National Safety Council was set up in 1966. Out of the 22 wage boards set up so far covering almost all the major industries, 19 have submitted their reports. The report of the National Commission on Labour set up in December 1966 to study and make recommendations on various aspects of labour including wages, working conditions, welfare, trade union development and labour-management relations, is under consideration.

Programmes

Only a marginal expansion of the seating capacity of the industrial training institutes from 147,000 to 150,000 to cover new trades such as tool and die making, electronics and chemicals, is envisaged in the Plan. This is considered adequate to meet the likely requirements of craftsmen. Three institutes for training special categories of craftsmen for industry and supervisory staff are proposed to be established. These are the Advanced Training Institute at Madras, the Central Staff Training and Research Institute at Calcutta and the Foremen Training Institute at Bangalore. The number of apprentices is expected to increase from the present level of 37,000 to about 75,000 by the end of the Plan.

The number of employment exchanges including university employment information and guidance bureaux rose from 312 in 1961 to 458 in 1969. The employment services is proposed to be expanded.

The activities of the Employees' State Insurance Corporation are proposed to be expanded in order to provide hospitalisation to families of all insured workers, to cover shops and commercial establishments in selected centres as also non-power factories employing ten or more persons. running staff of road transport undertakings, and to cover all centres having an industrial concentration of 500 or more insurable workers.

The Labour Bureau proposes to conduct a comprehensive family living survey among industrial workers in 1970–71. In the field of industrial relations, priority will be accorded to the growth of a healthy trade union movement, the promotion of collective bargaining and the raising of productivity through labour management cooperation.

The plan outlay is Rs. 39.90 crores. Of this, Rs. 10.00 crores will be in the Central plan, Rs. 27.02 crores in the State plans and Rs. 2.88 crores in Union Territory plans. The expenditure in the Third Plan and the three Annual Plans was Rs. 55.8 crores and Rs. 35.5 crores respectively.

EMPLOYMENT

In the past, the Planning Commission used to present estimates of the backlog of unemployment at the beginning of the Plan, of the estimated increase in the labour force during the Plan period and of additional employment likely to be created through implementation of the Plan as formulated. In view of the considerable divergence of opinion regarding the appropriate definitions of and suitable yardsticks for measuring unemployment and under-employment in rural and urban areas and in view of the widely differing magnitudes of unemployment worked out on the basis of various sources such as the census, the National Sample Survey and the employment exchange data, it was felt that the various aspects needed a closer scrutiny. Accordingly, the Planning Commission set up in August 1968 a committee of experts to enquire into the various aspects of estimates of unemployment.

According to the committee's main conclusions and recommendations the data available for estimating unemployment and under-employment had not been adequate and hence the conclusions were subject to a margin of error. The concept of labour force as adopted in developed economies is unsuitable for our economy with its preponderance of self-employment and labour contributed by family members to household enterprises, who otherwise are not available for outside work. While their inclusion in labour force—and in the calculation of unemployment—becomes misleading, their total exclusion would also fail to reflect the reality of the economic situation. Further, there is very little open or outright unemployment throughout the year, but there would be considerable seasonal unemployment or under-employment. In view of these, according to the committee, the question of the extent of under-employment is important but its measurement solely in terms of man-years is inappropriate.

As regards estimation of employment potential generated during a Plan period, the committee has suggested that the most that can be attempted by way of estimation is the likely growth of employment in a few segments of the economy, and for the rest, reliance has to be placed primarily on recording at frequent intervals the changes taking place in the composition of the labour force, its industry-wise distribution, the intensity of employment and the members seeking employment. Such studies could perhaps be done through quinquennial sample surveys.

In view of the committee's recommendations no attempt has been made in the Fourth Plan to present data on the lines followed in previous Plans.

According to the data collected through the employment market information programme of the Directorate General of Employment and Training, employment other than in agriculture, household establishments, the defence forces as well as the self-employed, increased from about 12.09 million at the end of 1960–61 to about 15.46 million at the end of 1965–66, or by about 28 per cent, the average annual growth rate being 5 per cent during the Third Plan period. The growth of employment in 1966–67 and 1967–68 was considerably lower. In 1968–69, the employment, however, increased by about 2 per cent.

The strategy of development envisaged in the Plan lays great emphasis on labour intensive programmes. Large scale capital intensive investments are limited to projects where technological considerations and economy of scale do not permit adoption of labour intensive techniques. While creation of employment opportunities has been an important consideration, emphasis has been equally placed on productive employment on a sufficiently high level of efficiency.

The increasing tempo of agricultural development in the Plan is expected to create new employment opportunities on a large scale in the rural areas and also provide fuller employment to those who are already engaged in agriculture. The special programmes formulated for sub-marginal farmers and for dry farming envisage a significant expansion in employment opportunities by way of both fuller employment and new avenues of employment. The rural works programmes proposed to be undertaken in 40 chronically drought-prone districts in different States, with an outlay of Rs. 100 crores, is expected to provide unemployment relief in such areas. The increasing emphasis on programmes of soil conservation and waste land reclamation are also expected to contribute to more employment opportunities to agricultural labour. The expansion of the dairy and milk supply schemes and the development of inland and marine fisheries are expected to generate employment avenues for various categories of skilled, semi-skilled and unskilled personnel.

The considerable emphasis placed in the Plan on the dovelopment of major, medium and minor irrigation schemes and flood control, is expected to provide increasing employment opportunities apart from under-employment relief in the rural areas. Small farmers are likely to benefit particularly from the programmes of minor irrigation. Allied to the irrigation schemes are programmes of flood control, drainage and anti-waterlogging which involve substantial construction activities providing extensive employment opportunities to skilled and semi-skilled workers apart from civil engineers and other highly trained technical personnel.

A substantial volume of construction activities is inherent in the various schemes relating to generation, transmission and distribution of electricity, and rural electrification which would open employment opportunities for various categories of personnel, including semi-skilled and unskilled workers. The inter-linking of various regional power systems to form an all-India grid would help more equitable distribution of power in the country and lead to the diversification of industrial growth and reduction of regional disparities in terms of employment opportunities. The rapid expansion in the rural electrification programme is expected to give an impetus to the development of small industries leading to generation of considerable rural employment.

Non-farm employment is expected to grow at a fast rate during the Plan, both due to programmed growth in mining and manufacturing industries and to schemes to provide alternate means of occupation to small farmers and landless labour.

A special scheme has been formulated for promoting self-employment among engineer-entrepreneurs by imparting suitable training and by encouraging commercial banks to advance loans to them for starting small scale industries. Similarly, the State Bank of India and some of the nationalised banks have also schemes for giving financial assistance to technically trained persons to start business on their own. Items of machinery and equipment are also made available to the entrepreneurs on hire-purchase basis by the small industries corporations.

Under the transport sector, most of the schemes, particularly under railways and roads, are highly labour-intensive. In the communications sector, programmes like extending telephone connections, development of trunk telephone services and establishment of 31,000 new post offices, have considerable potentialities for employment.

The expansion programmes in the field of general and technical education are expected to absorb a large number of trained teaching personnel, instructors, inspecting and other office staff. Similarly the health and family planning programmes are expected to provide large employment avenues especially for medical and para-medical personnel. Under housing, various programmes such as a revolving fund of Rs. 200 crores, is expected to create large employment in construction activities.

The trends in the employment growth in the organised sector during the past decade, reveal that the rate of employment growth has been maximum in the tertiary sector of trade and commerce, transport, storage and communications, and services. This sector is expected to grow at a faster rate in the coming years.

XXII. OTHER PROGRAMMES

Developmental programmes included under this head and the outlays on them are :

(Rs. crores)

S. No.	Programme	Centre	States	Union Territories	Total
1.	Rehabilitation	66.00	..	..	66.00
2.	Statistics	7.91	3.27	0.52	11.70
3.	Information Services and Plan Publicity	5.00	5.84	1.66	12.50
4.	Research Programmes Committee	0.60	..	..	0.60
5.	Expansion of Printing Capacity .	10.00	1.63	..	11.63
6.	Evaluation	..	0.79	0.07	0.86
7.	State Capital Projects	..	26.75	4.00	30.75
8.	Special and Backward Areas .	..	43.55	..	43.55
9.	Others	1.17	10.71	2.84	14.72
	Total .	90.68	92.54	9.09	192.31

The outlay on rehabilitation would be for the resettling in agricultural and non-agricultural occupations of repatriates from Burma and Ceylon, migrants from East Pakistan now in relief camps and also some families residing outside the existing camps in West Bengal. Provision has also been made for schemes in progress such as Dandakaranya area development, training of refugees and the Rehabilitation Industries Corporation. The special area development programme started in the Andaman and Nicobar Islands will also continue.

Under the schemes of the Research Programmes Committee of the Planning Commission greater emphasis will be given to the study of the problems of small farmers, growth potential, industrial location, public enterprises and problems arising out of detailed local planning. Of the outlay, Rs. 25 lakhs will be for grants to the Institute of Economic

Growth, the National Council of Applied Economic Research, the Gokhale Institute of Politics and Economics and the Economics Department of Bombay University, for participating in research programmes. These along with the Indian Statistical Institute will undertake detailed studies on related problems such as technological change and productivity in industries, input-output analysis, manpower structure, wage differentials and forest resources. Rs. 10 lakhs have been provided for enlisting the services of consultants for short periods.

A number of States have identified special areas (hill and border areas, backward areas, other special areas) requiring measures for accelerated development, and the outlay under special and backward areas relate to specific provision made by a few States for this purpose. All the State Governments will work out in due course, the specific outlays within their Plan ceilings.

The following main considerations have guided the formulation of the statistical schemes : (i) maintaining continuity in the implementation of important statistical programmes undertaken since the Third Plan, (ii) extending statistical development to new areas of enquiry, and (iii) undertaking projects on the basis of international statistical programmes.

The main objectives of statistical schemes in the Central sector will be increasing the coverage and ensuring timely analysis of industrial statistics, improving crop statistics, promoting State income estimates and improving national accounts and strengthening of research and training facilitites. In the States sector, stress will be placed on the implementation of 'core' statistical schemes, with a view to improving data on small scale enterprises, distributive trade and inter-State movement of goods.

The schemes of the Registrar General's office aim at progressive improvement of civil registration for collection, tabulation and consolidation of vital statistics, and for filling up gaps in vital statistics. These projects, initiated recently, are proposed to be pursued vigorously. The schemes of the Director General of Supplies and Disposals relate to improvement of purchase statistics.

In addition there are separate statistical programmes of different Central ministries and State departments. Under a Centrally sponsored scheme, it is proposed to extend the coverage to the unregistered sector of the small scale industries in a phased manner. As a first step all unregistered units employing five workers or more will be listed and information collected on a sample basis. As a part of the world programme, it is proposed to conduct an agricultural census during 1970, partly by complete enumeration and partly on a sample basis with a view to collect comprehensive data on various aspects of agriculture. Another important Centrally sponsored statistical scheme is 'timely reporting of crop areas'. The working class family living surveys will be conducted in sixty factories and mining and plantation centres to derive an up-to-date weighting diagram for compilation of new series of consumer price index numbers.

As a part of the total infra-structure, information services enable Government to put across facts and points of view and keep itself in the know of popular reactions and press opinion. This two way traffic is important in extending understanding of Plan policies and participation in developmental activities.

It is desirable that a single agency, either at the Centre or in each State and Union Territory, operates all the communication media such as films, printed literature, mobile vans and press releases. At the Centre and in some States, information personnel and facilities have been set up severally and in isolation by developmental departments. This means avoidable investments, duplication of effort and unused capacity; hence the need for a single integrated servicing agency.

Some corrective to the imbalance in the spread of information facilities in favour of urban and prosperous areas will result from the lesser emphasis on general publicity implicit in the linking of information programmes with developmental work. There is need for a deliberate attempt to inform the people in the rural areas and in particular those in backward regions about the specific schemes in agriculture, forestry, road construction, marketing or the supply of credit and other inputs, so that the benefits of these programmes are more widely spread. Even in a single region or homogenous area, there will be more than a single audience to be approached. These will have to be identified and reached.

APPENDIX I

SELECTED TARGETS AND ESTIMATES

S. No.	Item	Unit	1960-61 actuals	1965-66 actuals	1968-69 estimated	1973-74 targets/ estimates
	1	2	3	4	5	6
	Agriculture and allied sectors :					
1.	Foodgrains production	mill. tonnes	82	72	98*	129
2.	Sugarcane (in terms of gur)	mill. tonnes	11.2	12.1	12.0*	15
3.	Oilseeds	mill. tonnes	7	6.3	8.5*	10.5
4.	Cotton	mill. bales	5.3	4.8	6.0*	8
5.	Jute	mill. bales	4.1	4.5	6.2*	7.4
6.	Tobacco	thou. tonnes	307	298	350	450
7.	High-yielding varieties (area covered)	mill. hectares	—	—	9.2	25
8.	Consumption of fertilisers					
	nitrogenous (N)	thou. tonnes	210	550	1,145	3,200
	phosphatic (P_2O_5)	thou. tonnes	70	130	391	1,400
	potassic (K_2O)	thou. tonnes	26	80	160	900
9.	Plant protection (area covered)	mill. hectares	6.5	16.6	40	80
10.	Short and medium term loans advanced by primary cooperative credit societies	Rs. crores	203	342	490	750
11.	Membership of agricultural cooperative credit societies	mill. numbers	17	26	30	42

12.	Area irrigated (gross)					
	major and medium	mill. hectares	13.1	15.2	16.9	20.8
	minor	mill. hectares	14.8	17	19	22.2
13.	Agricultural pump-sets energised	thou. numbers	191.8	512.9	1,087.6	2,337
	Industry and minerals :					
14.	Steel ingots	mill. tonnes	3.42	6.5	6.5	10.8
15.	Alloy and special steel	thou. tonnes	—	40	43	220
16.	Aluminium	thou. tonnes	18.3	62.1	125.3	220
17.	Machine tools	Rs. crores	7	29	24.7	65
18.	Sulphuric acid	thou. tonnes	368	662	1,038	2,500
19.	Caustic soda	thou. tonnes	101	218	304	500
20.	Soda ash	thou. tonnes	152	331	405	550
21.	Refinery products (in terms of crude through-put)	mill. tonnes	5.8	9.4	15.4	26.0
22.	Petroleum crude	mill. tonnes	0.41	3.02	6.06	8.5
23.	Paper and paper board	thou. tonnes	350	558	647	850
24.	Plastics	thou. tonnes	9.5	31.3	58.1	225
25.	Fertilisers production					
	Nitrogenous (N)	thou. tonnes	101	232	541	2,500
	Phosphatic (P_2O_5)	thou. tonnes	53	123	210	900
26.	Cement	mill. tonnes	8	10.8	12.2	18
27.	Cloth					
	Mill made	mill. metres	4,649	4,401	4,297	5,100
	Man-made fabrics	mill. metres	546	870	1,090	1,500
	Handloom, powerloom and khadi	mill. metres	2,067	3,141	3,596	4,250
	Minerals :					
28.	Iron ore	mill. tonnes	11	24.5	28.1	51.4
29.	Coal excluding lignite	mill. tonnes	55.7	67.7	71.5	93.5

1	2	3	4	5	6
Power :					
30. Installed capacity	mill. kw.	5.65	10.17	14.29	23
Transport :					
31. Railway freight originating . . .	mill. tonnes	156	203	204	265
32. Surfaced roads	thou. kms.	236	287	325	385
33. Commerical vehicles on road . . .	thou. numbers	225	333	386	585
34. Shipping tonnage	thou. grt.	857	1,540	2,140	3,500
Education :					
35. Students in schools	mill. numbers	44.7	66.3	74.3	96.4
36. Technical education admission capacity					
Degree	thou. numbers	13.8	24.7	25	25
Diploma	thou. numbers	25.8	48	48.6	48.6
Health :					
37. Hospital beds	thou. numbers	185.6	240.1	255.7	281.6
38. Doctors practising	thou. numbers	70	86	102.5	137.9
39. Family planning					
Rural centres	numbers	1,100	3,676	4,326	5,225
Rural sub-centres	numbers	—	7,081	22,826	31,752
Urban centres	numbers	549	1,381	1,797	1,856

*Base level.

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