



FOURTH FIVE YEAR PLAN OF ASSAM

A DRAFT OUTLINE

**GOVERNMENT OF ASSAM
PLANNING AND DEVELOPMENT DEPARTMENT**

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CHAPTER I

APPROACH TO THE FOURTH FIVE YEAR PLAN

1. Assam embarked on her programme of planned development with a modest First Five Year Plan costing Rs. 20.5 crores. The First Five Year Plan of Assam was conceived as a modest effort designed firstly to remove the shortages and inequilibrium in the economy following the War and Partition and secondly to fulfil the needs of the most essential items of development in which the State was hitherto lacking. The programme had a long-range objective of strengthening the economy at the base and initiating institutional changes which would pave the way for rapid advance in future. High priority was given to agricultural development, setting up of essential institutions of higher education and professional learning, development of communications, etc. Assam made significant advance during the First Plan period.

2. The Second Plan of Assam, designed to carry forward the process of development initiated in the First Plan, was drawn up as an integral part of and in conformity with the overall concept and objective of the National Second Five Year Plan. It sought to carry-forward the institutional changes to make the State's economy more progressive in terms of defined economic and social needs on the one hand, and on the other it aimed at a balanced distribution of plan funds under different sectors of development. In particular, it laid emphasis on the development of agriculture, irrigation, power, transport, education and health services. In the Second Five Year Plan period the expenditure incurred on the Plan was Rs. 54.5 crores. During the Second Plan, the State made rapid progress on the economic plane. The State national income of Assam expressed in terms of 1948-49 prices rose by 32 per cent from Rs. 223.6 crores in 1950-51 to Rs. 296.2 crores in 1960-61. However, the rapidly increasing population kept the per capita income virtually stationary over the period of the first two Plans.

3. The experience of the first two plans as well as the increasing requirements of the future provided the guide-lines in the formulation of the Third Five Year Plan. There was rapid development in social services, transport and power. Special emphasis was placed on flood control. The three-tier panchayat system also gained momentum during this period. There was phenomenal growth of the major towns in the State, but industrial development, which had started with a rapid pace in the beginning of the Plan began to stagger as a result of the Chinese aggression. Even the record of the National Third Plan has not, *prima facie*, been entirely satisfactory. Progress in physical terms was much lower than expected in many fields. Assam, which has been persistently lagging behind other States in important sectors such as industries, power, communications, technical education, urban development, etc., has further lagged behind other States during the Third Plan period. 'Appendix A' at the end of this Plan outline gives a set of indicators of development in important fields showing the comparative position of Assam in the country as a whole. It will be seen that in 1964 Assam accounted for only 2.2 per cent of the employment in factories in India. The income from factory industry in the State was still lower, only 2.0 per cent of the All India figure in 1964-65. Similarly the income from small enterprises in Assam was barely 2.8 per cent of that of All India in 1964-65. The installed capacity in Assam of electrical power in 1965-66 was only 143 M.W., or 2.1 per cent of the total

installed capacity of 10,170 M.W. in India. The length of surfaced road, per 100 square kilometer in the State was only 3.1 k.m. against 7.5 k.m. for the country as a whole.

4. During the period 1951-52 to 1965-66, covering the first three Plans, the State income of Assam at 1960-61 prices rose from Rs.279.2 crores to Rs.445.6 crores or at the rate of 3.2 per cent per year. The Third Five Year Plan sought to secure an annual growth rate of about 5.1 per cent per annum; but the performance of the economy in 1965-66, the last year of the Plan, as revealed by the quick estimates of State Income shows that the annual growth rate is likely to stand around 4.1 per cent. This shortfall in the target is solely due to setback in agricultural production in 1965-66 which entailed a drop by 5.5 per cent in the income from agriculture proper. It is of significance to observe that over the first four years of the Third Plan ending with the year 1964-65, when agricultural production was at its normal level, the annual growth rate of the State's economy was of the order of 5 per cent which is very close to the desired rate envisaged in the Plan. A study of composition of State income during the 15 years of planning will show that a beginning in the structural change in the economy of the State has already set in, particularly by the end of the Third Plan. From 63.3 per cent in 1950-51 the income from agriculture sector as percentage of the total State income has come down to 48.2 per cent in the year 1965-66. The percentage share of income from mining, manufacturing and construction, on the other hand, has risen from 17.6 per cent in 1950-51 to 24.1 per cent in 1965-66. This high rise in percentage share is attributable mainly to the increased production of crude oil and oil refining industry. Income from factories other than tea and oil refining has also grown considerably. This is no doubt a healthy sign.

5. But inspite of about 60 per cent increase in the State Income (at 1960-61 prices) over the period 1950-51 to 1965-66 the per capita income of Assam recorded a rise of bare 4 per cent over this 15 year period, i.e., or an average 0.2 per cent annually. This is due to the fact that economic growth of the State has not marched forward commensurately with the growth of population.

6. Thus the basic problem of "raising living standards and opening up to the people new opportunities for a richer and more varied life" continues even at the end of the Third Plan. If the State is to contribute meaningfully to the task of national development, a high rate of growth has to be secured over the crucial period of the next ten years or so to lift the economy from the present state of virtual stagnation.

7. *Agriculture.*—Agriculture constitutes the very base of Assam's economy, and it is natural that in all the three Plans agricultural programmes were assigned a high priority. With abundant rainfall and fertile valleys suitable for cultivation of a wide variety of crops, Assam's potential for developing and diversifying agriculture is very great and yet the progress of agriculture in the first three plans has not been able to keep pace with the growth of population. From a surplus State in food grains the State has turned out to be deficit or barely sufficient despite an increase of 13 per cent in the area under foodgrains since the advent of planning.

8. The yield of rice, the principal food crop in Assam, has been almost stagnant during the entire period. Over the decade 1951-61, the trend of major crops production during this period is indicated in the table below:—

Crop	Unit	1955-56	1960-61	1955-66
Rice	600 tonnes	1,640	1,751	1,847
Wheat	Do	1	3	3
Other Cereals	Do	10	8	15
All Cereals	Do	1,651	1,762	1,865
Pulses	Do	30	27	37
Food grains	Do	1,681	1,789	1,902
Oil seeds	Do	59	50	64
Sugarcane (Gur)	Do	66	94	166
Cotton	Metric '000 bales	8	6	7
Jute	Do	1,103	899	845
<hr/>				
All crops (index base 1956-57=100)	..	95.79	98.90	106.38

The Third Plan target for foodgrain production was 22 lakh tonnes but the actual achievement by the end of the Plan was only 19 lakh tonnes. In the previous year, 1964-65, it was 19.6 lakh tonnes. As regards other crops the State continues to have an acute shortage of pulses and oil seeds. The level of production of jute, cotton and sugarcane was also below the production target proposed to be achieved by the end of the Third Plan.

9. Nevertheless the most significant feature in the agricultural sector is the upward trend in production. A variety of crops have been newly introduced and are now grown extensively. Great strides have been made in the introduction of improved agricultural practices to the rural areas of the State. Technical assistance and supplies are now within the reach of most of the farmers. The consumption of fertilisers has increased from a bare 2000 tons to 19,000 tons at the end of the Third Plan. A strong base organisation of co-operative, community development and panchayat institutions has been built up which will canalise and co-ordinate the agricultural programme through well-conceived village and regional production plans. Notwithstanding these developments, the potentia

that exists to increase agricultural production is still very large. Supplies like fertilisers, irrigation, improved seeds, pesticides, etc., have to be expanded considerably if this potential is to be realised.

10. *Irrigation*.—Adequate attention was not paid during the first two Plans on irrigation. It was only during the Third Plan that the abundant possibilities of developing irrigation all over the State through medium and Minor Irrigation Projects were realised. All measures for ensuring fuller utilisation of irrigation potential of existing projects and those nearing completion will receive immediate attention in the Fourth Plan and necessary provision has been made for them.

11. *Flood Control*.—One principal factor responsible for making Assam's agriculture unstable and the farmers indifferent to agricultural improvement is flood. Flood has become a regular occurrence since the earthquake of 1950 which raised the bed level of several rivers. Apart from human miseries the damage to crops and cattle caused by flood in Assam rose to several crores of rupees every year. Over the Second and Third Plan period, damage by flood and erosion caused to crops, livestock and properties average Rs.7.7 crores annually. The successive waves of floods in Assam this year (1966) resulted in a loss of Rs.20 crores and the total area affected was more than 4 million acres. Agricultural production programmes without adequate flood control measures would be unrealistic in Assam. Flood control measures so far taken in the State are essentially of short term nature and too insignificant to cope with the colossal problem. For its effective solution a master plan has been drawn up embracing both the short-term and long-term measures and a start in implementing this plan has been made in the Third Plan. These measures will have to be fully implemented in the Fourth Plan.

12. *Soil Erosion*.—The problem of soil erosion is linked up with the problem of flood in Assam. The system of shifting cultivation and depletion of vegetation due to de-forestation is responsible for excessive soil erosion resulting in silting up of rivers and streams which give rise to floods and erosion of the banks of the rivers. Since many of the rivers flowing into the plains of Assam start in NEFA, Nagaland and Manipur, the problem of flood control and soil conservation in Assam cannot be tackled by the State alone. For effective and permanent solution of the problem of flood control, irrigation and soil erosion, a comprehensive river valley project may have to be taken up embracing the entire eastern region as a whole. The successful tackling of this problem will entail setting up of suitable regional authorities to make detailed investigation and study of the entire region and prepare a master plan. This will involve heavy investment and it may not be possible for the State alone to take up this task. The efforts so far made have been only to check soil erosion in the hills by introduction of permanent type of cultivation.

13. *Industrial Development*.—In the sphere of industrial development, Assam is lagging behind other States inspite of abundance of raw materials. Industrial development in Assam started from the later half of the Second Plan. A great impetus was given to the process of industrial development by the setting up of the Oil Refinery at Gauhati and the exploration and drilling by the Oil and Natural Gas Commission in the Sivasagar District

A part from the sugar factory in the co-operative sector, a Cement factory, Spun Silk Mill and Fruit Preservation units in the public sector, the following industries have come up in the private sector during the Third Plan:—

- (i) a bicycle factory,
- (ii) two cotton spinning mills,
- (iii) a petro-coke unit,
- (iv) a chemical and pharmaceutical unit,
- (v) one hard-board unit,
- (vi) two units for manufacture of GI pipes and steel pipes,
- (vii) four re-rolling mills,
- (viii) a few flour mills,
- (ix) one unit for manufacture of oxygen and acetylene, and
- (x) a few engineering units.

For some time now the State has had under consideration proposals for setting up, in the private sector, a number of units for the manufacture of paper and paper-pulp, rayon-grade pulp, cement, petro-chemicals based on natural gas, coal based products, glass and ceramics, refractories, etc., but none of these has materialised despite the best efforts of Government to induce large business houses from outside the State to come forward to invest in Assam. The Chinese aggression dealt a severe blow to the pace of progress and distracted private capital from the State. The hard fact thus remains that Assam, industrially, is still one of the most backward States of India. Special efforts will have to be made in the Fourth Plan to adequately build up the *infra-structural* facilities necessary for industrial development like power, transport, technical know-how, etc., create a proper climate for a steady flow of private capital and develop industrial sites. The efforts will be largely promotional.

14. The Mineral Development Corporation which was set up in the Third Plan could not take up full scale prospecting and necessary exploitation of the mineral resources in the State. In the Fourth Plan the Corporation will be strengthened to undertake these fundamental functions and also to supply coal and limestone to the industrial units coming up in the Fourth Plan.

15. Since small-scale industries form a vital element of the industrial structure and provide a means for decentralisation of economic power, it is necessary to promote their growth. With the growth of towns there has been an increase in demand for various small industries products. Although a number of small industrial units were set up during the Third Plan, the prospects for setting up consumer goods industries in Assam is still considerable. At present the supply of most of these

articles comes from outside, but most of them can be manufactured locally by small industrial establishments using local raw materials and local labour. The problem faced in organisation and promotion of small industries in Assam is the same as facing the large and medium industries in the State *viz.*, lack of finance, shortage of raw materials, want of service facilities, inadequate power, high transport cost and shortage of skilled personnel. The Second and Third Plans attempted to solve these problems to a considerable extent and effort in this direction will continue in the Fourth Plan also.

16. *Power.*—In regard to power development, Assam has been the poorest State in the whole country. The installed capacity at the end of the Third Plan was only 143 MW as against the All-India installed capacity of 10170 MW. The total generation in 1964-65 was only about 64 million K. W. H giving a per capita consumption figure of about 5 K. W. H. But the progress achieved during the Third Plan is appreciable and it is expected that, during the Fourth Plan, industries will not suffer for want of power. Nevertheless, power development in Assam has to be stepped up many times if the State is to achieve at least the progress made in the rest of the country. Besides, Assam being the core of the eastern region of India its power resources will be called upon not only to meet her own requirement but also to feed the adjoining States and Territories. Gestation period of power projects is quite long anything between 5 to 7 years. Assam's power programme for the Fourth Plan will have, therefore, to cope with the immediate as well as long term needs of the entire region and also to ensure the development of a State-wide transmission and distribution system.

17. *Transport.*—Development of transport and communications is essentially to subserve social and economic needs. Transport difficulties constitute the greatest handicap in maintaining the supply line to Assam which has to depend for most of her essential supplies from outside. The river route through Pakistan has become undependable after the recent Indo-Pakistan conflict. During the Third Plan period the capacity of the railway link between Assam and West Bengal has been considerably stepped up and stabilised. The Broad gauge was brought upto Jogighupa thus augmenting the traffic capacity of this region very considerably. The North Bank Road which was opened up during the Third Plan period has also been of considerable importance in meeting the transport requirement of both defence and civil supplies. But transport by road still remains costly and the capacity of the railway link between Assam and West Bengal is still inadequate. The damage to the important roads, including the National Highways on account of floods has been considerable in the recent past. Shortages of essential commodities occur now and again mainly because of inadequate transport facilities. The delay in transit and the high cost of transport are discouraging to investors in setting up industries in Assam. All this indicates the immediate need for a really substantial effort towards the development of transport in Assam.

18. *Technical Education.*—One of the pre-conditions of economic growth is availability of trained personnel. Because of its industrial backwardness, Assam lacks technically trained personnel at various levels of skill. The State had a late start in the field of technical education. By

the end of the Second Plan there were only two engineering colleges with an intake capacity of 130 and four polytechnics with an intake capacity of 420. In the Third Plan technical education received its due importance. The two engineering colleges were expanded and the intake capacity has been raised to 270. Two more polytechnics were opened and the intake capacity of the polytechnics was raised to 850. Yet the supply is considerably short of the demand for technical man-power of all categories. There is still acute shortage of mechanics, fitters, electricians, welders and various other skilled and semi-skilled personnel. In view of the large possibility of development of industries in the next decade, the technical training programme will have to be greatly expanded and even if the supply exceeds the local demand initially in respect of certain categories of technical man-power, the balance will eventually be rectified.

19. *General Education*—Development programmes cannot succeed without a good base of general education. Education, as an investment in human resources, plays an important role among the factors which contribute to economic growth. General education also helps counter the tradition of immobility in the rural population and inculcates a desire for better living standards. It secures returns in the form of skilled man-power geared to the needs of development and also creates the right attitude and climate for development. It is therefore essential that there should be proper planning to establish a firm and purposeful link between education and development.

20. During the last 15 years, there has been considerable progress in the expansion as well as diversification of the facilities for education at all stages. At the end of the Third Plan, 77 per cent of the children in the age group 6 to 21, 31 per cent in the age group 11 to 14 and 19 per cent in the age group 14 to 17 were in schools. There was also considerable expansion in the facilities for training of teachers at all stages. While the expansion has been impressive, the problem of improving the quality of education has assumed a serious character. Determined efforts will be made in the Fourth Plan through increased supply of better trained teachers, provision of better physical facilities etc. Attention will also be paid to remove the present mal-adjustment between the educational system and the socio-economic needs. The Education Commission's report is under careful consideration of the Government and such modification as may be considered necessary in the light of the recommendations of the Commission will be made in the education programme of the Fourth Plan. Consistent with the national policy, priority has been given in the Plan to factors such as consolidation, quality and diversification.

21. *Health*—In order to promote the well-being of the people as well as to raise productivity, the human resources have to be adequately built up. The importance of medical care and public health services in this context is only too obvious. The extent of availability of health services in Assam before the advent of planning can be gauged from the fact that in 1950-51 there were only 31 hospitals, 325 dispensaries, 2520 beds, 237 doctors and only one newly started medical college. During the First Plan period the health programmes were mostly confined to the urban areas. The Second Plan sought to extend the facilities to the rural areas and to provide for training of medical personnel. Steps

were also taken for eradication of malaria and the rural water supply programme was launched. The Third Plan laid emphasis on expansion of training for all categories of medical personnel, health, education, control and eradication of communicable diseases, family planning, provision of drinking water of supply, provision of specialists for existing hospitals, etc. At the end of the Third Plan the level of development is as follows. The annual intake of the Assam Medical College has been raised to 250, the number of hospitals has risen to 67, dispensaries to 690 primary health units to 77 hospital beds to 5365 and doctors to 3608. The shortage of medical and para-medical personnel still persists, large areas are yet to be covered by water supply and sanitation programmes and communicable diseases and epidemics still take a heavy toll. The Fourth Plan, while intensifying the various programmes already undertaken, will lay special emphasis on expansion, consolidation and training facilities, intensification of family planning programme, supply of drinking water and sanitation programme. Attention will also be paid to the prevention of adulteration of foodstuffs and drugs.

22. *Employment*—Creation of adequate and diversified employment opportunities for the growing labour force is a major objective of planning. Therefore, the programmes of development in every sector have to be employment-oriented as far as possible. Attempts have to be made to ensure that areas in which there is considerable unemployment and under-employment receive due attention and that resources are utilised so as to make the maximum contribution to the creation of new employment opportunities and the relief of existing unemployment and under-employment. The Third Five Year Plan has left a back-log of about 3.22 lakhs unemployed persons in the State and it is estimated that there will be an addition of 6.42 lakhs new entrants into the labour force during the Fourth Plan. The Fourth Plan will therefore have to take care to 9.64 lakhs unemployed persons. It is expected that the Fourth Plan will provide opportunities for about 5.71 lakhs full time jobs.

23. *Tribal areas and Development of Backward Classes*.—In the first three-plans, apart from the general expenditure incurred in the tribal areas and other backward areas, separate programmes under Art. 275 for these areas were also taken up. But the expenditure incurred in these years was in no way commensurate with the efforts needed to bring these areas on par with the rest of State. The importance of rapidly developing these areas has been fully realised in the Third Plan period. A Joint Centre-State Study Team made a comprehensive study of the hill areas of Assam. On the basis of the recommendations of the Study Team a separate hill plan has been drawn up. This is a very special feature of the Fourth Plan and it is expected that with the implementation of this programme, the back-log in the development of the hill areas will be considerably removed. Similarly a separate plan for the other backward areas has also been drawn up.

24. *Price Situation*.—The recent trends in the price situation in Assam have been very disquieting. The index of whole-sale prices in Assam (base 1953-103) rose from 131 in 1960 to 136 in 1962, 149 in 1963 and 177 in 1965. The high prices prevailing in the State had obvious impact on the cost of living. The consumer price index number series show that there was rise of 33.3 per cent in the consumer prices for the general working classes during the Third Plan period.

25. As a result of the persistent pressure of increasing prices there has been irresistible demand for rise in wages and salaries. The Government had to accede to demands for pay rises; the minimum wages of several categories of workers had to be revised upwards and the costs of plan projects have gone up. Unless the trend of rising prices can be checked the very basis of planning will be weakened.

26. The price situation in Assam is essentially a manifestation of the all-India phenomenon of rising prices in respect of both food and non-food articles. The causes of price rise in the State are many, the major contributing factors being rapid growth of population against the background of a virtually stagnant food production, transport difficulties which bring about supply bottlenecks and provide scope for anti-social trade practices, increased purchasing power resulting from increased developmental and defence expenditure, etc.

27. The price policy to be followed is largely decided at the national level and the major actions for regulating the course of prices lie with the Central Government. The price problem is not a new phenomenon. It is not a cause but a reflection of the ills that lie deeper in the economy. The problem has now engulfed the whole country, but there have been times when the situation in Assam became critical while the rest of the country was more or less normal. The objective of price stability will undoubtedly be re-emphasised and pursued in the future plans. The Government as well as the people have a vital role to carry out for fulfilment of this objective. On the part of the State, it has to see that the inflationary pressure is kept down. The programmes have to be related to actual physical output. In the Fourth Plan, therefore, special emphasis is to be laid on quick maturing productive schemes. There is also the need for the Government to take up distribution of food and basic consumer goods demanded by the mass of the people on an increasing scale.

28. *Administration.*—Administration and management have a special role to play not only for ensuring that the plan targets are fulfilled according to schedule but also for securing optimum benefits out of the investments made. In the first two plans the State faced a serious shortage of not only technical personnel but also administrative personnel. In the Third Plan the difficulty has somewhat eased and most of the schemes which were planned could be taken up and completed according to schedule. In the Fourth Plan, the man-power difficulties both in respect of administrative and technical manpower, will be considerably removed and the State will be in a position to take up a plan of this magnitude and achieve the physical targets aimed at.

29. Assam covers an area of 47,091 square miles (4 per cent of the country's total area) with a population of 11.9 millions or 2.7 per cent of India's population. During the decade 1951-61 Assam experienced the highest growth rate of population among all the States in India. The percentage of growth was 34.45 per cent and on the basis of the recent studies the annual rate of growth in Assam in the recent decade (1961-71) has been placed at 2.8 per year. At this rate the population of Assam has been projected at 15.6 million in 1971. One of the principal factors contributing to this steep rate of growth had been the influx of refugees and industrial labour from other States and migration from neighbouring areas now forming part of East Pakistan. Even after 17 years since partition

migrants from East Pakistan continue to come into Assam from time to time without any visible indication of abatement of the migration in the near future. During the three plans, although the State national income rose considerably, the rapidly increasing population kept the *per capita* income practically constant one of the important tasks of the Fourth Plan will be to control the growth of population.

30. The various problems of Assam should not be viewed in isolation. Assam is the core of the entire north-eastern zone of India comprising Assam, Nagaland, N.E.F. A., Manipur and Tripura. The viability of economic life and security of the entire zone is vitally linked with and dependent upon the stability of the core, that is, Assam. The vulnerability of this zone to external aggression was forcefully revealed during the last Chinese aggression on Assam's northern borders. In order to enable the zone to fulfil effectively the role of a sentinel standing guard over the long international frontiers, Assam has to be adequately nurtured and developed. An essential element in the building up of the defence of the region would be building up of overheads like transport and communication facilities together with a strong industrial and agricultural base. And in this regard the importance of an economically and strategically strong Assam, the core of the North-eastern region, cannot be over-emphasised. In order to accelerate the process of integrated development of Assam as a whole, the upliftment of the tribal elements inhabiting the Autonomous Hills Districts assumed great urgency. It is also important that the scale of development in these districts maintains partly with the development in the neighbouring centrally administered territories like Manipur, Tripura, N. E. F. A. and in the adjoining districts of East Pakistan, as otherwise, it would lead to discontentment among the Hills people and fissiparous tendencies. In fact, the development of Assam is not a local problem but a national issue and should, therefore, receive a more than proportionate consideration in the allocation of resources for planning.

CHAPTER II

THE FOURTH PLAN IN OUTLINE

1. The Fourth Five Year Plan of Assam reaffirms the objectives enunciated in the early Plans and includes such policies and programmes which would help to achieve a reasonable level of economic growth and will accelerate progress towards a socialist society. In drawing up the Fourth Plan, the following principal objectives have been kept in view:

- (i) to achieve self-sufficiency in foodgrains and increased production of industrial raw materials and protective food items leading, in overall terms, to a growth rate of 5 per cent per annum in the agricultural sector ;
- (ii) to pay special attention to economically backward and other weaker sections of the population ;
- (iii) to secure early completion of all industrial and power projects already started so that the flow of benefits from these are hastened ;
- (iv) to provide for adequate flood control measures on a long-term basis ;
- (v) to develop extensively medium and small industries so as to enlarge supplies of essential consumer goods as also to provide a firm basis for industrialisation of the State in the future ;
- (vi) to control growth of population through an extensive family planning programme ;
- (vii) to provide adequate employment opportunities to new entrants to the labour force and ensure fuller utilisation of man-power ;
- (viii) to provide minimum amenities such as drinking water, medical facilities, primary education, etc., whether these do not exist at present ;
- (ix) to provide substantial facilities in the social services sector for development of human resources, especially in the rural areas, and re-orientation of such resources in the direction of increasing productivity.

2. In drawing up the plan, the investment pattern and priorities outlined in the Draft National Fourth Five Year Plan have throughout been kept in view. The size and scope of the State Plan is also broadly determined by the National Fourth Plan, but the special needs of the State have to be taken into account in drawing up the outline. The general approach has been to aim at the maximum possible rate of growth in the large and crucial agricultural sector and a substantial growth in the secondary sector along with a commensurate programme of social services.

3. In the preliminary Memorandum on the Fourth Five Year Plan of Assam, the programmes under various sectors aggregated to an outlay of Rs.375 crores, but these have had to be revised and pruned in the light of the various constraints in the Draft National Fourth Five Year Plan. At the same time the basic minimum objectives have been given due consideration. The need for a special development programme for the Hill and other Backward Areas has also to be taken into account in fixing the size of the Plan. On all these considerations, an outlay of Rs.300 crores has been proposed for the State Fourth Five Year Plan.

4. The sectoral distribution of the outlay for the Fourth Plan, together with the expenditure under the Third Plan, has been shown in Statement I at the end of this Plan outline. The sectoral distribution under the major heads is given below:—

Outlay under the Fourth Plan

	Expenditure 1961-66	Outlay 1966-71	Outlay 1966-67	Outlay 1967-68 (Proposed)	Outlay 1968-71
1	2	3	4	5	6
1. Agricultural Programme.	1,201.32 (9.3)	4,610.00 (15.4)	531.50 (18.7)	659.67 (14.1)	3,219.03 (15.3)
2. Coop. and C. D.	977.33 (7.5)	1,562.00 (5.2)	215.40 (7.6)	419.68 (6.9)	926.92 (4.4)
3. Irrigation and Power.	5,447.98 (42.0)	9,700.00 (32.3)	840.00 (29.6)	2,257.00 (37.1)	6,603.00 (31.3)
4. Industry and Mining.	812.42 (6.3)	2,125.00 (7.0)	232.70 (8.2)	422.65 (7.0)	1,467.65 (7.0)
5. Transport and Communication.	830.26 (6.4)	3,653.00 (12.2)	416.40 (14.7)	715.20 (11.7)	2,521.40 (12.0)
6. Social Services	3,566.24 (27.5)	7,924.00 (26.4)	563.30 (19.9)	1,345.56 (22.1)	6,015.14 (28.5)
7. Miscellaneous	130.79 (1.0)	426.00 (1.4)	36.30 (1.3)	65.64 (1.1)	396.06 (1.5)
	12,966.34 (100.0)	30,000.00 (100.0)	2,835.40 (100.0)	6,085.40 (100.0)	21,079.20 (100.0)

Physical Targets

5. The physical targets envisaged under the Fourth Plan proposal have been indicated in Statement IV attached to this Plan outline. The following table gives an indication of the principal targets of certain selected sectors:—

Physical Targets of Selected items

	Third Plan (Achievement)	Fourth Plan (Proposed)
1. Agriculture—		
Foodgrains;		
Production potential (lakh tonnes).	... ... 3.87 ...	6.28

	Third Plan (Achievement)	Fourth Plan (Proposed)
<i>2. Agricultural Credit—</i>		
(Rs. crores)		
(a) Short term	0.61	6.00
(b) Long term	0.14	48.50
<i>3. Power—</i>		
(a) Installed capacity (M.W.).	143.17	214.70
(b) Rural Electrification— Towns/villages electrified (Nos.).	96	490
<i>4. Roads—</i>		
(a) Surfaced Roads (Kms)	292	400
(b) Rural Roads (unsurfaced) (Kms).	1,000	1,500
<i>5. Education—</i>		
Additional		
Enrolment in—		
(a) Classes I—V	4.04	5.90
(b) Classes VI—VIII	0.95	2.37
(c) Classes IX—XI (in lakhs)	1.06	1.37
<i>6. Health—</i>		
Hospitals, Dispensaries and Health Centres. (Nos.)	898	2,314

Investment

6. The investment content of Rs.300 crore Fourth Plan has been estimated to be of order of Rs.230 crores. For a proper appreciation of the total investment during the Fourth Plan period, the role of investment by the Centre in respect of centrally sponsored schemes, investment in projects wholly in the central sector and investment in the private sector have also to be taken into account. Details of central sector programmes and centrally sponsored schemes are yet to be finalised and our guide in this regard has therefore to be the past trend of investment. Investment

by the Centre in Assam may be taken as Rs.72 crores in the period of the first two Plans and Rs.137 crores during the Third Plan period. Assuming that the same tempo of Central investment will be maintained in the Fourth Plan, the Centre's investment in the State under the Fourth Plan is tentatively estimated as Rs.150 crores. Investment in the private sector is governed by a variety of complex factors and is therefore less amenable to forecast with any degree of precision. Capital formation in the private sector in the State was of the order of Rs.150 crores during the first two Plans and of the order of Rs.136 crores in the Third Plan period. The anticipated private investment during the Fourth Plan period may be taken at a rough estimate as Rs.100 crores. Thus the total investment in the public and private sectors in the Fourth Plan is estimated to be of the order of Rs.480 crores.

7. On the basis of the investment indicated above the State income is expected to rise to Rs.594 crores. In other words the State income will rise by 38 per cent at the end of the Plan or 5.9 per cent annum. However, the *per capita* income is expected to rise from 332 in 1965-66 to near Rs.386 in 1970-71. Ultimately this will mean only a 3 per cent annual increase in *per capita* income. The *per capita* National income is also expected to rise at the same rate during the Fourth Plan period.

CHAPTER III

RESOURCES FOR THE FOURTH PLAN

3.1 Mobilization of resources for financing the Fourth Plan is as much the concern of the States as of the Centre. The capacity of the States to raise resources is directly linked with the level of development of their economy. At present, the level of development among the States is not uniform—some States are financially more affluent than the others. But the present financial arrangements are such that the States are left mainly with residuary and inelastic sources of revenue. This has made the tasks of the States, particularly the less developed ones, very difficult indeed. On the other hand, the problem of development on the part of the less developed States is more pressing. Indeed, a State like Assam is faced with a dilemma of abundance of natural resources on the one hand and inelasticity of the finances needed to develop these resources on the other.

3.2 Because of a number of inherently unfavourable factors the State's available resources are not of any substantial order. Firstly, the level of the economy is low. The resource potential is, comparatively, much smaller because of preponderantly large rural sector where resource mobilization is rendered difficult by a number of factors. Secondly, large investments in industry which could have added to the resource-potential have not materialised in the preceding Plans. On the other hand, social service considerations in the preceding Plans have entailed more than proportionate maintenance expenses and even to meet these expenditures substantial efforts are necessary. Thirdly, the scope for reducing the non-plan budget and keeping down its rate of growth is rendered difficult on account of the large police expenditure necessitated by special problems such as law and order operations and illegal infiltration, and because of increasing debt service charges. Thus, while strict economy in non-plan expenditure has been observed and will continue to be observed, the restraint on growth of non-plan expenditure may not fully operate in the Fourth Plan. Fourthly, extraneous factors like floods, etc., which are not taken into consideration in resource estimation, have occurred almost regularly. This makes the task of resource prediction even more difficult.

3.3 In spite of all these difficulties the tax effort in Assam has, so far, been commendable. Assam's per capita State Tax Revenue (Rs.17.08) in 1965-66 (Revised) compares favourably with the average of all States (Rs.17.39). The State Government has been making every effort to keep down non-plan expenditure and to collect the maximum of arrear loans and revenues. The resource position has, nevertheless, been weak and the State had been in overdraft for a number of years. To clear the overdraft, Government of India sanctioned this State Government an *ad-hoc* loan of Rs.17.0 crores in 1965-66 and Rs.4.8 crores 1966-67. Government of India intends that the State Government should repay this *ad-hoc* loan of Rs.21.8 crores during the Fourth Plan period. The State Government considers that it would be difficult to raise more than Rs.15 crores by way of public loan during the Fourth Plan period. It will likewise be difficult to raise more than Rs.17.50 crores as State's share of Small Savings collection. The scope for additional taxation in this State is also very limited. Repayment of a very considerable amount of loan to

the Centre has been responsible for a large deficit on Capital account. The State Government propose to move the Government of India to allow them to increase the rate of royalty on crude oil and to re-impose the carriage tax on tea and jute. Even if these measures materialise, the State Government will be left with a small surplus, as net resource for the Fourth Plan.

SECTORAL PROGRAMMES

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CHAPTER IV

SECTORAL PROGRAMMES**1. Agriculture**

1.1. Agriculture constitutes the very base of our national economy. The economic development and higher standard of living of the 72 per cent of the population of the State dependant on agriculture can be ensured only as a result of higher rate of growth in the agricultural sector. It is because of this that agriculture has been given a priority position in the Five Year Plans of the State.

1.2. In the First Plan the emphasis was on schemes which had the limited objective of increasing food production only. Programmes of training facilities and development of horticulture however received due attention. The target for production of 2.25 lakh tons of additional food grains was achieved and the overall index of agricultural production (base 1956-57) rose by 10 points from 85.72 in 1950-51 to 95.79 in 1955-56.

1.3. The approach in the Second Plan was for balanced development of food and cash crops. Multiplication and distribution of improved seed, distribution of fertilizers, creation of irrigation facility, etc., received due emphasis. The objective was to create as rapid an improvement in the peasants' standard of living as possible. Against a target of 3.82 lakh tons of additional food grains, a production potential of 2.30 lakh tons only could be created. The overall index of agricultural production rose by 3.11 points only.

1.4. In the Third Plan, the objective for agriculture was to attain self-sufficiency in food grains, and to increase production of those agricultural commodities which form the raw materials for industry. In spite of repeated set-backs due to floods and droughts, an additional production potential of 3.87 lakh tonnes of food grains has been created against the target of 4.20 lakh tonnes. Food grain production in 1965-66 was 19.02 lakh tonnes as against the production of 19.66 lakh tonnes in 1964-65. This was primarily due to the set back in the last year of the Plan because of adverse climatic conditions. The overall index of agricultural production however rose by 7.48 points during the Third Plan period.

1.5. Although the production had fallen short of the target, there has been satisfactory progress in the programmes of preparatory nature which go to create conditions conducive to accelerated progress. In the process of transition from traditional to improved methods of farming, the difficulty was to provide the proper type of institutional service due to acute shortage of technical personnel. The position in this respect has improved by the end of the Third Plan. The intake in the agricultural college has been significantly increased. A number of officers have been sent for advanced training, and post-graduate courses have been started in the agricultural college in as many as four subjects and most of the under qualified personnel have gone through in-service training. Through a process of continuous job training of all categories of field staff, the quality of extension service including field demonstration has been considerably improved. As a result, the prejudice and apathy of the farmers towards application of fertilizer and adoption of scientific methods of farming having been disappeared,

a climate has now been created for a take-off in agricultural production. The consumption of fertilizer went up to 20,000 tonnes in the last year of the Third Plan as against about 2,500 tonnes even as late as the second year of the Third Plan. The only soil testing laboratory in the State has been suitably strengthened and two new laboratories are in the process of completion. Seed farms have been improved and a large number of seed stores have been constructed both in the seed farms and in Block headquarters for proper storage of seeds. With the strengthening of plant protection organisation it has been possible to control and avert pest epidemics. Emphasis has been laid on permanent types of head works for flow irrigation and a nucleus "Irrigation Cell" in the Agricultural Department has been set up. Coverage under the Intensive Programme, both in Intensive Agricultural District Programme (I.A.D.P.) and Intensive Agricultural Areas (I.A.A.) has been increased and necessary preparatory work has been done. Panchayats have been involved in a number of agricultural programmes by transfer of schemes with necessary financial grants to them. On account of these preparatory achievements, it may be said that the ground has been prepared for accelerated progress during the Fourth Plan.

1.6. *Fourth Plan objectives.*—The objectives in the Fourth Plan will be to overcome the short comings that have been experienced in the past. All efforts will be to achieve self-sufficiency in food grains and increased production of other agricultural commodities to meet the requirements of industry and export. Emphasis will be given to use of improved seeds and seeds of higher yielding varieties of crops with input of high doses of fertilizers, creation of more irrigation facilities on pest control measures.

1.7. Some important features of the Fourth Plan will be—

- (a) To increase the production of food grains at higher rate than the population growth. The average annual rate of growth envisaged during the Fourth Plan is little above 6 per cent.
- (b) To increase the production of jute, an important source of foreign exchange, by 4 lakh bales which means an increase of more than 40 per cent over the level at the end of Third Plan.
- (c) To increase substantially the production of oilseeds, pulses and other rabi crops in which the State is chronically deficit.
- (d) To increase the production of fruits and other plantation crops for which the State has a great potentiality.
- (e) To bring about accelerated development in the hill areas, increasing the production of both food and cash crops and thereby improve the economic conditions of the Tribal population.

1.8. *Programme Strategy.*—The strategy to be followed to bring about accelerated progress in production shall be as follows:—

- (a) By the end of the Fourth Plan 75 per cent of the area in the intensive districts will be covered under this programme.
- (b) In the hills, the organisation will be strengthened at all levels so as to undertake intensively the adoption of improved practices.

- (c) Special emphasis will be on various training programmes and also on research so as to improve the quality of extension service.
- (d) The area under irrigation shall be increased substantially.
- (e) The consumption of fertilizer shall be progressively stepped up both for food and cash crops.
- (f) Plant protection service shall be further equipped so as to avoid any possible epidemic.
- (g) Area under high yielding varieties shall be substantially increased.
- (h) Supplies of inputs shall be ensured through two corporations—one for seed and the other for fertilizers, etc.

11.9. *Estimates of production.*—Estimates of production proposed for the Fourth Plan in respect of foodgrains and other important crops along with their achievements (in terms of actual production) at the end of Third Plan are given in the table below:

Commodity	Unit	Base level 1965-66	Additional production in Fourth Plan	Estimates of production at the end of Fourth Plan	Percentage increase over the base level
(1)	(2)	(3)	(4)	(5)	(6)
Rice	000 tonnes	1,847	570	2,417	31
Food grains	„ „	1,902	628	2,530	33
Oil Seeds	„ „	64	20	84	31
Jute	000 bales	920*	400	1,320	44
Sugarcane (Gur)	000 tonnes	106	86	192	81
Potato.	„ „	115	80	195	70

*Average of last three years of the Third Plan.

11.10. *Physical Programmes.*—The targets for selected programmes of agricultural development for the Fourth Plan to achieve the production

estimates of the various crops, along with the actual achievements of the Third Plan are indicated in the following table :

TABLE
Targets of selected programmes for
Agricultural Development

Programmes	Unit	Third Plan Achievement	Fourth Plan Target
<i>I.—Irrigation:—</i>			
(a) Medium Irrigation	·000 acres	...	220 (Gross utilisation).
(b) Minor Irrigation	·000 acres.	661*	1059*
<i>II.—Soil Conservation:—</i>			
	·000 acres.	44·0**	109·7**
<i>III.—Land Reclamation:—</i>			
	·000 acres.	9·2+	82·4+
<i>IV.—Chemical Fertilizers:—</i>			
(a) Nitrogenous	·000 tonnes.	5	100
(b) Phosphatic	„	} 14	50
(c) Potassic	„		20
<i>V.—Organic manures and green manures:—</i>			
(a) Urban compost	·000 tonnes.	10	16
(b) Green manuring	·000 acres.	300	600 (cumulative).
<i>VI.—Area under Improved Seeds:—</i>			
(a) High-yielding varieties ...	·000 acres.	...	200
(b) Other improved seeds ..	„	1,200	30,000 (cumulative).
<i>VII.—Plant Protection:—</i>			
	·000 acres.	500	1,600

*Including minor irrigation works done by the P.W.D (F. C. & I.) and C. D.

**Including soil conservation works in agricultural land by the Soil Conservation Department.

+Including land reclamation works done by the Soil Conservation Department.

1.11 Important Programmes.—While most of the important programmes of the Third Plan shall be continued, the emphasis will now be on quick maturing programmes. At the same time, programmes of preparatory nature, which will contribute acceleration of progress, have not been overlooked. A few new programmes are also proposed to be taken up in the light of the experience gained. Brief features of important programmes are indicated below:—

I. Agricultural Education.—The present intake capacity of 100 students in the Agricultural College, Jorhat will be maintained. Necessary physical facilities such as hostel, class room, laboratory, etc., for the four post-graduate courses shall have to be provided. Newly acquired land in the college has to be developed into a good farm to provide facilities for teaching and research. It is also proposed to set up an Agricultural University in keeping with the general policy adopted by the Central Government.

One of the four Gram Sevak Training Centres in the State has been upgraded towards the end of the Third Plan. This has to be fully developed into an institute for higher training of Gram Sevaks. Handicaps experienced by the remaining three institutes are proposed to be removed.

Selected officers are to be sent for higher training every year to meet requirement of specialists.

With a view to step up mechanisation, it is necessary to organise training in farm machines for use and maintenance of various types of farm machineries. Preliminaries have been completed for setting up of 4 such institutions and those will be fully developed in the Fourth Plan.

For imparting training to the progressive farmers, it is proposed to set up a Farmers' Institute in each district. These institutes will run two types of courses—a short course for 10—15 days for progressive farmers and a longer course for 3—6 months, for the young farmers. Each one of the farmers thus trained shall constitute a nucleus for propagation of improved techniques of production.

Besides, it is proposed to take up a programme for regular In-service Training for officers in order to improve and maintain the efficiency of the extension service.

II. Agricultural Research.—More emphasis is laid on research than before in order to produce a stream of technical know-how. It is, therefore, proposed to set up a nucleus of research stations and laboratories in important soil climatic zones of the State. It is of special significance in Assam where soil and climate vary widely from one part to another.

III. Agricultural Extension.—Demonstrations of all aspects of improved techniques of production will be taken up in large numbers to convince and convert the farmers to adoption of scientific methods of cultivation. It is proposed to take up package programme on jute, sugarcane and potatoes, in addition to rice, to cover the important belts under these crops. Development of crops like maize, cotton, rabi crops and vegetables will also receive emphasis.

IV. Supplies and Services—(a) Seeds and plants.—In addition to expansion and improvement of existing seed farms by way of providing seed-stores, threshing floor, machineries, irrigation facilities, etc., three large farms are proposed to be set up during the Fourth Plan. Requirement of improved seeds will be met from these farms, as well as by multiplication through registered seed-growers. Grants will be given to Panchayats to augment their revolving fund for procurement of seeds from the registered growers. Nurseries will be set up in as many farms as possible.

(b) Manures and fertilizers.—It is proposed to expand the programme for town compost to as many urban centres as possible. Programme for green manuring and rural compost will also be taken up.

The tempo of consumption of fertilizer will be progressively increased and by the end of the Fourth Plan 170 thousand tonnes of fertilizers will be used as against 20 thousand tonnes by the end of the Third Plan. For improvement of acid soil, it is proposed to supply lime to farmers at subsidised rates, the subsidy to be shared between the Centre and the State.

(c) Implements.—Improved implements will be issued to the growers at subsidised rate. Gradually this subsidy will be withdrawn. New types of implements will be tested and supplied to the Blocks for demonstration.

(d) Plant Protection.—It is proposed to have fully equipped plant protection units in each district with sufficient number of power sprayers and mobile team so as to render quick service for control of epidemics. Subsidy on pesticides will be gradually withdrawn but will be continued on sprayers and dusters.

(e) Godowns.—It is proposed to set up a large number of godowns at strategic points for stocking fertilizer wherefrom retailers will get the supply. Similarly, it will be necessary to have godowns for seeds.

(f) Workshop.—It is proposed to establish workshop at the subdivisional level so as to extend repairing services for pumps and other machineries.

(g) Agro-Industries Corporation.—It is proposed to set up an Agro-Industries Corporation for undertaking distribution of fertilizers, implements, pesticides, etc., to the farmers, for which facilities like storage, transport, etc., shall be made available to the Corporation apart from contribution to its share capital. The Corporation shall also gradually take over such commercial undertakings like cold storage, fruit processing units, etc., which are now handled by the Agriculture Department. It is also proposed to hand over to the Corporation the responsibility of running the tractor and pump units for hiring out to the farmers as also to undertake hire-purchase distribution of machineries.

(h) It is proposed to set up a seed Corporation for undertaking multiplication, processing, distribution and certification of various types of improved seeds.

V. Intensive Programme.—Package Programme shall be continued in Cachar District which will be covered fully in the first year of the Fourth Plan.

At least 75 per cent of the Blocks in the districts which have been brought under the Intensive Agricultural Area Programme shall be covered in the Fourth Plan. It is also proposed to include another district, *viz.*, Lakhimpur under this Programme. One intensive district, *viz.*, Nowgong is proposed to be made more intensive than what is usually in I.A.A. and for that provision for strengthening of field staff and district level specialists will be necessary.

VI. Land Development.—It is proposed to maintain a fleet of tractors for undertaking reclamation of culturable waste land and also to take up reclamation of water-logged areas.

Besides reclamation, it is proposed to take up a new programme for soil and water conservation in the plains under which 50 per cent subsidy shall be given for bunding, levelling land, etc., in selected areas.

In the command area of medium irrigation project in Nowgong district, it is proposed to take up area development programme as a sort of advanced action for proper utilization of water after the completion of irrigation project.

VII. Administration.—In view of the increase in the tempo of work it will be necessary to strengthen the organisation at various levels. A nucleus irrigation cell has already been set up under Agriculture Department and that has to be expanded gradually with the availability of more engineers.

For the Hill Areas of the State a separate Integrated Plan has been drawn up in the light of the recommendation of the Centre-State Study Team, for which a provision of Rs.400 lakhs has been made.

The expenditure for Agricultural Production during the Third Plan was Rs.441 lakhs.

The total State Plan outlay proposed for the Fourth Plan under Agricultural production is Rs.2,138 lakhs.

2. Minor Irrigation

2.1. In the Fourth Plan, it is proposed to take up more effective permanent types of irrigation apart from Power Pump irrigation which will also be expanded.

2.2. Under the present arrangements, grants are given to the Panchayats for undertaking projects for flow irrigation and the subsidy is 90 per cent in respect of masonry and concrete head-works, where as subsidy for main and sub-channels involving only earth work is 40 per cent. While small projects shall be the responsibility of the Panchayats, some of the bigger projects shall be undertaken directly by Agriculture Department.

2.3. Under the programme for lift irrigation it is proposed to hire out bigger pumping sets in compact areas and to supply smaller pumping sets to Panchayats and individuals on hire-purchase system with 50 per cent subsidy. Lift irrigation with electrical sets will be introduced wherever power is available.

2.4. Existing Deep Tube Wells will be maintained and irrigation channels will be constructed wherever necessary. Shallow filter points will be set up in some areas for which drilling rigs shall be procured

2.5. It is also proposed to popularise surface wells and small hand pumps for irrigation where other types of irrigation are not possible.

2.6. Minor irrigation projects costing Rs.1 lakh to Rs.15 lakhs are handled by the Public Works Department (Flood Control and Irrigation) of the State. While emphasis will be on construction of smaller quick maturing irrigation projects, some bigger irrigation schemes by tapping the medium size tributaries shall also be taken up side by side, for providing perennial irrigation on larger tracts of land and also to stabilise some minor irrigation schemes by augmenting any shortfall in supply of the main feeder streams of these schemes.

2.7. Minor irrigation schemes, both under Agriculture Department and Public Works Department (Flood Control and Irrigation) propose to provide irrigation facility to an additional area of 9.19 lakh acres (gross) of crops by the end of the Fourth Plan. The Third Plan expenditure on Minor Irrigation was Rs.415.54 lakhs. The total outlay proposed in the Fourth Plan is Rs.1,290 lakhs including a provision of Rs.180 lakhs for the schemes under Hill Areas. Execution of minor irrigation programmes by the Public Works Department (Flood Control and Irrigation) in the Hill Areas will depend on the speedy extension of the Assam Embankment and Drainage Act, 1953, to the Autonomous Hill Districts by the respective District Councils.

3. Soil Conservation

3.1. As Assam has one third of its area under hills, while areas in the plains are continually subjected to erosion and flood by torrential streams, the adoption of soil conservation measures is of vital importance for increasing and stabilising agricultural production. During the First and Second Plan periods, soil conservation programmes were included under the head "Forest Development" and in the plains, soil conservation measures were adopted by the Agriculture Department. A separate Soil Conservation Department was set up in 1959 with a skeleton staff. Initially this department took up soil conservation work in the Hill Districts, because of the greatly harmful effects of soil erosion due to shifting cultivation in these areas. It was soon realised that in the plains districts also there are large tracts which are subjected to accelerated erosion due to extension of cultivation in the foot hills, sheet and gully erosion on sloping land, and stream bank erosion due to rivulets often changing course and devouring many fertile agricultural fields. Because of this, soil conservation work was also extended to the plains areas of the State by establishment of three soil conservation divisions during the Third Plan. During this plan period, the programmes in the hills were mainly :—

- (i) Demonstration of plantation of non-perishable perennial cash crops like cashew-nut, coffee and black-pepper.
- (ii) Experimental plantation of rubber, cardamom, etc.
- (iii) Inducement to jhum cultivators to take up cultivation of cash crops by giving loans and subsidy for growing cashew-nuts, coffee and black-pepper.
- (iv) Terracing of hill slopes for converting them into permanent agricultural fields.

(v) Afforestation of degraded hill slopes.

(vi) Pasture development mainly by introducing exotic grasses and legumes.

3.2. In the plains, the programmes implemented were (i) gully control (ii) terracing, (iii) afforestation on stream banks, (iv) Pasture development on lands unsuitable for agriculture or too good for forestry and (v) stream bank erosion control.

3.3. During the Fourth Plan the programme will be essentially the same, with certain shift in emphasis and larger coverage. The emphasis in the hills will be on the Land Development Programmes comprising of terracing, contour bunding, water spreading, etc. Other programmes will be afforestation, research and experiments, cash crop development on lands which cannot be developed for settled agriculture and pasture development. In the plain areas of the State, the following programmes will be implemented—(i) gully control, (ii) terracing and contour bunding, (iii) afforestation on stream banks, (iv) stream bank erosion control through minor engineering structures and (v) pasture development.

3.4. The plan for the hill areas is based on the recommendation of the Centre State Study Team on development of Hill Areas of Assam, with an outlay of Rs.220 lakhs for the Fourth Plan.

3.5. The total outlay proposed in the Fourth Plan for Soil Conservation programmes is Rs.368 lakhs, as against the expenditure of Rs.108.47 lakhs during the Third Plan.

4. Animal Husbandry, Dairying and Milk Supply

4.1. In a predominantly agricultural economy, development of livestock plays an important complementary role in the development of agriculture. It is the main source of supply not only of draught power, rural transport and valuable manure, but also of protective foods like milk, meat and eggs. With the per capita consumption of these protective foods at a very low level in this State, the development of animal husbandry and dairying assumes great importance. In the pre-plan period only a fringe of the gigantic task of livestock improvement could be touched with a small nucleus organisation. In the First Plan, therefore, emphasis was on setting up of institutions for veterinary education, vaccine preparation, livestock treatment and disease control and improvement of cattle breeds through key village schemes. In the Second Plan, schemes continuing from the First Plan were further strengthened and expanded and some new schemes, such as establishment of veterinary laboratory, urban milk supply, poultry development, fodder development and eradication of rinderpest were taken up. The emphasis in the Third Plan was on expansion of extension service, establishment of a livestock research station, intensification of livestock improvement through expansion and strengthening of key village scheme, development of poultry and milk supply and eradication of contagious diseases, like rinderpest and humpsores.

4.2. With the poor stock of livestock of various species which total to 193 lakhs as per 1961 Livestock Census, the task ahead to bring about all round improvement of livestock in this State is stupendous. In the Fourth Plan, emphasis is, therefore, laid on expansion of existing livestock farms and

establishment of a few new farms, expansion of the key village scheme, distribution of improved breeding stock on a large scale, establishment of veterinary dispensaries and first aid centres and mobile dispensaries with a view to extend veterinary aid to interior rural areas to control disease and prevent outbreak of epidemics. Improved feed and fodder development and expansion of urban milk supply scheme to two more towns as well as increased supply to the two towns where the scheme is already operating are also planned. Poultry development will also receive special emphasis. In order to ensure the required number of technical personnel, the intake capacity in the Veterinary College will be raised and post graduate classes in animal husbandry and dairy will be opened. A general integrated approach embracing all aspects of breeding, feeding, disease control, and dairy development will be taken up on selected area basis.

4.3. A total provision of Rs.452 lakhs has been made in the Fourth Plan as shown below :—

Programme (1)	Third Plan expenditure (2)	Fourth Plan outlay (proposed)	
		Total (3)	Hills (4)
1. Animal health and disease control.	38.75	63.00	21.00
2. Livestock Development ...	20.19	96.15	33.65
3. Poultry Development ...	47.01	85.80	35.30
4. Fodder Development ..	2.23	20.50	9.50
5. Piggery Development ..	4.55	26.70	18.70
6. Sheep and Goat Development	15.22	6.00	5.00
7. Dairy Development ...	45.81	109.00	39.00
8. Veterinary Education, Training and Research.	30.40	35.85	2.85
9. Administrative Organisation, etc.	3.21	9.00	5.00
Total	207.37	452.00	170.00

4.4. The total provision of Rs.452 lakhs is comprised of:—

	Total	Provision under Hill Plan
	Rs.	Rs.
(a) General Plan	441	160
(b) Provision under Welfare of Backward Glasses (Art. 275).	11	10
Total	452	170

4.5. For the Hill areas of Assam a separate integrated Plan is drawn up in accordance with the recommendations of the Centre State Study Team on Development of Hill areas of Assam. The total provision proposed for Animal Husbandry and Dairying in the hill areas is Rs.170 lakhs as indicated above. In keeping with the scope of development in different Hill Districts the emphasis is laid on the following programmes in the Hill Plan.

- (1) Improvement of Hill Cattle.
- (2) Development of Piggery.
- (3) Development of Poultry.
- (4) Strengthening and Development of Veterinary facilities.

5. Forests

5.1. Development of forest resources is essential in this State which is subjected to heavy erosion due to rains and floods, for protective as well as for productive purposes. It is also important for increasing the State revenue and for raising the income of the tribal people living in the hills and forest areas. Although 30 p. c. of the area of the State is under Forest, the area that can be classed as permanently under forest is only 12 per cent. The task in forest development is, therefore, stupendous. With the commencement of planning, the main objectives envisaged in the forestry programmes have been overall improvement of forests, increase of areas of forest reserves, extension of forest road communication, regeneration of valuable species and establishment of forest based industries. During the First Plan two schemes were completed, viz., creation of 1000 acres of Cinchona Plantation and establishment of the Assam Forest School to train up 20 foresters a year. Other schemes which were taken up during this plan were wattle plantation, cultivation of medicinal and economic plants. Under the scheme for National Parks and Wild Life Sanctuaries various amenities to tourists visiting the sanctuaries were provided. In the Second Plan the tempo of development was further intensified by taking up new schemes such as (i) reclamation of Ex-zamindari forests (ii) acquisition of non-Government land for forestry purposes, (iii) establishment of Botanical Garden and Zoo (iv) timber treatment and seasoning and (v) Khoir plantation, in addition to continuing the schemes started in the First Plan. In the Third Plan greater emphasis was laid on the need for increasing the raw material potential of the State to meet the increasing demand of forest based industries. Plantations of teak wood, ply-wood, match wood, khoir and wattle, therefore, received special emphasis. In addition, a centrally sponsored scheme for plantation of 'Fast Growing Species' was taken up.

5.2. During the Fourth Plan almost all the schemes implemented in the Third Plan are proposed to be continued on a more intensive scale and in addition certain new schemes are proposed to be taken up, e. g., consolidation of forests, forest protection, intensification of management, survey of forest resources, creation of a statistical division, farm forestry and fuel plantation and forest research, which are considered necessary to maintain the tempo of development reached in the past plans. It is proposed to develop further the State Zoo and the Botanical Garden. Expansion of seats in the Assam Forest School is envisaged to meet the growing requirement of forestry trained personnel in the State and the neighbouring territories.

5.3. An integrated plan for the Hill Areas of Assam has been formulated in accordance with the recommendation of the Centre State Study Team. An outlay of Rs.80 lakhs is proposed under the programmes for forests in this Plan. Details of this plan have been given in a separate chapter.

5.4. A total outlay of Rs.236 lakhs has been proposed in the Fourth Plan for Forests, as against the expenditure of Rs.113.03 lakhs in the Third Plan.

6. Fisheries

6.1. The State has immense potentiality for fishery development in its large number of beels, swamps and tanks and in big rivers and their tributaries. The total annual production of fish in the State is about 18,000 tonnes as against an estimated requirement of 48,000 tonnes at the end of the Third Plan and 60,000 tonnes by the end of the Fourth Plan. The total annual production of fish has, therefore, to be increased three folds to meet the minimum requirement by the end of the Fourth Plan.

6.2 The State has approximately 1,500 sq. miles of riverine fisheries and 800 sq. miles of beel fisheries. In addition to this, culturable water area in the form of swamps and small tanks is about 940 sq. miles.

6.3. Fishery development in the State was started with the establishment of the Fishery Department during the First Plan period. In the First Plan, work was confined mainly to training of required staff, survey for location of breeding ground and starting of fish farms. In the Second Plan, emphasis was on programmes of fish seed production, reclamation of derelict fisheries and development of hill fisheries. Development of training institute and organisation of short training courses for spawn collection, net making, boat making, etc., were also taken up during this period. In the Third Plan, approach was to concentrate on production schemes and ancilliary programmes for increasing fish production. Schemes for organisation of fishery co-operatives and creation of marketing facilities were also taken up during this period. The progress made during the plan period is shown in the table below:—

Schemes	Unit	Level of achievement at the end of	
		Second Plan	Third Plan
1. Fish seed production and distribution.	Lakh No	124	359
2. Fish production (in Departmental Farms).	Tonnes	32	272
3. Training schemes—			
(a) Training in Assam	No. trained	150	257
(b) Trained outside Assam	No. trained	21	33

6.4. The approach in the Fourth Plan is to convert the unproductive areas into productive fisheries and to encourage propagation of fish in natural fisheries. It also envisages to improve the economic conditions of fishermen by providing facilities for preservation, transport

and marketing of fish. Adequate training facilities at different levels to cope with the growing need of trained personnel, research on natural and high altitude fisheries and expansion of extension services upto block level have been provided for. The recommendations of the Estimates Committee on fisheries for development of beel fisheries in the State and improvement of organisational set-up have also been taken into account. Setting up of a State Fishery Development Corporation is also contemplated.

6.5 With a view to increase fish production and also considering its necessity as a nutritive food for the general public, the following categories of schemes are proposed in the Fourth Plan:—

A. Productive Scheme—such as fish seed production, development of departmental fish farms, beel fisheries, reservoir fisheries and riverine fisheries.

B. Training Schemes—for training of staff and raising the intake capacity in the training centre for demonstrators from 20 to 40 and also to provide facilities for refresher courses.

C. Research Schemes—such as schemes for research on fish culture, problems on riverine and beel fisheries and high altitude fisheries in the hills.

D. Marketing—to provide facilities of storage, transport and marketing.

Physical targets proposed in the Fourth Plan are as follows:—

1. Fish seed production and distribution	...	800 lakhs.
2. Fish production (in Departmental farms)	...	800 Metric tonnes
3. Training of personnel	... ..	180 Nos.

6.6 In the integrated Plan for the Hill areas of Assam, development programmes have been formulated according to recommendations of the Centre-State Study Team with a total provision of Rs.20 lakhs. Emphasis in the Hill Plan is on the programmes of development of natural and reservoir fisheries and survey of hill fishery resources.

6.7 A total provision of Rs.137 lakhs is proposed for the Fourth Plan as against the expenditure of Rs.33.41 lakhs during the Third Plan.

7. Ware Housing and Marketing:

7.1 The Assam State Warehousing Corporation was set up during the Second Plan period. During the Third Plan, the Corporation incurred an expenditure of Rs.19 lakhs against the Plan outlay of Rs.30 lakhs. By the end of the Third Plan, the storage capacity of the Corporation-owned godowns increased to 11,418 tonnes in 8 warehousing centres. Besides, the Corporation is utilising hired godowns having a total capacity of 31,582 tonnes in 23 centres.

7.2 In the Fourth Plan it is proposed to make a provision of Rs. 10 lakhs as State's contribution to the Corporation's share capital to raise its own godowns' capacity to 35,000 tonnes in 19 centres.

8. Co-operation

8.1 The State Fourth Five Year Plan in the Co-operative Sector has been approached with a rural bias and so it is agriculture-oriented. The plan by and large, aims at strengthening the channels of seasonal agricultural credit and long term credit so that cheap credit is available to cultivators in time according to necessity of production. Cheap credit in time of needs is an incentive to production both extensive and intensive. Marketing of crops and processing of agricultural produce have been taken as integral parts of production credit and consumption needs. The Plan provides for an expenditure of Rs.435 lakhs during the Fourth Plan period, as against an expenditure of Rs.133.33 lakhs during the Third Plan.

8.2 At the end of the Second Five Year Plan 2.67 lakhs agriculturist families were brought under membership of primary agricultural societies and at the end of the Third Plan membership rose to 3.44 lakhs which represents 31.06 per cent of agriculturist families within the jurisdiction of the Co-operative Central Banks. The Fourth Plan aims at a membership target of 6.67 lakhs or 63.18 per cent coverage. Deposits with the Central Banks rose from Rs.3.58 lakhs at the end of the Second Plan to Rs.78.00 lakhs and paid up share capital to Rs.46.13 lakhs at the end of the Third Plan. The seasonal agricultural loans issued during the last year of the Second Plan was only Rs.1.40 lakhs and loans outstanding at the end of the Plan was Rs.117 lakhs. The corresponding figures of the Third Plan stood at Rs.61 lakhs and Rs.149 lakhs respectively. Value of agricultural produce marketed by co-operatives stood at Rs.479 lakhs at the beginning of the Third Plan; the value rose to Rs.1,022 lakhs during 1964-65. The targets in the Fourth Plan aim at to attain the level of Rs.600 lakhs loan issue (short-term and medium-term), deposit in all co-operative banks Rs.1,200 lakhs against Third Plan achievement of Rs.967 lakhs and marketing of agricultural produce of value Rs.1,300 lakhs in the last year of the Fourth Plan. So the Fourth Plan envisages expenditure of Rs.84.74 lakhs in the Plains and Rs.5.90 lakhs in Hills for strengthening the credit and service institutions, Rs.76.43 lakhs in Plains and Rs.40.49 lakhs in Hills for strengthening capital structure and organisational set-up of 39 marketing societies, Rs.56.69 lakhs in Plains and Rs.5.80 lakhs in hills for processing units consisting of 3 oil mills, 3 rice mills, 1 sugar mill, 3 cold storages, 1 fruit processing and preservation unit and one unit for extraction of oil from rice bran. Besides these, provision has been made for (both in Plains and Hills) labour co-operatives, poultry co-operatives, fishery co-operative and sweepers' thrift societies, rickshawpullers and auto-rickshaw societies, etc. In order to implement a plan of this magnitude and to enforce effective supervision and timely audit, a provision of Rs.78.21 lakhs for Plains and a provision of Rs.12.47 lakhs for Hills have been made for training of officials, non-official co-operators and entertainment of departmental and institutional staff.

9. Community Development

9.1. The programme of Community Development in Assam was started in 1952 and 26 blocks were set up in the First Plan. At the end of the Third Plan, the number of blocks was 162. 42 of these blocks were in the hills and the rest in the plains. 4 blocks in the plains have been converted into T. D. blocks and all the 42 blocks in the Hills have been functioning as T. D. blocks. At the end of the Third Plan there were

8 pre-extension blocks, 68 Stage I blocks, 53 Stage II blocks and 33 post-Stage II blocks. The expenditure on the programme in the Third Plan was Rs.778.26 lakhs. In the Third Plan period the following targets were achieved under the programme: (1) 9,000 tonnes of improved seeds and about 30,000 improved implements were distributed, (2) over half a million compost pits were dug, (3) about 2,000 improved animals and over 43,000 improved birds were distributed, (4) over 27,000 drinking water wells were constructed and renovated, (5) in over 40,000 hectares J. M. C. (Japanese method of cultivation) was introduced and (6) about 12,000 kilometres of roads were constructed.

9.2. By the end of the Fourth Plan 76 blocks will be in Stage II and 86 in post-Stage II. There will be no block remaining in Stage I. The plan is carried out on the basis of a definite programme and a prescribed budget for each of the blocks. The programme embraces all aspects of development in rural community life. The emphasis is on agriculture, which is the mainstay of the people, but other aspects, such as health and sanitation, education, social education, arts and crafts also occupy an important place in the programme. The provisions in the schematic budget of a block are only nucleus provisions and these are to be supplemented by funds of other departments for development activities in their respective fields.

9.3. The requirement of funds on account of the C. D. Programme in the Fourth Plan is Rs.957 lakhs of which Rs.700 lakhs will be on account of blocks in the plains and Rs.257 lakhs on account of those in the hills. The Joint Centre-State Study Team has recommended opening up of 12 more new blocks and allotment of more funds to each of the blocks costing in all Rs.995 lakhs. The block development programme in the hill areas, however, is dealt with more fully separately.

10. Panchayat

10.1. With the enforcement of the Assam Panchayat Act, 1959, the three tier Panchayat Organisation came into existence. 2574 Goan Panchayats, 120 Anchalik Panchayats and 16 Mahkuma Parishads have been constituted covering the entire plains districts of the State. In the Third Plan, stress has been on integration of Panchayats and Community Development, provision of staff for Panchayats and setting up of 120 Panchayat adalats. Programmes for creation of remunerative assets for Panchayats and training of Panchayat personnel were also taken up. According to the provisions of the Panchayats Act, the preparation and implementation of rural development programmes devolved on the Panchayats. Detailed procedure for transfer of schemes of the development departments to the Panchayats has been worked out and gradually departmental schemes along with funds are being transferred to the Panchayats. Against a provision of Rs.140 lakhs an expenditure of Rs.68.29 lakhs was incurred during the Third Plan. The shortfall occurred mainly under the scheme for creation of remunerative assets. There is scope for taking up a large number of programmes under this scheme and this will be achieved in the Fourth Plan by stream-lining the working procedure and giving necessary guidance to the Panchayats.

10.2. In the Fourth Plan, Panchayats will be given the full responsibility for assessment of local felt-needs; association of voluntary organisations and enlistment of peoples participation. Implementaion of certain schemes of development departments by the people will enthuse greater response from them in planning and implementation of local development programmes. The Village Volunteer Force and Defence Labour Bank will be more effectively organised and associated with the rural man-power utilization programmes.

10.3. With the increase of responsibilities, particularly in the sphere of development, the Panchayats will require additional assistance in the Fourth Plan. Arrangements will also have to be made for intensification of the Training programme, inspection and internal audit.

10.4. An outlay of Rs.195 lakhs is proposed for the Fourth Plan period.

11. Medium Irrigation

11.1. Due to incidence of uneven distribution of annual rainfall in some parts of Assam, it has become imperative to provide irrigation in order to stabilise and increase production in agriculture.

11.2. Upto the end of the Second Five Year Plan, no major or medium irrigation projects were taken up in Assam. The following medium irrigation schemes were provided in the Third Plan:

			(Rs. lakhs)
			Total estimated cost
1. Jamuna Irrigation Scheme	...	...	396.00
2. Sukla Irrigation Scheme	...	...	300.00
3. Longa Irrigation Scheme	...	...	30.00
4. Patradisha Irrigation Scheme	...	...	20.20
5. Investigation, etc.	...	...	2.60
6. Establishment of River Research Station	...	...	10.00
			758.80

11.3. The Third Plan outlay for this programme was of the order of Rs.228 lakhs. The Third Plan expenditure on these projects was about Rs.143.00 lakhs thus leaving a large spillover for completion of the projects during the Fourth Plan.

11.4. In view of the shortfalls in the Third Plan, it is most desirable to increase the tempo of the medium irrigation programmes in the Fourth Plan so that a fair degree of parity is maintained between the minor irrigation programmes under the agriculture sector and the medium irrigation programmes under the irrigation and power sector. Such parity is essential in order to fulfil progressively the aim for providing perennial irrigation to

areas where it is most needed. It is, therefore, proposed to take up a programme involving a total estimated cost of Rs.1616 lakhs with a provision of Rs.1200 lakhs in the Fourth Plan. Out of this amount, new schemes will account for Rs.533 lakhs only.

11.5. In implementing the Medium Irrigation Programme, priority is being given to the completion of all continuing schemes (including field channels) and to the early completion of those projects which are in an advanced stage of construction. All measures for ensuring fuller utilisation of irrigation potential of existing projects and those nearing completion are to receive immediate attention and necessary provision is being made for them. Investigation and collection of hydrological data of the water courses to be tapped for irrigation, detailed survey, research and model testing on the subject of applied hydraulics related to irrigation will be continued for drawing up irrigation schemes in the Fourth Plan, and provision is being made accordingly.

11.6. The estimated gross commanded area of the scheme will stand at 4.51 lakh acres with a probable achievement of 3.08 lakhs acres during the Fourth Five Year Plan.

11.7. On the basis of recommendations of the Joint Centre-State Study Team for the Hill Areas of Assam, a provision of the order of Rs.40 lakhs is proposed for medium irrigation schemes in the hill areas of Assam during the Fourth Plan.

12. Flood Control

12.1. Because of the topographical features and meteorological conditions obtaining in Assam, there are numerous rivers and streams, and consequently frequent and widespread floods and extensive water-logging are inevitable occurrences. The two major rivers the Brahmaputra and the Barak, have 35 and 9 tributaries respectively, each of which has considerable hill catchment. After the great earthquake of 1950, the flood problem in the State has assumed most serious proportions. For studying dispassionately the whole problem in all its details, a State Flood Control Board has been established for drawing up both short-term and long-term programmes and for taking concrete steps in accelerating flood control work. A draft Master Plan for Flood Control in Assam has been prepared, on the basis of which the Fourth Five Year Plan Programme is drawn up.

12.2. During the Third Plan period the initial outlay for flood control was fixed at Rs.500 lakhs. The position changed subsequently in view of the very serious flood situation in the State during the flood season of 1962. The annual Plan allocations since 1963-64 have been raised substantially and the total expenditure on Flood Control Programmes in the Third Plan was Rs.1133 lakhs.

12.3. The Flood Control Programme in the State sector for the Fourth Plan has been drawn up for Rs.2598 lakhs (including the preliminary work for the Barak Storage Reservoir Project) limiting the expenditure target at Rs. 2000 lakhs. The Programme will include (1) Raising and Strengthening of existing embankments, (2) Construction of sluices in existing flood embankments, (3) New flood embankments, (4) Drainage Schemes, (5) Town Protection Schemes, (6) River Training Schemes inclusive of acquisition of dredgers, (7) Construction of raised platforms, (8) Construction of Storage

reservoirs, (9) Flood forecasting and warning, (10) Investigation, Survey and Research, etc., besides completion of continuing schemes, which are in an advanced stage of construction.

12.4. It may be pointed out that the Flood Control measures so far carried out (till the end of the Third Plan) are, by and large, short term measures comprising flood dykes along the Brahmaputra, the Barak and their various tributaries, including strengthening and improving existing flood dykes where necessary and improvement of drainage of low lying areas. In the Fourth Plan also it is proposed to carry out these works in order to complete the short-term measures in different river basins. However, it is felt that such short term measures must be supplemented by long term measures by way of construction of storage reservoirs in course of time so that the flood problem in the State is tackled on a permanent footing. It is, therefore, proposed to carry out intensive investigation of some specific Flood Control Storage reservoirs the catchment of which may fall in other zones of this country, such as Manipur, Nagaland and North-East Frontier Agency. The Governments of these zones may also be associated with such schemes by forming a River Valley Authority, so as to make possible river basin-wise multipurpose planning. So far no multipurpose river-valley projects have been taken up in the Central sector in this State, although such projects were taken up in other States.

12.5. After the recent devastating flood in the current year in the Barak and Brahmaputra Valley, it is expected that construction and investigation of projects for dam across the "Barak", "Jamas" and "Subansiri" may be taken up by the Centre or as Centrally Sponsored Schemes, as resources available in the State are inadequate to undertake such projects. If, however, the Centre does not undertake these vital projects, then the allocation for flood Control in the State Plan shall have to be increased to enable the State to undertake these projects.

13. Power

13.1. Assam has enormous power potential in her rivers, coal, oil and gas. One fourth of the hydro power potential of India is concentrated in the Assam region alone. Yet the level of power development in Assam, in total as well as in per capita terms, has been the lowest among the States of India. The total installed generating capacity of the schemes in operation and those nearing completion in Assam is only 160 M. W. or roughly 1.6 per cent of the 10.17 million KW capacity in India. At present the total generation in Assam is around 60 million KWH giving a per capita figure of about 5 KWH. According to the Second Annual Electric Power Survey of India, the per capita consumption of power in kilowatt hours in Assam by 1967-68 is expected to reach 34 as against 166 in West Bengal, 106 in Bihar, 143 in Madras, 141 in Orissa, 66 in Andhra and 51 in Uttar Pradesh. The number of small towns and villages electrified is only 96 in Assam as against 52300 in India as a whole. While Assam accounts for 4 per cent of villages in India, its share of electrified villages is less than 0.2 per cent. Only 0.4 per cent of the villages are electrified in Assam as against 9 per cent or more in India.

13.2. Power development in Assam has, therefore, to be stepped up many times if the State is to fall in line with the progress made in the rest of India. The aim is that, in per capita terms, Assam should be at par with all-India by about the end of the Fifth Plan. In the Fourth Plan an attempt is to be made to make up the lag as far as possible.

13.3. The programme now envisaged will involve an outlay of Rs. 650 lakhs in the Fourth Plan. The expenditure for power development in the period of the Third Plan was Rs. 4171 lakhs. This outlay is modest considering the spending capacity that has been built up as well as the needs and potentialities of the State. Though at present Assam has a small surplus, this surplus will disappear as the transmission network is expanded, as well as with the growth of industries and the establishment of inter-connected systems. An idea of the load demand in the next five years can be had from the fact that the large and medium industries now nearing completion and those envisaged alone would require a total installed capacity of about 100 M. W. While the load demand from agriculture has yet to be fully assessed, the potential load from selected areas in the Khasi and Jaintia Hills alone in this regard has been estimated at 45 M. W. Again, if Assam is to contribute meaningfully to the all-India target of rural electrification, the requirement on this account will not be inconsiderable. Then there is the demand from small industries and commercial establishments, for general electrification and for substitution of other forms of energy which in a State like Assam is bound to increase rapidly. Again, Assam has now been called upon to meet the requirements of Nagaland, NEFA, Manipur, Tripura and North Bengal. Against this background the C.W.P.C. has estimated that the power requirements of Assam will be around 300 M. W. by the end of the Fourth Plan.

13.4. As the gestation period of power projects is long, it is essential that construction should start well in advance of the demand for power from industries and other consumers. The exploitation of the State's natural resources and utilization of the raw-material that is now lying idle, under-utilized or wasted will largely depend upon our capacity to supply power as and when needed. It would be unfortunate if shortage of power is to become a stumbling block for industrial progress of the State when all other factors are favourable. The power programme now envisaged, therefore, takes note of the requirements in the next four/five years as well as to some extent for the Fifth Plan period. It includes thermal as well as hydel schemes and shorter as well as longer gestation schemes. In this regard schemes spilled over from the Third Plan will get priority. Thermal stations will be set up at sites where coal or gas is available. There is also fair distribution of the schemes as between the principal regions and a wide net-work of transmission lines proposed to be developed. This is designed to ensure that no difficulty should arise any where for dislocation of one of the power systems, or in other words to ensure stability of power supply through out the State. The aim is to have ultimately a single grid for the entire State. Under the programme a maximum number of villages will be electrified within limits feasible operationally and financially. In rural electrification, special emphasis will be given to provide power for lift irrigation and some of the areas have been selected for trial while the rest will be settled in consultation with the Agricultural Department. These areas will serve as nuclei for popularising the programme in the years to come. Provision has also been made for investigations and for advance action for the Fifth and subsequent Five Year Plans. Last but not least, one of the significant features of the Plan is the inclusion of the scheme to electrify the Mizo hills district by extending the transmission line from Badarpur in Cachar. Mizo District has the highest literate population in the State and will be able to make the good use of power. This scheme is to be taken up in two stages, first from Badarpur to Aijal and thence to Lungleh. In the Fourth Plan, only

the first phase will be taken up and the main purpose is to provide power to the Aijal Water Works and the small industrial units set up under Rural Industries Project programme as well as for electrification of Aijal town and the surrounding areas. However, the load demand in Mizo district as can be seen now is negligible and the scheme will remain unremunerative for some years to come, during which period it will have to be subsidized substantially. It is reasonable therefore, that the financing of this scheme should be through an outright grant from the Central Government.

13.5. The outlay programme for power in the Fourth Plan is summarized below:—

(In lakh of rupees)

Generation—

Spill-over—

1. Umiam Hydel Project Stage I	...	...	...	20
2. Umiam Hydel Project Stage II	...	...	...	350
3. Namrup Thermal Project	...	...	...	20
4. Gauhati Thermal Project	...	...	...	345
5. Garo Hills Thermal Project	...	...	...	75
				810

New Schemes—

6. Namrup Thermal Project (extension)	...	...	...	370
7. Margherita Thermal Project (1X30 MW)	...	...	...	300
8. Gauhati Gas Turbine (1X45 MW)	...	...	...	100
9. Umiew Hydel Project	...	...	...	1000
10. Umling Hydel Project (135 MW) (advance action for Fifth Plan).				900
				2670

Transmission Schemes—

11. Transmission line from Badarpur to Churaibari (spill-over).				70
12. Transmission line from Gauhati to Tezpur (spill-over)				85
13. Transmission line from Gauhati to Bongaigaon (spill-over).				75

(In lakh of rupees)

14. Transmission line from Badarpur to Manipur Border ...	74
15. Transmission line from Mariani to Nagaland Border ...	40
16. Transmission line from Bongaigaon to West Bengal Border.	90
17. 220 K.V.D/C line from Gauhati to Nowgong ...	335
18. 220 K.V.D/C line from Namrup to Mariani ...	245
19. 132 K.V-D/C line from Shillong to Cherra ...	55
20. 66 K.V.D/C line from Tinsukia to Margherita ...	53
21. Spill-over sub-transmission schemes ...	378
22. New sub-transmission schemes ...	500
(11) to (22) ...	2000
23. Transmission line in all the Hill districts ...	170
24. Rural Electrification ...	} 850
25. Investigations ...	
Grand Total ...	6500

14. Large and Medium Industries

14.1. In the field of industries, development in Assam has been slow despite abundance of raw materials. The causes of this slow progress are many. Lack of power facilities, inadequacy of the transport system and shortage of technical personnel were the chief reasons in the past. For sometime now, more serious thought has been given to the problems of industrialisation and steps taken to provide the over-head facilities for the growth of industries in the State.

14.2. The process of industrial development in Assam started from about the later half of the Second Plan. A few units were established and a few others were taken up for implementation. This provided the initial encouragement and a more ambitious programme was drawn up for the Third Plan envisaging matching efforts by both the public and private sectors. Among others, the programme envisaged establishment of a paper and pulp mill, a rayon grade pulp mill, a cement factory, a jute mill, a refractory plant, a carbon black plant, a coal briquetting plant, glass and ceramic factories and units for manufacture of poly-ethylene, plastics, synthetic fibres and synthetic rubber. The programme was calculated not only to make up the State's lag in the field of industry but to set in motion the forces of an industrial spiral as well. In this programme, the role of the State Government was meant to be mainly promotional by expanding the facilities of power, transport and technical training, by undertaking surveys

and investigations of the raw materials, by developing industrial sites and by participating in the share capital of private enterprises. A host of other facilities were also sought to be provided as added incentives to intending industrialists. Actually, the Third Plan made a good start and for some time all went on well. Some of the schemes spilled over from the Second Plan were completed and others also made good progress.

14.3. The Chinese aggression dealt a severe blow to the pace of progress and scared away private capital from the State. Since then, industrialists are having second thoughts about investing their capital in Assam. On some plea or other, the schemes were delayed and the licenses were utilised elsewhere or eventually got revoked. The progress of schemes in the public sector, on the other hand, was accelerated. The Spun Silk Mill and the Cherrapunjee Cement Factory were in fact taken over by the State Government and implemented as public sector projects. But since the emergency also affected the progress of some of the public sector schemes, the picture emerging at the end of the Third Plan has not been very encouraging. The hard fact thus remains that Assam, industrially, is still one of the most backward States of India.

14.4. The Fourth Plan of Assam reiterates the need for rapid industrialisation in order to break away from the present state of economic stagnation and to diversify the hitherto lop-sided economy of the State. After seriously considering all the issues involved, it is felt that a number of schemes must be implemented in order to provide the core for further development. The schemes are expansion of the Cherra Cement Factory, establishment of a second cement factory at Bokajan, development of industrial areas, strengthening of the Directorate, investigation and participation in Industrial Development Corporation including Paper Pulp. Government is to undertake development of industrial areas and the organisational machinery is to be suitably strengthened. The cost involved in all these schemes is Rs.1335.00 lakhs. It will not, therefore be possible for the State Government alone, financially and operationally, to undertake the task and it is expected that Central Government and the private sector will set up industrial projects.

14.5. The bigger projects of heavy and basic industries like paper and petro-chemicals are expected to be undertaken by the Centre. For the private sector there is at present unlimited scope to develop consumer goods and light industries in Assam and private capital will be encouraged to the fullest possible extent. In order to hasten the pace of industrialisation and to supplement private sector efforts, State enterprise in this field has to be made more broad-based and there is need to sustain it over a wider field, particularly where risks involved are high and where private initiative is not forth-coming.

14.6. The question now is how much of the above programme can be accommodated in the State Sector Plan. Of the total allocation of Rs.6,193 crores for organised industry in the Fourth Plan, an amount of Rs. 2,650 crores has been earmarked for the private sector, Rs.3,408 crores for the Centre and only Rs. 135 crores for the States. While making the allocation to individual States, there would no doubt be weightage for under-developed and handicapped States like Assam. But the meagre provision for the State sector will not permit the State Governments to undertake larger roles in

industrialising their respective States. So unless the backward States, of which Assam is one, can be guaranteed sufficient Central Government and private sector investments, their aspiration for industrial progress is bound to continue to be frustrated. The present scheme of development, however, assumes that sufficient investment in Assam will be made by the Centre and the private sector.

14.7. The programme of the State Government includes completion and expansion of the Cherra Cement Factory. The first phase of this project is nearing completion. This project will be expanded to 750 tonne/day from the present 250 tonne/day capacity to fully realise the economies of scale. In addition to the Cherra project, the State Government is giving high priority for establishment of a second cement factory at Bokajan. The Bokajan plant is expected to be taken up in the Central Government sector. Since there has been no clear indication till now whether it will be included in the Central sector, provision has been made in the State sector. The requirement on account of these two cement plants in the Fourth Plan is Rs.700.00 lakhs. In the State Plan high priority has also been given to development of industrial areas. In the Third Plan a sum of Rs. 15 lakhs spent under the scheme was mainly for acquisition of land. The land acquired has now to be developed by providing the facilities in respect of transport, power, water supply and effluence. The Plan also takes note of the need to set up agro-industries for development of agriculture and for utilizing agricultural raw material. Manufacture of agricultural implements, pesticides, I. C. engines is related to modernization of agriculture. Manufacture of straw and card board will make use of agricultural raw material. In connection with agro-based industries, a co-operative sugar mill was set up earlier and a co-operative jute mill is now under progress; these, of course, are outside the State Plan. The rest of the schemes in the State Plan have been included after due consideration of the needs, potentialities and other merits relating to each of these schemes. In regard to financial assistance and underwriting of private share capital, these functions will normally be performed by the respective industrial development corporations in the State. Through these corporations preliminary work relating to schemes not included in the State Plan like petrochemicals, paper and pulp and natural gas distribution will also be undertaken. The outlay in the State sector in the Fourth Plan is briefly given below:—

	(Rs. in lakhs)		
1. Expansion of Cherra Cement Factory	...	...	300
2. Bokajan Cement Factory	...	...	400
3. Development of Industrial Areas	...	..	175
4. Strengthening of the Directorate	..	...	10
5. Participation in Industrial Development Corporation including Paper Pulp.			435
6. Investigations, techno-economic studies, preparation of project reports, etc.			15
	Total	...	1335

15. Geology and Mineral Development

15.1. Assam is known to be rich in mineral resources. Occurrence of some of the minerals was in fact known since a long time. But the scale of development, except in the case of oil and coal, has not been significant and extraction was carried out largely by out-dated methods. This was partly because the basic data in regard to the various minerals were either not adequate or not available. Hence there was need for systematic investigations to enable a fuller assessment of the mineral wealth of the State. Towards the end of the Second plan a nucleus organisation was set-up to undertake the task by supplementing as well as by collaborating with the all-India agencies in the field. While exploratory as well as some intensive investigations were carried out in the period of the Third Plan, the principal task has been to strengthen the organisation with adequate staff to undertake and carry on the work in the years to come.

15.2. In collaboration with the Indian Bureau of Mines, several investigations were carried out including those in respect of the reserves of lime-stone in the Mikir Hills and the Khasi Hills. During the course of these investigations, deposits of Kaolin, glass sand and gold bearing rocks were discovered in the Khasi and Jaintia Hills. The other main items of works carried out in the Third Plan were drilling of coal in Garo Hills, preliminary investigation of iron ore deposits in the districts of Goalpara, Kamrup and Khasi Hills, investigation of gypsum in Garo Hills, mapping and drilling of lime-stone in Mikir Hills, investigation of felspar deposit in Kamrup, investigation of coal deposits in Darrang, Cachar and Khasi Hills and mapping estimation and sampling of silimanite in Khasi Hills. Further investigations are necessary to determine the extent of the reserves of these minerals and to find out the economics of working them. In addition, new investigations such as those relating to glass sand, pyrite, mica, etc., are to be undertaken.

15.3. One of the new schemes that will be taken up in the Fourth Plan is the establishment of a mineral industries development laboratory. Hitherto samples collected in Assam had to be sent a long way off to institutes like the Fuel Research Institute, Dhanbad and elsewhere. Thus it took months to know the results and often the samples got lost in transit. The analytical unit as it functions now is too small to handle complex samples though it has done an excellent job in providing indications for further analysis. Establishment of a full-fledged laboratory has, therefore, become a necessity if quicker progress is to be made. The cost on account of this laboratory in the Fourth Plan is Rs.18.52 lakhs.

15.4. For the development of minerals, the Assam State Mineral Development Corporation has been set up. This Corporation has to be strengthened sufficiently to enable it to carry out its programmes in the Fourth Plan. Among other things, the Corporation will undertake mining of coal in Nangalbibra to feed the Garo Hills Thermal Project, of lime-stone at Komorrah in the Khasi Hills and also in the Mikir Hills to feed the Bokajan Cement Factory. As part of mineral development, the Corporation will also start some mineral-based industries. To start with, a ceramic plant is proposed to be taken up. The outlay on the Corporation in the Fourth Plan is Rs.153 lakhs.

15.5. The total outlay under Geology and Mining in the Fourth Plan is Rs.190 lakhs as against the expenditure of Rs.31.47 lakhs in the Third Plan.

16. VILLAGE AND SMALL SCALE INDUSTRIES

16.1. Small Scale Industries

16.1.1. The allocation in the Third Plan for the development of small industries was Rs.285.50 lakhs against which the expenditure was Rs.223.08 lakhs. The programme in the Fourth Plan involves an outlay of Rs.343.00 lakhs.

16.1.2. The field of small industries in Assam is very wide and upto the end of the Third Plan 572 small industrial units were registered by the State Directorate of Industries. The progress made under the State's Third Plan, however, has been varied. Some schemes or units were implemented while others could not be implemented in full. The Small Industries Development Corporation which was set up earlier started functioning in full swing. With a capital of less than Rs.50 lakhs, it has taken over the Central Raw Materials Depot and has started units for manufacture of match-splint and veneer, aluminium conductors and boards from reeds, besides associating in a few units in different areas in the State. The value of output of these units with which the SIDC is associated is about Rs.50 lakhs. For marketing of the products of the small units, a marketing corporation has been set up and this corporation has succeeded in standardising goods, particularly textiles, and the volume of sales through it is increasing. Nearly 700 persons have been trained to undertake various trades under the plan and a large number of them are engaged in various trades and industry. During the period of the plan, industrial estates at Gauhati, Tinsukia, Dhekiajuli and Badarpur have already been established, while those at Jorhat, Nowgong and Sibsagar were in progress. Preliminary steps were taken to start estates at some more places also. The emergency affected the progress of many schemes, but at the same time it also provided impetus to certain others. In fact the small units in Assam have made a valuable contribution towards meeting the requirements arising from the emergency.

16.1.3. The main handicaps to small industry in Assam are in many cases similar to those faced by large and medium industries. These are lack of technical personnel, lack of funds and lack of private initiative. Apart from these, shortage of basic and other raw materials, scarcity of building materials, marketing difficulties and complicated procedures for financial and other assistance were also responsible for uneven progress in the third plan. The efforts to be made in the Fourth Plan are essentially on the lines followed in the Third Plan. The Plan takes note of the above difficulties and of the steps necessary to overcome them. In the Fourth Plan, special emphasis will be given to supply of raw materials, provision of workshop service facilities, increasing share capital contribution, organising production, marketing and increased loan and other assistance. As usual, facilities to give incentive to small capital and to promote traditional arts and crafts will continue. The scheme for technical training and introducing improved techniques will be expanded, which will help improving productivity of small industries. The plan also takes note of the availability agricultural raw materials both in the hills and plains and of the need to utilize

them. Pineapple fibre extraction, saw milling, fruit preservation and dehydration of ginger and cotton ginning, have been included in the scheme of development under this head. Under other heads of development there are schemes for a bacon factory, a timber treatment plant and cold storage plant to utilize the agro-raw material available.

16.1.4 In the Fourth Plan eight schemes which have been carried over from the Third Plan will be completed. These are quality control and marking, service workshops, training-cum-production centres, industrial estates, textile production centre, common facility centres and handicraft co-operatives. Some new schemes will also be taken up. The programme in the Fourth Plan will include altogether more than 30 schemes. These have been classified into three broad groups, namely (1) Small Scale Industries and Industrial Co-operatives, (2) Industrial Estates and (3) Handicrafts. In making provision for schemes in each of these groups, the need for spreading opportunities to the rural areas has been especially taken into account.

16.1.5. For the hills areas, an integrated plan for Rs.200 lakhs has been prepared on the recommendations of the Joint Centre-State Study Team. Broadly speaking the schemes under this Plan include setting up of a Rural Industries Project in each district costing Rs.98 lakhs, processing industries based on agricultural and other raw materials costing Rs.26 lakhs, industrial estates costing Rs.4 lakhs and a separate Small Industries Development Corporation for the Hill Areas costing Rs.30 lakhs. Investigations to find the feasibility, to prepare project reports, etc., will be done in the first instance with the help of the Central Small Industries Organisation and other agencies. It is expected that Rs.150 lakhs for this plan will be provided by the Centre and the rest will be included in the State Plan. In the Fourth Plan a provision of Rs.30 lakhs has been made for the hill areas.

16.2. Sericulture

16.2.1. In Assam, Sericulture is undertaken both in the hills and in the plains. The allocation in the Third Plan was Rs.75.0 lakhs and the expenditure was Rs.46.57 lakhs. The objective of development in Sericulture was to increase the production of seed cocoons, to bring about improvement in the quality of yarn and to provide better facilities for training, research and marketing. Under the impact of the preceding plans, the output of seed cocoons has been steadily increasing and steady progress has also been made in other fields. The aim in the Fourth Plan is to consolidate these gains and to further expand the programme to keep pace with the increasing demands in this field. The proposed outlay in the Fourth Plan is Rs.106 lakhs.

16.2.2. For development of eri silk, an amount of Rs.19.26 lakhs was spent in the Third Plan. There are now 12 eri seed grainages. The output of quality cut cocoons at the end of the Third Plan was around 250 thousand kilograms. In the Fourth Plan one more seed grainage will be set up by converting one of the concentration centres started earlier, the existing grainages will be expanded further and one

parent stock station will be established. By the end of the Fourth Plan, the output of cut cocoons is expected to reach 320 thousand kilograms. The programme also includes subsidized supply of improved spinning machines and provision of working capital to the spinners. The outlay in the Fourth Plan on all the schemes under this head is Rs.29.31 lakhs.

16.2.3. For Muga Silk, the expenditure in the Third Plan was Rs.13.62 lakhs. At the end of the Third Plan, the output of muga raw silk was in the neighbourhood of 65 thousand kilograms. In the Fourth Plan one basic muga seed farm with two sub-stations will be established, the area under muga food plants will be increased and the existing 5 muga seed farms will be expanded. The output of muga raw silk in the State is expected to go up to 100 thousand kilograms by the end of the Fourth Plan. For improvement of the quality of raw silk, improved reeling and re-reeling machines will be supplied to the reelers. The outlay under this head in the Fourth Plan is Rs.29.80 lakhs.

16.2.4. For development of mulberry silk, there are now eleven seed farms. A few collective gardens and chowki rearing centres have also been established. The expenditure in the Third Plan under mulberry was Rs. 8.33 lakhs. In the Fourth Plan, a station to facilitate cross-breeding with foreign race to improve the quality of the cocoons will be set up. Twentyfour collective mulberry gardens and 10 chowki rearing centres will be organized and the existing mulberry farms will be expanded. With all these measures it is expected that production of raw silk would reach 20 thousand kilograms by the end of the Fourth Plan period. Also improved reeling machines will be supplied to the reelers. The outlay on schemes under this head in the Fourth Plan is Rs. 19.41 lakhs.

16.2.5. The expenditure on research and training in the Third Plan was only Rs. 1.68 lakhs. In the Fourth Plan the outlay will be Rs. 14.51 lakhs and the programme is proposed to be modified in the light of the recommendations of the Research Coordination Committee. In order to ensure an integrated approach, the training institute and the research station will be amalgamated and will be manned by better qualified staff so as to be brought in line with other research stations in India.

16.2.6. On the marketing side, the 33 existing silk co-operatives will be strengthened by providing them with adequate working capital and other forms of assistance. 15 new societies will also be organized in the Fourth Plan. The proposed outlay on these schemes is Rs. 4.47 lakhs.

16.3. Handloom

16.3.1. Handloom is a traditional industry of Assam and is pursued by all sections of the people without distinction of caste or creed. The vast majority of weavers are married women of the country side taking up handloom to supplement family income as part of the endeavour to sustain the family. Though a subsidiary occupation, handloom is worked throughout the year, with more time devoted during the slack seasons.

16.3.2. There are about 800 thousand looms in Assam both commercial and domestic. Domestic looms predominate, but half of the cotton fabrics and a greater portion of silk fabrics produced by domestic looms are prepared for purposes of sale rather than domestic consumption.

16·3·3. Development of handloom in Assam has been undertaken both inside and outside the cooperative sector. So far, about 50,000 looms have been brought under the cooperative fold, while the vast majority of weavers, accounting for the bulk of production, are still outside it. The aim is to gradually bring as many weavers as possible into the cooperative fold ; but in Assam the problems are many and complex. Whatever has been achieved has first to be consolidated and efforts will have to be concentrated in areas where conditions are favourable. The existing societies are to be strengthened so that they attain the standard which will serve as examples to encourage further development of handloom on cooperative lines. Outside the cooperative sector, efforts will continue to be made to organise and improve the working of the looms so that more and more weavers can be taken into the cooperative fold.

16·3·4. The programme in the cooperative sector follows the pattern approved by the All-India Handloom Board. The programme consists of schemes for formation of weavers' cooperatives, organised marketing, participation in share capital, supply of tools and accessories, propaganda and publicity, establishment of a chain of sales depots, rebates on sales, subsidy on cost of transport of yarn and other promotional activities. The expenditure during the Third Plan on these schemes was Rs.50 lakhs. Most of the schemes have been in existence over a very long period, many since 1953-54. The outlay in the Fourth Plan is Rs.75 lakhs as against the expenditure of Rs.50 lakhs during the Third Plan.

16·3·5. The programme of handloom development outside the cooperative sector consists of establishment of extension service units, subsidized supply of shuttle sleys, training of weavers, training of technical staff, research and design, loans and grants. In the Fourth Plan, the 28 existing Weavers Extension Service units will be expanded and strengthened. Improved looms and appliances will be supplied to the weavers at concessional rates so that they can increase their output and bring down costs. A reproduction unit will be set up and attached to the research and designing centre at Gauhati for reproducing designs in demand from time to time. At the same time, efforts will continue and be intensified to popularize the devices and designs evolved at the centre for adoption by the weavers at large. The outlay during the Fourth Plan is Rs.41 lakhs as against an expenditure of Rs.18·98 lakhs in the Third Plan.

16·3·6. On the recommendations of the Power-loom Enquiry Committee, Assam has been allotted 10,000 power-looms to be set up mainly in the cooperative sector. Provision for setting up of these power-looms has been made outside the State Fourth Plan and it is expected that funds will be available for this purpose outside the plan outlay.

16·4 Khadi and Village Industries

16·4·1. In spite of the various difficulties for want of raw materials, training facilities, finance, marketing, transport difficulties, etc., the progress

achieved under the different schemes during the Third Plan period may be considered encouraging. For instance, in the field of Khadi Cloth, production valued at Rs.30 lakhs was made during the Third Plan period and part-time employment was provided to about 20,000 persons annually. The khadi production centres were able to produce yarn valued at Rs.3.80 lakhs annually. In view of the steady progress achieved in almost all the schemes and the benefits accruing to a large number of rural population in regard to employment, additional income, propagation of the ideals of work and of utilising local talents and resources, it is proposed to continue and expand the schemes in the Fourth Plan and also to start eleven new schemes. The objects of these schemes are to provide training facilities to the rural people in handling improved tools (plains and hills alike) and to increase the output of Village Industries products and their sales. It is also intended to give increasing opportunity to the rural population to become self-sufficient in the daily necessities of life. The programme in the Fourth Plan will cost Rs.50 lakhs as against the expenditure of Rs.19.01 lakhs in the Third Plan.

17. Roads and Bridges

17.1 The State of Assam which is a frontier State surrounded by foreign countries on all sides is still very backward in respect of communication. The road system in the State not only plays a vital role strategically and economically but also serves as a gateway to the neighbouring States like Manipur, Nagaland, NEFA and Tripura which solely depends on the State in the matter of Road Transport.

17.2 According to an All-India Road Plan prepared by the Chief Engineers for a period of 20 years (1961-81), Assam should have approximately 5,466 K.M. of motorable roads by the end of 1981. With the completion of various schemes, the total K.M. of motorable roads come to 20,326 K.M. by the end of Third Five Year Plan including 2,414 K.M. of Local Board roads since taken over by the P.W.D. It thus transpires that Assam's road K.M. is very poor and to reach the All India target of 35,406 K.M. of motorable roads, the State should construct about 15,080 K.M. of new roads more during next three Five Year Plans beginning from the Fourth Plan period which would cost approximately Rs.5,622 lakhs, *i.e.*, at Rs.1,877 lakhs per plan excluding the cost of major bridges.

17.3 The Third Plan Programme for Roads and Bridges was drawn up at Rs.1,315 lakhs against which the expenditure was Rs.1,169 lakhs. The shortfall in expenditure target was due to inadequate allocation of fund under the Annual Plans since 1962-63 consequent on proclamation of National Emergency throughout the country due to Chinese aggression.

17.4 The physical achievements made during the Third Plan period were (1) Metalling and blacktopping 360 K.M. of roads (2) Improvement of existing P.W.D. roads 677 K. M. (3) Construction/strengthening weak bridges and culverts 4880 metres (4) Completion of major bridges, such

as bridge over Kopili at Kampur, bridge over Kopili on Nakhola-Bakhatgaon road, Sonai bridge on Sonai-Matinagar road, Dhausiri bridge at Barpathar, Mangaldoi bridge on Mangaldoi-Patherighat-Khoirabari road, Bhogdoi bridge at Jorhat, Adabari on Hajo-Makalmua road, Baruabari bridge on Nalbari-Hajo road, Desang bridge on Bhojo-Sonari road and Barak bridge at Silchar (5) Construction of one road-over bridge on Mankata road at Dibrugarh was taken up and only 25 per cent of the work could be completed during the Third Plan period. The main bottleneck was acquisition of land required for the purpose. (6) Under the scheme for improvement/construction of roads connected with industries as many as 12 projects were taken up for industries like cement factory at Cherrapunji, Thermal plant at Namrup and Fertilizer factory at Naharkatiya and Associated Industries at Gauhati. Physical achievement so far made on roads for industries on formation improvement/metalling and black-topping is 64 K.M. besides minor bridges and culverts and strengthening of bridges 20 in nos., and (7) about 1,000 K.M. of new roads of village standard were completed during the plan period.

17.5 It is needless to emphasize the need for speedy development of road communication in this frontier State but the requirement of fund for the purpose is staggering. However, according to the indication received about the allocation for Roads and Bridges in the Fourth Five Year Plan a programme for Roads and Bridges has been drawn up at an estimated cost of Rs.1,559 lakhs (Spill-over schemes for Third Plan and Third Finance Commission Award Rs.700 lakhs and new schemes for Rs.859 lakhs), though it is far short of the requirement to achieve the target set for by 1981.

17.6 With this plan programme and estimated cost it has been envisaged (1) Metalling and blacktopping, 470 K.M. (2) Improvement of existing low standard P.W D. roads 1,000 K.M. (3) Reconstruction of weak bridges and culverts 8100 metre (4) Construction of permanent major bridges 1050 metre (5) Construction of new roads and improvement to town roads 19,200 K.M. and (6) 4 road over-bridges besides the continuation of works on spill-over schemes to completion.

17.7. Road communication schemes in the Hill Area aggregating Rs.1715 lakhs have been outlined in a separate chapter.

18. Road Transport

18.1. Road transport in Assam is playing a very important role in the economy of the State. Both public and private sectors are important participants in the system of transport and are flourishing side by side. In the

public sector there are two organisations in the road transport system. One is the State Transport of the Government of Assam and the other is the Central Road Transport Corporation Ltd., under the Ministry of Transport, Government of India. While the former serves exclusively the State of Assam the latter's area of operation has been extended from Assam to other States like West Bengal, Bihar, Delhi, Gujrat, Maharastra, etc. The Government of Assam has participated in the share capital of this company. At present no fresh provision is considered for this organisation.

18.2. The State Transport of Assam has so far been functioning purely as a departmental enterprise of the Government of Assam. In the Third Five Year Plan no provision was made for the State Transport as this undertaking was not organised as a corporation. The Government of Assam is now considering the formation of a State Transport Corporation.

18.3. Road transport programme for the Fourth Plan is drawn up for Rs.150 lakhs including a provision of Rs.80 lakhs for the hill areas. The road transport programme in the State sector will include subsidy on uneconomic routes, development of new routes toward places of potential tourist attraction, formation of city roadways corporations, better enforcement staff, provision of break-down removal facilities, weigh-bridges, automobile training institute and meter repairing workshop, etc. Provision has also been made for the setting up of a planning and development wing under the State Transport Commissioner, Assam. As the projections on the basis of transport survey is not complete some adjustments, in the allocations may be necessary at a later stage. The schemes for the Hill Areas are given in a separate chapter.

19. Other Transport

91.1. Ropeway

19.1.1. The State Government proposed to construct a Ropeway from Shella (U. K. & J. Hills) to Pandu (Kamrup) for which a provision of Rs.125 lakhs was made in the Third Plan against which the expenditure on technical survey would be of the order of Rs.10 lakhs only. During the Fourth Plan a sum of Rs.14 lakhs has been provided for further survey and investigation and also for making a detailed study of comparative economics of road haulage and ropeway haulage.

19.2. Inland Water Transport

19.2.1. Inland Water Transport plays a vital role in the economic activity in the north eastern region of the country comprising Assam, West Bengal and Bihar. During the First Plan period the Ganga Brahmaputra

Board—a Joint Venture of the Central Government and the three State Governments was set up for co-ordinating the activity of the participating Governments in regard to the development of Water Transport on the Ganga-Brahmaputra system. During the Second Plan, Directorate of Inland Water Transport was set up and the construction work for an Inland Port at Pandu was taken up. An expenditure of Rs.1.23 lakhs was incurred during the Second Plan period.

19.2.2. In the State sector of the Third Plan, a provision of Rs.5 lakhs was made for the State Inland Water Transport Organisation, and expenditure during the Third Plan was Rs.6.35 lakhs.

19.2.3. The Fourth Plan Programme will have an outlay of Rs.205 lakhs in the State sector, which will include schemes like (1) Purchase of survey launches (2) Hydrographic survey of rivers (3) Purchase of survey equipments (4) Purchase of tools and plants (5) Expansion of Inland Water Transport Organisation (6) Establishment of a Crew training Institute (7) Purchase of ferry vessels for taking over ferry services from P. W. D. (8) Development of port facilities at Pandu, Sadilapur, Karimganj, Tezpur, Jogighopa, etc. (9) Survey of the Dhaleswari and Kolodyne rivers in the Mizo district.

19.2.4. On the basis of the recommendation of the Joint Centre—State study team for the Hill areas of Assam, a provision of Rs.40 lakhs (including the provision of Rs.5 lakhs for Mizo Hills in the Welfare of Backward Classes Programme) has been made for development of Inland Water Transport in the hill areas of Assam during the Fourth Plan.

20. Tourism

20.1. Rich in scenic beauty, dense forests, hills and dales, rivers and lakes and other natural environment, Assam offers great potentiality for development of Tourism. A beginning was made during the Second Plan period mainly to provide accommodation, transport and recreational facilities at important tourist centres. Due to late initiation of the scheme, however much progress could not be made.

20.2. During the Third Plan, the progress of the schemes was hampered due to reduction in allocation in the wake of the National Emergency. The total Third Plan allocation for tourism was Rs.10.00 lakhs, against which the total expenditure was Rs.3.49 lakhs.

20.3. The Fourth Plan outlay for tourism in the State Sector is Rs.10.00 lakhs only. Apart from completing the schemes already taken up in the third plan, it is proposed to have some tourist bungalows at Gauhati, Shillong, Tinsukia and Manas, strengthen the tourist organisation which has at present only a small nucleus, and undertake schemes for tourist publicity.

21. General Education and Cultural Programme

21.1. During the last fifteen years, considerable progress has been recorded in expanding as also in diversifying the facilities for all stages of education. The achievements of enrolment targets are presented below—

Percentage of age-group

Stage/age-group	India				Assam			
	1960-61		1965-66		1960-61		1965-66	
	Position		Likely position		Position		Likely position	
Primary (6—11).	62.2	78.5	67.5	76.8
Middle (11—14).	22.5	32.2	25.3	31.0
Secondary (14—17).	11.7	17.8	12.2	18.9

21.2. In the Fourth Plan, efforts will be concentrated on consolidation, quality, terminalisation and work-orientation. The emphasis at the elementary stage is on free and universal education, elimination of wastage and work-orientation of the curriculum. At the secondary stage, the provision of vocational education and science teaching has received special attention. At the post-matric and university stage, the emphasis is on diverting students to vocational, technical and professional courses and on extending facilities on science and honours courses and research work. Great stress is also to be laid on the training of teachers and on expansion of seats in the existing training institutions. The technology of education is proposed to be improved to secure better results by insisting on large sized institutions, full utilisation of existing buildings, introduction of correspondence courses and similar other measures. Attempts will be made to increasingly secure the ends of social justice by providing large number of scholarships to deserving students and also by making education free upto the middle stages. Girls' education, which has been lagging behind in the three plans, will also receive special attention.

Programmes and Policies

21.3. *Pre-Primary Education.*—This has been largely left to private initiative. Government attention has been directed to certain strategic areas such as training of teachers, production of teaching materials, etc. This scheme aims at expanding benefits to the age-group 3-5.

21.4. The table below summarises the main targets of enrolment at the primary, middle and secondary stages—

Targets of Expansion

Stage/age-group	1960-61		1965-66		1970-71	
	Position		Position		Targets	
Primary (6—11)	11.25 lakhs	15.29 lakhs	21.80 lakhs			
Percentage of age-group	67.5	76.8	92.0			
Percentage of age-group (National) .. .	62.2	78.5	92.2			
Middle (11—14)	2.19 lakhs	3.14 lakhs	5.81 lakhs			
Percentage of age-group	25.3	31.0	47.6			
Percentage of age-group (National) .. .	22.5	32.2	47.4			
Secondary (14—17)	1.26 lakhs	2.32 lakhs	4.19 lakhs			
Percentage of age-group	12.2	18.9	29.5			
Percentage of age-group (National) ...	11.7	17.8	22.1			

21.5. *Elementary Education.*—As against 4.04 lakhs of children estimated to be enrolled in classes I—V during the Third Plan the target of enrolment in the Fourth Plan is 6.51 lakhs. At the middle stage, as against enrolling 0.95 lakhs during the Third Plan, the target is 2.67 lakhs. The programme also aims at reduction of drop-outs, better organisation of schools, free supply of text books and mid-day meals. In the elementary stage, better facilities for teaching of science will be provided. Facilities will be also provided to selected schools for introducing agriculture and selected crafts.

21.6. *Secondary Education.*—The immediate objective is to provide trained teachers, reduce wastage and make qualitative improvement. There will be special stress on science education. The emphasis of secondary education is on diversification. How far diverse courses can be offered and to what extent they require the setting up of specialised institutes is being examined at State level in the light of the recommendations of the Education Commission. In short, efforts will be made to re-orient secondary education and devise systems that will prevent the current rush to the universities and, at the same time give the secondary school leavers, a training, which has an employment value in itself, and renders them productive workers when they go out in the field.

21.7. *Training of teachers.*—In trained teachers, the State is far behind the National level during the Third Plan. Particular emphasis has, therefore, been laid on all teachers training schemes. Besides expansion of existing training centres, the Plan provides for the establishment of new centres, introduction of correspondence courses and extension service in the existing

training institutes. A State Institute of Education has already been established during the Third Plan. A State Institute of Science will be established during the Fourth Plan. Science teachers will be encouraged to take up correspondence courses and attend Summer Institutes and thereby improving both the knowledge of their subjects and their skill to teach it. It has also been considered necessary to provide increasing facilities in individual subjects like Mathematics and English. The need for specialised courses in English language is keenly felt and the Plan accordingly provides for the establishment of an English Teaching Institute in the State.

Percentage of trained teachers

Stage	1960-61 (Actual)	1965-66 (Likely position)	1970-71 (Target)
Primary	37.9	48.0	72.2
Middle	25.9	30.0	59.5
Secondary	15.1	21.0	32.0

21.8. It is necessary to promote a constant desire among the teachers to study and improve their qualifications. Provision has been made in the plan for incentive to teachers to improve their qualifications.

21.9. *Girls' education.*—There is a considerable back-log in the field of Girls' education in the State. The table below summarises the position.

Girls' Education

Percentage to the total population of the age-group

Stages	Position 1960-61	Position 1965-66	Target 1970-71
PRIMARY			
Boys	84.7	96.7	98.4
Girls	50.3	56.0	85.4
Total	67.5	76.8	92.0
MIDDLE			
Boys	36.4	42.8	65.6
Girls	14.3	19.1	29.9
Total	25.3	31.0	47.6
SECONDARY			
Boys	19.2	28.7	42.3
Girls	5.3	10.4	17.1
Total	12.2	18.9	29.5

21.10. In the Fourth Plan, special schemes for Girls' education will be taken up to cover the back-log in a progressive manner. The schemes include subsidy for school uniform, provision of separate common room for girls, hostel facilities, teachers' quarters, free education upto the middle Stage, free studentship at secondary stage on means-cum-merit basis etc.

21.11. *University education*.—At the post-matric and university stage, emphasis has been laid on science and honours courses. The scheme includes establishment of one science college in the Fourth Plan. Grants will be provided to colleges to achieve qualitative improvement in the field of higher education. Various student welfare projects will be taken up for recreation and instruction.

21.12. *Miscellaneous programmes*.—The Fourth Plan envisages adequate provision for scholarships to equalise opportunities and encourage talent. Rural libraries and publication of literature for neo-literates will serve as aids to adults in the rural development programmes. Physical education programmes, social service camps, youth welfare activities, scouts and guides etc., will be encouraged, Sports will also be encouraged and coaching camps for games and sports will be organised. Under cultural programme, provision has been made for giving grants-in-aid to different academies and to schools of painting, music and dancing. Attention will be paid to preserving ancient monuments and the cultural heritage of the State.

21.13. *Hill Areas programmes*.—Out of the total proposed provision of Rs.3656 lakhs, a sum of Rs.530 lakhs has been allotted for district level schemes of the Hill Areas. These schemes have been dealt with separately.

21.14. In the Third Plan, the total expenditure on education was Rs.1550 lakhs.

22. Technical Education

22.1. The achievements in the field of technical education at various levels by the end of the Third Five Year Plan are shown in the following table:—

	1960-61 (Actual)	1965-66 (Actual)
(i) Engineering Institutes (Degree level)—		
(a) Number	2	2
(b) Intake	180	270
(ii) Engineering Institutes (Diploma level)—		
(a) Number	3	6
(b) Intake	420	850

22.2. At degree level, the emphasis in the Fourth Plan will be on expansion of the existing institutes and introduction of new courses to suit the needs of the State. Electronics, Tele-communication engineering, Architecture and Regional planning and Petroleum

technology are some of the proposed new courses to be introduced during the Fourth Plan. The preliminary work for the establishment of a Regional Engineering College at Silchar has already been started. The intake capacity of the institute will be 250. It is proposed to establish one new Engineering College in the later part of the Fourth Plan, *i.e.*, from the year 1969-70. The intake capacity of the institute will be 180. The total number of Engineering Colleges (Degree level) and the annual intake capacity by the end of the Fourth Plan will be 4 and 985 respectively. At diploma level, six polytechnics have been functioning with an intake capacity of 850 students. A polytechnic for girls has also been started at Gauhati for technical training of women in certificate courses. In the Fourth Plan, the intake capacity of the polytechnics will be increased to a great extent. To meet the long term demand of diploma holders, it is proposed to establish 3 new polytechnics in the State, one in the hills and two in the plains. These polytechnics are proposed to be started preferably near industrial complexes. By the end of the Fourth Plan, the total number of polytechnics and annual intake capacity will be 9 and 1550 respectively.

22.3. Both at the degree and diploma levels highest priority has been given to strengthening of the existing institutions from the point of staff, equipment and buildings. The staff position in the technical institutes of the State is not satisfactory. More attention will be paid on building up a corps of teachers. Improvement of service conditions, qualifications and training of teachers will receive adequate attention. Attention is also being paid to scholarship programmes. A determined effort will be made to reduce wastages at all levels with a view to increasing the returns from the investment made on technical education. Technical education programmes have been chalked out to meet the manpower requirement of the economy in the Fourth as well as in the fifth and succeeding plans. The following table summarises the likely achievement by 1970-71.

					1965-66 (Actual)	1970-71 (target)
(i) Engineering Institutes (Degree level)—						
(a) Number	...	...	...	...	2	4
(b) Intake	...	...	...	...	270	985
(ii) Engineering Institutes (Diploma level)—						
(a) Number	...	...	...	...	6	9
(b) Intake	...	...	...	...	850	1550

22.4. In the Fourth Plan, two more Junior technical schools will also be established (total 4). This will divert students of lower age group to productive occupation.

22.5. The outlay proposed in the State Fourth Plan under technical education is Rs.480 lakhs. Out of this a sum of Rs.60 lakhs has been allotted for the district level schemes of the Hills Areas of the State. Polytechnics at Shillong and Aijal and a girls' polytechnic at Shillong are some of the schemes that will deserve attention. It is also proposed to provide scholarship, hostel facilities and other financial help liberally to the hill students to attract them to take up technical studies.

23. Health

23.1. Water Supply

23.1.1. Special emphasis has to be laid on protected water supply and sanitation programmes. A substantial portion of the outlay will be for urban water supply. Under the national water supply and sanitation programme, particular attention will be given during the Fourth Plan to providing protected water supply to areas endemic with Cholera and Filariasis and meeting the water supply needs of difficult areas—hill areas, border areas and areas of chronic scarcity.

23.1.2. For this purpose, an outlay of Rs.571 lakhs has been proposed in the State Plan including an allocation of Rs.135 lakhs under the programmes for Welfare of Backward Classes. Some schemes will also be taken up as Centrally Sponsored Schemes outside the State Plan ceiling.

23.1.3. During the Third Plan, under (a) National Water Supply and Sanitation Scheme (Urban), the water supply schemes at Gauhati, Karimganj, Shillong and Rangia were taken up at an estimated cost of Rs.171.93 lakhs, under (b) National Water Supply and Sanitation Scheme (Rural), the Water Supply Schemes for Mizo Hills, Nongthymmai, Bokakhat, Roha, Khanamukh, Michajan, Ramkrishnanagar, etc., were taken up at an estimated cost of Rs.22.45 lakhs.

23.1.4. The Third Plan expenditure for water supply programme was Rs.132.00 lakhs.

23.1.5. During the Fourth Plan water supply schemes for Silchar, North Gauhati, Sibsagar, Greater Shillong, Barpeta, Nowgong, Dhubri, Tezpur, etc., in addition to the rural water supply schemes and other water supply schemes in Mizo Hills will be taken up.

23.1.6. On the basis of the recommendation of the Joint Centre-State Study Team for the Hill areas of Assam, a provision of the order of Rs.240 lakhs (including a provision of Rs.105 lakhs for the welfare of Backward Classes Programme for Hill Areas) is to be made for water supply schemes in the Hill Areas of Assam, during the Fourth Plan.

23. HEALTH

23.2. Other Programme

23.2.1 The Fourth Plan programmes have been chalked out with a view to providing minimal standards of medical care and public health services by the end of the Fifth Plan, *i. e.*, by 1975-76. In the field of medical education and training, in spite of expansion of training facilities in the first three plans, the State still suffers from a shortage of different categories of medical personnel. The Fourth Plan programme will include, among other things, completion of construction work for Gauhati and Silchar Medical Colleges, upgrading of different departments of the colleges, expansion of training facilities for nurses, auxiliary nurse-midwives, pharmacists and other para-medical personnel.

23·2·2. In the Fourth Plan, provision has been made for completion of Malaria and Small-pox eradication programmes. It is proposed to entrust the activities of the above programmes to Primary Health Centres. Provision has also been made for the control of Cholera, Tuberculosis, Leprosy, etc.

23·2·3. There are 162 blocks in the State. The target is to have one Primary Health Centre in each block. The target will be achieved during the Fourth Plan. Among other things, these Primary health centres in the block areas will meet the demand of beds for the rural population of the State.

23·2·4. In the Fourth Plan, special stress has been laid on Family Planning Programmes. At the national level, the decision has already been taken to adopt a nation wide programme with the objective of reducing the birth-rate from the present 40 per thousand to 25 per thousand as expeditiously as possible. The operational means of achieving this objective is to create facilities for the married population for adoption of family planning by—

- (i) Group acceptance of a small-sized family.
- (ii) Personal knowledge about family planning methods.
- (iii) Ready availability of supplies and services.

23·2·5. At the State level, 180 family planning clinics, 13 mobile publicity units, 21 sterilisation centres, 11 district family planning bureau and a State Family Planning Bureau are already functioning. The I.U.C.D. programme was introduced in the later part of 1965-66. The system is gaining popularity since its inception. In the Fourth Plan, provision has been made for inclusion of schemes as suggested by the Ministry of Health and Family Planning, Government of India. For the successful implementation of the programme, it is also proposed to establish training schools for training of auxiliary-nurses, midwives, etc.

23·2·6. For the acceleration of development programmes in the Hill areas, an outlay of Rs.320 lakhs has been proposed. Strengthening and improvement of dispensaries, hospitals, provision of mobile clinics, expanded treatment facilities for communicable diseases are some of the schemes that are to receive special attention in the Hill Areas.

23·2·7. The total expenditure for health scheme including water supply schemes under Art 275 during the Third Plan was Rs.939 lakhs. An outlay of Rs.1,859 lakhs is proposed in the Fourth Plan.

24. Housing

24.1. In the Third Plan, the progress under this sector was slow due to drastic economy cuts in the context of the 'National Emergency'. The development under this sector in the first three plans has been generally meagre, with the result that the demand for housing has now assumed serious proportions. With power and industries coming up, the situation

is likely to worsen. During the Fourth Plan, unless serious practical steps are taken, the shortage of housing, especially in the industrial category, may even have the effect of slowing down the industrial progress of the State.

24.2. The expenditure during the Third Plan under this sector was Rs.58 lakhs. The outlay proposed during the Fourth Plan is Rs.340 lakhs. The table below indicates the physical targets achieved and those now proposed under each group. Only those houses and tenements which have been completed during the Third Plan have been taken into account and referred to in the table.

Sub-groups	Third Plan		Fourth Plan
	Physical targets	Actual achievements	Physical targets
(1)	(2)	(3)	(4)
1. Low income housing Scheme.	1,000 houses	436 houses	1,420 houses
2. Subsidised industrial housing scheme.	756 tenements	24 tenements	1,760 tenements
3. Plantation Labour housing scheme.	1,250 tenements	18 tenements	1,650 tenements
4. Village housing project scheme.	1,200 houses	Nil	400 houses
5. Slum clearance scheme ...	485 tenements	362 tenements	400 tenements

24.3. The achievement under low-income housing scheme and subsidised industrial housing scheme was also meagre due to curtailment in plan allocation and also due to dearth of suitable land and controlled building materials. Most of the fund under the plantation labour housing scheme could not be utilised due to difficulty in respect of security to be offered by planters but this difficulty has now been removed by creating a 'Pool Guarantee Fund'.

24.4. Under the village housing projects scheme, preliminary works, such as socio-economic and physical (engineering) survey of about 91 villages has been completed and Master Plans for 16 villages have been drawn up. But no loan could be sanctioned in the Third Plan as there was no application from the villagers. Attempts are being made to popularise the scheme in the rural areas. Subject to availability of resources, all these schemes will also be implemented during the Fourth Plan at an accelerated pace.

24.5. Under housing programmes, there are two Centrally sponsored schemes, (i) Slum clearance scheme and (ii) Land acquisition and development scheme. The funds under slum clearance scheme are handed over to the Development Authorities for implementation of the scheme. The land acquisition and development scheme is wholly financed from L. I. C. and the provision lies outside the State Plan ceiling. By making sufficient number of developed plots available at a low cost, the scheme is expected to stabilise rent and land prices in and around the areas of growing towns.

25. Urban Development

25.1. According to the 1961 census, there are two Class I cities in Assam with a population of 1 lakh and above, one Class II city with a population between 50,000 and 1 lakh, 11 towns having population between 20,000 and 50,000 and about 50 small towns and townships having population below 20,000. With the impact of development activities, more and more people are converging to the urban areas. The growth of the urban areas in the State has been noticeably marked by haphazard, unplanned and unrestrained development.

25.2. As a first step towards putting a stop to this unplanned growth of the urban areas with all their consequential evils, a Department of Town Planning was created during the Second Plan. Immediately after its creation, the Department engaged itself in drawing up Master Plans for the two fast growing towns of Gauhati and Tinsukia. Master Plans for these towns have already been completed. Master Plans for Dibrugarh and Silchar are under preparation. Two Unit offices have also been opened at Jorhat and Tezpur for preparation of Master Plans for Jorhat, Tezpur and Diphu. Two Development Authorities (Gauhati and Tinsukia) have been constituted and are implementing the Master Plans for their respective areas. During the Third Plan period, the Municipalities and Town Committees were financially helped to implement their own development schemes under the supervision of the State Town Planner. Some personnel have also undergone training in town planning and housing. Financial assistance was given to the Gauhati and Tinsukia Development Authorities for carrying out preliminary surveys for framing a comprehensive scheme of sewerage and drainage.

25.3. Assam being a frontier State with military stations and cantonments coming-up, none of the towns is able to provide the requisite basic amenities and the problem of haphazard and unplanned growth is in danger of getting beyond control. The Fourth Plan has, therefore, to provide for the minimum requirement for this sector. Provision has to be made for drainage and sewerage schemes as well as for road-widening schemes. It is proposed to create a revolving fund to help the Development Authorities to finance their remunerative schemes including reclamation and development of low-lying areas in and around the towns for industrial and other purposes. Besides, the urban development scheme for assisting Municipalities and Town Committees is expected to create considerable scope for civic development and will go a long way towards integrating development efforts in different directions by pooling of available funds from conventional sectors with necessary technical guidance from the organisation of the Town Planner. The schemes, with their proposed financial outlays for the the Fourth Plan, are indicated below:—

Schemes	Outlays (Rs. lakhs)
1. Town Planning Organisation	7.50
2. Training of personnel	0.50
3. Urban Development	55.00
4. Road widening scheme	9.00
5. Drainage and Sewerage	155.00
6. Revolving funds for development authorities to finance their own remunerative schemes.	173.00
Total	400.00

25.4. The Third Plan expenditure for Town Planning was Rs.37 lakhs.

25.5. An outlay of Rs.20 lakhs is proposed for preparation of Master Plans during the Fourth Plan period outside the State plan ceiling.

26. Social Welfare

26.1. The expenditure under Social Welfare during the Third Plan was Rs.27 lakhs. A Directorate of Social Welfare was set up in the Third Plan. Besides the State Directorate, other agencies such as State Social Welfare Advisory Board, Department of Community Development and Panchayats and Voluntary Organisations are also executing different Social Welfare schemes inside the State.

26.2. In the Fourth Plan, development of preventive social services has received adequate attention. Institutionalisation has been discouraged. The programmes have been so weaved as to bring the under-privileged into the fabric of the enlightened community. Voluntary character of social welfare programmes has been retained and encouraged. Substantial provision has been made on training and administration. Above all, programmes have been conceived with a view to promote greater voluntary effort in the task of integrated development and social reconstruction.

26.3. All the Social Welfare programmes have been grouped under eight sub-heads. These are :—(i) Child Welfare (ii) Women's Welfare (iii) Family and Child Welfare Services (iv) Welfare of the handicapped (v) Social Defence (vi) Welfare of the aged and infirm (vii) Welfare of the pavement and slum dwellers (viii) Training, Research and administration. Reorganisation of the existing children's home, improvement of the Bal Bhavan to provide children with experience and activities not otherwise available to them in schools, work centres for destitute women, a school for the blind a school for deaf and dumb, scholarships for the handicapped, public assistance to the aged and infirm, rehabilitation of war-disabled in co-operation with State Sailors', Soldiers' and Airmen's Board, night shelter for pavement dwellers, non-institutional service to juvenile delinquents, work centre for beggars are some of the schemes that have received special attention. Most of these schemes were under implementation during the Third Plan.

26.4. In the light of past experience, it is proposed that the family should be treated as the basic unit and a composite family and child welfare programme should be adopted. Accordingly, the State Social Welfare Advisory Board proposes to provide composite family and child welfare programmes through the panchayats in the blocks. There are at present eight welfare extension projects functioning in the State. Funds have been provided in the Plan to convert three welfare extension projects into the new Family and Child Welfare scheme and for the continuance of the remaining projects till they are converted into new ones in a progressive manner. It is expected that voluntary effort will be forthcoming for the development of the programme through the initiative of the local communities.

26.5. For the success of social welfare schemes, voluntary organisations have to be supported and nurtured with care. There is a vast amount of energy to be mobilised at every level. Significant leadership resources

exist in most communities. What is necessary is that they should be strengthened. In the Fourth Plan, therefore, adequate funds have been provided for the strengthening of voluntary organisations and ensuring close collaboration between the Government effort and Voluntary effort in the task of social reconstruction.

26.6. Trained personnel play a key role in the social welfare programmes. To impart training in different fields of social welfare, it is proposed to set up a training institute on zonal basis. Funds have been provided to implement the scheme during Fourth Plan.

26.7. The proposed provision in the Fourth Plan for Social Welfare schemes is Rs.94 lakhs. Out of this, a sum of Rs.15 lakhs will be spent for certain specific schemes to be implemented in the Hill Areas. Besides these schemes, the general schemes will also benefit the hill people to a considerable extent.

27.1. Labour Welfare

27.1.1. By the end of the Third Plan, both male and female labour trainees from tea plantations were trained in health hygiene, sanitation, etc. Twelve Community Centres benefiting about 1.20 lakhs of tea-garden population and two centres for urban industrial labour have been established. In ten craft centres, about 400 persons received training in tailoring and carpentry. Some of the employees of the organisation also took training in different labour welfare subjects during the period. The total expenditure, under this sector, was Rs.9 lakhs during the Third Plan.

27.1.2. Various facilities like welfare training centres, community centres, training in crafts and welfare centres for the benefit of plantation and urban industrial labourers created during the Third Plan will be expanded in the Fourth Plan. Establishment of rest houses, conducted tours, mobile audio-visual entertainments are some of the schemes proposed to be implemented during the Fourth Plan period. The outlay proposed during the Fourth Plan is Rs.35 lakhs.

27.2. Employment Programmes

27.2.1. Out of the total allocation of Rs.3.60 lakhs for Employment programmes, the expenditure in the Third Five Year Plan was Rs.3.50 lakhs. Various measures such as setting up of new employment exchanges, vocational guidance units, employment market information units of the employment exchanges, special employment exchanges for plantation labour, university employment information and guidance bureau at Gauhati University and Employment Information and Assistance Bureau in the rural areas were undertaken to tackle the employment problems in the State.

27.2.2. The Fourth Five Year Plan envisages expansion of the existing schemes, viz., (i) Expansion of Employment service (ii) Collection of employment market information (iii) Vocational guidance and employment counselling and (iv) Occupational research and analysis. The Fourth Plan

also envisages reorganisation of the Employment service organisation both at the Headquarters and also in the field. The outlay proposed is Rs.8.00 lakhs. Schematic proposed provisions are given below :—

(i) Expansion of employment service	Rs. 5.00 lakhs
(ii) Collection of employment market information	Rs. 2.00 ,,
(iii) Vocational guidance and employment counselling.	Rs. 0.60 ,,
(iv) Occupational Research and Analysis	Rs. 0.40 ,,
Total	<u>Rs. 8.00 ,,</u>

27.2.3. All the allocations referred to above indicate State share only.

27.3. Craftsmen Training

27.3.1. A programme of industrialisation requires men, money and machines. Of these three-fold needs, men come first—men with necessary skill and technical know-how. Skilled craftsmen form the foundation of an industry. On them will depend the quality of its products and therefore its competitive position and capacity for growth. Craftsmen training is important from another point of view, *i.e.*, from the point of employment potentiality. The training renders the unemployed employable. Craftsmen training thus plays a dual role. On the one hand, it assists in industrial expansion, and, on the other hand, it brings employment. The training of skilled craftsmen is, therefore, given its due importance in Assam's Five Year Plans.

27.3.2. Craftsmen are trained in different engineering and non-engineering trades in Industrial Training Institutes (I.T.I.). By the end of the Second Plan, the State had 6 I.T.I.s with a total seating capacity of 1460. During the Third Plan 6 more I.T.I.s were established. At the end of the Third Plan, the total number of institutes and seating capacity were 12 and 3,572 respectively.

27.3.3. During the Fourth Plan, it is proposed to establish 8 more Industrial Training Institutes in the State with the aim of ultimately having one Industrial Training Institute in each subdivision. At the end of the Fourth Plan, the total number of Industrial Training Institutes and seating capacity will be 20 and 5,848 respectively.

27.3.4. Besides the establishment of new institutes, it is proposed to expand some of the existing Industrial Training Institutes by introduction of new trades and additional seats. Provision has also been made in the Plan for the training of teaching staff and re-organisation of training programmes.

27.3.5. Under the National Apprenticeship Act, 1961, it is obligatory for various industrial concerns to admit each year a number of boys for in-plant training. There were 514 such placements in the Third Plan. It is proposed to get 500 additional placements during the Fourth Plan.

27.3.6. Recently, the question of intensifying publicity for the craftsmen training scheme has been re-examined by the Government of India. It is felt that wide publicity for the training scheme is essential from the following points of view :—

- (i) Popularisation of un-popular trades.

(ii) Covering more and more areas even to the remotest villages by publicity programmes.

(iii) Publicity among students of schools and colleges to acquaint them with the training programme.

A scheme for publicity of craftsmen training has accordingly been taken up in the Fourth Plan.

27·3·7. Details of the schemes for the Hills areas have been given in a separate chapter.

27·3·8. The Third Plan expenditure on craftsmen training was Rs.19 lakhs and the outlay in the Fourth Plan is Rs.152 lakhs.

27·4. Employees' State Insurance Scheme

27·4·1. At present the only facility available to labourers under this scheme is full medical care. National policy in the Fourth Plan envisages bringing the still uncovered employees and their families in all areas with population of 500 or more eligible to come under the scope of the scheme. In addition the scheme is to be extended to include all factories in the implemented areas employing 10 or more persons using power and 20 or more persons without power, and to shops and commercial establishments in some of the larger cities where facilities for full medical care can be ensured. Pending detailed assessment of the implications of the National Policy, a tentative provision of Rs.5 lakhs representing one-eighth of the total expenditure to be borne by the State Government is proposed under the State Fourth Five Year Plan for this scheme.

28. Public Co-operation

28·1. From the beginning of the First Plan, a great deal of stress has been laid on securing public co-operation in carrying out programmes of national development. In particular it has been felt that public co-operation could make a valuable contribution in activities which bear closely on the welfare of the local communities. These expectations have been realised in no small measure during the first three plans. It is, therefore, important to ensure that public co-operation programmes receive sufficient attention during the Fourth Plan also.

28·2. Public co-operation programmes fall under the category of centrally sponsored schemes. Out of the approved outlay of 0·85 lakhs during the Third Plan, the actual expenditure was 0·66 lakhs. The provision proposed during the Fourth Plan is Rs.6 lakhs. The allocations referred to above indicate State share only.

28·3. During the Fourth Plan, the schemes under Public Co-operation programmes are:—

(i) Expansion of Lok Karya Kshetra.

(ii) Lok Karya Kshetra Nashabandi.

- (iii) Planning Forums.
- (iv) National Consumer Service.
- (v) Research, Training and Pilot Projects.
- (vi) Education and promotional work on prohibition, consolidation and expansion of the programme.
- (vii) Measures to strengthen the voluntary welfare organisations.

28.4. The main aim of the Lok Karya Kshetra programme is to supplement the official effort in organising extension work through voluntary organisations, educational institutions and other non-official agencies. The Planning forum is a popular programme which aims at creating plan consciousness among teachers and students and plays an effective role in the development and construction work. The National Consumer Service aims at protecting the interests of the consumers. In the conditions concomitant to a developing economy, the National Consumer Service has an important role. Under Research, Training and Pilot Project programme, it is proposed to send study teams to different places, publish plan-publicity materials and start a research cell in the Directorate of Social Welfare. All these schemes were implemented in the Third Plan and will receive adequate attention during the Fourth Plan also.

28.5. The Third Plan recognised prohibition as essentially a social welfare movement and emphasised the need for organising educational work for creating strong public opinion in favour of prohibition. The scheme will be taken up as a new scheme in the Fourth Five Year Plan.

29. Statistics

29.1. The need for sufficient and firm statistical data for the purposes of planning has long since been recognised. The statistical machinery of the State Government as a whole comprises the centralized department of statistics as also the statistical cells in various departments that are now in the process of development. The expenditure under the head 'Statistics' in the Third Plan was Rs.14 lakhs. The outlay now proposed in the Fourth plan is Rs.35 lakhs.

29.2. In the Fourth Plan the works undertaken or initiated earlier will continue and will be expanded. New work programmes have also been drawn up in the light of the needs felt in course of the implementation of the Third Plan, as also to meet other current demands for statistics. Essentially the schemes are designed to strengthen the State statistical machinery to enable it to meet the demands of operational statistics as well as of analytical research on the various social and economic aspects of the State.

29.3. Agricultural statistics, like land utilization statistics, are sought to be improved through increased supervision directly by the statistical organisation. Their coverage is to be extended to the hill districts by making use of the village level agency of the Community Development Blocks for the purpose of collection. Crop cutting experiments will cover a large number of crops so as to obtain better estimates of the more important crops

grown in the State and to lay the foundation for estimation on Community Develo‍pment Block-wise basis. Work relating to statistics of improved agricultural practices, livestock, fisheries, housing, demography and irrigation will be organized. In order to improve reliability of statistics maintained by various Government departments, what may be termed 'Statistical audit' is to be carried out periodically to check-up in detail the authenticity of figures reported by administrative agencies and also to help them evolving rational procedures for maintaining various statistics. The processes of tabulation and publication will also be geared up to keep in line with other schemes and to ensure smooth progress of work at all stages.

30. Publicity

30.1. The schemes under publicity normally aim at keeping the people informed of plan achievements and providing an opportunity to develop and enhance their cultural talents. Recent events on the wake of the emergency have, however, necessitated an orientation of the various media of publicity to meet the urgent needs arising from these developments.

30.2. In the Third Plan, few cultural shows were presented and a few exhibitions (including "To meet the Challenge") were organised. Publications on important subjects such as "Jawaharlal Nehru in Assam," "Assam on 15th August," "Vanamohatsova," "Teachers' Day" and "Wild Life," as also emergency publications, were brought out. Three documentary films (*viz.*, Assam Silk, Forest Wealth and Paddy Procurement) were also produced. From now onwards publicity is proposed to be stepped up considerably for obvious reasons. New schemes, to fill these gaps will be taken up in the Fourth Plan, besides completing the half finished schemes and strengthening the existing set up.

30.3. The role of audio-visual publicity need not be re-emphasized in the context of recent developments. The film studio that has already been started will be completed in the Fourth Plan. Early completion would bring some revenue from private producers hiring it. The schemes of exhibition, publication and distribution of literature, rural broadcasting and radio forum, press tour, etc., which were started earlier will continue and be intensified. The new schemes include opening of information centres at subdivisional level, publication of bulletins from each district, establishment of a Second Central Information Centre at Gauhati and installation of fixed loud-speaker systems in important towns.

30.4. Beside completing the film studio, the work programme for the Fourth Plan includes production of documentaries, holding of exhibitions of various kinds, installation of radio sets, staging of cultural shows and production and distribution of posters, pamphlets, leaflets and folders.

30.5. A provision of Rs.60 lakhs has been made for all these schemes in the Plan. The Third Plan expenditure was Rs.23 lakhs.

31. Aid to Local Bodies

31.1. The programme of local bodies consists of developing their productive resources like improvement and opening of markets, distribution of water-supply, roads, improvement of sanitation and other services, development of parks and beautification of towns which go to enhance the amenities for the public. The programme of assisting the local authorities in these fields which has been in existence in the preceding plans will be continued in the Fourth Plan as well. The outlay proposed under this head is Rs.388 lakhs as against an expenditure of Rs.106 lakhs in the Third Plan.

CHAPTER V

DEVELOPMENT OF BACKWARD AREAS:

1. The Hill districts of Assam, which are generally held to be backward, constitute 47 per cent of the area of the State. There are, however, pockets inhabited by Plains tribals and other backward groups in the Plains areas of the State also. In this context the development of backward areas constitutes an important aspect of the development programmes for the State. With a view to tackling the problem of development of such areas, the first step necessary is to locate them and identify their problems. This matter has been engaging the attention of the State Government for some time past and the following surveys and studies have been undertaken in this regard.

(1) In view of paucity of data relating to the economy of the Hill districts a series of special surveys of these districts were undertaken in the Third Plan period.

(2) At the request of the State Government, a Joint Centre-State Study Team under the Chairmanship of Shri Tarlok Singh, Member, Planning Commission, conducted a special study of the problems of the hill areas during the early part of 1966. Its report contains valuable recommendations and guidelines for undertaking future development in these areas.

(3) District-wise indicators of regional development have been prepared as suggested by the Planning Commission. These indicators also throw out important data regarding the comparative backwardness of the various areas of the State.

(4) Recently a Block-wise survey was undertaken through Block Development Officers with a view to locating the backward pockets inhabited by Scheduled Tribes in the Community Development Blocks of the Plains districts.

(5) The study of the impact of planned programmes initiated by the Planning Commission has made available considerable data relating to the level of development in respect of Agriculture, Irrigation, Education, Health, Drinking water facilities, Communications, etc. Steps have been taken to have further break-up of these data district-wise. Some of the data, particularly data relating to the social services, have also been obtained block-wise. These data, supplemented by information obtained through Block services and Village index cards, will make it possible to identify the backward districts/subdivisions/Blocks/groups of villages etc.

(6) An *ad-hoc* survey was undertaken to study the Socio-economic condition of the Chawdang community living in the Jorhat Sub-division of Sibsagar District, which is recognised to be an extremely backward community.

2. It is proposed to continue the programme of locating and identifying backward areas through socio-economic surveys to be conducted by the recently set up Tribal Research Institute. On the basis of these surveys, it is seen that, besides the hill districts, there are a large number of pockets in the plains areas also which are inhabited by extremely backward

groups. A list of Backward Areas is attached at Appendix 'B'. This list is merely illustrative and not exhaustive and enumerates some of the areas mainly inhabited by the Plains tribal population. The level of development in the backward areas in the Hills and Plains has lagged behind due to lack of proper communications, educational and health facilities and provision of potable water.

3. Proposed measures for tackling the problems of Backward areas.—While preparing the Block and Subdivisional Plans, the problem of Backward Areas is being borne in mind and special efforts are being made to wipe out the backlog in the level of development in these areas. While drawing up of these plans an effort is being made to ensure that the backward areas and groups of people derive the maximum benefit of the plans especially in the spheres through which they could be helped most, *e. g.*, development of animal husbandry and poultry, fisheries, etc.

4. But the nature and gravity of the problem of the development of Backward Areas is such that it would not be possible to meet the requirements fully through the measures indicated above. These areas require special treatment which cannot be ensured through the local plans alone. Hence the Fourth Plan of the State provides for undertaking special programmes of development in such areas. Special integrated development programmes are proposed to be undertaken in the Hill districts in general, considering their comparative backwardness. The integrated plan provides for all round development of the Backward hill districts and are expected to remove substantially the backlog in the level of development in these areas. A separate chapter has been included for the integrated plan for the Hill areas.

5. Apart from the hill districts, programmes have to be undertaken for development of the Backward Areas of the Plains districts. For achieving this objective, the general programmes of development is supplemented by funds specially made available under the programmes for Backward Areas. In the Fourth Plan the outlay proposed for the Welfare of Backward Classes (under Art 275) is Rs. 20 crores as against the corresponding provision of Rs. 10.30 crores in the Third Plan. Annexure I gives an outline of the schemes proposed to be undertaken for the Welfare of Backward Classes under the provision of Art, 275. These schemes are independent of the schemes undertaken under the general outlay and the special integrated plan for hill areas.

6. The priorities in regard to the development of Backward Areas have been determined in the light of the data collected through the surveys indicated in the foregoing paragraphs. Particular emphasis has been placed on the development of communications and transport. A composite programme for development of agriculture in these areas by reclamation and terracing of hills and through soil conservation measures and introduction of suitable cash crops is being undertaken.

The grant of free-ships and scholarships and the programme for provincialisation and upgrading of schools is being taken up with a view to removing the backlog in the educational development of these areas. The organisation of co-operatives with a view to arranging marketing of the

produce of the Backward Areas and making available credit for productive purposes is another important aspect of the programme. Due emphasis is also being given to imparting training and the setting up of cottage industries, crafts, etc. in these areas.

7. The problem of improving the present arrangements in regard to the implementation of development programmes in the Hill areas and Backward Areas with a view to achieving better coordination is also engaging the attention of the State Government. It is proposed to set up a State level Development Board and Development Committees for the Hill Districts and subdivisions and to make the Tribal Areas and Welfare of Backward Classes Department solely responsible for implementation of the plans in the Hill districts as well as the Plans in other areas relating to the Welfare of Backward Classes. These measures will go a long way towards achieving the required integrated and co-ordinated approach for tackling the problems of backward areas in the State.

ANNEXURE I

**Brief note on the achievements under the Third Five Year Plan
and the main features of the Fourth Five Year
Plan under the Welfare of Backward
Classes Sector**

(Article 275)

1. *Programme and achievements under Third Five Year Plan.*—The total approved outlay for the Welfare of Backward Classes during the Third Five Year Plan was Rs.1030 lakhs. The actual expenditure incurred during the Third Plan period was Rs. 955.23 lakhs. The percentage of expenditure comes to 92.71. The following table would indicate the expenditure in regard to the various sectors of the programme for the Welfare of Backward Classes.

Category	Total outlay (lakhs) Rs.	Expenditure (Rs. lakhs)	Percentage of total expenditure to total outlay
(1) Scheduled Tribes (Hills)	710.00	668.45	94.08
(2) Scheduled Tribes (Plains)	225.00	199.14	97.35
(3) Scheduled Castes	60.00	52.64	86.56
(4) Other Backward Classes	35.00	35.00	100.00
Total ...	1030.00	955.23	92.71

An attempt is being made to remove the causes for shortcomings by recruitment and training of suitable personnel, elimination of bottlenecks for the effective implementation of schemes, etc.

2. *Main achievements under Third Five Year Plan.*—The main schemes implemented during the Third Plan period under the Hill sector of the programme were the various measures taken in regard to soil conservation and regeneration of forests and improvements of communications in the Hill Areas. Water supply schemes were taken up at Diphu, Aijal, Jowai and Lungleh, besides the completion of smaller water-supply schemes in the interior areas of the Hill districts. Under the Health programme, 13 new dispensaries were opened. The programme for expansion for general and technical education in the Hill Areas was continued by grant of free-ships and scholarships as well as by provincialisation of schools. A raining-cum-production centre and two handloom production centres for training in sericulture and weaving were set up during the Plan period,

In the Plains tribal sector of the programme, free-ships and scholarships were continued for students from the Plains tribal communities with a view to facilitating expansion of education among them. Schemes for improvement of Boro paddy cultivation were taken up under the Agriculture sector. The other important schemes completed in this sector include the setting up of veterinary dispensaries, construction of roads in the areas predominantly inhabited by the Plains tribals and starting of rural water-supply schemes on self-help basis in such areas. For the expansion of cottage industries among the Plains tribals, 3 sericulture and handloom production centres were set up and one production centre for cottage industries was established. A special scheme for rehabilitation of flood and erosion affected Plains tribal families is being implemented in the Desoi Valley Forest Reserve in Sibsagar District. The scheme has spilled over to the Fourth Five Year Plan.

The programme for the Welfare of Scheduled Castes was also implemented on similar lines. Besides the grant of free-ships and scholarships to students drawn from Scheduled Castes, these schemes include the setting up of a production centre for leather goods at Badarpur and extension of help for improvement of looms and other assistance for weavers. Schemes for improving rural water-supply and financial assistance for housing were also undertaken. Scholarships and free-ships were given to members of the Other Backward Classes also.

3. *Programme for the Fourth Five Year Plan.*—The Fourth Five Year Plan for the Welfare of Backward Classes has been drawn up taking into consideration the following guidelines:—

(i) *Hill Areas.*—In the case of Hill areas, the funds provided under this programme are supplementary to the funds provided under the General Plan for the Hill Areas. This Plan has been drawn up according to the guidelines laid down by the Joint Centre-State Study Team for the Hill Areas and is outlined in Annexure II.

(ii) *Plains Tribals.*—The main line on which the programme for Plains tribals is being planned is the “area development approach” by aiming at integrated development of particular pockets and pockets of tribal population. The schemes drawn up aim at integrated development of the Plains tribal community by provision of educational facilities, training in crafts and cottage industries, sericulture and weaving and taking up of improved agricultural practices by supply of subsidised agricultural implements, bullocks, etc. The other schemes included in the programme relate to development of communications in the interior areas and organisation and strengthening of co-operative societies of Plains tribals. The improvement of rural water-supply as well as health measures, e.g., anti-leprosy work, also find place in the programme under this sector.

(iii) *Scheduled Castes.*—The main schemes taken-up for the Welfare of Scheduled Castes relate to grant of free-ships and scholarships to Scheduled Castes students and imparting of training in various crafts to candidates from the Scheduled Castes.

It is proposed to grant stipends for training in crafts and various cottage industries and sericulture and weaving. The programme also provides for taking up of rural water supply schemes and housing schemes for sweepers and other more backward Scheduled Castes people.

(iv) *Grants-in-aid to District Councils.*—The District Councils being autonomous bodies in the Hill Areas, with a statutory status and functions vested in them under the Sixth Schedule of the Constitution of India, form the main pivot for developmental activity in the Hill Areas. With a view to enabling them to discharge their proper role adequately in the developmental sphere, extension of financial assistance is necessary. The main purposes for which financial assistance are necessary are briefly indicated below:—

(a) *Re-organisation and strengthening of their administrative set-up.*—It is necessary to assist the District Councils in strengthening their staff for taking up developmental activity on proper lines.

(b) *Assistance for taking up schemes for improving financial resources.*—The existing resources of the District Councils and reimbursements from the State Government in regard to various taxes, etc., are inelastic and there is no likelihood of their improving substantially in the near future. With a view to obviating these difficulties, it is proposed that the District Councils may take such productive business or other enterprises as may improve their financial resources, e. g., running of transport services, organisation of industrial enterprises, building up of markets, etc.

(c) *Assistance for regrouping of villages and settling of jhumias.*—With a view to regrouping the existing inhabited areas of tribals into bigger villages the District Councils propose to take up schemes for regrouping of villages and forming of bigger villages of at least 50 families each where proper development for providing basic amenities e. g., roads, drinking water, etc., can be undertaken.

(d) *Grants for financing of other schemes of the District Councils.*—The schemes falling in this category are provision of water-supply, rural communications, self-help schemes, regeneration of District Councils' forests and expansion of primary education. Besides this, it would be helpful to give financial assistance to the District Councils for acquisition of intermediary rights over land with a view to improving the land-tenure system in the Hill Areas. Assistance has also to be extended to the District Councils for improvement and expansion of primary educational institutions which have been transferred to the District Councils.

CHAPTER VI

INTEGRATED DEVELOPMENT PLAN FOR THE HILL AREAS**1. Introduction**

1. The total area of the hill districts of Assam comprising of the four autonomous districts of Garo Hills, United Khasi-Jaintia Hills, Mizo Hills and United Mikir and North Cachar Hills is 22732 square miles out of the total area of 47091 square miles of the State as a whole. The total population of the hill districts according to the 1961 census is 13,15,169 as against the total population of 1,18,72,772 for the whole State. Although the hill districts cover nearly half the total area of the State, they contain only about 11 per cent of the total population.

2. In planning for the economic development of the hill areas of Assam, the size and nature of the problem at once strike attention. There are five distinct and important factors which will influence development plans in the hill areas. First come the geography, terrain, topography and the resources dictated by nature. Next come the people, their occupation, their skills, their social structure, land tenure system and other such aspects. Next to geography and the people, the aspect which strikes most is that of transport and communications. The fourth aspect is marketing and outlet. Lastly, in these areas it is not possible to even think of the problem of development without realising at once that these areas are generally deficit in food.

3. In the period of the first three plans the hill areas of Assam also progressed to a considerable extent with the rest of the State, but the task of economic development of the hill areas is a stupendous undertaking and all that has been done in the past fifteen years has not yet radically and vitally effected the economic condition of the hill areas. It is in this realisation that the Government of India and the Government of Assam constituted a study team headed by Shri Tarlok Singh, Member, Planning Commission, towards the end of the Third Plan. This Joint Centre-State Study Team visited the hill districts of Assam and offered tentative suggestions for detailed planning for the hill areas. After the detailed plans were prepared, the Government of India and the Planning Commission were again consulted and the plans were reviewed. In preparing the integrated hill plan, the study team kept the following objects especially in view:—

- (1) Communications should be given the topmost priority, as no other aspect of development can be undertaken successfully without proper communications.
- (2) In developing the agricultural economy of the hill areas, a comprehensive and integrated approach to forests, soil conservation and agriculture should be attempted.
- (3) The sparsely populated, small and scattered villages should be regrouped into bigger villages in selected areas so that the basic amenities like water supply, education, health services, etc., can be quickly made available to them.

4. The total outlay proposed in the integrated plan for the hill districts of Assam is Rs.70.5 crores, of which a provision of Rs.50 crores has been made in the State Fourth Plan. This amount is distributed between the different sectors as follows :—

	In crores.
(1) Agricultural programme	10.70
(2) Co-operation and Community Development ...	3.37
(3) Irrigation and Power	2.10
(4) Industries	0.30
(5) Transport and Communication	18.35
(6) Social Service	12.35
(7) Miscellaneous	2.83
Total ...	50.00

Detailed break-up between heads of development departments is shown in Statement I at the end of this Plan outline.

These proposals do not include provision for power generating installation, for large irrigation projects, for major industries and for other State level schemes.

2. Agriculture Sector

5. In developing agriculture in the Hill Areas a comprehensive and integrated approach to forests, soil conservation and agriculture will be attempted. Areas will have to be carefully selected for adopting this integrated approach. The progress of some of these areas will also depend on minor irrigation scheme and schemes for consolidating tiny isolated hamlets into villages with a fair number of households. This approach envisages: (1) Rational land use survey in selected areas in each district, which should be quick and action-oriented, with a view to marking out lands suitable for forestry, jhum, pasture and agricultural and horticultural crops. The survey will indicate measures required for valley areas as well as for areas under slopes. (2) Re-organisation of the agricultural economy through taking up of suitable development programmes, under forests, agriculture, soil conservation and animal husbandry and fishery. Co-operatives will serve four main objectives, namely credit, marketing, supplies of agricultural inputs and supplies of food and essential consumer goods.

6. The problems of the border areas adjoining Khasi and Jaintia Hills and Garo Hills are considered essentially to be three—(1) to secure market outlets for oranges, pineapples and other horticultural produce, (2) to take measures to prevent spread of disease in existing horticultural

crops, and (3) to introduce new cash crops. The team suggested dealing with the first problem by providing for strengthening and organisation of marketing and transport facilities, including some subsidy on transport. To deal with the second problem, the recommendation is to set up an experimental farm in the region of Cherrapunji so that the problems which have come to the fore can be settled with the help of technical experts. To deal with the third problem, the suggestion is to set up a Cash Crops Development Corporation.

7. The integrated Hill Plan for the Agricultural Sector has been formulated on the basis of the above guidelines. The Fourth Plan proposals under different departments are indicated below :

1. Agricultural Production

- (1) Land use survey: Each district will have a team of Officers for Agriculture, Forestry, Soil Conservation and Animal Husbandry to undertake land use survey on a continuous basis.
- (2) District Agricultural Experimental Farms—one in each District.
- (3) Seed Farms (including a large sized farm in Mikir Hills, Potato Seed Farms in United Khasi and Jaintia Hills and Mizo Hills, and Seed Farms in Development areas).
- (4) Progeny orchard-cum-nurseries (Eight orchards and 30 nurseries).
- (5) Research Station for Maize (one each in Khasi and Jaintia Hills and Garo Hills).
- (6) Bee Research Station.
- (7) Agricultural Staff and Extension Training. (Re-organisation of staff and strengthening at all levels, organisation of farmers training and improvement of the only G. S. T. C. in Hill Areas).
- (8) Land Reclamation.
- (9) Supplies of Agricultural inputs—
 - (a) Seed multiplication through registered growers providing premium and distribution of seeds and planting materials, with subsidy where necessary.
 - (b) Fertilizer supplies including transport subsidy and subsidy on lime.
- (10) Plant Protection.
- (11) Improved Implements and Agricultural Workshops (5 workshops, one in each of the Hill Districts, plus one for North Cachar Hills; implements will be supplied on subsidy and machineries on hire-purchase system).

- (12) Godowns (for seeds and fertilizers at district, subdivision and block levels).
 (13) Demonstration plots in farmers fields.
 (14) Cash Crop Development Corporation.

(15) Land Records and Village Revenue administration (under District Councils for building up an adequate system of land records and revenue collections).

The total outlay envisaged for the above programmes for agricultural production is Rs.400 lakhs during the Fourth Plan period.

3. Minor Irrigation

8. In the Third Plan nine irrigation schemes were taken up by the P.W.D. (Flood Control and Irrigation Wing) at a total estimated cost of Rs.37.52 lakhs and with an estimated gross command area of 8,265 acres. Achievement in the Third Plan was 4,140 acres of irrigation area.

9. During the Fourth Plan it is proposed to execute 31 new irrigation projects in the Hill Districts, 8 in Khasi and Jaintia Hills, 14 in Mikir and North Cachar Hills, 9 in Garo Hills. Schemes for Mizo Hills will be formulated after proper survey. A provision of Rs.25 lakhs has been provided for schemes in this district. These projects will create an irrigation potential for 42 thousand acres (gross) during the Fourth Plan period, with a spill-over of 12 thousand acres in the Fifth Plan. The estimated cost for these projects is Rs.159.26 lakhs. Besides this, there is a spill-over of Rs.15.11 lakhs from the Third Plan which will irrigate 4,125 acres. The total outlay proposed for the Fourth Plan for Minor Irrigation under P.W.D. (Flood Control and Irrigation Wing) is Rs.120 lakhs.

10. The programme for the Fourth Plan stands as follows:—

Type of Schemes	Estimated amount (Rs. lakhs)	Estimated com- mand area (gross) in acres.	Outlay for the Fourth Plan, (Rs. lakhs)	Programme achie- vement in the Fourth Plan (gross) acres.
(1)	(2)	(3)	(4)	(5)
Spill-over Schemes	15.11	4,125	15.11	4,125
New Schemes	159.26	53,040	104.89	41,840
Total ..	174.37	57,165	120.00	45,965

11. Minor Irrigation projects under the Agriculture Department envisage a total irrigation of 50,000 acres—17,000 acres in Khasi and Jaintia Hills, 15,000 acres in Garo Hills, 10,000 acres in Mikir and North Cachar Hills and 8,000 acres in Mizo Hills. These schemes will form part of the Block programme to be executed at the local level. These projects will have 40 per cent subsidy on earth works and 90 per cent subsidy on cement concrete head works. An outlay of Rs.60 lakhs is proposed for the Fourth Plan.

4. Soil Conservation

12. Adoption of Soil Conservation measures provides the main-stay for development of stable agriculture in the hills. Programmes of Soil Conservation in the Hill Areas during the Fourth Plan period will be for afforestation in abandoned jhums and catchment areas, land development works consisting of terracing, contour-bunding, water spreading, etc., development of cash crops like cashew, coffee, para-rubber, arecanut, etc., in slopes too steep for terracing and yet too good for forestry purpose, and fodder development to prevent uncontrolled burning of forests by professional graziers. Establishment of a Regional Research Station with sub-stations will receive special emphasis during the plan period with a view to evolve suitable techniques. Personnel needed have also to be built up and trained.

13. Programme-wise break up of an outlay of Rs.220 lakhs proposed for the Fourth Plan, is as follows:—

	(Rs. lakhs)
1. Land development including terracing, contour bunding, water spreading.	40.00
2. Demonstration and extension for terracing and otherwise developed lands for settled cultivation.	7.00
3 Afforestation 	19.98
4. Research and experimental works 	24.00
5. Introduction and development of cash crops ...	19.80
6. Pasture development 	15.00
7. Technical and administrative organisation including buildings.	56.49
8. Training programmes 	3.60
9. Soil conservation survey 	5.00
10. Plants, tools and stores 	29.73
	220.00

5. Forests

14. During the Third Plan period, only the Reserve Forests were under the direct control and supervision of the State Forest Department for maintenance and development. The major forest area of the Autonomous Hill Districts were under the control of the District Councils. The Centre State Study Team felt that there should be an integrated approach to forest development over all the Hill Districts, with the co-ordinated effort of the State Department of Forest and the District Councils, with a view to have a check on the denudation of unclassified forests and to develop more areas under Reserve Forest in the forest areas under District Councils. With this end in view, it is proposed to have, besides the usual forestry programme of the State Forest Department, in the reserve forests of the Hill

Districts, a programme under which adequate funds and technical staff will be placed at the disposal of the District Councils for development of the Forest under their control on more scientific lines. The technical staff placed under the District Councils will work under the technical supervision of the Chief Conservator of the State. The District Councils will be required to take up progressively areas for afforestation and creation of reserve forests. This will on the one hand enhance the revenue of the District Councils and on the other hand ensure the adequate forest coverage so much needed for prevention of soil erosion, protection of water sources and catchment areas and maintenance of proper climatic conditions. Forestry programmes for the Fourth Plan are therefore worked out on two sectors—(1) District Council Sector and (2) State Forest Department Sector. It is envisaged that a Conservator of Forests may be appointed for the hill region and programmes for District Council forests will be framed and implemented under his technical guidance. The programmes aggregating to Rs.80 lakhs are as follows:—

A. Programmes under District Council Sector

	(Rs. lakhs)
1. Reservation	5.00
2. Plantation	13.50
3. Communication	6.00
4. Staff (including training)	18.00
5. Buildings	3.50
6. Stores (Implements, Tools, Stationery, furniture, vehicle, etc.)	2.00
	<hr/>
	48.00
	<hr/>

B. Programmes under State Forest Department for Reserve Forests in the Hill Areas

1. Plantation	12.00
2. Communication	10.00
3. Consolidation of forests	1.80
4. Planning Cell including publicity	1.70
5. Supervisory staff (C. F. and his staff)	4.50
6. Buildings	1.00
7. Stores	1.00
	<hr/>
	32.00
	<hr/>

Total of (A) and (B) ... Rs. 80.00 lakhs.

6. Animal Husbandry and Dairying

15. Livestock and Poultry Development is of great importance in the hill areas to regenerate rural economy. The hill areas offer great potentiality in the development of animal husbandry and dairy in-as-much as these areas have abundance of green foliage and a small population. Tribal people are also free from prejudices over rearing and slaughtering livestock and birds. As such, rearing of pigs and poultry as well as disposal of useless cattle is not a problem in the hill areas. Production of milk is also found in some areas where marketing and other facilities are available. Meat is available mainly from cattle and pigs.

16. During the Third Plan, though emphasis was laid on the programmes of livestock development, development of veterinary facility, sheep, goat, poultry and piggery development, all this touched only the fringe of the gigantic task of all round development in the sphere of animal husbandry and dairying in the hill areas, considering its potentiality. In the Fourth Plan, the main task will be to improve livestock and birds by rearing pedigree stock in the farms and distributing to local rearers. This will meet the local dietary requirement and at the same time strengthen the economy of the hill people. As improvement of cattle by natural breeding will require a large number of bulls, it is proposed to set up one semen bank in Khasi and Jainta Hills District and intensify artificial insemination where by atleast 20 per cent of the requirement of breeding bulls will be eliminated. Distribution of breeding bulls will be done through blocks and departmental agency. Artificial insemination is also proposed to be taken up for goats. Breeding stock requirement of 25 per cent of cattle which is in marginal production can be met within the Fourth Plan. It is proposed to establish two livestock farms and also to improve the existing ones in order to meet the requirement of pedigree stocks.

17. Diseases like anthrax, humpsore, ranikhet, etc., which are giving rise to heavy mortality will be controlled through an increased number of veterinary dispensaries, first aid-centres and mobile veterinary dispensaries. Twelve Veterinary dispensaries and twenty first-aid-centres are proposed for the Fourth Plan.

18. Along with better breeding and disease control measures, it is proposed to have better feeding programmes through development of pastures by introduction of exotic grasses and conserving surplus fodder in the form of hay and silage. Two fodder development centres will be established.

19. Town milk supply scheme started in the Third Plan will be continued in the Fourth Plan along with Rural Dairy Extension Centres. About 4,500 litres of milk are proposed to be distributed daily by the end of the Fourth Plan. There are some large milk pockets in the interior areas where creameries and ghee-making centres are proposed to be established.

20. For poultry and piggery development, exotic birds and pigs will be distributed at subsidised rates. It is also proposed to establish new poultry and pig farms and improve the existing ones to meet the requirement of exotic stocks.

21. Research and training of personnel will receive the emphasis keeping in view the shortage of veterinary staff in the Hill Areas. Stipends to Hill tribals will be offered. The Department requires 100 veterinary graduates by the end of the Fourth Plan, of which there are at present only 30. Thus 70 veterinary graduates are to be produced for the Hill Areas in the course of the Fourth Plan.

22. The programme-wise break-up of the outlay of Rs. 170 lakhs for the Fourth Plan is given below:—

Programmes	(Rs. lakhs)
1. Development of Veterinary facilities	21.00
2. Cattle development	33.65
3. Poultry development	35.30
4. Piggery development	18.70
5. Sheep and goat development	5.00
6. Feed and fodder development	9.50
7. Administration, education, training and research ...	7.85
8. Dairy development including creamery and ghee-making centres.	39.00
	170.00

7. Fisheries

23. Hill Areas offer scope for development of fisheries in the beels, reservoirs and hill streams. A beginning has been made in this direction during the Third Plan period. During the Fourth Plan schemes will be taken up in the form of improvement of existing fish farms and development of fisheries in reservoirs and beels. Development of hill stream fisheries will also be taken up. Training and survey will receive special emphasis. Assistance to private pisciculturists will continue. The programme-wise break up of the outlay of Rs.20 lakhs proposed for the Fourth Plan is as follows:—

	(Rs. lakhs.)
1. Administration	1.75
2. Training and survey	2.30
3. Fish seed production and departmental fish farming	6.00
4. Assistance to fishery co-operative societies and private pisciculturists.	3.95
5. Development of Hills stream fisheries	1.50
6. Development of beel and reservoir fisheries	4.50
Total	20.00

8. Co-operation

24. In the Hill Areas, there is no surplus foodgrain production to enter into the whole-sale markets. But all the hills have some commercial crops, e.g., the United Khasi and Jaintia Hills have oranges, pineapples, tezpata, arecanut, bettle-leaf, black-pepper and potatoes, the Mikir and North Cachar Hills and Garo Hills have cotton and mustard seed and the Mizo Hills have ginger which are generally sold in small lots to individual traders in 'hats', while only a small quantity is handled by co-operatives. In these areas, middlemen and money lenders usually advance money against crops and keep a large margin of profit for themselves. Density of population in these areas is very low, ranging from 33 to 99 per square mile and distances from villages vary from 5 to 10 miles. In view of this, 'hat' areas as a unit of co-operatives is not a suitable proposition. In the present stage of development, the hill people will be served effectively if their commercial crops can be marketed to their best advantage and if their requirements of food and essential commodities such as salt, kerosene, oil, sugar, etc., can be met, and, where condition demands, they are supplied with agricultural inputs and credit. Co-operative societies can serve this purpose best. Co-operative activities can best be built up through marketing societies with every village as a unit of co-operative activity.

25. During the Third Plan, the number of Primary agricultural credit societies organised was 399 with a membership of 16000. Short and medium term loans, advanced at the end of the Plan was Rs.1.20 lakhs. Rural godowns established were 10, and primary marketing co-operative societies organised were 67.

26. In view of the extremely meagre development in the past, development of co-operative structure in the hill region has to be somewhat exploratory. It is envisaged that a Co-operative Development Society will be established to serve the hill areas as a whole, specially in marketing and distribution of supplies.

In every development area, there will be one or two viable marketing societies, which will affiliate only the village service societies as members. In each district there should be one District Marketing Society or, in the absence of this, a branch of the Co-operative Development Society. The primary marketing societies will aim at converting themselves into branches of area marketing societies and till that is done, these will continue as members of the latter society. On the side of credit, area marketing societies will also supply credit to the village societies in addition to supply of agricultural inputs required. Other schemes in the co-operative sector proposed for the Fourth Plan include setting up of a cold storage plant, labour co-operatives, co-operative farming, etc. An outlay of Rs. 80 lakhs is proposed for the Fourth Plan.

9. Community Development

27. There are altogether 42 Development Blocks in the hill areas. 13 of these blocks are in the K. and J. Hills, 11 in Garo Hills, and 9 each in the Mizo and the Mikir and North Cachar Hills. In view of the small impact made so far by the programme in the hill areas,

the programme in the Fourth Plan will be re-organized substantially to ensure more intensified effort in different development areas of the hill region. The basic objective, however, remains the same, that is, to provide increasingly to the hill people the opportunity for development along the lines of their own genius, with respect and support for their own traditional arts and culture and without pressure and imposition from outside.

28. In the re-organized programme, all the blocks in existence will continue and 12 new blocks and one sub-block will be opened to fully cover the hill areas. All blocks, new and existing, will be treated as State I blocks starting from the beginning of the Fourth Plan. The area and population of each block will also be re-adjusted as to make it a more viable unit developmentally and otherwise. Under the re-organized programme, each C. D. block will be a Tribal Development Block. A block will have a budget of Rs. 17.60 lakhs for five years, and of this, Rs. 7.60 lakhs will come from the Ministry of C. D. and Rs. 10.00 lakhs from the Ministry of Home Affairs. In addition, each newly started block will receive Rs. 1.70 lakhs for office buildings and staff quarters, while a sub-block will receive Rs. 0.60 lakhs for this purpose. The re-organized programme will involve an outlay of Rs. 257 lakhs in the State Plan and it is expected that another Rs. 640 lakhs will be provided in the Central Government sector.

29. The programme in the hill areas lays special emphasis on the agriculture and communications, but the other aspects of the rural economy, namely, irrigation and reclamation, livestock, fishery, forestry and soil conservation, rural arts and crafts, co-operation, health, water-supply and sanitation, education and housing will also be adequately taken care of under the programme. For all round and intensive community development in the hill areas an endeavour will be made to recruit and train-up personnel as will constitute a cadre of dedicated workers.

10. Medium Irrigation

30. In the Third Five Year Plan, only the "Patradisha Irrigation Scheme" was taken up for execution at an estimated cost of Rs. 20.20 lakhs. Expenditure in the Third Plan was Rs. 4.26 lakhs with a spillover of Rs. 15.90 lakhs in the Fourth Plan. No benefit could, therefore, be derived from this scheme during the Third Plan. Full benefit of this scheme is likely to be achieved in the Fourth Plan. The estimated commanded area (gross) is 6000 acres.

31. A new scheme named "Harguti Irrigation Scheme" at an estimated cost of Rs. 40 lakhs, is proposed to be taken up in the North Cachar and Mikir Hills and practically completed by the end of the Fourth Plan. From this scheme, a benefit of 8000 acres (gross) is likely to be achieved.

32. A total outlay of Rs. 40 lakhs has been proposed for expenditure on the above two schemes in the hill areas during the Fourth Plan,

11. Power

33. The power schemes in Assam are treated as State level schemes. However, in view of the backwardness of the hill areas in regard to power, certain power schemes as would give more direct and specific benefit to the hill people have been included in the Hill Area programme. The outlay on such schemes for a full five year period has been estimated at Rs. 213 lakhs and this amount has been adjusted to Rs. 170 lakhs for the period of the Fourth Plan. Although the schemes are included in the Hill Area programme, they will in fact constitute State level schemes. The programme for the Hill Areas in the Fourth Plan consists of the following schemes:

Scheme (1)	Total Fourth Plan		Outl for 196 67
	As originally agreed	As now adjusted	
	(2)	(3)	(4)
1. Transmission line from Badarpur to Aijal with substations.	100.00	100.00	50.00
2. Electrification of Lungleh by extension of the line from Aijal.	80.00	37.00	...
3. Extension of feeder line upto Dainadubi from the Nangalbibra-Goalpara 66 KV.D/C line.	10.00	10.00	...
4. Electrification of Diphu by drawing from Namrup grid.	16.50	16.50	...
5. Electrification of Haflong by extension of the transmission line from Badarpur.			
6. Supply of power to villages and industrial units in Khasi and Jaintia Hills lying along the main transmission lines.	6.50	6.50	...
	213.00	170.00	50.00

12. Small and Processing Industries

34. A programme for development of small industries in the Hill Areas has been drawn up in the light of the findings of the Joint Centre-State Study Team. The list of schemes given below indicates the direction in which effort will be concentrated. The programme as envisaged by the Joint-Centre State Study Team requires an outlay of Rs. 200 lakhs for full five years, of which a sum of Rs. 50 lakhs was earmarked for schemes to be included in the State Plan. For Hill Area schemes, an amount of Rs. 5.96 lakhs has already been provided in the Budget for 1966-67. In addition, the Planning Commission has also agreed to a further provision of Rs. 6 lakhs

for small industries for the current year. The total provision for the current year thus comes to Rs. 11.96 lakhs under the integrated programme. For the period of the Fourth Plan, a provision of Rs. 30 lakhs is being made in the State plan. For schemes outside the State plan, a provision of Rs. 117.50 lakhs is suggested to make up an integrated programme of Rs.147.50 lakhs in the Fourth Plan. In this revised programme the share of Mizo Hills would be Rs. 26.50 lakhs, Garo Hills Rs.22 lakhs, Mikir and North Cachar Hills Rs. 21 lakhs and Khasi and Jaintia Hills Rs. 38.50 lakhs while the common outlay for the Hill Region would be Rs. 39.50 lakhs. A comprehensive study with the help of C. S. I. O. and other agencies to establish the feasibility and economics of the schemes will be made as a prelude to implementing the schemes. The outlay programme in the Rs. 70.5 crore plan and in the Fourth Plan as now adjusted is worked out as below:—

Scheme	(Rupees in lakhs)	
	On the basis Rs.70.5 crore	As now Plan adjusted
1. Castor Seed Crushing unit in Garo hills—pill-over.	3.00	2.00
2. Lime making plant in Jaintia Hills—spillover	5.00	5.00
3. Training-cum-production centre at Lungleh—spill-over.	2.00	1.00
	<u>10.00</u>	<u>8.00</u>
4. Decorative textile production centre at Dilma in Garo Hills—pill-over.	2.00	2.00
5. Strengthening of cotton ginning factory in Garo Hills.	3.00	1.00
6. Strengthening of cotton ginning factory in Mikir Hills.	1.00	1.00
7. Saw milling, timber treatment and seasoning plant with mechanised carpentry unit in Garo Hills.	5.00	2.00
8. Saw milling, timber treatment and seasoning plant with mechanized carpentry unit in Mikir Hills.	5.00	2.00
9. Fruit preservation plant in North Cachar Hills	4.00	3.00
10. Dehydration plant for ginger in Khasi Hills ...	3.00	3.00
11. Common facility centre for blacksmithy at Myllem in Khasi Hills.	10.00	3.00
12. Industrial estate at Shillong	4.00	4.00
13. Multipurpose service workshop with a saw milling unit at Jowai.	3.00	1.00
	<u>40.00</u>	<u>22.00</u>
Total State plan (1) to (13) ...	50.00	30.00

Scheme	(Rupees in lakhs)	
	On the basis of Rs.70.5 crore Plan	as now adjusted
14. Rural Industries Project for Aijal—spillover ...	18.00	18.00
15. Rural Industries Project for Lungleh ...	10.00	7.50
16. Rural Industries Project for Garo Hills ...	20.00	15.00
17. Rural Industries Project for Mikir and North Cachar Hills.	20.00	15.00
18. Rural Industries Project for Khasi Hills ...	20.00	15.00
19. Rural Industries Project for Jaintia Hills ..	10.00	7.50
	<u>98.00</u>	<u>78.00</u>
20. Small Industries Development Corporation for Hills Areas.	30.00	22.50
21. Survey, training, grants, as loans etc. ...	10.00	8.50
22. Administrative and supervisory staff for Headquarters and districts.	12.00	8.50
	<u>52.00</u>	<u>39.50</u>
Total outside State Plan (14) to (22)	150.00	117.50
	<u>150.00</u>	<u>117.50</u>
Total Integrated Plan ...	200.00	147.50

13. Roads

35. Prior to independence, Road Communications in the Hill districts of Assam were very limited and confined mainly to some bridle paths and small mileage of motorable roads. Rail Transport was practically nil except few small length in boundary of Mikir Hills and few miles length in the North Cachar Hills. The total mileage of bridle paths and motorable roads in the four Hill districts of the State before independence were 1,912 K. M., and 685 K. M. respectively. At the end of the Third Plan period the corresponding figures are 1,733 and 4,197 K. M. respectively under P. W. D. In addition, the District Councils and the development blocks have also constructed quite a considerable kilometre of jeepable Roads and bridle paths connecting important villages and market places with the main road system. Though a considerable mileage of roads have been constructed during the period after independence, much more is yet to be done, especially in the border districts of United Khasi and Jaintia Hills, Garo Hills and Mizo Hills affected by partition.

36. The problem of Road Communications in the hill districts was discussed exhaustively during the last visit of the Centre-State Study Team. The preliminary estimates prepared on the basis of the discussions for a comprehensive net-work of Roads in each district according to the accepted standard for different classes of roads, ran to several hundred crores and is beyond the scope of one or two plan periods. Further, road

construction in the hills is difficult and requires special Tools and Plants involving foreign exchange, and scope for spending is therefore also limited. Considering these difficulties and the present stage of road development, a fresh programme has been drawn up amounting to Rs. 1715 lakhs to be executed in the Fourth Plan period. Endeavour has been made to include as many important schemes as possible on priority basis in this programme to meet the urgent needs of agriculture, trade and commerce and to provide communication facilities for the people in the border areas affected by partition. Due to limitation of funds the proper standards for different classes of roads may not be adhered to. As the intensity of traffic in the hill Districts, except in some areas of United Khasi and Jaintia Hills, is small, improvements to existing roads such as widening formation, providing bridges and culverts of higher specifications and surfacing have been cut down to bare minimum. These improvements can, of course, be carried out gradually in the subsequent plans. Feeder roads including approach roads required for connecting villages and markets etc with the P. W. D. road system should be executed by the District Councils and the Blocks under the guidance of the local P. W. D. Engineers. As funds are limited, estimates for such feeder roads will be prepared for the amount made available for each District on priority basis in consultation with the District Councils and Development Blocks after proper survey.

(1) *Spill-over schemes from Third Plan and Third Finance Commission Award.*—Rupees 500 lakhs will spill-over to the Fourth Plan in the Hill Districts out of which a sum of Rs. 200 lakhs will spill in the Mizo Hills, where a huge amount spilled over, due to disturbances against the special development programme taken up during the Third Plan and also under other programmes. For the remaining three districts Rs. 100 lakhs per district will spill-over to the Fourth Plan.

(2) *Improvement to existing P. W. D. roads including metalling and surfacing certain stretches thereof.*—Trucks cannot be plied on all the existing roads in the Hills. These roads, though classified as State Highways, Major District Roads, other District Roads and classified village roads, are far below the required standard. As it is not possible to bring all these roads to the required standard in one plan period, it is proposed to improve these roads to a certain extent by widening the formation, improving the geometrics, gravelling, reconstructing/strengthening bridges and culverts during the Fourth Plan period. It is also proposed to metal and surface certain stretches of some of the important roads where the traffic is heavy.

Along with the increase in population in the towns, vehicular traffic has also increased considerably. It is, therefore, necessary to improve some of the town roads to cater for the increased volume of traffic and provision has accordingly been made for this purpose under the scheme for improvement of town roads.

(3) *Construction of Major Bridges.*—There are a large number of unbridged gaps both on the existing roads and those proposed. As the gaps are big separate provision has been made for the construction of major bridges over them in this programme.

(4) *Construction of new Roads and Feeder Roads (Preliminary phases of State Highways, Major District Roads, Other District Roads, Classified Village Roads and Feeder Roads).*—Under this scheme, it is proposed to construct certain new lengths of roads, viz, State Highways, Major District roads, other district roads, classified Village roads and Feeder roads, which include remaining lengths of some roads taken up under previous programmes. Roads having inter-district importance connecting two or more districts have been classified as State Highways and those within the districts connecting important industrial centres and carrying heavy traffic have been classified as Major District Roads. Roads connecting industrial, commercial and agricultural centres and also important educational and cultural institutes are termed as other District Roads and roads required for connecting important villages and market places with the main road system have been termed as classified village roads and Feeder roads. The entire length of all such roads cannot be constructed in one plan period as these have to be aligned through difficult hill terrain after proper survey. It is, therefore, proposed to take up such lengths of these important roads as may be possible to construct during one plan period.

37. Out of the tentative outlay of Rs.1,715 lakhs, an amount of Rs.200 lakhs is proposed to be kept apart as a "common outlay for Hill regions". Expenditure required for additional staff including headquarter staff, their allowances, office and residential accommodation and plants and machineries is proposed to be made out of this common outlay. The balance, if any, will be distributed to different hills districts for road projects according to necessity and progress of work.

38. The detailed allocations under the different Schemes are indicated below :—

(Rupees in lakhs).

Name of State	Outlay Proposed in the Fourth Plan			
	Mizo Hills	U. K. and J. Hills	Garro Hills	N. C. and Mikir Hills
(1)	(2)	(3)	(4)	(5)
A. Spillover schemes from Third Plan programme and Third Finance Commission award including special development programme.	200.00	100.00	100.00	100.00
B. Improvement and metalling and surfacing of certain stretches of the existing important P. W. D. Roads.	75.00	170.00	115.00	77.00
C. Construction of bridges ...	29.00	7.00	60.00	15.00
D. Preliminary phases of Major district roads, State Highways and other district roads (new).	83.00	81.00	24.00	73.00
E. Public Works Department Feeder roads (new).	68.00	43.00	21.00	74.00
Total	455.00	401.00	320.00	339.00

General Abstract

Name of district	Fourth Plan outlay in lakhs
1. Mizo Hills 	455·00
2. United Khasi and Jaintia Hills 	401·00
3. North Cachar and Mikir Hills 	339·00
4. Garo Hills 	320·00
Total ..	1,515·00
Common outlay for the Hill region ..	200·00
Grand Total	1,715·00

14. ROAD TRANSPORT

39. An outlay of Rs.80 lakhs is proposed for Road Transport in the Hill areas during the Fourth Plan. Out of this, a sum of Rs. 30 lakhs has been proposed for development of road transport services organised or sponsored by District Councils and a sum of Rs.50 lakhs for subsidising road transport operations. The cost of transport in the hill districts will be brought down as far as possible by subsidising the capital cost of vehicles. Over and above this, subsidy will also be provided for transport of food grains and other essential commodities to the remoter areas. Detailed proposals have been worked out accordingly.

15. INLAND WATER TRANSPORT

40. In the Third Plan, the investigation of the Dhaleswari navigation scheme was taken up under the Special Development Programme for Mizo Hills.

41. During the Fourth Plan, it is proposed to take up the following Schemes for development of Inland Water Transport in the Mizo Hills:—

(1) *Dhaleswari-Katakhal Navigation Scheme*.—It is proposed to develop navigation on the Dhaleswari-Katakhal as a pilot project with a nucleus fleet. At the first stage, one specially designed shallow draft tug with a barge will be introduced to carry goods from Katakhal to Bhairabi. After assessing the traffic potential of the area, it can later be extended upto Sairurg (which is only 13 miles from Aijal and is connected with a motorable road), which may involve clearing of snags by blasting of rocks.

The outlay proposed for the scheme is Rs.20 lakhs.

(2) *Kolodyne navigation Scheme*:—To improve the river crossings on the river Kolodyne, three modern diesel ferry vessels will be acquired. These ferry vessels will be powered by out-board motors and will be placed at the ferry points at Darzo Ghat, Saiha and Maudvile Ghat. The introduction of such ferry vessels will improve the communication system in the Pawi-Lakher region of the Mizo Hills. The recurring cost for the operation and maintenance of these crafts has been included in the Fourth Plan. The outlay proposed for the scheme is Rs.12·50 lakhs.

(3) *Hydrographic and Traffic Survey of the river Barak*:—In order to improve the communication system between the Cachar and Mizo Hills district, it is proposed to improve the navigability of the Barak river for which Hydrographic and Traffic Survey are essential. The outlay proposed for the scheme is Rs.0.50 lakhs.

(4) *Establishment of a subdivision in the Mizo Hills*:—A subdivision for execution of all works in the Mizo Hills is necessary. The outlay proposed for the scheme is Rs.7 lakhs.

42. A total provision of Rs.40 lakhs has been made for development of Inland Water Transport in the Hill Areas of Assam during the Fourth Plan.

16 General Education

43. In the field of education, there are certain special problems in the Hill Areas. Although the percentage of enrolment in the primary stage is satisfactory, at the Middle and Secondary stages it is much below the State average. To improve the situation, it is necessary to start Government middle and high schools and also to give liberal assistance to private schools for construction of schools and hostel buildings. Subsidised hostel facilities will go a long way to improve the situation.

44. Lack of school buildings is a major problem which has hampered the expansion of educational facilities in the Hill Areas. Greater financial assistance is, therefore, necessary for this purpose

45. There is a considerable shortage of qualified teachers in the Hill Areas. It is necessary to provide further educational and professional training to such teachers. In the Middle stage, most of the teachers are matriculates. In their cases, it is necessary to give 3 years' intensive training. For high schools, local teachers can be found only, if there are training facilities available in each district. The teacher-pupil *ratio* should also be satisfactory and there should be provision for teachers' quarters especially in difficult areas.

46. For qualitative improvement, model Primary schools will be established in the Fourth Plan. To attract teachers in the interior areas, staff quarters will be provided at the Middle and Secondary stages, subject to financial limitations. To wipe out the shortage in enrolment, central residential schools located at suitable places will be established at the Middle and Secondary stages. The boarding expenses of the pupils will be subsidised by the Government. Special attention will be given to strengthen facilities for teaching of science and mathematics at the Secondary stage. In order to give a vocational bias, it is proposed to introduce subjects like agricultural gardening, horticulture, bee keeping, etc., in as many schools as possible. Under Social Education, the library system in the rural areas will be greatly improved. This will improve the development of literacy in the Hill Areas. Adequate financial assistance will be given to authors for providing various types of reading material. Attention has also been given to the improvement of play-grounds, games and sports in the various educational institutions

47. As for higher education, provision has been made for improvement of science teaching in some of the existing colleges of the United Khasi and Jaintia Hills, Tura college (Garo Hills) and Aijal college (Mizo Hills). There is provision for establishment of new colleges at Jowai and Diphu and improvement and expansion of some of the existing colleges in all the four hill districts. Provision for awarding stipends to students residing in hostels has also been made in the Fourth Plan. The tribal students will also be awarded Post Matric Scholarships to enable them to complete higher studies.

48. There is proposal for the establishment of a University for the Hill Areas of the North Eastern Region at Shillong. This has been supported by a Committee appointed by the University Grants Commission and the Working Group on Educational Development of Hill Areas, set up in 1965 by the Ministry of Education. The Education Commission (1964-66) appointed by the Ministry of Education has also endorsed this proposal. A sum of Rs.60.00 lakhs has been provided for land development for the proposed University during the Fourth Plan.

49. The salient features of the Plan have been high-lighted in the following tables:—

Table No. 1

Expansion programme.

Percentage of enrolment
in the of age-group.

Hills District	Primary stage (6 - 11)		Middle stage (11-14)		Secondary stage (14-17)	
	Position 1965-66	Target 1970-71	Position 1965-66	Target 1970-71	Position 1965-66	Target 1970-71
	1	2	3	4	5	6	7
United Khasi and Jaintia Hills.	76.0	92.0	29.0	47.0	18.2	30.0
Mizo Hills	100.0	100.00	50.0	67.0	10.4	30.0
Garo Hills	80.0	92.0	18.0	40.0	6.5	15.0
United Mikir and North Cachar Hills.	68.0	92.0	16.0	30.0	3.7	15.0
State level	76.8	92.0	31.0	47.6	18.9	29.5

The efforts to cover the back-log are indicated in the above table. In the case of Mizo Hills, the state targets will be exceeded at all stages of education.

TABLE No. 2

Teachers training programme			Percentage of trained teachers			
Hill Areas			State level			
Stages			Likely position 1965-66	Target 1970-71	Position 1965-66	Target 1970-71
Primary	...	...	50.0	60.0	48.0	72.2
Middle	...	...	30.0	45.0	30.0	59.5
Secondary	...	...	18.0	32.0	21.0	32.0

TABLE 3

Distribution of allocation in the Fourth Plan

		(Rs. in lakhs)
Pre-Primary education	...	4.75
Elementary education	...	191.23
Secondary education	...	133.99
University education	...	110.00
Training programme	...	65.50
Social education	...	4.28
Miscellaneous schemes	...	20.25
	Total	530.00

TABLE No. 4

Distribution of allocations according to programme priorities

		(Rs. in lakhs)
(i) Pre-Primary education	...	4.75

Elementary and Secondary Education

(ii) Expansion programmes	...	175.51	(This includes some improvement programmes also).
(iii) Improvement programmes		40.36	
(iv) Teacher training programme		72.55	(This includes provision for staff quarters).

Elementary and Secondary Education

(v) Scholarship, special scholarship free education, subsidised hostel facilities, free school uniform and text books, etc.	86.70
(vi) Science and vocational bias	15.60
(vii) Play-ground and other physical activities	4.45

Higher Education

(i) Improvement of science education in colleges.	18.50
(ii) Establishment of new colleges and improvement of selected Arts colleges.	19.00
(iii) Hostel facilities, staff quarters	12.50
(iv) Establishment of North East Regional University.	60.00

Social Education

(i) Miscellaneous schemes for social education.	4.28
Other educational schemes	15.80
Total	530.00

17. Technical Education

50. Technical education has not made much headway in the Hill Areas partly because of the lack of sufficient foundation of science and mathematics at the Secondary stage. Introduction of these subjects is an essential first step for any sizeable programme of technical education. As mentioned earlier, these problems have been adequately looked after under General Education. It is, also proposed to widen the scope of technical education during the Fourth Plan.

51. There is no proposal to start a separate Engineering College (degree level) in the Hill Areas during the Fourth Plan. The number of reserved seats for hill pupils in the Engineering colleges of the State will be increased to a sizeable extent. At diploma level, a poly-technic was started at Shillong in the last year of the Third Five Year Plan. The original sanctioned annual intake capacity was 180 but only 60 seats have been introduced till now. The remaining seats will be introduced in the Fourth Five Year Plan. It is also proposed to start another polytechnic at Aijal with an annual intake capacity of sixty. To encourage girls to technical education, it has also been proposed to establish one girls' polytechnic at Shillong with an annual intake capacity of 100. A junior technical school with an intake capacity of 40 will also be established at Haslong to divert students of lower age group to productive occupation. Besides establishment of new institutions, the number of reserved seats for hill pupils will be increased in all the existing polytechnics of the State. There will be liberal provision for scholarships, hostel facilities and other financial help to attract hill pupils to engineering studies.

52. The outlay for Technical Education in the Plan is Rs. 60 lakhs. The schemes under Technical Education are :—

	Rs. in lakhs.
(i) Establishment of Shillong Polytechnic ... —development and extension.	25 00
(ii) Establishment of a polytechnic at Aijal ...	8·00
(iii) Establishment of a girls' polytechnic ... at Shillong.	8·00
(iv) Reservation of scholarship, provision of ... hostel facilities at the existing insti tutions (diploma and degree)., etc.	10·00
(v) Training of teachers for Technical Courses ...	1·00
(vi) Administration	1·00
(vii) Establishment of a Junior technical School ...	7·00
Total	60 00

18. Craftmen Training

53. In the field of industrial development, the need for skilled crafts-men can hardly be over emphasised. The craftsmen are trained in different Industrial Training Institutes (I. T. I) of the State.

54. In the Hill Areas, the Industrial Training Institutes which have been established have not yet stabilised for want of accommodation and sufficient number of trainees. The number of trades now available in each of the Industrial Training Institutes is limited and inadequate. Again, the aim of the Craftsmen training programme is to establish one Industrial Training Institute in each sub-divisional headquarter of the State. It is, therefore, necessary to establish one Industrial Training Institute atleast in each district headquarter of each of the hill districts during the Fourth Plan.

55. During the Third Plan, two Industrial Training Institutes have already been established at Tura (Garó Hills) and Diphu (United Mikir and North Cachar Hills). In the Fourth Plan, seating capacity of both these Institutes will be expanded. The Industrial Training Institutes for Shillong and Aijal which were also established in the Third Plan but functioning elsewhere, will be shifted to their respective District headquarters. The Industrial Training Institute for Shillong will be shifted immediately on availability of suitable land and completion of buildings. Some work for the Industrial Training Institute, Aijal, was started at Aijal but the progress has been held up due to disturbances. The seating capacity of all these four Industrial Institutes will be 1008 against 688 during the Third Plan.

56. It is proposed to introduce new trades in Industrial Training Institutes during the Fourth Plan. The trades would have a direct bearing on the economy of the area and would offer immediate employment opportunities in the programme of improvement and expansion of two main sectors *i. e.* forestry and agriculture. The students will be awarded stipends at an enhanced rate to increase the enrolment strength in these institutes.

57. The Joint Centre State Study Team made some recommendations for setting up a few 'Pre-vocational training centres' during the Fourth Plan. It is well known that 'wastage' at the elementary level of education (age group 6-14) is very high in the Hill Areas. It is, therefore, desirable to train the students of this age-group in some selected trades in the prevocational training centres and thereby divert them towards productive occupation. The Education Department has been implementing the scheme since the Third Five Year Plan.

58. The provision under Craftsmen Training in the Fourth Plan is Rs.30 lakhs. The schemes are—

	(Rs. in lakhs)
1. Expansion and establishment of Institutes ...	19.55
2. Scholarships and stipends	5.00
3. Staff programme	5.24
4. Other schemes	0.21
Total	<u>30.00</u>

19. Health

59. Three major factors inhabit the formulation of any broad based health programme and its smooth implementation in the Hill Areas. These factors are, (i) Lack of communication and transport facilities, (ii) Thinly dispersed population in extremely small villages, (iii) Shortage of doctors. Lack of communications and transport facilities has a direct bearing on increasing the cost of buildings and on transportation of equipment. The thinly dispersed population has posed the problem of following any set pattern or norm in extending health facilities within the easy reach of a considerable number of villages. Shortage of doctors has limited the scope of taking up a need based health plan in the remote areas in the hill district of Assam.

60. On the recommendation of the Joint Centre-State Study Team for the Hill Areas of Assam, the highest priority has been accorded to the transport and communication problems in the integrated plan of the hill districts. With the coming up of roads, the problem of extending health facilities to far-flung areas will greatly ease. The scheme for regrouping of villages will provide scope for bringing hitherto uncovered population to the fold of health schemes. Steps are also being taken to meet the shortage of doctors by increasing the outturn and providing additional incentives. Special stipends will be given to hill girls in nursing and midwifery courses.

61. To serve far-flung areas where dispensaries cannot be started immediately, it is proposed to introduce mobile dispensary facilities as far as practicable.

62. The present position of health services in the hill districts is somewhat uneven. It is the opinion of the Joint Centre-State Study Team that in view of the present uneven position, the development plan will have to start at the present level in each district and concentrate on those aspects which relate to the specific needs and problems in each area. With this end in view, adequate stress has been laid on consolidation of schemes and strengthening of activities already entered into to ensure a more even and balanced development of health facilities and also to accelerate the pace of development in order to catch up with the programmes in the related sectors.

63. The village people are not so conscious about the preventive aspect of health services as they are about the curative side of it. In order to enlighten the people further about the utility of preventive measure, it is proposed to establish Health Education Units in the hill districts.

64. It has been found that leprosy and to some extent tuberculosis, have a high incidence in the tribal areas of Assam. Modern techniques and domiciliary treatment will be adopted in dealing with these two diseases. Incidence of child mortality is very high in some areas of the hill districts. The areas will be identified before taking up any comprehensive scheme to combat and control such diseases.

65. Family planning programme will also receive due attention in the Fourth Plan. Though the Hill areas are sparsely populated, steps will be taken for the ready availability of supplies and services. Co-operation and active participation of the various social organisations will also be enlisted for spreading the motivation towards family planning programmes.

66. A total outlay of Rs.320 lakhs has been provided in the Plan for Health schemes. The distribution of the outlay is given below:—

	Rs. in lakhs
(1) Hospitals and dispensaries	105.30
(2) Primary Health Centres	54.40
(3) Control of Communicable diseases	150.35
(4) Indigenous system of medicine	0.15
(5) Education, Training and Research	1.70
(6) Other schemes	5.50
(7) Family Planning	2.60
Total	320.00

20. Water Supply

67. Providing the hill areas of Assam with regular supply of safe drinking water is beset with various problems. The full magnitude of the problem cannot be assessed for lack of statistical data based on surveys. There are areas in most of the Hill districts perched on the top of hills having no perennial source of supply, and in the foot hills also there are villages having very meagre sources, if at all, of only seasonal supply. The prospect of digging wells is also negligible in these areas. The element of cost is naturally high for piped water supply schemes in the Hill areas and this is highest in the Mizo Hills. Most of the hill streams are monsoon fed. The severity of water scarcity in the Mizo district is poignantly revealed by the fact that the people there have to collect and preserve rain water during the monsoon for the difficult days in the dry season. To meet the problem of water supply in the Hill areas, even on a modest scale, the State Government must urgently request a sizeable amount of funds from the Central Ministries concerned.

68. The Fourth Plan proposals under the urban water supply schemes will include provision for completing the water supply schemes at Shillong, Aijal, Jowai and Diphu and for taking up the water supply schemes for greater Shillong and Tura.

69. The Rural water supply schemes for the Fourth Plan, will include the water supply schemes at barabazar (Shillong), Jirang, Khliehriat, Shella, Laitkor, Dawki, Nongthymmai, etc., in the Khasi and Jaintia Hills, survey and investigation of water supply schemes in the rural areas of North Cachar and Mikir Hills, rural water supply schemes at Kolosib, Serkawn, Pukpui, Lunglawn, etc., in the Mizo Hills and some minor and medium water supply schemes in the Garo Hills.

70. A total provision of Rs. 240 lakhs has been made for water supply schemes in the Hill Areas of Assam during the Fourth Plan.

21. Housing

71. Very little effort was made in the preceding Plans in the field of housing. The outlay proposed during the Fourth Plan is Rs.40 lakhs. The provision is mainly for Low income group housing and Village housing schemes.

22. Social Welfare

72. The common purpose of all development plans is to seek the welfare of the community. However, in every society, there are special problems, which need special attention. At the same time, the very process of development throws up new problems which call for special attention. Social Welfare programmes included in the Five Year Plans form part of the effort to deal with some of these problems.

73. The Joint Centre-State Study Team in their report mentioned that even at the end of three Plans, welfare schemes, particularly for women and children, in the hill districts of Assam have been almost negligible. Considering the important place which women occupy in the social and economic life of the tribal communities in Assam, it is essential that a comprehensive programme of Social Welfare should be introduced from the Fourth Five Year Plan. The team further recommended that the set pattern of programmes should be re-oriented keeping in view the extremely busy life of tribal women. The team also suggested creating conditions for fostering the growth of voluntary organisations in the Hill Areas during the Fourth Five Year Plan.

74. The programmes of Social Welfare for the Hill Areas have been drawn up in the light of the above recommendations. The outlay proposed during the Fourth Plan is Rs.15 lakhs. A Social Welfare Advisory Board will be set up for the hill areas during the Fourth Plan. Grants-in-aid will also be given to voluntary organisations to ensure close collaboration between State and Voluntary effort in the task of Social reconstruction.

CHAPTER VII

EMPLOYMENT IN THE FOURTH PLAN

To achieve a balance between development on the one hand and growth in employment on the other has been an essential objective of the National Fourth Five Year Plan. Such a balance has to be sought as an indirect consequence of planning and a wide range of constraints and possibilities have to be taken into account in estimating the employment potential during any period. In considering increase in employment, account has to be taken both of expansion of employment opportunities and maximum production through effective utilisation of productive resources.

2. In Assam due to a very high growth rate of labour force rural-urban shift of population, influx of migrants and increase in general education, the additional employment generated during a period does not sufficiently keep pace with the number of unemployed. An ever-increasing volume of unemployed is, therefore, always left to be taken care of at the end of each successive plan period. This reflects a defect and inadequacy in planning for which no satisfactory short term solution appears as yet readily available.

3. The Third Five Year Plan has left a backlog of about 3.22 lakhs unemployed persons in the State, so that, with the addition of 6.42 lakhs estimated new entrants into the labour force during 1966-71 the Fourth Plan will have to take care of about 9.64 lakhs total job requirement.

4. The State Fourth Plan outlay (Rs.300 crores) together with the complementary investment in central and private sectors in industries, transport and communications etc. is expected to provide opportunity for about 5.71 lakhs full-time jobs as shown below :

	No of jobs
A. Construction	1.58 lakhs
B. Continuing :—	
(1) Agriculture and allied activities	0.98 lakhs
(2) Industry and power	0.48 „
(3) Transport and Communications	0.33 „
(4) Social Services	0.25 „
(5) Miscellaneous	0.04 „
Total...	2.08 lakhs
C. Indirect employment in trade, commerce etc. estimated at 56 per cent of the direct employment.	2.05 lakhs
Grand Total ...	5.71 lakhs

5. From the foregoing estimates, it will be seen that the Fourth Plan of the State will have an employment potential almost approximating to the number of new entrants to the labour force during the same period, and that the Plan will end with backlog of about 3.95 lakhs unemployed at the end of 1970-71.

6. In planning, creation of more employment in terms of number of jobs is not enough. For balanced development creation of new avenues of employment is as important as the actual number of jobs created. It is to be noted that in Assam agriculture and allied activities engaged a high percentage of the working population. This situation arises from the lack of opportunities for non-agricultural employment resulting in heavy pressure on land, and is a measure of the enormous scale of disguised unemployment and underemployment in the rural sector. The success of the Fourth Plan on the employment front has, therefore, to be judged, (apart from the number of new jobs created) by the extent to which employment in the rural areas can be augmented and a shift can be brought about in employment from agriculture to non-agricultural activities.

7. The additional employment potential of the Fourth Plan indicated above may be shown as between agriculture and non-agriculture as below:—

Employment in Agriculture and allied activities:		1.73 lakhs
Direct employment in non-agricultural activities.	1.93 lakhs	}
Indirect employment in trade, commerce etc.	2.05 ,,	
Total...		5.71 lakhs

8. On the basis of the targets of additional area to be brought under irrigation, soil conservation, double cropping and other agricultural and allied programmes, it is estimated that in the Fourth plan, agriculture itself will provide additional employment to the tune of 1.73 lakhs. The employment potential of the the non-agricultural side is estimated to be of the order of 3.98 lakhs.

9. The above prospect of employment in the wake of a fast growing population seems fairly adequate in the context of a Plan of the size and content envisaged. But the vastness of the primary sector and absence of a diversified industrial base precludes any major change in the occupational structure as being likely to occur in the State during the Fourth Plan period. The growth of population and and greater resort by owners of land to personal cultivation has resulted in large numbers of landless agricultural labourers. Moreover, agricultural activities in the State are largely dependent on the vagaries of weather, which reduces the scope for fuller utilisation of the labour force engaged in cultivation. The various schemes to be taken up during the Fourth Plan period, such as village and small industries, rural works programmes, rural electrification etc will, however, provide some relief to the unemployed and underemployed in the rural areas.

10. In watching the progress of employment, it is difficult to separate the impact of new investment from that of investment made in the past and the current performance of the economy. It is also not possible to be categorical about employment opportunities arising out of a given totality of investments. The final outcome will, to a large extent, depend on the tempo of economic activity initiated at an early stage of the Plan as well as on the structural pattern of industrial development,

STATEMENT I-V

STATE PLAN

STATEMENT

DRAFT FOURTH FIVE

Summary Statement of Plan outlay proposed—

State—Assam

Head of development	Third Five Year Plan		
	outlay Approved 1961-66	(Actual) Expenditure 1961-66	(Actual) Expenditure 1965-66
(1)	(2)	(3)	(4)
1. Agricultural Programmes—			
1.1 Agricultural Production	512.00	422.83	144.33
1.2 Minor Irrigation—			
(a) By Agriculture	140.00	170.57	39.69
(b) By Flood Control and Irrigation ...	250.00	244.97	65.00
1.3 Soil Conservation	30.00	17.16	7.37
1.4 Ayacut Development Programme ... ..	...	...	...
1.5 Animal Husbandry	116.50	149.31	50.14
1.6 Dairying and Milk Supply	23.50	45.81	15.50
1.7 Forests	90.00	98.73	22.32
1.8 Fisheries	50.00	32.94	7.63
1.9 Ware-housing and Marketing	30.00	19.00	2.00
TOTAL	1,262.00	1,201.32	353.98

I

YEAR PLAN

1961-71—State Plans

(Rs. lakhs)

Fourth Five Year Plan Outlay								
1966-71			Proposed Phasing of outlay 1966-71					
Total	Capital	Foreign exchange	1966-67		1967-68			1968-71 (Col. 5 minus Col. 9 plus 10).
			Approved outlay	Expenditure Anticipated	Total (Proposed)	Capital	Foreign exchange	
(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1,708.00	285.00	...	214.67	214.67	313.14	57.53	...	1,180.19
426.00	250.00	..	39.00	39.00	60.00	30.00	..	327.00
684.00	644.00	..	47.00	47.00	140.00	132.00	...	497.00
143.00	119.90	2.20	6.09	6.09	18.00	15.04	0.32	123.91
10.00	..	...	1.00	1.00	1.80	...	...	7.20
211.00	74.54	..	39.80	39.80	49.07	20.97	...	122.13
70.00	28.53	6.00	13.00	13.00	14.63	7.75	2.00	42.37
156.00	118.90	..	21.35	21.35	31.53	24.53	...	103.12
117.00	73.50	2.30	13.65	13.65	28.70	18.50	0.30	74.65
10.00	10.00	..	4.00	4.00	2.00	2.00	...	4.00
3,540.00	1,604.37	10.50	399.56	399.56	658.87	308.37	2.62	2,481.57

Head of development	Third Five Year Plan		
	Approved outlay 1961-66	Expenditure (Actual) 1961-66	Expenditure (Actual) 1965-66
(1)	(2)	(3)	(4)
2. Co-operation and Community Development—			
2.1 Co-operation	200.00	130.78	27.48
2.2 Community Development	835.00	778.26	180.00
2.3 Panchayats	140.00	68.29	7.43
Total ..	1,175.00	977.33	214.91
3. Irrigation and Power—			
3.1 Irrigation	228.00	143.38	91.58
3.2 Flood Control	500.00	1,133.43	300.21
3.3 Power	2,750.00	4,171.17	768.34
Total ..	3,478.00	5,447.98	1,160.13
4. Industry and Mining—			
4.1 Large and Medium Industries	535.00	436.68	117.58
4.2 Mineral Development		31.47	10.38
4.3 Village and Small Industries	270.00	209.31	48.00
(a) Cottage Industry		100.00	18.09
(b) Sericulture and Weaving		40.00	8.46
(c) Co-operative Handloom		30.00	4.56
(d) Khadi.. .. .			
Total ..	975.00	812.42	207.07
5. Transport and Communications—			
5.1 Roads	850.00	820.42	177.15
5.2 Road Transport	25.00	..	..
5.3 Ports and Harbours ... .. .	..	..	..
5.4 Other Transport	125.00	..	..
(a) Ropeway			
(b) Inland Water Transport	5.00	6.35	2.00
5.5 Tourism	10.00	3.49	..
Total ..	1,015.00	830.26	179.15

Fourth Five Year Plan Outlay

1966-71			Proposed Phasing of outlay 1966-71					
Total	Capital	Foreign exchange	1966-67		1967-68			1968-71 (Col. 5 minus Col. 9 plus 10)
			Approved outlay	Expenditure anticipated	Total proposed	Capital	Foreign exchange	
(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
330.00	130.53	42.00	24.26	24.26	63.20	26.75	..	242.54
700.00	205.46	..	110.12	110.12	208.81	65.73	..	381.07
195.00	..	...	5.60	5.60	44.11	..	..	145.29
1,225.00	335.99	42.00	139.98	139.98	316.12	92.48	..	768.90
1,160.00	1,110.00	30.00	105.00	105.00	250.00	240.00	6.00	805.00
2,000.00	1,865.00	90.00	200.00	200.00	450.00	425.00	46.00	1,350.00
6,330.00	6,330.00	1,336.50	475.00	475.00	1,472.00	1,472.00	382.80	4,383.00
9,490.00	9,305.00	1,456.50	780.00	780.00	2,172.00	2,137.00	434.80	6,538.00
1,335.00	1,250.00	115.00	175.00	175.00	300.00	280.00	7.00	860.00
190.00	167.57	18.75	6.00	6.00	15.97	11.90	0.65	168.03
302.00	264.00	...	23.74	23.74	39.60	33.50	...	239.26
141.00	32.19	0.71	15.00	15.00	36.70	9.15	0.46	89.30
75.00	9.25	..	5.00	5.00	17.00	1.50	..	53.00
50.00	..	..	2.00	2.00	8.98	...	..	39.02
2,093.00	1,723.01	134.46	226.74	226.74	417.65	336.05	8.11	1,448.61
1,559.00	1,559.00	20.00	158.20	158.20	300.00	300.00	15.00	1,100.00
70.00	70.00	...	20.00	20.00	20.00	20.00	..	30.00
..
14.00	..	..	..	..	..	..	..	14.00
165.00	4.00	3.00	5.00	5.00	15.50	..	...	144.50
10.00	10.00	..	1.00	1.00	2.50	2.50	..	6.50
1,818.00	1,643.00	23.00	184.20	184.20	338.00	322.50	15.00	1,295.80

Third Five Year Plan

Head of development	(1)	Approved outlay 1961-66 (2)	Expenditure (Actual) 1961-66 (3)	Expenditure (Actual) 1965-66 (4)
6. SOCIAL SERVICES				
6.1 General Education	1333.00	1307.96	337.50
6.2 Technical Education	305.30	192.26	51.20
6.3 Cultural Programmes	35.70	9.64	0.64
6.4 Health			
(a) Water Supply (Urban and Rural)	144.00	131.95	25.47
(b) Other Programmes	721.00	816.14	204.20
6.5 Housing and Urban Development—				
(a) Housing	159.00	58.37	14.75
(b) Town Planning	116.00	36.57	8.71
6.6 Welfare of Backward Classes	1030.00	955.23	235.11
6.7 Social Welfare	19.15	26.67	5.70
6.8 Labour and Labour Welfare—				
(a) Labour	43.00	9.22	1.83
(b) Employment	3.60	3.50	1.25
(c) Craftsmen Training	50.40	18.96	5.17
(d) Employees State Insurance	3.00	2.11	0.50
6.9 Public Co-operation	0.85	0.66	0.28
TOTAL	3964.00	3569.24	892.31
7. MISCELLANEOUS—				
7.1 Statistics	22.00	14.00	4.01
7.2 Information and Publicity	34.00	22.96	5.00
7.3 State Capital Project	50.00	68.67	8.09
7.4 Hill and Border Areas	*	*	*
7.5 Evaluation Machinery and Planning and Development Organisation.	1.82	1.06
7.6 Others—				
(a) Local Bodies	} 25.00	23.34	4.00
(b) District Councils			
TOTAL	131.00	130.79	22.16
GRAND TOTAL	12000.00	12969.34	3029.71

*In columns 2-4 against items 7.4 the outlays have been shown in columns 2-4 of item

(a) In columns 5-13 against item 6.6 outlays have been shown only for Plains Tribes

7.4.

Fourth Five Year Plan Outlay

1966-71			Proposed Phasing of outlay 1966-71					
Total	Capital	Foreign exchange	1966-67		1967-68			1968-71 (Col. 5 minus Col. 9 plus 10)
			Approved outlay	Expenditure Anticipated	Total (Proposed)	Capital	Foreign exchange	
(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2863.72	.	11.05	142.82	142.32	351.48	..	0.65	2369.42
420.00	317.00	25.00	50.00	50.00	79.18	53.32	4.90	290.82
61.28	..	..	5.65	5.65	10.85	..	..	44.78
301.00	301.00	..	29.20	29.20	68.12	68.12	..	203.68
1528.00	774.94	8.20	98.15	98.15	291.01	171.68	0.30	1138.84
260.00	200.00	..	4.60	4.60	60.00	45.00	..	195.40
400.00	337.00	..	6.00	6.00	81.08	69.50	..	312.92
600.00	..	..	40.00(a)	40.00	90.00	..	..	470.00
79.00	21.42	..	5.00	5.00	15.28	5.40	..	58.72
35.00	21.60	..	2.90	2.90	9.67	7.21	..	22.43
8.00	..	..	0.10	0.10	0.60	..	..	7.30
122.00	97.70	5.30	16.00	16.00	30.90	27.40	1.62	75.10
5.00	..	..	0.50	0.50	1.00	..	..	3.50
6.00	..	..	0.50	0.50	1.22	..	..	4.28
6689.00	2070.66	49.55	401.42	401.42	1090.39	447.63	7.47	5197.19
35.00	..	..	3.00	3.00	7.39	..	..	24.61
60.00	13.01	6.95	15.00	15.00	20.00	6.01	..	25.00
..
5000.60	2867.97	19.02	680.00	680.00	1054.73	645.50	10.09	2265.27
20.00	..	..	3.00	3.00	4.50	..	..	12.50
30.00	30.00	..	2.50	2.50	5.75	5.75	..	21.75
5145.00	2910.98	25.97	703.50	703.50	1092.37	657.26	10.09	3349.13
30000.00	19593.01	1741.98	2835.40	2835.40	6085.40	4301.29	478.09	21079.20

6.6 and also against other relevant sectors.

and Scheduled Castes and outlays for Hill Tribes have been shown against item

STATEMENT II

STATEMENT II

DRAFT FOURTH FIVE YEAR PLAN

Distribution of outlay under selected sub-heads—State Plans

(Rs. lakhs)

Head/Sub-head	Anticipated outlay 1961-66	1966-67		1967-68 Proposed	1968-71 outlay	Remarks
		Approved	Anticipated			
1	2	3	4	5	6	7

(i) IRRIGATION AND FLOOD CONTROL:—

1. Irrigation—

(a) Third Plan projects	...	...	...	129.05	100.00	100.00	233.00	268.00
(b) New Projects	...	...	...	...	...	...	7.00	502.00
2. Flood Control, drainage, anti-water logging, etc., etc.	1,102.89	190.00	190.00	425.00	1,265.00			

3. Investigations, Research, etc. ...	...	...	44.87	15.00	15.00	35.00	120.00
Total ...	...	...	1,276.81	305.00	305.00	700.00	2,155.00

(ii) POWER :—

1. Generation ..	...	...	2,695.80	170.00	170.00	570.00	2,710.00
2. Transmission and Distribution ..	...	...	1,229.71	190.00	190.00	597.00	1,243.00
3. Rural Electrification ..	...	...	42.59	90.00	90.00	150.00	260.00
4. Investigation, Research, etc. ..	...	...	203.07	25.00	25.00	155.00	170.00
Total ..	...	...	4,171.17	475.00	475.00	1,472.00	4,383.00

(iii) VILLAGE AND SMALL INDUSTRIES :—

1. Handloom Industry:

(a) Co-operative ...	...	...	50.00	5.00	5.00	17.00	53.00
(b) Sericulture ..	...	...	18.98	4.00	4.00	8.15	28.85

(Rs. lakhs)

Head/Sub-head	Anticipated outlay 1961-66	1966-67		1967-68 Proposed	1968-71 outlay	Remark	
		Approved	Anticipated				
1	2	3	4	5	7	8	
2. Power-loom Industry (a)	3.13	0.03	0.03	20.60	339.37	(a) This is a Centrally Sponsored Scheme and therefore the outlay against this sub-head has not been accounted for in the State Fourth Plan.	
3. Small-scale Industries	169.76	14.10	14.10	25.00	190.90		
4. Industrial Estates	34.25	8.50	8.50	12.00	39.50		
5. Handicrafts	5.30	1.14	1.14	2.00	8.86		
6. Sericulture	46.97	11.00	11.00	28.55	60.45		
7. Coir Industry	...	...	..	...	...
8. Khadi and Village Industries (b)	19.10	2.00	2.00	8.98	39.02		(b) States' share only
Total	344.27	45.74	45.74	101.68	420.58		

(iv) ROADS—

1. Rural Roads	...	..	..	...	..	740.42	141.40	141.49	242.00	933.60
2. Others	...	...	..	...	..	80.00	16.80	16.80	58.00	167.20
				Total	..	820.42	158.20	158.20	300.00	1100.80

(v) GENERAL EDUCATION—

1. Pre-Primary Education	...	...	..	...	...	1.72	0.78	0.78	1.40	11.60
2. Elementary Education	...	...	...	...	...	...	...	..	..	...
(a) Primary	}				892.93	14.73	14.73	91.49	754.78
(b) Middle	}				892.93	14.73	14.73	91.49	754.78
3. Secondary Education	...	...	...	..	...	151.62	17.49	17.49	45.52	282.46
4. University Education	...	...	...	...	...	98.16	60.66	60.66	120.82	586.99
5. Social Education	..	..	..	...	...	2.08	1.81	1.81	2.55	6.93
6. Special Schemes for Girls' Education—												
(a) Elementary	...	...	...	...	...	5.60	16.00	16.00	28.70	126.30
(b) Secondary	...	..	...	..	...	16.89	4.23	4.23	5.57	21.09
7. Teachers' Training—												
(a) Elementary	..	..	...	...	...	50.95	15.27	15.27	30.90	202.62
(b) Secondary	...	...	...	..	...	17.06	5.06	5.06	10.12	89.82

Head/Sub-head	Anticipated outlay 1961-66	1966-67		1967-68 Proposed	1968-71 outlay	Remarks
		Approved	Anticipated			
1	2	3	4	5	6	7

(Rupees lakh)

8. Other Education Schemes	...	..	—	70.95	6.79	6.79	14.41	87.43
9. Cultural Programme	..	...	...	9.64	5.65	5.65	10.85	44.78
Total	—	..	..	1,317.60	148.47	148.47	362.33	2,414.20

(vi) TECHNICAL EDUCATION—

1. Degree	..	..	—	96.63	23.14	23.14	38.68	104.48
2. Diploma	...	—	—	63.95	10.41	10.41	15.29	91.10
3. Training of teachers for technical institutions	..	..	—	..	—	..	0.62	1.8
4. Other Schemes	..	...	—	31.68	16.45	16.45	24.59	96.36
Total	—	..	...	192.26	50.00	50.00	79.18	292.82

(vii) WATER SUPPLY AND SANITATION

1. Urban Water Supply	...	..	..	109.79	22.20	22.20	60.12	186.58
2. Urban Sewerage	...	..	..	..	...	..	..	..
3. Rural Water Supply—								
(a) Piped water supply	..	...	...	22.16	7.00	7.00	8.00	17.10
(b) Construction of simple wells	..	..	..	..	..	...	...	...
Total	..	...	...	131.95	29.20	29.20	68.12	203.68

(viii) HEALTH (OTHER THAN WATER SUPPLY AND SANITATION)

1. Hospitals and Dispensaries	..	..	...	87.23	3.10	3.10	24.31	180.41
2. Primary Health Centres	..	..	..	16.55	1.80	1.80	27.00	120.20
3. Control of communicable diseases	...	..	..	479.61	46.51	46.51	88.21	310.64
4. Indigenous and other systems	..	..	..	2.44	0.48	0.48	0.50	1.57
5. Education and training	...	...	..	209.80	42.34	42.34	138.84	471.43
6. Other Schemes	..	...	..	20.51	3.92	3.92	12.15	44.59
Total	...	..	..	816.14	98.15	98.15	291.01	1,138.84

Head/Sub-head	Anticipated outlay 1965-66	1966-67		1967-68 Proposed	1968-71 outlay	Remarks
		Approved	Anticipated			
1	2	3	4	5	6	7
(ix) HOUSING AND URBAN DEVELOPMENT ;						
(a) Housing—						
1. Industrial Housing	7·18	1·30	1·30	20·00	65·00	
2. Low Income Group Housing	49·45	3·10	3·10	26·00	85·40	
3. Slum clearance and improvement	0·24	..	..	1·60	3·80	
4. Village Housing	..	0·10	0·10	2·00	6·00	
5. Plantation Labour housing	0·08	..	..	10·00	34·00	
6. Statistical cells	1·42	0·10	0·10	0·40	1·20	
(b) Urban Development—						
1. Town Planning	5·53	2·66	2·66	71·08	271·26	
2. Urban Development	31·04	3·34	3·34	10·00	41·66	
Total	94·94	10·60	10·60	141·08	508·32	

1. Schedule Tribes:

(i) Hills	...	...	..	..	..	668.45	135.00(a)	135.00(a)	195.00(a)	1070.00(a)	(a) Under columns 3, 4, 5 and 6, outlays relating to Hill Tribals have not been accounted for in the total and have been shown against the Integrated Hill Plan in item No.7.4 of statement I.
(ii) Plains	...	...	...	..	...	199.14	30.00	30.00	65.00	355.00	
2. Scheduled Castes	...	...	...	...	...	52.64	10.00	10.00	25.00	115.00	
3. Denotified tribes	..	..	...	...	...	--	..	..	..	..
4. Other Backward Classes	..	..	..	..	..	35.00	...	...	..	..
Total	--	..	..	...	...	955.23	40.00	40.00	90.00	470.00	

DRAFT FOURTH FIVE YEAR PLAN

STATEMENT—III

(Important schemes costing Rs.5 crores and more and schemes involving foreign exchange)

(Rs. lakhs)

Head of Development/Name of scheme	Total estimated cost	Total Expenditure		Fourth Plan (1966-71)		1966-67		1967-68		1968-69		1969-70		1970-71	
		By end of 1965-66	Third Plan	Total outlay	Foreign exchange	outlay	Anticipated expenditure	Outlay Proposed	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.3 Soil Conservation—															
1. Terracing and Contour bunding.	16.75	0.05	0.13	16.75	1.20	0.31	0.31	2.50	..	3.50	..	5.20	1.20	5.24	..
2. Agronomical Works.	6.30	0.13	0.21	6.30	0.40	0.21	0.21	1.00	0.20	1.50	0.20	1.50	..	2.09	0.20
3. Plants, tools, stores and Miscellaneous.	10.01	1.28	4.21	10.01	0.60	1.66	1.66	1.85	0.12	2.12	0.20	2.28	0.28	2.10	..
TOTAL—	33.06	1.46	4.55	33.06	2.20	2.18	2.18	5.35	0.32	7.12	0.40	8.98	1.48	9.43	0.20

1. 6 Dairying and Milk Supply—															
1. Scheme for ..	100.00	15.09	44.16	40.00	6.00	2.00	8.00	3.00	2.00	8.00	2.00	8.00	2.00	8.00	..
Urban Milk Supply.															
TOTAL—	100.00	15.09	44.16	40.00	6.00	2.00	8.00	3.00	2.00	8.00	2.00	8.00	2.00	8.00	..
1.7 Fisheries—															
1. Fish seed production.	..	..	..	16.90	0.80	3.80	3.85	4.20	0.20	..	..	..	..	..	..
2. Assistance to Fisherman Co-operatives.	..	..	..	5.20	1.50	0.62	0.62	1.15	0.10	..	..	..	..	..	..
TOTAL—	..	..	..	22.10	2.30	4.42	4.47	5.35	0.30	..	..	..	..	..	..
2.1 Co-operation—															
1. Sugar mill ..	..	..	..	45.00	40.00	1.00	1.00	5.00	..	20.00	..	20.00	..	..	40.00
2. Cold Storage ..	10.00	..	4.00	11.20	2.00	1.50	..	..	..	4.80	1.00	..	..	4.90	1.00
TOTAL—	10.00	..	4.00	57.20	42.00	2.50	1.00	5.00	..	24.80	1.00	20.00	..	4.90	41.00
3. Irrigation and Power—															
3.1 Irrigation* ..	..	..	143.38	11.60	30.00	105.00	2.00	230.00	6.00	260.00	7.00	270.00	7.00	275.00	8.00
3.2 Flood Control.*	..	..	1032.36	2000.00	90.00	200.00	10.00	450.00	46.00	450.00	10.00	450.00	12.00	450.00	12.00

Head of Development/Name of scheme	Total estimated cost	Total Expenditure				Fourth Plan (1966-71)		1966-67		1967-68		1968-69		1969-70		1970-71	
		By end of 1965-66	Third Plan	Total outlay	Foreign exchange	Outlay	Anticipated expenditure	Outlay proposed	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange
3.3 Power—																	
1. Namrup Thermal Project (Extension).	930.00	..	..	600.00	450.00	..	..	100.00	80.00	200.00	150.00	200.00	150.00	100.00	70.00		
2. Maigherita Thermal Station.	877.00	..	..	300.00	205.00	..	..	50.00	..	100.00	80.00	150.00	125.00	..	..
3. Umiew Hydrel Project.	981.00	..	..	900.00	100.00	..	..	50.00	10.00	150.00	30.00	350.00	50.00	150.00	10.00		
4. Umling Hydrel Project.	263.00	..	..	1000.00	300.00	..	..	50.00	10.00	150.00	70.00	350.00	120.00	450.00	100.00		
5. Namrup Thermal Project, (3 X 23 M.W.).	1317.00	1307.07	1306.36	10.00	1.50	10.00	10.00	..	..	-	..	..	..	..	..
6. Gauhati Thermal Project.	663.00	97.52	97.52	345.00	250.00	45.00	45.00	175.00	170.00	125.00	80.00	..	..	..	..
7. Fourth Plan Sub-Transmission Scheme.	578.00	..	..	578.00	30.00	..	..	78.00	10.00	200.00	10.00	200.00	10.00	100.00	..		
8. Distribution and Rural Electrification Scheme.	..	..	42.59	500.00	..	90.00	90.00	150.00	..	150.00	..	110.00	..	..	..
Total	.. 8996.00	1404.59	1446.47	4233.00	1336.50	145.00	145.00	653.00	280.00	1075.00	420.00	1360.00	455.00	1000.00	180.00		
4.2 Mineral Development—																	
1. Intensive Mineral Investigation.	22.43	4.44	13.25	18.52	2.50	2.79	8.17	3.79	0.50	3.82	0.70	3.93	0.70	4.19	0.60		

2. Analytical Unit	3.36	0.52	1.59	3.90	0.50	0.55	0.55	0.82	..	9.83	0.20	0.84	0.15	0.86	0.15	
3. Assam State Mineral Development Corporation.	16.34	3.00	7.52	153.00	15.00	1.80	1.80	9.00	...	36.00	10.00	86.00	5.00	20.20	..	
4. Industrial Development Laboratory.	...	...	..	5.61	0.75	...	...	1.34	0.15	1.40	0.20	1.42	0.20	1.45	0.20
Total	..	42.13	7.96	22.36	180.13	18.75	5.14	10.52	14.95	0.65	42.05	11.10	91.39	6.05	26.70	0.95
4. Industry and Mining.																
4.5 Village and Small Industries.																
(a) Sericulture—																
1. Expansion of Eri Industry.	29.31	..	...	29.31	0.24	3.32	3.32	9.02	0.24	6.92	...	5.60	...	4.45	...
2. Expansion of Muga Industry.	29.80	...	...	29.80	0.11	3.35	3.35	8.18	0.11	8.05	..	5.90	...	4.32	..
3. Development of Mulberry Silk Industry.	19.41	...	...	19.41	0.36	2.52	2.52	6.12	0.11	4.91	0.17	3.23	...	2.63	...
Total	..	78.52	...	78.52	0.71	9.19	9.19	23.32	0.46	19.88	0.17	14.73	...	11.40	..	
5. Transport and Communication--																
5.1 Roads and Bridges.	1559.00	820.42	820.42	1559.00	20.00	163.00	163.00	300.00	15.00	400.00	5.00	300.00	...	396.00	...	
Total	..	1559.00	820.42	820.42	1559.00	20.00	163.00	163.00	300.00	15.00	400.00	5.00	300.00	...	396.00	...

* Total Foreign Exchange requirement under Irrigation Programme is Rs.30.00 lakhs which is mainly for purchase of Earth-moving machineries, Laboratory equipment, and special parts of gates of Irrigation Head-works. The whole programme is composed of several schemes with individual cost much below Rs.5.00 crores ; it is not possible to show break-up of Foreign Exchange component schemewise.

+ Total Foreign Exchange requirement under Flood Control programme is Rs.90.00 lakhs, of which about Rs.52.50 lakhs is meant for acquiring a Dredger with spares, and the rest for purchase of Earth-moving machineries, Laboratory equipment, etc.

Head of Development/ Name of scheme	Total estimated cost	Total Expenditure		Fourth Plan 1966-71		1966-67		1967-68		1968-69		1969-70		1970-71	
		By end of 1965-66	Third Plan	Total outlay	Foreign exchange	Outlay	Antici- pated expendi- ture	Outlay propos. ed	Foreign exchange	Outlay	Foreign exchange	Outlay	Fore- ign exchange	Outlay	Foreign exchange
		3	4	5	6	7	8	9	10	11	12	13	14	15	16

(In lakh of rupee)

4. Other Transport																
1. Inland Water Transport-slip way.	50.00	..	...	25.00	3.00	..	..	2.00	..	7.00	3.00	8.00	..	8.00	...
Total	50.00	..	..	25.00	3.00	..	..	2.00	...	7.00	3.00	8.00	...	8.00	..

6.1. General Education.																
1. Expansion of Academic Department.																
(a) Science	..	..	..	20.00	2.50	2.50	2.50	4.00	0.05	4.25	0.65	4.50	0.70	4.75	0.70	

(b) Humanities.. Dibrugarh Univer- sity.—	..	..	...	..	..	...	..	...	..	..	...	...	..	..	..
2. Expansion of Academic Depart- ment.—																
(a) Science ..	..	..	..	..	50.00	5.00	..	..	...	..	18.00	2.00	17.00	2.00	15.00	1.00
3. Opening of P. G. Class In Cotton College	...	...	...	...	20.00	2.80	...	..	2.00	0.60	4.00	0.60	7.50	0.90	6.50	0.70
Total ..	..	..	..	..	90.00	10.30	2.50	2.50	6.00	0.65	26.25	3.25	29.00	3.60	26.25	2.40
Centrally Sponsored Scheme.																
4. State Institute of Science.	..	..	..	..	20.00	0.75	3.00	1.00	3.50	..	7.50	0.20	4.25	0.25	3.75	0.30
Total ..	..	..	..	..	20.00	0.75	3.00	1.00	3.50	..	7.50	0.20	4.25	0.25	3.75	0.30
Grand Total ..	..	..	..	..	110.00	11.05	5.50	3.50	9.50	0.65	33.75	3.45	33.25	3.85	30.00	2.70

Head of Develop- ment/Name of scheme	Total estima- ted cost	Total Expenditure		Fourth Plan (1966-71)		1966-67	1967-68	1968-69	1969-70	1970-71						
		By end of 1965-66	Third Plan	Total outlay	Foreign exchange	Outlay	Antici- pated expen- diture	Outlay propo- sed	Foreign exchange	Outlay Foreign exchange	Outlay Foreign exchange	Outlay Foreign exchange	Outlay Foreign exchange	Outlay Foreign exchange	Outlay Foreign exchange	Outlay Foreign exchange
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

Social Services.—

6. 2. Technical
Education.—

1. Degree.—

(i) Expansion of A. E. C. including intake in Mecha- nical and Electri- cal Engineering Gauhati.	25.00	..	13.38	5.50	1.00	1.81	1.81	1.24	...	1.24	0.18	0.60	..	0.61	..
(ii) Introduction of Chemical Engi- neering Course at A. E. C., Gauhati.	19.50	...	2.28	14.50	2.50	3.08	3.08	7.62	0.20	..	2.30	...	..	..	..
(iii) Establishment of J. E. C. Jorhat.	1,26.23	79.12	59.71	8.00	2.00	4.47	4.47	3.53	2.00	..	..	..	...	..	..
(iv) Expansion of J. E. C., Jorhat. (Increase intake from 120 to 180).	25.00	...	9.58	25.00	2.00	0.87	0.87	3.64	0.40	3.49	0.50	14.00	0.50	3.00	0.60

(v) Provision for Addl. Equipment for A. E. C. Gauhati.	9.26	..	..	9.26	3.50	1.00	1.00	3.00	0.90	3.00	1.00	2.26	1.60	..	...
(vi) Expansion of A. E. C. Gauhati (increase intake from 180 to 240).	15.00	...	..	15.00	1.50	...	..	2.00	..	5.00	...	4.00	0.50	4.00	1.00
(vii) Expansion of J. E. C. Jorhat (Increase intake from 180 to 240).	8.00	...	...	8.00	0.50	.	..	1.00	...	2.50	0.05	2.00	0.15	2.50	1.30
(viii) Introduction of Degree course in Electronics and Telecommunication. Engineering.	15.00	..	...	10.00	0.50	..	...	1.00	...	2.00	..	3.00	..	4.00	0.50
(Estt. of one New Engg. College.	100.00	...	..	17.00	2.00	..	...	...	...	..	..	6.50	0.30	9.50	1.70

2. Diploma--

(i) Establishment of Polytechnic at Silchar.	40.00	...	21.49	3.50	0.50	1.10	1.10	1.00	0.10	1.40	0.40	...	...	...	...
(ii) Establishment of Polytechnic at Nowgong.	55.00	...	22.01	8.00	1.50	3.80	3.80	2.00	0.15	1.20	0.50	1.00	0.85	...	...

Head of Development/ Name of scheme	Total estimated cost	Total Expenditure		Fourth Plan 1966-71		1966-67	1967-68	1968-69		1969-70		1970-71			
		By end of 1965-66	Third Plan	Total	Foreign outlay exchange	Outlay	Anticipated expenditure	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange
(iii) Establishment of Polytechnic at Dibrugarh.	40.00	...	3.02	30.00	4.00	3.50	3.50	5.50	0.70	8.50	1.30	8.20	2.00	7.30	...
(iv) Expansion of A.E.I., Gauhati, from 180 to 250.	8.80	...	...	8.80	0.90	0.50	0.50	2.00	0.30	3.30	0.60	3.00	...	...	...
(v) Expansion of Polytechnic at Silchar from 120 to 130.	7.00	...	...	7.00	0.50	...	...	0.60	0.10	2.40	0.20	2.00	0.20	2.00	...
(vi) Introduction of diploma course in automobile Engg. at H.R.H. the P. O. W. I., Jorhat Intake 30.	8.00	...	...	5.00	0.40	...	...	0.50	0.05	0.95	0.15	1.80	0.20	1.75	...
(vii) Establishment of two new polytechnics.	90.00	...	...	32.00	1.70	...	...	...	..	8.25	0.70	12.87	1.00	8.88	...
Total	...	591.79	79.12	131.67	206.56	25.00	20.13	34.63	4.90	43.23	7.88	61.23	7.30	43.54	4.10

6.4. Health.

1. Improvement and expansion of the Pasture Institute and Medical Research Institute.	...	..	...	10.00	1.20	...	...	1.50	..	3.00	...	3.00	..	2.50	1.20
2. Establishment of Two Medical Colleges.	...	60.00	175.17	584.75	5.00	37.53	37.53	125.00	...	150.00	2.00	140.22	...	132.00	3.00
3. Post graduate training of Medical officers in India and abroad.	..	..	--	5.00	2.00	0.38	0.38	0.76	0.30	1.00	0.38	1.25	0.38	1.61	0.48
Total	...	..	60.00	175.17	599.75	8.20	37.91	37.91	127.26	0.30	154.00	2.38	144.47	0.38	4.68

6.8. Labour and Labour Welfare
(c) Craftsman Training

1. Spill-Over Schemes.

(a) Development of I. T. Is. Jorhat, Srikona, Tezpur and Nowong.	6.84	4.96	4.96	1.88	0.09	0.26	0.26	0.80	0.04	0.54	0.03	0.28	0.02	...	..
(b) Expansion of existing I. T. Is. Gaubati, Jorhat, Srikona, Tezpur Nowgong and Bangaigaon.	10.41	4.87	4.87	8.62	1.01	2.52	2.52	2.62	0.20	2.40	0.50	1.08	0.31	...	...

Head of Development/Name of scheme	Total estimated cost	Total Expenditure		Fourth Plan '1966-71		1966-67		1967-68		1968-69		1969-70		1970-71	
		By end of 1965-66	Third Plan	Total outlay	Foreign exchange	Outlay	Anticipated expenditure	Outlay proposed	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange

(Rs. in lakhs).

(c) Establishment of 4 I. T. Is, Tinsukia, Barpeta, Aijal and Shillong	11.71	1.98	1.98	7.51	0.84	2.58	2.58	2.26	0.35	0.37	0.30	0.70	0.19	...	..
2. Special Expansion of I. T. I. Gauhati (Model Institute).	...	...	...	21.56	1.28	1.82	1.82	3.20	0.40	10.54	0.60	6.00	0.28	..	...
3. Introduction of additional seats on existing I.T.Is Jorhat, Srikona, Barpeta, Aijal, Diphu and Tura.	...	...	...	34.85	2.08	1.90	1.90	6.00	0.63	18.95	0.81	8.00	0.30	..	...
Total	...	29.04	11.81	11.81	74.42	5.30	9.08	9.08	15.88	1.62	33.40	2.24	16.06	1.10

7.2. Information & Publicity.
 1. Films (Audio-Visual Publicity).

1. Films (Audio-Visual Publicity).	7.42	4.08	4.08	15.08	6.35	11.00	11.00	9.00	...	0.55	...	0.06	..	0.56	...
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STATEMENT IV

DRAFT FOURTH FIVE YEAR PLAN

STATEMENT IV

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	Targets for selected programmes		1967-68 Target	1966-71 Target
				1966-67			
				Target	Anticipated achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I.—AGRICULTURAL PRODUCTION—							
(i) Crop production (lakh tonnes)							
Food Grains—							
(a) Production potential created (additional)	,,	4.20	3.87	1.01	1.01	1.14	6.28
(b) Quantity produced	,,	22.04	19.02	20.08	18.08	21.22	25.30
Oilseeds-production	,,	0.69	0.64	0.68	0.68	0.70	0.84
Sugarcane-production	,,	1.49	1.06	1.18	1.18	1.53	1.92
Cotton-production (lakh bales)		0.10	0.07	0.08	0.08	0.08	0.09
Jute-production	,,	15.00	8.45	10.40	9.00	11.20	13.20
(ii) Minor Irrigation (000 acre)							
Estimated total area under Minor Irrigation							
Additional area to be irrigated for—							
(a) Agricultural sector—							
Gross	,,	357.00	390.00	45.00	45.00	87.00	486.00
Net		144.00	142.00	41.00	41.00	85.00	433.00

(Agri. Deptt.)
(P. W. D.
F.C. & I.)

(b) Community Development Programme—												
Gross	...	...	...	...	..	74.10	72.30	17.30	17.30	17.40	77.00	
Net	...	...	...	...	..	...	...	...	...	...	...
(c) Co-operative sector—												
Gross	...	...	...	...	..	...	...	...	...	...	...
Net	...	...	...	...	..	...	...	...	...	...	...
(d) Total												
Gross	...	...	...	...	..	636.00	661.00	118.00	118.00	212.00	10.59	
Net	...	...	...	...	..	...	...	...	...	...	...
(iii) Soil Conservation on	...	...	...	...	..	{ 6.50	1.30	4.34	4.34	8.34	45.00 (Agri.)	
Agricultural lands	...	...	...	(000 acres)		{ 2.10	1.80	0.50	0.50	1.00	30.00 (Soil)	
Soil conservation in catchment areas of river valley projects.	...	...	...	(000 acres)		...	...	...	...	...	Conservation)	
Land reclamation	...	...	...	(000 acres)		{ 1.60	1.50	1.40	1.40	4.00	33.70 (Soil)	
						{ 7.00	5.00	2.50	2.50	6.30	35.00 (Agri. Department)	
Consolidation of holdings	...	...	...	(000 acres)		..	..	..	..	..	..
(iv) Improved seed—												
Total—Area covered	...	...	...	(000 acres)		...	...	...	...	...	...
(a) high yielding varieties	...	...	...	..		...	...	7.00	7.00	13.00	200.00	
(b) other improved varieties	...	...	...	..		3000.00	1200.00	420.00	480.00	1020.00	3000.00	
Total quantity distributed	...	...	...	(000 tonnes)		...	...	...	...	...	...
(a) high yielding varieties	...	...	...	..		...	...	0.7	0.07	0.14	2.00	
(b) other improved varieties	...	...	...	..		60.00	24.00	9.60	9.60	20.40	60.00	
Plant protection	...	...	...	(000 acres)		...	...	...	...	...	..
Total area covered	..	...	...	..		1690.00	500.00	700.00	700.00	988.00	1600.00	

Targets for selected programmes

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target
				Target	Anticipated achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(v) Chemical fertilizers distributed (in terms of) ..							
(a) Nitrogenous	(000* tones)	*60.00	5.00	17.00	10.00	30.00	100.00
(b) Phosphetic	,,	25.00	14.00	20.00	10.00	25.00	50.00
(c) Potassic ... ..	,,	...	...	2.50	1.50	3.00	20.00
Composting (quantity)	(000 tones)	7.12.00	7.12.00	775.00	775.00	850.00	1120.00
Green Manuring (area benefits)	(000 acres)	1000.00	300.00	345.00	345.00	400.00	600.00
(vi) Trained personnel—							
(a) Agriculture—							
Degree (outturn)	(Nos.)	200	100	100	50	100	350
Diploma/Certificate	(Nos.)	680	680	340	340	340	1000
(b) Veterinary (outturn)							
Animal Husbandry—							
Degree (outturn)	,,	230	142	55	55	50	250
Diploma (outturn)	,,	...	77	...	...	...	...
2.—CO-OPERATION—							
(i) Primary co-operative societies (Agricultural Credit)—							
Number	,,	2570	793	170	170	430	2,737
Membership	(lakhs)	8.00	3.44	3.98	3.98	4.52	6.67

(ii) Agricultural Credit—											
(a) Short and Medium terms	...	...	(Rs. crores)	...	...	...	..	...	..
Advance during year	...	...	..	8 00	0·61	1·70	1·70	2·30	6·00
Amount outstanding at the end of the year.	...	...	..	...	1·40	1·24	1·24	2·02	3·92
(b) Long term (Rs. crores)											
Advances during year	..	...	..	0·25	0·25	0·04	0·04	0·05	43·50
Amount outstanding at the end of the year.	...	...	..	0·30	0·14	0·16	0·16	0·19	52·00
(iii) Rural Godowns	(Nos)	370	181	20	20	42	182
(iv) Primary Marketing Societies..	30	24	2	2	5	15

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3. MAJOR & MEDIUM IRRIGATION*

(i) Estimated total area under irrigation Gross	..	(000 acres)	
(a) Potential	...	...	..	...	...	...	15	15	80	294
(b) Utilisation	...	...	..	...	...	...	...	..	15	220
(ii) Additional area to be benefited—										
(a) Potential	..	..	(Gross)	...	...	...	15	15	65	294
			(Net)	...	...	...	11	11	50	226

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target
				Target	Anticipated achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(b) Utilisation ..	(Gross)	...	...	...	...	15	220
	(Net)	..	...	...	...	11	168
4. POWER							
(i) Installed capacity ...	(000 KW.)	206.00	143.17	145.10	145.10	138.90	214.70
(ii) Electricity generated ..	(Million KWH)	480	113	500	363	402	2,075
(iii) Electricity sold ..	"	...	...	272	272	301	1,556
(iv) Rural Electrification—							
(a) Towns/Villages electrified ..	(Nos.)	179	96	60	60	150	490
(b) Pump sets energised by electricity ...	}	...	...	880	..	...	...
(c) Tubewells energised by electricity ...							
5. TRANSPORT							
(i) Surfaced roads ...	(Kms)	360	292	20	20	50	400
(ii) Unsurfaced roads ...	"	1,040	1,000	100	100	200	1,500
(iii) Rural roads ...	"	1,040	1,000	100	100	200	1,500

6. EDUCATION

General Education Enrolment—

(i) Classes I—V—												
Total	..	..	..	Lakh	4.40	4.04	0.80	0.80	0.80	5.90		
Girls	..	..	..	"	2.20	1.58	0.40	0.40	0.50	3.20		
(ii) Classes VI—VIII—												
Total	..	..	..	"	1.20	0.95	0.25	0.25	0.25	2.37		
Girls	..	..	..	"	0.19	0.35	0.10	0.10	0.10	0.89		
(iii) Classes IX—XI—												
Total	..	..	..	"	0.60	1.06	0.25	0.25	0.25	1.37		
Girls	..	..	..	"	0.18	0.33	0.10	0.10	0.15	0.61		
(iv) University/Collegiate—												
Total (Arts, Science and Commerce) Science only						"	..	..	..	..	..
Teachers—												
(i) In Elementary schools						Number	..	..	1,550	1,550	1,400	..
Per centage trained						"	50.6	..	..	..	..	71.2
In Secondary Schools per centage trained						"	16.2	..	..	..	..	32
Technical Education—												
(i) Engineering Colleges—												
(a) Number of institution						Nos.	3	2	..	..	1	4
(b) Sanctioned annual admission capacity						"	580	270	390	305	460	985
(c) Outturn						"	720	570	100	108	175	1,112

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target
				Target	Anticipated achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(ii) Polytechnics—							
(a) Number of institutions	Nos.	5	5	..	..	..	7
(b) Sanctioned annual admission capacity .. ..	..	910	790	790	790	790	1,310
(c) Outturn .. .. .	..	1,332	1,015	550	275	610	1,765

7. HEALTH

(i) Hospitals .. .. .	..	1	..	..	..	..	1
(ii) Dispensaries .. .. .	..	..	..	..	..	..	..
(a) Urban .. .. .	..	..	..	..	..	..	..
(b) Rural .. .. .	..	11	5	6	6	8	30
(iii) Beds—							
(a) Urban Hospitals and Dispensaries .. ..	..	1,230	820	..	..	150	1,800
(b) Rural Hospitals and Dispensaries .. ..	..	540	65	48	48	96	440
(iv) Primary Health Centres .. .. .	..	90	13	8	8	16	74
(v) Training of Nurses—							
Institutes .. .. .	..	4	4	..	..	..	..
Annual intake .. .. .	..	80	80	120	120	120	360

Annual outturn	395	321	80	84	80	360
(vi) Control of diseases—						
T. B. Clinics	15	5	3	3	3	10
Leprosy Control Units	6	..	..	..	..	6
V. D. Clinic	2	2	..	..	..	1
Filaria Units	1	1	..	..	..	3
(vii) Maternity and Child Welfare Centres .. .. .	..	..	..	..	..	..
(viii) Medical Education—						
(a) Medical Colleges	2	1	2	..	..	2
(b) Annual admission	200	100	100	100	100	600
(c) Annual outturn	60	30	65	65	80	375

8. WATER SUPPLY AND SANITATION

(a) Urban—						
Corporation Towns—						
(i) Augmentation of protected water supply (Million gallons).	..	..	..	..	..	..
(ii) Population covered (Millions)	..	..	..	..	..	..
Other Towns—						
(i) Towns covered (Nos.)	4	1	1	1	2	8
(ii) Population covered (lakhs)	2.03	0.72	0.11	0.11	1.20	2.06
(b) Rural Piped Water Supply—						

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target
				Target	Anticipated achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(i) Villages covered	(Nos.)	209	195	8	8	2	200
(ii) Population covered	(lakhs)	1.12	0.91	0.11	0.11	0.06	9.00
Simple wells—							
(i) Villages covered	(Nos.)	...	...	..	..	...	..
(ii) Population covered	(Millions)	...	..	..	..	...	..
9. HOUSING							
(i) Industrial	...No. of tenements.	756	24	40	40	42	01,300
(iii) Slum clearance	do	485	362	..	..	100	300
(iii) Low Income Group Housing	do	1,000	436	30	30	330	1,060
(iv) Village Housing	(a) No. of villages.	1,200	..	..	..	100	300
	(b) No. of houses completed.	..	..	..	..	...	..

STATEMENT V

Draft Fourth Five Year Plan

Check list in respect of Principal Project costing Rs.5 crores or above.

1. Name of the Project with brief description and location- Umiew Hydro-Electric Project.

The project necessitates the construction of a high storage dam on the river Umiew near Laitlyngkot and a second dam at Mawphlang with water conductor system and a Power House on the bank of river Umiam. This will generate a continuous power output of 13.5 M. W. of its own at Umiew Power House and 22 M. W. with Umiam Stage I and II.

2. Generation period in years 5 years

3. Cost estimate and outlays (Rs. lakhs).

(a) Total estimated cost—

(i) Total
981.00

(ii) Foreign Exchange
100.00

(b) Outlay and expenditure—

Expenditure upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
				1966-67		1967-68	
Total	Foreign Exchange	Total	Foreign Exchange	Approved Total	Foreign Exchange	Proposed Total	Foreign Exchange
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
∴	∴	900.00	100.00	∴	∴	50.00	10.00
				Phasing of outlay			
		Three years total (1968-71)		Balance after 1970-71 if any			
		Total	Foreign Exchange	Total	Foreign Exchange		
		(9)	(10)	(11)	(12)		
		850.00	90.00	81.00	∴		

4. Programme of output/benefits—

Item	Unit	Progress upto 1965-66 (end of Third Plan)	Target for Fourth Plan	Phasing		
				1966-67	1967-68	End of 1970-71
1	2	3	4	5	6	7
Construction of the storage Dam on river Umiew, and 2nd Dam at Mawphlang, water conductor system and Power house.	Construction of the storage Dam on river Umiew, and a 2nd Dam at Mawphlang, water conductor system and Power house.	.....	About 5 per cent work will be completed.	About 90 per cent of the work will be completed.

5. Training of technical and Managerial personnel—

No scheme has yet been envisaged.

6. Employment.—

1. Additional requirement—

Skilled	Fourth Plan				
	1966-67	1967-68	1968-69	1969-70	1970-71
(a) Technical	162	285	578	678
(b) Non-Technical	225	600	1,500	2,000
(c) Unskilled...	50	150	250	250

1. Name of the project with brief description and location :

Gauhati Thermal Project

The project envisages installation of 1 x 30 MW Steam Turbine Set by utilising the furnace oil from the Gauhati Refinery. The Power Station will have a future provision for installation of the 2nd 30 MW unit to be installed during Fourth Plan period. The scheme report for the same is under preparation. The Power Station will be connected to the Umiam-Umtru System and Naharkatiya System through 132 KV and 220 KV Transmission lines.

2. Gestation period in years : 5 years.
3. Cost estimates and outlays (Rs. round lakhs).

(a) Total estimated cost.

(i) Total
663.00

(ii) Foreign Exchange.
250.00

(b) Outlay of expenditure.

Expenditure upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
Total	F. E.	Total	F. E.	1966-67 approved		Proposed 1967-68	
				Total	F. E.	Total	F. E.
1	2	3	4	5	6	7	8
97.52	...	345.00	250.00	45.00	...	175.00	170.00

Phasing of outlay			
Three years total 1968-71		Balance after 1970-71, if any	
Total	F. E.	Total	F. E.
9	10	11	12
125.00	80.00	318.00	...

4. Programme of out put/benefits—

Item	Unit	Progress upto 1965-66 (end of 3rd Plan)	Target for 4th Plan	Phasing		
				1966-67	1967-68	End of 1970-71
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Preliminary works, preparation of sites, construction of Roads, Civil Works, installation and commissioning of machineries.	...	Only some preliminary works, i. e., acquisition of land, preparation of site, etc., were taken up.	As indicated against column 1 and 2.	Order for the machineries has already been placed with a Japanese Firm under Yen credit. Civil works are also in progress.	It is expected that the machineries will arrive at site. Construction of Power House will be taken in hand.	It is expected that the 30 MW Steam Turbine Set will be commissioned by the end of the 4th Five Year Plan. The Power Station will also be connected with the Umtru-Umiam Grid System and Namrup Grid System by 132 KV and 220 KV Transmission lines.

5. Training of technical and managerial personnel

A number of engineers have been proposed for deputation to suppliers workshop in Japan for training.

6. Employment—

1. Additional requirement—

Skilled—

	1966-67	1967-68	1968-69	1969-70	1970-71
(a) Technical	47	180	230	227	56
(b) Non-Technical	200	1,000	1,500	250	100
(c) Unskilled	50	133	133	133	130

Namrup Thermal Station (3×23 M.W.)

1. Name of the project with brief description and location. The project has already been completed and station commissioned with an installed capacity of 3×23 M. W. Gas Turbine Station.
2. Gestation period in years Scheme has already been completed.
3. Cost estimates and outlays (Rs. round lakhs)
- (a) *Total Estimated Cost*—
- (i) Total 1,317.00 (ii) Foreign Exchange 594.00
- (b) *Outlay and expenditure*—

Expenditure upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
Total	Foreign Exchange	Total	Foreign Exchange	1966-67		Proposed 1967-68	
				Approved Total	Foreign Exchange	Total	Foreign Exchange
1	2	3	4	5	6	7	8
1307.07	592.50	10.00	1.50	10.00	1.50	..	..

Phasing of outlay			
Three years Total 1968-71		Balance after 1970-71 if any	
Total	Foreign Exchange	Total	Foreign Exchange
9	10	11	12
..

4. Programme of output/benefits.

Item	Unit	Progress upto 1965-66 end of 3rd Plan	Target for 4th Plan	Phasing		
				1966-67	1967-68	End of 1970-71
(1)	(2)	(3)	(4)	(5)	(6)	(7)
The provision of Rs.10 lakhs made in the 4th Five Year Plan will be utilised for making payment in respect of pending contractors bill.	...	The 3 generating sets of 13 M. W. each have already been installed and commissioned.	As indicated under Columns 1,2 and 3.	All works have been completed and the amount provided for the scheme will be utilised for making payment to the contractors.	..	..

5. Training to technical and managerial personnel.

Six Engineers have already been trained in the suppliers workshops in U. S. A.

6. Employment.

1. Additional requirement—

Skilled.

(a) Technical ...

(b) Non-Technical ...

Unskilled.

...

...

..

...

...

NIL.

Umiling Hydro Electric Project

1. Name of the project with brief description and location :

The project is on the Umtru river in the district of Khasi & Jaintia Hills and is located at a distance of about 25 miles from Gauhati. The scheme envisages construction of a high rockfill dam, an intake and water conductor system, a surge tank, penstock and an overground power House. It will generate 135 MW of power at 35 per cent load factor in the initial stage.

2. Gestation period in year :

Almost 8 years.

3. Cost estimates and outlays:
(Rs. round lakhs).

(a) Total estimated cost.

(i) Total

2,630.00 lakhs.

(ii) Foreign Exchange.

430.00

(b) Outlay & expenditure.

Expenditure upto 1965-66		Outlay proposed & 1966-71		Phasing of outlay			
Total	F.E.	Total	F.E.	1966-67 approved		Proposed (1967-68)	
(1)	(2)	(3)	(4)	Total	F.E.	Total	F.E.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
..	--	1,000.00	300.00	...	...	50.00	16.00

Phasing of outlay			
Three years total (1968-71)		Balance after 1970-71 if any	
Total	F.E.	Total	F.E.
(9)	(10)	(11)	(12)
850.00	290.00	1,630.00	130.00

4. Programme of output/benefits.

Item	Unit	Progress upto 1965-66 (end of Third Plan)	Target for 4th Plan	Phasing		
				1966-67	1967-68	End of 1970-71
1	2	3	4	5	6	7
Construction of Rock fill Dam, Water Conductor System, Penstock, Power House etc.	Construction of Ci- vil Works as indicated against Col. 1.	..	It is expected that about 2 per cent works will be completed during the year.	It is expected that about 40 per cent works will be completed in res- pect of those scheduled for the 4th Five Year Plan.

5. Training of technical and managerial personnel:

No such proposal is envisaged as yet.

6. Employment:

	1966-67	1967-68	1968-69	1969-70	1970-71
1: Additional requirement,					
SKILLED					
(a) Technical	410	799	1,239	1,239
(b) Non-Technical	105	210	340	340
Unskilled	400	1,500	3,000	3,000

1. Name of the project with brief description and location. Fourth Five Year Plan Sub-transmission project.—The scheme envisages the construction of various 66 K. V. 33 K. V. and 11 K. V. lines which are to be constructed during the 4th Five Year Plan and which has not been specifically provided elsewhere.
2. Gestation period in years. About 5 years.
3. Cost estimated and outlays (Rs. round lakhs)—

(a) Total estimated cost:

(i) Total	(ii) F. E.
578.00	30.00

(b) Outlay of expenditure:

Expenditure upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
Total	F. E.	Total	F. E.	1966-67 Approved		Proposed 1967-68	
				Total	F. E.	Total	F. E.
...	..	578.00	30.00	..	..	78.00	10.00
Phasing of outlay				Balance after 1970-71 if any.			
3 yrs. total 68-71				Total	Foreign Exchange		
Total	F. E.			..	..	..	..
500.00	20.00						

4. Programme of outputs/benefits.—

Item	Unit	Progress upto 1965-66 (end of 3rd Plan)	Target for 4th Plan	Phasing		
				66-67	67-68	End of 70-71
(1)	(2)	(3)	(4)	(5)	(6)	(7)
...		As indicated against columns 1 and 2.				

As already indicated the scheme envisages construction of various 66 KV, 33 KV, and 11 KV lines which are not provided elsewhere. Detailed Project Report has not yet been taken in hand.

5. Training of technical and managerial Personnel—

Nil

6. Employment—

Additional requirement:

Skilled	66-67	67-68	68-69	69-70	70-71
	(1)	(2)	(3)	(4)	(5)
(a) Technical	96	96	96	96
(b) Non-technical	150	150	150	150
Unskilled	20	30	30	30

1. Name of the Project with brief description and location.

Distribution [and Rural electrification Scheme

This scheme envisages the construction of distribution lines for electrification of new area and rural electrification.

2. Gestation Period in years 5 years.

3. Cost estimates and outlays (Rs round lakhs)

(a) *Total estimated cost—*(i) Total
500.00

(ii) Foreign Exchange

(b) *Outlay of expenditure—*

Expenditur upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
Total	Foreign Exchange	Total	Foreign Exchange	1966-67 Appd. Total	Foreign Exchange	Proposed 1967-68 Total	Foreign Exchange
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
42.59	..	500.00	...	90.00	...	150.00	...

Phasing of outlay—

3 yrs total 1968-71		Balance after 1970-71 if any	
Total	Foreign Exchange	Total	Foreign Exchange
(1)	(2)	(3)	(4)
260.00

4. Programme of output benefits—

Item	Unit	Progress upto 1965-66 (end of 3rd plan)	Target for 4th plan	Phasing		
				66-67	67-68	End of 70-71
(1)	(2)	(3)	(4)	(5)	(6)	(7)

As already indicated Scheme envisages construction of distribution lines in order to electrify new areas.

By the end of the 3 Five Year Plan altogether 96 Nos of small town and villages have been electrified.

As indicated against columns 1 and 2.

5. Training of technical and managerial personnel.

Nil

6. Employment.

Additional requirement—

Skilled	1966-67	1967-68	1968-69	1969-70	1970-71
			(1)	(2)	(3)	(4)	(5)
(a) Technical			...	95	95	95	95
(b) Non-technical			...	140	140	140	140
Unskilled	20	30	30	30

1. Name of Projects with brief description and location.

Namrup Thermal Project
(Extension Scheme).

The Namrup Thermal Station has already an installed capacity of 3 x 23 MW generated by Gas Turbines. The present proposal is for augmenting this station by 2 x 30 MW Steam Turbine Generating Sets in order to take care of the increasing load demand in Upper Assam.

2. Gestation period in years

Approximately 5 years.

2. Cost estimate and outlays
(Rs. Lakhs).

(a) Total estimated cost.

(i) Total
950.00

(ii) Foreign Exchange
450.00

(b) Outlay and expenditure.

Expenditure upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
Total	F.E.	Total	F.E.	1966-67		1967-68	
				Approved Total	F.E.	Proposed Total	F.E.
1	2	3	4	5	6	7	8
...	...	600.00	450.00	...	...	100.00	80.00

Phasing of outlay			
Three years total (1968-71)		Balance after 1970-71 if any	
Total	F. E.	Total	F. E.
9	10	11	12
500.00	370.00	350.00	...

4. Programme of output/benefits.

Item	Unit	Progress upto 1965-66 (end of Third Plan)	Target for Fourth Plan	Phasing		
				1966-67	1967-68	End of 1970-71
1	2	3	4	5	6	7
Procurement of machineries and comple- tion of all Civil works.	Procurement of machineries and comple- tion of all Civil works.	...	Calling of ten- ders and fina- lisation of designs.	Placing of orders, completion of contractual obli- gation, commence- ment of Civil works including installation works.

5. Training of technical and
Managerial Personnel.

No scheme has been formulated as yet.

6. Employment.

1. Additional requirement	Fourth Plan						
	1966-67	1967-68	1968-69	1969-70	1970-71		
SKILLED							
(a) Technical	47	228	278	328
(b) Non-Technical	500	1,000	1,500	2,000
UN-SKILLED	50	80	80	80

1. Name of projects with brief description and location, **Margherita Thermal Station**

The scheme envisages installation of 2 x 30 MW Steam Turbine Sets to be run by using coal available in the Upper Assam Region. The station will be inter-connected with the existing Namrup Thermal Station and will cater for the load of the Upper Assam Region.

2. Gestation period in years **Approximately 3 years.**

3. Cost estimate and outlays (Rs. lakhs)

(a) *Total estimated cost.*

(I) Total

877.00

(II) Foreign Exchange

205.00

(b) *Outlay and expenditure*

Expenditure upto 1965-66		Outlay proposed 1966-71		Phasing of outlay			
Total	F. E.	Total	F. E.	1966-67		1967-68	
				Approved Total	F. E.	Proposed Total	F. E.
1	2	3	4	5	6	7	8
...	...	300.00	205.00	...	..	50.00	..
Phasing of outlay		Balance after 1970-71, if any					
Three years total (1968-71)							
Total	F. E.	Total	F. E.				
9	10	11	12				
250.00	205.00	577.00	...				

4. Programme of output/benefits—

Item	Unit	Progress upto 19-65-66 (end of third plan).	Target for 4th Plan	Phasing		
				1966-67	1967-68	End of 1970-71
1	2	3	4	5	6	7

Completion of preliminary works including Civil works and procurement of machineries.	Completion of preliminary works including civil works and procurement of machineries.	... Finalisation of designs.	Calling of tenders, commencement of Civil works and Electrical works.
---	--------	---	------------------------------	---

5. Training of technical and Managerial personnel.

No scheme has yet been envisaged.

6. Employment—

1. Additional requirement.

Skilled;	Fourth Plan						
	66-67	67-68	68-69	69-70	70-71		
1	2	3	4	5	6		
(a) Technical	262	330	330	380
(b) Non-technical	500	1,000	1,500	2,000
Unskilled	50	75	110	130

STATEMENTS I—V

Hill Plan

Draft Fourth-Five Year Plan
 Integrated Plan for the Hill Areas
 Summary Statement of Plan outlay proposed—1961-71—State Plans

(Rs. lakhs)

Head of Development	Third Five Year Plan			Fourth-Five Year Plan Outlay									
	Approved outlay 1961-66	Expenditure (Actual) 1961-66	Expenditure (Actual) 1965-66	1966-71			Proposed phasing of outlay 1966-71						
				Total	Capital	Foreign exchange	1966-67		1 67-68		1968-71 (Col. 5 minus Col. 9 plus 10)		
							Approved outlay	Expendi- ture, Anti- cipated	Total Proposed	Capital		Foreign exchange	
1	2	3	4	5	6	7	8	9	10	11	12	13	
	(Rs. lakhs)												
1. Agricultural Programmes—													
1*1. Agricultural Production ... ..	..	..	72.60	29.88	400.00	47.00	..	62.63	62.63	73.75	11.35	..	263.62
1*2. Minor Irrigation—													
(a) Agriculture ... ..	..	..	17.34	2.00	60.00	30.00	..	11.00	11.00	13.00	5.00	..	36.00
(b) P. W. D. ... ..	..	..	22.41	6.18	120.00	105.00	..	13.00	13.00	24.00	21.00	..	83.00
1*3. Soil Conservation ... ..	..	..	100.94	25.12	220.00	160.90	4.80	24.91	24.91	34.00	19.57	0.21	161.09
1*4. Ayacut Development Programme ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..
1*5. Animal Husbandry													
1*6. Dairying and Milk Supply	..	..	27.87	8.15	170.00	47.95	2.00	13.20	13.20	35.80	12.82	..	121.00
1*7. Forests ... ..	..	..	19.33	5.08	80.00	49.50	..	4.65	4.65	15.95	10.01	..	59.40
1*8. Fisheries ... ..	..	..	4.80	1.05	20.00	9.70	0.70	2.35	2.35	4.30	2.20	0.10	13.35
1*9. Warehousing and Marketing	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ... ..	..	..	265.29	77.46	1,070.00	450.05	7.50	131.74	131.74	200.80	81.95	0.31	737.46

2. Co-operation and Community Development—															
1. Co-operation	...	...	..	...	17.51	5.04	80.00	35.27	1.00	9.54	9.54	18.74	11.90	1.00	51.72
2.2. Community Development	...	...	..	...	201.79	54.63	257.00	83.33	..	65.88	65.88	84.82	14.94	...	106.30
2.3. Panchayats	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	...	...	219.30	59.67	337.00	118.60	1.00	75.42	75.42	103.56	26.84	1.00	158.02
3. Irrigation and Power—															
3.1. Irrigation	...	...	...	...	4.26	4.66	40.00	40.00	...	10.00	10.00	10.00	10.00	...	20.00
3.2. Flood Control	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
3.3. Power	...	...	...	...	239.67	61.17	170.00	170.00	...	50.00	50.00	75.00	75.00	...	45.00
Total	...	...	...	...	243.93	65.23	210.00	210.00	...	60.00	60.00	85.00	85.00	...	65.00
4. Industry and Mining—															
4.1. Large and Medium Industries	...	...	..	...	..	..	...	..	..	...	...	...	...	...	...
4.2. Mineral Development	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
4.3. Village and Small Industries—	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
(a) Cottage Industries	...	...	..	...	16.35	3.09	30.00	24.00	...	5.96	5.96	5.00	4.00	..	19.04
Total	...	...	...	...	16.35	3.09	30.00	24.00	...	5.96	5.96	5.00	4.00	...	19.04
5. Transport and Communications—															
5.1. Roads	..	...	..	...	761.97	283.65	1,715.00	1,715.00	8.46	213.20	213.20	350.00	350.00	8.46	1,151.80
5.2. Roads Transport	...	..	...	..	..	..	80.00	...	...	12.00	12.00	20.00	..	..	48.00
5.3. Ports and Harbours	...	...	..	...	...	...	...	..	...	...	...	...	..	..	..
5.4. Other Transport (I.W.T.)...	..	..	..	..	3.33	1.60	40.00	...	...	7.00	7.00	7.20	..	..	25.80
5.5. Tourism...	..	...	..	..	...	..	...	...	...	...	...	...	...	...	...
Total	..	...	...	...	765.30	285.26	1,835.00	1,715.00	8.46	232.20	232.20	377.20	350.00	8.46	1,225.60

Draft Fourth Five Year Plan
Integrated Plan for the Hill Areas
Summary Statement of Plan outlay proposed—1961-71—State Plans

(Rs. lakhs)

Head of Development	Third Five Year Plan			Fourth Five Year Plan Outlay									
	Approved outlay 1961-66	Expenditure (Actual) 1961-66	Expenditure (Actual) 1965-66	1966-71			Proposed phasing of outlay 1966-71						
				Total	Capital	Foreign exchange	1966-67		1967-68		1968-71 (Col. 5 minus Col. 9 plus 10)		
							Approved outlay	Expendi- ture Anti- cipated	Total Proposed	Capital		Foreign exchange	
1	2	3	4	5	6	7	8	9	10	11	12	13	
6. Social Services—													
6.1. General Education	207.45	55.23	530.00	..	..	71.53	71.53	113.53	..	..	344.94	
6.2. Technical Education	7.80	7.60	60.00	38.30	1.00	5.00	5.00	8.40	5.45	..	46.60	
6.3. Cultural Programmes	
6.4. Health—													
(i) Water Supply (Urban and Rural)	64.36	22.25	240.00	240.00	..	45.00	45.00	50.00	50.00	..	145.00	
(ii) Other Programmes	166.95	48.21	320.00	123.90	..	29.85	29.85	68.63	33.40	..	221.52	
6.5. Housing and Urban Development—													
(a) Housing	15.84	5.95	40.00	40.00	..	3.00	3.00	5.25	5.25	..	31.75	
(b) Urban Development	
6.6. Welfare of Backward Classes	

6.7. Social Welfare	...	..	..	..	1.76	0.30	15.00	..	..	2.50	2.50	2.60	...	...	9.90
6.8. Labour and Labour Welfare—															
(a) Craftsmen Training	...	...	...	...	17.47	2.72	30.00	8.12	1.06	5.00	5.00	6.76	3.61	0.32	18.24
6.9. Public Co-operation	...	...	...	..	...	..	...	...	...	...	...	...	...	...	...
Total	..	..	..	..	481.63	142.46	1,235.00	330.32	2.06	161.88	161.83	255.17	97.71	0.32	817.95
7. Miscellaneous—															
7.1. Statistics	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
7.2. Information and Publicity	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7.3. State Capital Projects	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7.4. Hill and Border Areas	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
7.5. Evaluation Machinery	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...
7.6. Others—															
(a) Grants to District Councils	..	...	...	...	95.05	21.45	283.00	...	..	12.80	12.80	28.00	..	...	242.20
Total	..	..	...	...	95.05	21.45	283.00	...	...	12.80	12.80	28.00	...	...	242.20
Grand Total	..	...	...	...	2,086.85	654.62	5,000.00	2,867.97	19.02	680.00	620.00	1,054.73	645.50	10.09	3,265.27

Note—Sectoral outlays under column 2 were not separately worked out for the Hills Areas during the Third Plan and these outlays formed part of the State Third Five Year Plan.

STATEMENT II

Draft Fourth Five Year Plan

Distribution of outlay under selected sub-heads—State—Plans (Hills)

(i) Irrigation and Flood Control

(Rs. lakhs.)

(1)	Anticipated outlay 1961- 66 (2)	1966-67		1967-68 Proposed (5)	1968-71 outlay (6)
		Aproved (3)	Anticipated (4)		
1. Irrigation.—					
(a) Third Plan ... Projects	4.26	10.00	10.00	5.94	...
(b) New Projects ...	...	...	...	4.06	20.00
2. Flood Control. dra- nage, anti-water logging, antisea erosion etc.	...	...	...	...	...
3. Investigations, Rese- arch etc.	...	...	...	...	...
Total	4.26	10.00	10.00	10.00	20.00

(ii) Power

1. Generation ...	...	...	...	...	...
2. Transmission and Distribution ...	...	50.00	50.00	70.00	...
3. Rural Electrifica- ation. ...	...	...	...	5.00	45.00
4. Investigations, Research etc. ...	...	...	...	...	...
Total	239.67	50.00	50.00	75.00	45.00

(iii) Village and Small Industries

1. Handloom Indus- try ...	...	...	...	...	...
2. Powerloom Indus- try ...	...	...	...	...	...
3. Small-scale indus- tries ...	16.35	5.96	5.96	5.00	19.04
4. Industrial estates ...	...	...	...	...	...
5. Handicrafts ...	...	...	...	...	...
6. Sericulture ...	...	...	...	...	...
7. Coir Industry... ..	...	...	...	...	...
8. Khadi and Village Industries. ...	...	...	...	...	...

(iv) Roads

1. Rural Roads	705.97	191.55	191.55	265.90	1008.35
2. Others ...	56.00	21.65	21.65	85.00	143.45

(v) General Education

	Anticipated outlay 1961-66	1966-67		1967-68	1968-71
		Approved	Anticipated	Proposed	Outlay
1. Pre-primary education }		0·16	0·16	0·51	4·08
2. Elementary education--					
(a) Primary ..		} 12·55	12·55	31·37	126·70
(b) Middle ..					
3. Secondary education ..		18·10	18·10	27·35	88·54
4. University education ..		28·16	28·16	29·32	73·23
5. Social education ...		0·43	0·43	1·05	2·80
6. Special schemes for Girls' education—	207·45				
(a) Elementary ..		..	..	..	..
(b) Secondary ...		..	..	..	..
7. Teachers' training—					
(a) Elementary ..		9·73	9·73	14·28	31·89
(b) Secondary ..		1·68	1·68	3·40	4·42
8. Other education sche- mes.		0·72	0·72	6·25	13·28
9. Cultural Programmes }		..	..	..	..
Total ..	207·45	71·53	71·53	113·53	344·94

(vi) Technical Education

1. Degree .. ..	..	..	..	..	..
2. Diploma	7·80	2·50	2·50	6·00	24·50
3. Training of teachers for technical institutions.	..	0·20	0·20	0·40	0·40
4. Other Schemes ...	..	2·30	2·30	2·00	21·70
Total ..	7·80	5·00	5·00	8·40	46·60

(vii) Health (Other than water supply and sanitation)

	Anticipated outlay 1961-66	1966-67		1967-68	1968-71
		Approved	Anticipated	Proposed	Outlay
1. Hospitals and Dispensaries, } 2. Primary Health Centres } 3. Control of communicable diseases } 4. Indigenous and other systems. } 5. Education, training and research. } 6. Other schemes .. }	166.95	8.20	8.20	21.00	76.10
		1.20	1.20	10.00	43.20
		18.47	18.47	35.45	96.03
		0.03	0.03	0.03	0.09
		0.62	0.62	0.35	1.05
		1.33	1.33	1.80	5.05
Total ..	166.95	29.85	29.85	68.63	221.52

(viii) Water Supply and Sanitation

1. Urban Water Supply...	..	..	..	..	..
2. Urban Sewerage ..	..	..	..	..	..
3. Rural Water Supply—					
(A) Piped Water Supply.	64.36	45.00	45.00	50.00	145.00
(B) Construction of simple wells.	..	..	..	..	..

(ix) Housing and Urban Development**(a) Housing—**

1. Industrial Housing ...	..	..	..	..	..
2. Low-income group housing. } 3. Slum clearance and improvement. } 4. Village housing .. }	15.84	2.75	2.75	5.00	30.25
	
		0.25	0.25	0.25	1.50
5. Plantation labour housing ..	..	..	..	..	..
6. Statistical cells ...	..	..	..	..	..

(b) Urban Development—

1. Town Planning ...	..	..	..	..	..
2. Urban Development and R.S.G. Schemes.	..	..	..	..	..
Total ..	15.84	3.00	3.00	5.25	31.75

STATEMENT III

STATEMENT III
Draft Fourth Five Year Plan
(Important Schemes having foreign exchange component)—Hills.

Head of Development/Name of Scheme	Total estimated cost	Total Expenditure		Fourth Plan (1966-71)		1966-67		1967-68		1968-69		1969-70		1970-71		
		By end of 1965-66	Third Plan	Total	Foreign	Outlay	Anticipated expenditure	Outlay	Foreign Exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	Outlay	Foreign exchange	
																5	6	7	8	9	10	11	12	13	14	15	16
1.3. Soil Conservation—																
1. Terracing and Contour bunding.	20·	2·55	10·13	20·00	1·20	1·71	...	3·50		4·70	1·20	3·50	...	4·14		
2. Agronomic Works.	14·00	0·42	0·45	14·00	1·10	0·66	...	1·50		3·00	0·40	4·34	0·50	4·50		
3. Zonal Soil Conservation Research Station.	24·00	1·19	0·83	24·00	1·00	...	..	5·00	0·21	5·00	0·50	7·00	..	6·00	0·69
4. Plants, tools Stores and Miscellaneous.	29·73	4·51	13·07	29·73	1·00	2·43	...	4·50		5·50	0·40	7·50	0·40	9·20		
Total	..	87·73	8·67	24·48	87·73	4·30	4·80	..	14·50	0·21	18·20	2·50	22·34	6·90	24·44	0·69
1.6. Dairying and Milk Supply—																
1. Town Milk Supply Scheme (K. & J. Hills)	50·00	2·20	7·20	10·00	1·00	2·00	2·00	2·00	..	2·00	1·00	2·00	...	2·00	..	
2. Establishment of Condensed Milk Factory (N. C. Hills)	50·00	..	..	31·00	1·00	..	..	3·50	..	9·50	1·00	9·00	..	9·00	..
Total	..	100·00	2·20	7·20	41·00	2·00	2·00	2·00	5·50	..	11·50	2·00	11·00	..	11·00	..

1.8. Fisheries—

1. Fish seed production & distribution.	..	..	...	4'00	0'20	0'85	0'85	0'90	0'05	..	..	...	..	..	..
2. Assistance to Fishery Co-operative Societies.	..	..	..	1'70	0'50	0'24	0'24	0'35	0'05	..	...	..	..	..	...
Total	..	..	..	5'70	0'70	1'09	1'09	1'25	0'10	..	..	...	..	..	..
2.1. Co-operation—															
1. Cold Storage	4'80	...	...	4'80	1'00	..	..	4'80	1'00	...	...	..	..	..	...
5.1. Raods—															
1. Raods & Bridges	1730'00	761'97	761'97	1,730'00	8'46	213'20	213'20	350'00	8'46	400'00	..	400'00	...	375'35	..
6.2. Technical Education—															
1. Establishment of Polytechnic at Shillong.	25'00	7'80	7'80	25'00	1'00	2'50	2'50	5'00	..	5'80	0'20	6'35	0'30	5'05	0'50
6.8. Labour and Labour Welfare—															
(a) Craftsmen Training.															
1. Spill Over Schemes.	31'20	2'04	2'04	7'72	0'93	2'68	1'62	2'34	0'21	1'70	0'52	1'00	0'20	..	..
(a) Establishment of I. T. Is at Aijal and Shillong.															
2. Introduction of additional seats in existing I. T. Is Aijal, Diphu and Tura.	..	..	..	4'83	0'13	0'30	0'30	2'00	0'11	1'53	6'02	1'00	...	...	..
Total-6.8:	31'20	2'04	2'04	12'55	1'06	2'98	1'92	4'34	0'32	3'23	0'54	2'00	0'20	..	..

STATEMENT IV

Draft Fourth Five Year Plan

Targets for selected programmes

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target	Remarks
				Target	Anticipated achievement			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. AGRICULTURE PRODUCTION								
(i) Crop production	
Foodgrains	
(a) Production potential created (additional) (lakh tonnes)		0.47	0.43	0.16	0.16	0.17	0.98	
(b) Quantity produced	„	2.94	1.84	2.00	2.00	2.16	2.82	
Oilseeds—production	„	0.05	0.05	0.05	0.05	0.06	0.06	
Sugarcane—production	„	0.18	0.13	0.16	0.16	0.17	0.22	
Cotton—production	„	0.10	0.07	0.08	0.08	0.08	0.09	
Jute—production	„	0.53	0.33	0.40	0.40	0.52	0.63	
(ii) Minor Irrigation	„	

Estimate total area under Minor Irrigation						...	...	...	...	...	...
Additional area to be irrigated for—												
(a) Agricultural sector						...	...	...	...	...	...
Gross	...	...	...	...	(000 acres)	30.00	40.50	8.00	8.00	9.00	50.00 (Agri. Dept.)
Net	...	...	...	...	...	4.00	4.00	6.00	6.00	8.00	46.00 (PWD---FCI)
(b) Community Development Programme						...	...	...	...	...	...
Gross	...	...	...	...	„	60.90	56.70	14.70	14.70	12.60	63.00
Net	...	...	...	...	„	...	...	...	...	...	...
(c) Co-operative sector						...	...	...	...	...	...
Gross	...	...	...	...	...	...	...	...	...	...	...
Net	...	...	...	...	...	...	...	...	...	...	...
(d) Total						...	...	...	...	...	...
Gross	...	...	...	...	„	104.90	101.30	28.70	28.70	29.60	159.00
Net	...	...	...	...	...	...	...	...	...	...	...
(iii) Soil Conservation on agricultural lands						(000 acres)	12	11	4.5	4.5	7.5	34.7
Soil Conservation in catchment areas of river valley projects.						(000 acres)
Land reclamation						(000 acres)	3	2.7	1.9	1.9	3.1	13.7 Soil Conservation Deptt.
							1	0.5	1.3	1.3	3.3	18.00
(iv) Consolidation of holdings						(000 acres)
(iv) Improved seed—						(000 acres)
Total area covered						...	...	...	...	...	...
(a) High yielding varieties						„	2.00	2.00	3.00	50.00

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target	Remarks
				Target	Anticipated achievement			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(b) Other improved varieties...	(000 acres)	150.00	60.00	21.60	21.60	45.90	135.00	
Total quantity distributed ...								
(a) High yielding varieties ...	(000 tonnes)	...	...	0.02	0.02	0.03	0.50	
(b) Other improved varieties	"	3.00	1.20	0.44	0.44	0.93	2.70	
Plant protection	(000 acres)	...	...	...	...	...	...
Total area covered	"	300	100	130	130	178	300	
(v) Chemical fertilizers distributed (in terms of)								
(a) Nitrogenous	(000 tonnes)	12	1	5.10	2.00	9.00	30.00	
(b) Phosphatic	"	5	2.80	6.00	2.50	7.50	15.00	
(c) Potassic	"	...	...	0.75	0.15	0.90	6.00	
Composting (quantity)	...	61.00	57.00	95.00	95.00	140.00	301.00	
Green Manuring (area benefited)	(000 acres)	150.00	50.00	60.00	60.00	70.00	100.00	
(vi) Trained personnel								
(a) Agriculture	...	...	...	...	...	...	...
Degree (outturn)	"	...	...	...	...	...	...
Diploma/Certificate	"	100	100	50	50	50	100	
(b) Veterinary (outturn)	...	...	...	...	...	...	...
Animal Husbandry	...	...	...	...	...	...	...
Degree (outturn)	"	...	...	...	...	...	...
Diploma (outturn)	"	...	...	...	...	...	...

2. COOPERATION

(i) Primary co-operative societies (Agricultural Credit)—											
Number	...	...	...	...	...	...	399	450	450	500	800
Membership	...	...	...	...	...	...	14,357	16,000	11,000	20,000	25,000
(ii) Agricultural Credit—											
(a) Short and Medium terms (Rs. crore)											
Advance during year	...	...	...	...	...	...	1.20	...	...	...	...
Amount outstanding at the end of the year	...	...	...	...	...	...	7.00	...	...	...	...
(b) Long term (Rs. cr.)											
Advance during year	...	...	...	...	...	...	...	...	...	...	...
Amount outstanding at the end of the year	...	...	...	...	...	...	...	...	...	...	...
(iii) Rural Godowns	...	...	...	(Nos.)	...	...	10	7	7	12	29
(iv) Primary Marketing Societies	...	...	...	(Nos.)	...	...	67	10	10	5	20

3. MAJOR AND MEDIUM IRRIGATION

(i) Estimated total area under irrigation (000 acres)											
Gross	...	...	...	...	...	...	...	...	...	...	...
(a) Potential	...	...	...	...	...	...	...	4	4	6	14
(b) Utilisation	...	...	...	...	...	...	...	...	...	4	12
(ii) Additional area to be benefited—											
(a) (Potential)											
	...	...	...	(Gross)	...	...	...	4	4	2	14
	...	...	...	(Net)	...	...	...	3	3	2	11

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-67 Target	1967-71 Target	Remarks
				Target	Anticipated achievement			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(b) Utilisation	(Gross)	...	..	..	..	4	12	
	(Net)	..	..	..	...	3	10	
4. POWER								
(i) Installed capacity	(000 KW)	...	..	..	...	...	..
(ii) Electricity generated	(000 KWH)	..	...	..	...	...	...
(iii) Electricity sold ... .. .	"	...	...	...	...	..	...
(iv) Rural Electrification—								
(a) Towns/Villages electrified ...	(Nos)	1	1	...	..	...	5	
(b) Pump sets energised by electricity	...	...	...	...	...	...	...
(c) Tubewells energised by electricity	(Nos)	...	...	..	...	...	...
5. TRANSPORT								
(i) Surfaced roads	(Kms)	330	292	40	40	70	280	
(ii) Unsurfaced roads	;	1,040	1,000	120	120	240	1,200	
(iii) Rural roads	"	1,040	1,000	120	120	240	1,200	

6. EDUCATION

GENERAL EDUCATION—

ENROLMENT—

(i) Classes I—V—

Total — 1,08,000 68,784 18,000 15,000 22,500 62,700

Girls 50,000 32,925

(ii) Classes VI—VIII—

Total 17,000 8,007 8,000 6,500 8,750 24,810

Girls 5,000 1,485

(iii) Classes IX—XI—

Total 9,000 5,869 6,550 3,250 5,350 19,630

Girls 4,000 2,149

(iv) University/Collegiate—

Total (Arts, Science and Commerce)

Science only.

TEACHERS—

(i) In Elementary schools—

No. 4,300 1,772 600 600 750 2,090

Percentage trained 50 32.8 60

In Secondary Schools 1,500 564 370 52 150 982

Percentage trained 18 14.6 32

TECHNICAL EDUCATION—

(i) Engineering Colleges—

(a) Number of institution.. .. (Nos)

(b) Sanctioned annual admission capacity ,,

(c) Outturn ,,

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target	Remarks
				Target	Anticipated achievement			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(ii) Polytechnics—								
(a) No. of institutions	Nos.	1	1	..	..	..	2	
(b) Sanctioned annual admission capacity	Nos.	180	60	60	60	60	240	
(c) Outturn	Nos.	..	..	..	..	..	70	
7. HEALTH								
(i) Hospitals	Nos.	1	1	..	..	..	..
(ii) Dispensaries								
(a) Urban	..	..	..	..	..	..	..
(b) Rural	..	40	12	6	6	6	34	
(iii) Beds—								
(a) Urban Hospitals and Dispensaries	Nos.	358	142	100	100	150	410	
(b) Rural Hospitals and Dispensaries	Nos.	194	38	12	12	30	156	
(iv) Primary Health Centres	Nos.	29	3	2	2	5	26	
(v) Training of Nurses—								
Institutes	..	..	..	..	..	..	..
Annual intake	..	..	..	..	..	..	..
Annual outturn	..	..	..	..	..	..	..

(vi) Control of diseases—										
T. B. Clinics	Nos.	6	..	2	2	1	6			
Leprosy Control Units	Nos.	2	..	..	..	..	2			
V. D. Clinics.. .. .	Nos.	..	..	..	..	..	..
Filaria Units	Nos.	..	..	..	..	..	..
(vii) Maternity and Child—										
Welfare Centres	Nos.	..	..	..	..	..	..
(viii) Medical Education—										
(a) Medical Colleges	Nos.	..	..	..	..	..	..
(b) Annual admission	Nos.	..	..	..	..	..	..
(c) Annual outturn	Nos.	..	..	..	..	..	..

8. WATER SUPPLY AND SANITATION

(a) Urban Corporation Towns—										
(i) Augmentation of protected water supply ..	(Million gallons).	..	..	..	..	..	..
(ii) Population covered	(Millions)	..	..	..	..	..	..
Other Towns—										
(i) Towns covered	Nos.	..	..	..	..	..	..
(ii) Population covered	(Millions)	..	..	..	..	..	..
(b) Rural Piped Water Supply.										

Item	Unit	Third Plan Target	Achievement at the end of Third Plan	1966-67		1967-68 Target	1966-71 Target	Remarks
				Target	Anticipated achievement			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(i) Villages covered	(Nos.)	7	6	1	1	2	14	
(ii) Population covered	(laks)	0.07	0.06	0.01	0.01	0.03	0.16	
Simple wells---								
(i) Villages covered	(Nos.)	..	..	..	..	..	..
(ii) Population covered	(Millions.)	..	..	..	..	..	..

9. HOUSING

(i) Industrial	No. of tenemens.	
----------------------	------------------	----	----	----	----	----	----	--

(ii) Slum clearance	..	..	Do	..	..	...	..	..	..
(iii) Low Income Group Housing	..		Do	..	30	30	50	150	..
(iv) Village Housing	..	..	(a) No. of villages	...	5	5	5	30	...
			(b) No. of houses completed.	..	..	..	..	..	..
(v) Land acquisition and Development			Area Developed (Acres).	..	..	..	..	..	..

10. TRAINING OF CRAFTSMEN

Institution—			(Nos.)						
(a) Existing	..	...	..	4	4	..	..	...	..
(b) New	..	..	..	..	..	..	..	..	..
Intake	} Existing	..	..	676	676	676	676	736	996
Outturn		..	..				
Intake	} New	..	..	..	..	..	..	..	..
Outturn		..	..	..	..	..	..	..	..

APPENDIX A

Selected indicators of Development in different sectors in Assam and All-India

Item	Year	Unit	India	Assam	Col. 5 as per- centage to col. 4
(1)	(2)	(3)	(4)	(5)	(6)
PER CAPITA INCOME—					
At constant (1960-61) prices	1964-65	Rupees	328.0	338.5	...
	1965-66	Rupees	325.0	332.2	..
AGRICULTURE—					
Production of Foodgrains	1964-65	Million tonnes	88.40	1.97	2.2
Per capita production of foodgrains	1964-65	Kilogram	190.0	151.0	..
Index of Agricultural production ..	1964-65	Base 1949-50 = 100.	158.0	122.8	..
CONSUMPTION OF FERTILIZERS—					
(a) Nitrogenous	1961-66	Thousand tonnes.	600	5	0.8
(b) Phosphatic	1961-66	Do	150	14	9.3
CO-OPERATION—					
Number of Co-operative Society ..	1963-64	Thousand	56.0	9.5	..
Number of Societies per lakh of inhabitants.	1963-64	Number	75.5	74.9	..
Membership of Primary Societies ...	1963-64	Lakh	453	6.0	1.3
Number of Members per thousand inhabitants.	1963-64	Number	100	49	..
Average Working capital (all societies) per head of population.	1963-64	Rupees	45.1	15.4	..
INDUSTRY—					
Number of factories	1964	Number	60,061	1,357	2.2
Employment in factories	1964	Thousand	4,575	94	1.8
Income from factory industry ...	1964-65	Rs. crores	2,070	41	2.0
Income from mining	1964-65	Do	220	16	7.3
Income from small enterprises ..	1964-65	Do	1,310	37	2.8

APPENDIX 'A' - contd.

Item	Year	Unit	India	Assam	Col. 5 as per-centage to Col. 4
(1)	(2)	(3)	(4)	(5)	(6)
POWER—					
Installed capacity	1961-65	MW.	7,350	127	1.6
	1965-66	Do	10,170	143	1.4
Generation (Total)	1964-65	Million Kwh.	28,953	64	..
Industrial consumption of electricity as percentage to total consumption.	1964-65	P.C.	73	56	..
Number of towns and villages electrified	1965-66	No	52300	96	..
ROADS—					
(All extra-municipal roads) total surfaced roads.	As at end of March 1962.	Thousand Kilometres.	247.00	3.80	1.5
Length of surfaced roads per 100 sq. Kilometre area.	Do.	Kilometre	75	3.1	..
Length of unsurfaced motorable roads per 100 sq. Kilometre area.	Do	Do	8.4	11.7	..
Length of total motorable roads (surfaced and unsurfaced) per 100 sq. Kilometre area.	Do	Do	15.9	14.9	..
GENERAL EDUCATION—					
Percentage of literacy	1951	P.C.	24.0	27.4	..
(a) Male	1961	Do	31.4	37.3	..
(b) Female	1961	Do	12.9	16.0	..
Number of Primary Schools	1963-64	Thousand	375.8	18.9	5.0
Number of Primary Schools per 100 sq. Kilometre of area.	1963-64	Number	11.5	15.5	..
Number of Middle Schools	1963-64	Thousand	66.0	2.3	3.5
Number of Middle Schools per 100 sq. Kilometre of area.	1963-64	Number	2.0	1.9	..
Number of High and Higher Secondary Schools.	1963-64	Thousand	23.0	0.9	3.9
Number of High School per 100 sq. Kilometre area.	1963-64	Number	0.7	0.7	..
Number of Colleges for general education.	1963-64	Do	1362	62	4.6

APPENDIX A—concld.

Item	Year	Unit	India	Assam	Col. 5 as per-centage to Col. 4
(1)	(2)	(3)	(4)	(5)	(6)
STUDENTS AT SCHOOL—					
Elementary (Class I-V) age group 6-11 years.	1963-64	Lakh	446.3	13.9	3.1
Percentage of enrolment to total population in the age group 6-11 years.	1963-64	P.C.	72.2	74.8	..
Middle School (Class V-VIII) age-group 11-14 years.	1963-64	Lakh	92.0	2.8	3.0
Percentage of enrolment in Middle Schools to total population in the age-group 11-14 years.	1963-64	P.C.	28.4	29.5	...
Secondary Schools (Class IX above) age-group 14-17 years.	1963-64	Lakh	40.1	1.8	4.5
Percentage of enrolment in Secondary Schools to total population in the age-group 14-17 years.	1963-64	Number	13.6	21.3	...
TECHNICAL EDUCATION—					
Degree in-take	1965-66	Number	24,700	270	1.1
Diploma in-take	1965-66	Number	49,900	850	1.7
HEALTH—					
Hospital beds	1965-66	Thousand	240	5.4	2.3
Family Planning Centres	1965-66	Number	11,474	180	1.6
Number of Family Planning Centres per lakh of population.	1965-66	Number	2.35	1.34	...
Number of hospital beds per lakh of population.	1965-66	Number	49	40	...
Medical College in-take	1965-66	Number	10,625	250	2.4
Doctors	1965-66	Thousand	86.00	3.6	4.2
Doctors-population ratio	1965-66	...	1:5683	1:3726	...
Nurses	1965-66	Thousand	45.00	1.6	3.6
Auxiliary Nurses and Midwives	1965-66	Thousand	35.00	1.5	4.3

APPENDIX B

LIST OF BACKWARD AREAS

1. Area comprised of blocks Murkongsellek, Lakhimpur, Ihakuakhana, Naoboicha, Bihpuria and Dhemaji covering 2.7 thousand square miles with a population of 2.5 lakhs. This is a backward area bordering the N.E.F.A. While tremendous development activities are going on on the other side of the border in N.E.F.A., the continued backwardness of this area may have an adverse effect on the psychology of the people inhabiting this area. Rapid development of this area is also needed in order to maintain supplies of food stuff, etc., to the army posted in the border.

2. Area comprised of the Majuli Department Block. The area being an island has its peculiar problems of development.

3. Kachugaon-Gossaigaon and Dotoma Development Block.

4. Baida-Nibari, Jawaska, Badarpur, Senior G.S's circle of the Balijana Development Block.

5. Mahis and Lakshmi Bazar G. S. Circles of North Karimganj Development Block.

6. Garubat Mouza of Kathiatoli Block.

7. Kuhumtoli, Udmari, Rupahi and Auniati circles of Rupahi Block.

8. Halem, Kolompara, Gohpur and Brahmajan circles of Charduar Development Block.

9. Amba Gaom, Sastrapara, Naoharna, Sanigaon and Borgaon circles in Udalguri Development Block.

10. Keharutoli, Kalaigaon and Kacharipara Circles of Kalaigaon Development Block.

11. Bhurbandha, Hatipara, Bhatiakhali, Furtalzan and Dakhin-Khalual circles of Laokhowa Development Block.

12. Rupahi, Salbari, Kalabari and Golgaon of Jalah Development Block.

13. Samaraidar, Barbari, Udalbari, Massapur, Thonma circles of Baska Development Block.

Tokeria, Bhitarkhola, Ghandra, Digumpar, Dhauka and Sila circles Development Block.

Telesia, Haihara, Digaru and Panbari circles of Dimoria

Chhajanpur, Bargaon, Mandaka and Basara circles

17. Bengalipara, Kokrajhar, Jalkahana and Nobkuchi circles of Tihu Barama Development Block.

18. Kalibari, Budlung, Siperi, Moamari, Sharnagaon, Kuchdhowa, Dhanubhanga circles of Dudhái Development Block.

19. Kakajana, Shrijongran, Deohati, Kalbari and Malegaon circles of Shrijangram Development Block.

20. Uzantarapur, Kamanga, Joypur and Harinagar circles of Rajabazar Development Block.

21. Daloo, Chivitavichia, Buritail, Arunachal and Massimpur circles of Salchapra Development Block

22. The 42 villages in Jorhat Subdivision inhabited by the CHAUDANG COMMUNITY which is socially, educationally and economically a backward community.

23. The southern portion of the district of Kamrup bordering K. and J. Hills.

24. Transferred area from Frontier Tract.