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DRAFT FIVE YEAR PLAN

1978—83

**GOVERNMENT OF SIKKIM
PLANNING AND DEVELOPMENT DEPARTMENT
GANGTOK**

D R A F T

FIVE

YEAR

PLAN

1978-83

GOVERNMENT OF SIKKIM

ANNING AND DEVELOPMENT DEPARTMENT

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CHAPTER I - INTRODUCTION

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CHAPTER I.

REVIEW OF OVERALL DEVELOPMENT.

The process of Planned economic development in Sikkim was initiated as early as 1954 when a Seven Year Plan from 1954 to 1961 was formulated with the help of a technical team of the Planning Commission. This was followed up by three - Five Year Plans namely the Plans for 1961 to 1966, from 1966 to 1971 and from 1971 to 1976. Sikkim became a part of the Indian Union in May, 1975 when the fourth plan was drawing to a close. The fifth plan which started from 1.4.1976 was thus the first plan after the attainment of Statehood. The fifth plan unlike the other plans was of shorter duration because it began only on 1.4.1976 and the Planning Commission felt that it would be better if it were to terminate along with the fifth plans in the rest of the country. Originally the fifth plan from 1976 to 1979 was of the order of Rs. 39.64 crores as was approved during the meeting of the National Development Council in September 1976. The fifth plan however has had actually only a two year duration since the Plan for 1978 - 83 has taken into account the terminal year of the plan for 1976-79 that was approved earlier.

The actual expenditure position until the fourth plan under the three main sectors is tabulated below:

Sector	First Plan (1954-61)	Second Plan (1961-66)	Third Plan (1966-71)	Fourth Plan (1971-76)
	Rs. in lakhs			
Primary Sector	53.00(16.4)	103.00(16.0)	137.00(14.00)	317.00(16.9)
Secondary Sector	48.00(14.8)	66.00(10.3)	150.00(15.4)	290.00(15.3)
Tertiary Sector	223.00(68.8)	472.00(73.7)	685.00(70.4)	1268.00(67.6)

(Figures in brackets indicate percentage).

From the above statement it is clear that the maximum expenditure has been incurred in the tertiary sector. Out of the various subsectors contained in this sector maximum expenditure has been under Roads and transport accounting for 48.2%, 48%, 47.6% and 41.3% respectively of the total in the various plan periods. It is not surprising to note that the bulk of the expenditure is claimed by roads and transport since in a State like Sikkim which is entirely hilly with difficult terrain the process of planned economic development has a direct relationship with investments made in these areas. The pattern has not changed very much in the two years of the fifth plan. The expenditure in the primary sector for 1976-77 was Rs. 313.4 lakhs as against Rs. 190.99 in the secondary sector and Rs. 663.37 in the tertiary sector. Percentage wise this works out to 26.1%, 16.5% and 57.4% respectively. In the year 1977-78 the relative figures are Rs. 378.99 lakhs, Rs. 171.36 lakhs and Rs. 726.74 lakhs respectively.

It is interesting to note that the expenditure in terms of percentage under roads and transport has come down from 48.2% in the first plan period to 41.3% during the fourth plan and about 30.5% in the two years of the fifth plan. This change in the expenditure trend is indicative of the importance that the Government are attaching to greater investment in the primary sector. As a matter of fact the allocation in the primary sector has gone up from 14 to 16% to an average of about 26% in the last two years of the Fifth Plan. The primacy of agriculture in the rural economy has apparently resulted in the greater emphasis being given to this sector.

The investment pattern proposed for the 1978-83 plan takes into account the trend in expenditure of the previous years and the need to revitalise some of the areas which will

have a direct effect on introducing growth with social justice. A word or two about the general features of the State is a necessary preface before delineating the objectives and strategy of the plan.

The territory of Sikkim is entirely hilly and undulating, the altitude varying from 300 to about 5,500 metres. The total area of the State is 7,299 sq. kms. It has three international boundaries namely Tibet to the North, Bhutan to the East and Nepal to the West. The State of West Bengal touches the State on the South. The population of Sikkim according to the 1971 census was 2.10 lakhs. The density of the population per sq. km area was only 29 as against the All India average of 177. The sex ratio according to the 1971 census was 863 females per thousand males as against the All India figure of 930. The decadal population variation in the State is as follows:

Year	Total	Population.	
		Male	Female.
1971	209,843 (29)	112,662	97,181
1961	162,189 (78)	85,193	76,996
1951	137,725 (13)	72,210	65,515
1941	121,520 (11)	63,289	58,231
1931	109,808 (34)	55,825	53,983
1921	81,721 (-7)	41,492	40,229
1911	87,920 49	45,059	42,861
1901	9,014	30,795	28,219

(Figures in bracket indicate % age increase over previous census).

Applying a growth rate of 2.75 % which is the growth rate in the decade between 1961 and 1971 the present population of the State can be only 2.54 lakhs. However, there is a possibility that

the growth rate is much more than 2.75%, because of the migration from other parts of the country mainly on account of the increased job opportunities consequent on the expanded planned development of the State. Out of the total population of 2.10 lakhs recorded in the census of 1971, 1.12 lakhs have been recorded as a part of the working force. This gives a participation rate of 53.2 % which is appreciably higher than the All India average of 39.2% . The high participation rate is typical of the region and is dictated by the climatic and rigours of nature in this area. It does not appear to be because of excessive pressure on man power. The women also participate more or less on an equal basis with men in economic activity. Within the State the participation rate varies from district to district the highest being in the North district (59.82%). The rates in East and West districts are lesser being around 50% perhaps on account of the fact that better schooling facilities divert many children and young persons from the working force. The high participation rate in the North on the other hand indicated that the area is comparatively more backward.

The percentage of literacy in the State according to the census of 1971 shows an overall literacy percentage of 18%. This is much below the All India level which is of the order of 29%. A distressing feature is that the illiteracy rate is much more among women, it being 8.90% as against 25.37% of the males. Compared to the All India level where the percentage for males and females is 39 and 19 respectively, the percentage as in 1971 is still very disturbing. As a matter of fact the literacy percentage in Sikkim is the second lowest in the country, it being next only to the Union Territory of Dadra

and Nagar Haveli where the overall percentages is about 15. As a result of the low level of the literacy rate the non-formal education system was introduced in a big way in the State during the fifth plan. The resultant presumption is that the overall literacy percentage has gone up to atleast 25% by the beginning of 1978. A heartening feature when one makes a study into the question of literacy in the State is that in 1931 the percentage of literacy was as low as 3.54% whereas the present presumption is that it is in the region of 25%. Past experience has shown that the receptivity among the population is of a high order so that a concerted attempt to eradicate illiteracy is bound to yield dividends.

As in many other parts of the country the livelihood pattern of the population indicates that the major economic activity is in agriculture. Nearly 85% of the working force is engaged in agricultural activity. The following table gives the distribution of the working population,

Percentage distribution of workers of each sex into industrial categories in 1971:

	Total	Male	Female
1	2	3	4
Total workers	100 (111,607)	100 (70,933)	100 (40,674)
(i) Cultivators	81.0	74.5	92.2
(ii) Agricultural Labourers	4.0	4.2	3.2
(iii) Livestock, Forestry, Fishing, Hunting, Plantation, Orchards & allied services	1.0	N	N
(iv) Manufacturing (other than household Industry)	1.0	N	N
(v) Mining & Quarrying	N	N	N
(vi) Household Industry	N.0	N.0	N
(vii) Construction	3.00	4.3	N

	1	2	3	4
(viii) Trade & Commerce		2.0	3.1	N
(ix) Transport, Storage and communications		2.0	2.3	N
(x) Other Services		6.0	8.6	2.0

N = less than 1%

The table shows that only about 6% of the population is engaged in the service sector. Another noticeable feature is that the employment in household industries is virtually negligible although the normal situation in a hill State with rigorous climatic conditions would be that a sizeable number should be engaged in the cottage and household sector. This fact is however an important point to the planner because by investing properly in this sector of economic activity it would be possible to substantially increase the net-domestic product of the State.

While considering the livelihood pattern the fact that the agricultural economy is based on a semi-feudalistic structure cannot be ignored. The various surveys conducted by the North Bengal University have revealed that about 30% of the families owned 70% of the gross income of the State indicating that there is inequality in the distribution of wealth. To some extent the inequality arises from the fact that there is a system of merchant capitalism which is not only non productive but is also based on unequal exchanges resulting in huge profits to a small section of traders who have settled in the area from the plains. Redistributive justice can however be best ensured by following a meaningful programme of Land Reforms

which would take into account the need to confer ownership rights over land to as many of the rural population as possible. The ownership of land in rural areas is the one single symbol through which the right of an individual to be recognised in society is established. In a purely agrarian State like Sikkim the ownership of land is the only way by which the production base can be increased. Thus, the initiation of Land Reforms which has already begun will be followed up rigorously during the plan period mainly to ensure distributive justice.

The introduction of Land Reforms and the physical distribution of surplus land can be achieved only when there is a proper survey of the extent of holdings and the maintenance of land records. During the fifth plan such a programme has been started and it is expected that this will be completed during the coming two or three years. While land records are thus being shaped and put into proper order for the first time, there is as yet no system of crop enumeration nor is there a system of a village level agency. These drawbacks are proposed to be removed in the coming few years so that a better idea regarding the basic uses of land can be had before the introduction of specific schemes.

The broad pattern of usage of land is as follows:-

<u>Land Use Pattern.</u>		
Type of Land (1)	Area in '000' hectares. (2)	Percentage to total (3)
Area under Forest	262.14	36.2
Barren and Uncultivable	294.23	28.3
Permanent Pastures	102.40	14.1
Land under Misg tree crops and groves	1.00	0.6
Land under cultivation	81.23	11.2
Others including unaccounted for	62.96	7.6
	723.96	100.0

The Census 1971 divides the cropped area of 81,230 hectares into three categories (i) Paddy (wet) 11,535 hectares (14.21%) (ii) dry fields 64, 174 hectares (78.99%) and (iii) cardamom fields 5521 hectares (6.80%). The distribution of area according to crops as thrown up by the survey and settlement operations in early fifties is as under:

<u>Crop</u>	<u>Area in hectares</u>	<u>Percentage to total</u>
1. Maize	44,517	55.2
2. Paddy	12,141	15.1
3. Cardamom	7,285	9.0
4. Orange	809	1.0
5. Apple	81	0.10
6. Potato	2,024	2.5
7. Wheat	4,047	5.0
8. Buckwheat	3,238	4.0
9. Millets	3,238	4.0
10. Peas, beans pulses	2,024	2.5
11. Ginger	809	1.0
12. Others	413	0.6
Total	80,626	100.0

These data show that:

(i) Cereals account for 66,776 hectares or 83.3% of the total area under crops. Among cereals the most important is maize which accounts for 44,517 hectares followed by paddy with 12,141 hectares.

(ii) Pulses account for 2,024 hectares or 2.5% of the cropped area, and

(iii) The main cash crops are cardamom, orange, potatoes and ginger.

Since no crop estimation surveys based on crop cutting experiments have so far been conducted it has not been possible to assess the impact of agricultural development scheme on the production pattern of the various crops. Various figures of food grain production have been worked out by different agencies. The technical team of the Planning Commission for the Fourth Plan assumed a production figure of 26,000 tonnes for 1970-71 and presumed that by the end of the fourth plan that this would reach the figure of 28,000 tonnes. The present production figure for food grains can be presumed to be about 35,000 tonnes. Taking into account the estimated population, the total requirement of foodgrains for the State based on caloric and other requirements would be about 45,000 tonnes a year by 1982-83. A target of 50,000 tonnes is kept in mind while working out the details of agricultural development planning for the coming years. Apart from foodgrains, the estimated production of the two other important commercial crops namely cardamom and orange is estimated at 2,000 and 2,500 tonnes respectively. These are however only estimated figures and are somewhat conjectural.

Broad details about some of the other sectors are as follows. According to the 1971 census only about 2% of the working force of the population is engaged in manufacturing mining and industry. There are no large scale manufacturing units or processing establishments in the State. The Government Fruit Preservation Factory, the Sikkim Mining Corporation and the Sikkim Distilleries are the three main manufacturing concerns which are older units. The Sikkim Jewels, the Sikkim Time Corporation and the Tea Garden are a few units which have recently come up. No authentic data are available on the

capital employed, the turn over etc. As regards handicraft industry, the Government Institute of Cottage Industries which was set up in 1957 is the only unit which has attempted to harness the traditional skills of the local boys and girls in producing articles of quality maintaining the Sikkimese traditions. This unit is gradually converting itself into a production-cum-training centre so much so that some of the trainees on completion of their training branch off into the production side.

As far as education is concerned there has been a certain expansion of educational facilities for all age groups. Number of primary schools increased from 143 in 1960-61 to 322 in 1977-78. Likewise, Junior High Schools increased from just 1 in 1960-61 to 40 in 1977-78. There are at present 17 numbers of High and Higher Secondary Schools as against a mere 4 in 1960-61. A Degree college has also been started. The table below shows the comparative position since 1960-61.

	1960-61	1965-66	1970-71	1976-77	1977-78.
Primary schools	No. 143	154	164	251	322
Junior High Schools	No. 1	7	21	30	40
High/Higher Secondary schools	No. 4	4	6	17	17
School going '000' Children	9.00	13.70	18.80	28.58	40.00

With the inception of the fifth plan, considerable progress has been achieved in the provision of general health services also. Although the number of hospitals has not increased from 5 since 1960-61 these hospitals have been staffed with more speciality services and by increases in bed strength. In the

rural areas the progress made in the setting up of Primary Health Centres and Primary Health Sub Centres has been extremely good ^{is} as/in keeping with the revised programme of Minimum Needs. The table below gives the details.

	1960-61	1965-66	1970-71	1975-76	1976-77	1977-78
Hospitals	No. 5	5	5	5	5	5
Primary Health Centres	No. -	-	-	-	2	8
Dispensaries including Primary Health Sub-Centres	No. 11	20	24	26	24	32
Doctors	No. NA	13	20	30	30	46
Beds available	No. 170	270	284	337	350	449
Patients treated						
Indoor	No. NA	NA	NA	NA	NA	6,258
Outdoor	No. NA	NA	NA	NA	NA	1,73,805

No data on the trends of communicable disease for the past years are available. For 1977-78 however the number of cases reported and deaths occurring therefrom were as under:

Disease	No. of persons	
	Treated	Deaths
	1	2
1. Tuberculosis	3090	50
2. Syphilis	13	Nil
3. Gonococcal infection	132	Nil
4. Infectious Hepatitis	127	6
5. Malaria	18	1
6. Influenza	7682	Nil
7. Leprosy	6	.

No cases of Cholera and Small Pox were reported during 1977-78.

As mentioned earlier the road and transport sector has had the maximum share of plan investments. The investment in roads has not only got the advantage of improving the infrastructure and thereby opening up the rural areas for economic development but also the advantage of enhancing unskilled employment opportunities. Such investment is therefore considered to be a basic necessity in the Plan. The progress made in this sector is tabulated below:

	1960-61	1965-66	1970-71	1977-78	(Kms)
Surfaced Roads	138	302	368	651	-National & State High- way
Unsurfaced Roads	78	245	458		
District Roads	NA	NA	NA	339	
Other Roads	NA	NA	NA	420	
Total	216	547	826	1410	

In 1960-61 there were a total of 138 kms of surfaced roads. The length of National/State Highways now is 1410 kms. In 1954 the only motorable road in the State was the one from Gangtok to Rangpo, a length of about 40 kms only. The expansion in road length is therefore commendable.

As far as power and irrigation is concerned the investment pattern in the power sector shows that the installed capacity increased from a mere 275 kws in 1960-61 to about 2,725 kws by the end of 1970-71. The rapid expansion in the other spheres of developmental activity has necessitated the formulation of a much bigger generation scheme namely the Lower Lagyap Project which is being implemented as a Central Scheme. The commissioning of this project will yield an additional 12 MWs which would be sufficient to overcome the power shortage which is being experienced in the domes-

of Sikkim relating to 1965-66. It came to the conclusion that 80.6% of this accrued from agriculture alone. It is unlikely that the position has changed during the decade following this year. A Study Team of Institutional Arrangements for Agricultural Credit in Sikkim headed by the Deputy Governor of the Reserve Bank of India estimated the value of agricultural production for 1974-75 at Rs. 1431.55 lakhs. Assuming some additional income accruing to this by the sale of agricultural by-products and forest produce the total income from the agricultural sector can be rounded off to about Rs. 1600 lakhs. Assuming further that about 80% of the net domestic product continues to be from the agricultural sector, the total net domestic product in 1974-75 would be Rs. 1,920 lakhs. This figure is bound to become somewhat higher in the subsequent years since then the index numbers of wholesale prices of food articles had moved from 165 in 1974 to 170 in 1977. Taking this into consideration the net domestic product in 1977 could be estimated roughly at Rs. 1970 lakhs. To this is to be added the plan investment during the year. This amounts to Rs. 1247 lakhs in 1977-78 and even if 75% of this amount was spent in Sikkim the total net domestic product would be around Rs. 2905 lakhs. Taking the population to be around 3 lakhs at present the per capita income would thus work out to 968 at current prices. This figure is well below the All India figure which was Rs. 1049 at current prices in 1975-76. This indicates in no uncertain manner the overall picture of backwardness of the State. The main objective of the planning exercise should therefore be to raise the income levels and in the process to remove poverty and unemployment.

tic and industrial sectors of the State. Increased generation will also help in extending minor irrigation schemes to the remote villages in accordance with the revised minimum need programme. As far as irrigation is concerned the schemes consist in tapping water from streams through contour channels or through G.I. pipes so as to irrigate the fields below. The command areas of such projects are low and hence the impact of the minor irrigation schemes has not been spectacular.

In spite of more than three decades of planned economic development in the State, no detailed study of the impact of the plan schemes has been made so far because there has been no evaluation machinery in the State. Further, there has been no statistical machinery charged with the responsibility of assessing the impact of the plan schemes in the field and also in working out the basic statistics needed for implementing future plans. As a result of this handicap the position of the State's economy has to be adjudged through an element of conjecture. This situation is however sought to be remedied by starting a State Statistical Bureau. Already a small cell has been organised and some of the more important statistical details pertaining to plan formulation have been collected. However, basic parameters like the growth of the State income, the per capita income and other such meaningful data are found to be absent. In the 1978-83 plan period it will therefore be necessary to strengthen the statistical base. As far as per capita income is concerned a rough estimate can be had by calculating the approximate net domestic product of the State. The Reserve Bank of India had conducted a survey of the net domestic product

POLICIES AND OBJECTIVES OF THE 1972-83 PLAN.

Accordingly one of the principal goals of the Plan for 1972-83 would be to raise the levels of income of the rural population so as to eliminate abject poverty. Although as already mentioned the non existence of a well prepared statistical base prevents an authentic assessment of per capita income on scientific lines there is no denying the fact that the overall standard of living, particularly in the rural areas leaves much to be desired. The investment pattern in the plan will therefore be essentially directed towards the improvement of the condition of living by integrating productive schemes with social sector activities as in health and education. Apart from the gradual elimination of abject poverty the question of full time employment to the people belonging to the working force is an important objective of the Plan. Although there is no chronic unemployment in the State the fact remains that there is considerable amount of under employment. The National Sample Survey Organisation has so far not covered the State under its programme and thus estimates of unemployment or under employment based on their surveys are not ~~are~~ not available. However, the under employment manifests itself in the dearth of rural workers during the agricultural rush season or/availability of surplus labour during the other periods. The strategy proposed to be adopted for improving the situation is to follow the national guide lines of introducing the programme of integrated rural development in a phased manner. This will be achieved by formulating more number of area specific schemes which seek to integrate the productive aspects in

the primary and the secondary sector in such manner that there would be gainful employment throughout the year. Apart from this method which will be confined to certain selected areas the various schemes proposed to be implemented in the various sectors will be so chosen that labour intensive schemes will be preferred to capital intensive ones. Similarly, the investment in buildings, road construction and irrigation works are such that employment generation will be adequately taken care of. It is hoped that by the end of 1982-83 there would be no unemployment as such and that the under employment will be negligible. The third main objective of the Plan is to ensure distributive justice. The main instrument through which this objective is proposed to be achieved is through the implementation of the ceiling laws under which the physical distribution of surplus land will be completed in the quickest possible time. Many of the smaller tenants and agricultural labourers will be improving their position in society by the ownership of land. Ownership rights will be followed up with schemes of granting special assistance not only in the form of money but also through materials. It is hoped that as a consequence a new generation of small land holders capable ^{of} ~~at~~ generating adequate incomes ~~from~~ the holdings will form a constituent part of the State economy.

While eliminating abject poverty, conferring more employment ~~employment~~ opportunities and ensuring distributive justice on the three main objectives of the Plan there are various other objectives in each of the sectors of the economy. Agriculture and rural development is by far the

single most important sector of the economy. Since more than 85% of the population depends upon agriculture for their livelihood, real progress in the economy can be achieved only through productive investments on land. Out of the total dimension of the five year Plan of 106 crores the investments in the agricultural sector is approximately Rs. 29 crores which is about 35% of the total Plan outlay. This pattern of investment is a departure from the pattern followed in earlier plan periods when the share of agriculture was not more than 17%. Maximum emphasis will be placed on increasing the production levels by improving the methods of cultivation. During the Fifth plan the infrastructure necessary for planned agricultural growth was already started and various experiments were conducted in Government regional farms demonstrating the extent to which agricultural production can be increased through a package of services and modern techniques. The strategy in the coming years will be to translate these achievements into the field by improving the extension technology and making available important and crucial inputs in a timely manner to the farmers. The production strategy will be shaped in such manner that land usage will be given greater importance not only from the point of view of optimal use of resources like water but also to ensure that no amount of productive land is lost on account of soil erosion and other natural hazards. Productive aspects of agriculture will also be supported by more intensive credit support. So far credit planning has been done in isolation to the main efforts in the primary sector. This pattern will be changed to ensure that no farmer is prevented from going

ahead with a well thought out programme for want of credit. The co-operative structure will also be ~~sho~~ shaped so as to attend to the marketing of important agricultural products. The main idea is that by tying up marketing with production the primary producer will be sure of remunerative prices.

Forests and Animal Husbandry are two other areas in the agricultural sector which will bring in considerable amount of real incomes to the rural population. The mixed farming concept is not new to the State and ~~consequently, there is no~~ difficulty in introducing modern techniques of cattle breeding and other animal husbandry activities. Greater emphasis will be placed on improving the breeds which will be achieved not only through the introduction of All India Services but also by widening the health coverage so that the animals are protected from health hazards. The emphasis to be given in the agricultural sector, it is hoped, will accelerate the process of improving the conditions of the poor and will quickly result in the attainment of the objectives of removing poverty and in increasing employment opportunities.

Apart from agriculture growth in the small and tiny industrial sector is of crucial importance in attaining the plan objectives. The tradition for industry is not very deep rooted in the State. However, an industrial climate has been gradually engendered in the State and in the coming years, one or two selected industries involving precision handling will be introduced. Greater emphasis will be given to the hand-craft and handloom sector by enhancing training opportunities and by offering reasonable incentives to the trained personnel to set up their own production units. A selective

system of incentives will be offered and the marketing aspect will be taken care of. The role of institutional financing will be projected for the first time in the State. The scope of integrating rural development will be extended to the small industrial sector also so that productive work in the rural areas will not be purely agricultural based.

As far as investments in other sectors are concerned the more important ones are education, public health, rural water supply and power. In all these sectors the strategy is adopted to prepare schemes which will have the dual responsibility of improving the levels of living and in generating employment, both skilled and unskilled. These are the sectors under which schemes under the Revised Minimum Needs programme are to be formulated.

THE REVISED MINIMUM NEEDS PROGRAMME.

The revised Minimum Needs Programme, which spans houses for the homeless, minimum conditions of water supply and sanitation, relevant education, elementary health care and the expansion of necessary infrastructure in the form of roads and power to the rural areas is conceived as the instrument by which some benefits of planned development can be extended to the rural and urban poor even before their incomes can be significantly raised through programmes of agricultural and other development. Although certain norms have been laid down at the National level for the implementation of the revised Minimum Needs Programme certain variations are proposed to be made in the State Plan so as to suit the requirements of the State. While doing so, the spirit behind the programme has however been kept in

mind. Among the schemes under the Minimum Needs Programme, the more important ones for the State are elementary education, rural health care, nutrition and rural water supply schemes. As far as elementary education is concerned, the main strategy that will be followed so as to approach the ideal of universalising primary education will be to provide the much wanted physical facilities for the school going children. The construction of classrooms and teachers' quarters particularly in the far flung rural areas and the provision of furniture and fixtures will therefore form an essential component of the elementary education plan. The teacher-pupil ratio in a hill State particularly where four different languages are taught will be on an average 1:20 and to maintain this ratio a large number of general teachers will also be recruited. Apart from achieving the goal of universalising primary education, the expansion in educational facilities at this level and at the junior high school level will also help the attainment of the national objective of providing more employment opportunities. The qualitative aspect of education at the lower level will not be ignored. A systematic programme of training teachers at the primary level will be introduced by starting a full-fledged State Institute of Education. In order to attract more boys and girls to the primary schools the programme of providing Mid-day Meals will be expanded. Under the supplementary nutrition programme of the ICDS and the Midday Meal programme of the schools it is expected that by the end of 1982-83 nearly 85000 beneficiaries including children from zero to eleven years of age and pregnant and nursing mothers will be covered. The nutrition programme will be so shaped that the food material served to the children will not only be of

high protein and nutritive content but also palatable.

For this purpose a food processing unit is proposed to be set up in the public sector very shortly with UNICEF assistance. The scope of the programme will also be widened so as to include the educative aspect of nutrition. In other words, the existing staff will shoulder the responsibility of making the rural people aware of the importance and advantages of taking a balanced nutritive diet for their physical and mental improvement.

The scope of the Minimum Needs Programme under education does not stop with children of the primary level. Wastage and stagnation at all levels of education are a curse which is proposed to be overcome through a determined effort to eradicate illiteracy among adults. The main age group proposed to be tackled is from 15 to 35. For this purpose as many as 500 non-formal-cum-adult education centres will be set up in the State. The syllabi in such centres will be specially prepared so as to arouse the interest of the proposed beneficiary groups. In order to achieve this purpose no uniform syllabi can be followed. Even within the State, certain variations have to be made. This will be attended to by conducting special training programmes and by making use of different teachings aids so as to establish a meaningful communication between the instructor and the pupil.

The rural health programme is perhaps one of the most important aspects of the Minimum Needs Programme which needs to be revitalised in the State. The difficult mountainous terrain with scattered population makes it very difficult to offer health facilities to the rural people even by exceeding the national norms. Taking this feature into account the number of primary health centres that will be constructed and made functional is proposed to be one for every 20,000 population is against the national norm of one for every 50,000 population. Likewise, the number of Primary Health Sub-centres will be 1 for every 2,000 population.

Even with this higher density of medical institutions in the State the objective of reaching basic medical facilities to the scattered population may not be achieved. In order to remove this anomaly the programme of training community health workers in the basic aspects of preventive and curative medicine will be followed so as to ensure that a person in the form of a community health workers reaches every single hamlet of the State. This, under the revised Minimum Needs Programme an expanded rural health coverage is proposed to be achieved by a combination of making functional Primary Health Centres along with the training and placement of Community Health Workers.

As far as supplying drinking water to the rural population is concerned the State has already achieved commendable progress. Water Supply Schemes are comparatively easier to implement since there are innumerable sources in the form of streams and springs. Further, the natural gradients in the hills facilitate the tapping of water through pipes and making available piped water at central locations in the villages. Fortunately the water sources are neither contaminated with harmful bacteria nor with iron or fluoride. Since the sources are located in the interior the cost of transportation of the pipes and the cost of civil construction is somewhat higher in the State compared to the plains. None-the-less a phased programme of covering all the hamlets is being worked out by the concerned department.

One of the features of the water supply schemes is that they are implemented through public participation. It has been felt that the involvement of the people in the programme will, apart from reducing the cost also help in the proper maintenance of the scheme since the beneficiaries are themselves affected if there is any damage or failure to the scheme. The provision of safe drinking water to the rural poor will fulfil a long standing aspiration of the people and is thus given considerable importance in the revised Minimum Needs Programme.

Two other areas of the Revised Minimum Needs Programme which have the result of conferring social benefits are, provision of house sites to the landless and the improvement of slums. As far as providing house sites to the landless is concerned the major constraint in implementing the programme so far has been the difficulty in identifying the persons who would be eligible for such rights. The difficulty has arisen because large numbers of rural workers have been migrating from Nepal and living in the State. However, they have not been given citizenship rights. Although such of those who have had continuous domicile in the State over a period of time are to be given such rights, the process of formalizing their rights has not been completed. Likewise, there are a large number of tenants who have no ownership rights according to the customary laws. This drawback has been set right in the Land Reforms Act which has come into force with effect from June, 1978. As a result of the legislation the concept of the landless and the poor tenant farmer is now clear and therefore in the coming years the provision of house sites to the landless will be followed vigorously. Ownership of land will not only give much wanted security to the poorer families but will also be an incentive for introducing productive techniques. Increased production will help

in the attainment of all the three main objective of the plan, namely the improvement in income levels, more employment and distributive justice. As far as slum improvement is concerned the State is in a happy situation in that there are no slums as there are elsewhere in the country. However, in Gangtok town as well as in certain other bazar areas the lack of sanitation facilities and the haphazard growth of dwelling and market places has resulted in congestion and environmental pollution. The Plan for 1978-83 therefore has pre-empted certain resources for the purpose of removing such congestion and in improving the environmental conditions. This scheme will also therefore be treated as part of the Minimum Needs Programme.

In regard to the provision of basic infrastructure in the form of roads and electric power a well planned out programme is already on the anvil. Road construction, as is in the case of water supply schemes, is a costly venture in the hills, the average cost per km. of a jeepable road being nearly Rs. 2 lakhs. None-the-less the need to provide a network of link roads to connect the remote areas has been constantly in the mind of the planners and the investment pattern over the years has revealed that the road sector has had an adequate share of the resources. The strategy in the coming years will be to identify the more important jeepable as well as foot tracks and to complete them in the quickest possible time. At the same time the others which are less important will also be started so that in the rolling plan they will have a place and the planner will be aware of a time horizon within which the schemes would be completed. The rural roads in the State will necessarily have to pass

through small streams which will require the construction of small bridges and culverts. Thus the rural road construction programme will ^{be} not merely a road programme but will take into account the investments needed for small bridges. As far as possible the bridges will be only for pedestrians and animals and will be in the interior connecting the various hamlets. As far as rural electrification is concerned the agro-rural setting of the State makes it difficult to demarcate firmly between the rural electrification schemes and other transmission and distribution schemes. Nevertheless, certain remote villages are proposed to be systematically covered by extending electric supply. The need for rural electrification in Sikkim is not so urgent as in other parts of the country primarily because there is no lift irrigation in the State and hence the question of having to energise pump sets lying idle does not arise. So also the industrial activity in the remote areas is next to nothing and consequently the supply of power is not going to revolutionise the pattern of living in these areas. However, it is felt that by the gradual expansion of power supply to the villages the climate for better living standards and for starting small industries would be gradually engendered. The total resources contemplated for the Minimum Needs Programme is Rs. 18.43 crores. This works out to 17.38 percent of the total outlay. The break-up of the amount is as follows:

	<u>Rs. in lakhs.</u>
Elementary Education.....	391.00
Adult Education.....	35.00
Rural Health Services ,,,,,,,,,,,,,,,,,,,,,,	237.00
Rural Water supply.....	200.00
Nutrition.....	165.00
Rural Roads.....	665.00
Rural electrification.....	121.00
House sites for landless.....	76.00
Environmental improvement of slum.....	15.00

PLAN IMPLEMENTATION.

The need to closely watch and supervise the implementation of Plan schemes has not been adequately stressed so far in the successive Plans of the State. During the fifth plan a more detailed evaluation of implementation was introduced. However, this has not yet reached the desired level of efficiency. One of the basic features in plan implementation proposed to be introduced in the 1978-83 plan is to effectively evaluate the progress of implementation by making individual departments responsible for their schemes. The Planning Department will discharge a key role in this process. The idea is to ensure that the investment in the plans does not go to waste, but on the other hand will result in the generation of tangible assets. The post evaluation technique will also be introduced mainly to study to what extent the investment has had the desired socio-economic inputs. For all these purposes the question of equipping the Planning Department with trained personnel will be given due importance. To some extent decentralisation of the planning system will also be attempted. For this purpose detailed physical planning area by area will be attempted.

INTEGRATED RURAL DEVELOPMENT.

To begin with only a few selected areas will be identified. In these areas a programme of integrated rural development will be introduced. The main emphasis is in the areas chosen would be to introduce schemes within the agricultural sector. In a nut shell the process of integrated rural development will consist in making a complete evaluation of the existing resources of the area. It will

include not only the material resources but also human resources. After the identification of such resources specific schemes more particularly in crop production, animal husbandry forestry, small industries and inland fisheries will be formulated by the concerned departments. While preparing such schemes the main approach would be to ensure that there is some interdependency on the schemes as for example the forestry programme will take into account the possibility of cultivating fodder crops or developing pastures useful for cattle grazing. Likewise, the crop production programme will take into account the existence of minor irrigation schemes and soil conservation measures. In a similar manner the process of integration is proposed to be achieved horizontally so that the investments are not in isolation of one another. In these areas the credit structure will also be suitably altered and as far as possible marketing arrangements will also be arranged on co-operative lines. Basic industrial ventures will be started by making use of agricultural raw material. The main objective of integrated rural development is to approach identified beneficiaries and to increase their standards of living in such manner that there will be full employment in the area chosen. This will serve as a model to be emulated by adjoining areas. In order to achieve these objectives it will also be necessary to strengthen the administrative apparatus at this level. The question of forming a team of administrators with the specific responsibility of formulating and implementing the chosen schemes will thus be given due attention and priority. In particular such an administrative system will

take into account the danger of spreading too little money too thinly and instead take up schemes where productive investment can be guaranteed.

FINANCIAL RESOURCES FOR THE PLAN.

So far all the plans have been implemented in Sikkim through 100 % Central assistance. Until the fifth plan, the assistance from the Centre was entirely in the form of grants. From the beginning of the fifth plan, that is, from the year 1976-77 this pattern of assistance was modified and 10% of the total assistance was treated as loan. This pattern has continued and for the current year also this is the division between loan and grant.

The grant of Central assistance to Sikkim is not governed by the "Gadgil" formula. Accordingly, the provision of funds for implementation of plan schemes has been on the basis of the detailed planning exercises undertaken at the State level and discussed and settled by the working groups in the Planning Commission. For the plan 1978-83 it is ~~proposed~~ that whatever be the changes introduced in the Gadgil formula, they will have no application for Sikkim which will be governed as previously through grants and loans the quantum of which will be in accordance with needs. ~~to determine~~ effort will be made to reduce the non-plan expenditure although suitable provisions will be made in the non-plan side for full and satisfactory maintenance of productive assets and infrastructure built up in the past. So far, the ~~same~~ always been a result of the ~~State's~~ ~~own~~ resources. been no contribution to the plan through ~~the State's~~ resources.

Despite the special measures that will be undertaken to economise expenditure and to curtail unfructious spending, the presumption is that the non-plan gap will continue to exist and therefore there will be no revenues available for the plan at the existing levels of taxation. The State has so far not gone into the market for borrowing. Present indications are that the system of market borrowing will not be extended to the State for some more years. Therefore, no assumption is being made that such resources will be available for the plan. Similarly, the public undertakings, which are few in number, are also not expected to go into the market. The contribution of such undertakings to the State revenues will also be negligible since most of the projects are in the gestation period envisaging further expansion during the plan period. As far as loans from institutional agencies like the Life Insurance Corporation is concerned, so far the only source through which loans have been drawn is the L.I.C. Loans from the L.I.C. are utilised for the purpose of the rental housing scheme of the Government. The quantum of loans drawn from the L.I.C. so far has been rather limited, it being just Rs. 5 lakhs per year. In the coming years also L.I.C. is proposed to be tapped for drawing loans not only for housing but if possible for water supply schemes. On an average the loan component from the L.I.C. is expected to be Rs- 10 lakhs per year. Loans are also proposed to be drawn from the HUECO through the agency of the State Housing Board which is proposed to be set up shortly and through the Gangtok Municipal Corporation .

These loans will also be for housing purposes. Since no projects have been formulated as yet, it is too early to estimate the quantum of loan that will be drawn from the HUDCO. However, a preliminary estimation has been made on the number of houses proposed to be constructed and accordingly the amount of loan that will possibly be drawn from HUDCO is estimated to be about Rs. 3 crores during the plan period. A few other institutional financing agencies which will include Agricultural Refinancing and Development Corporation, the Industrial Development Bank of India, etc will also be approached for funneling their resources to the State through suitable State corporate bodies. Such loans would be utilised for commercial cultivation, agro-industrial projects and for industrial ventures including hotel construction. On an overall basis the quantum of institutional loan is estimated to be around Rs. 5.00 crores for the plan period. However, except the loan from L.I.C. the other loans are not treated as plan resources for the State because to attract, for example loans from HUDCO, counterpart State funds are required in the Plan.

The question of additional resource mobilization through additional taxation will be given some thought during the Plan period. There has been no increases in levels of taxation for the past five or six years and therefore the question of contributing some amount of plan resources by such a device will naturally have to be given due importance. Accordingly, certain types of taxes particularly sales tax and State excise duties will be considered for purposes of additional taxation. The overall impact of such additional taxation will however be negligible and consequent the amount of resources from this source is estimated to be only at the most Rs. 0.50 crores for the Plan period.

According to the forecast given to the 7th Finance Commission the State will continue to have a deficit on the non-

plan side both on account of revenue and capital. The estimated deficit on revenue account is Rs. 589.53 lakhs for 1979-80, Rs. 631.64 lakhs for 1980-81, Rs. 680.76 for 1981-82 and Rs. 729.90 for 1982-83. On the capital side the figures are Rs. 94.19 lakhs for 1979-80, Rs. 91.18 for 1980-81, Rs. 86.73 for 1981-82 and Rs. 95.98 for 1982-83. The debt position for the State as on 31.3.1978 is Rs. 307.04 lakhs and this is estimated to be Rs. 350.19 lakhs at the end of 1982-83 taking into account likely fresh loans during 1979-80 only. It is expected that the gap will be made good by transfers of resources on the basis of the recommendation of the 7th Finance Commission mainly through the special grants under Article 275 of the Constitution. The amount of money eligible for the State through the devolution of income taxes, Union Excise duties etc is likely to be negligible.

The overall position taking into account the current levels of taxation, the likely amount of borrowings through institutional sources and the flow of resources from the Centre in accordance with the recommendations of the Finance Commission is that the State may be able to contribute only a very negligible amount for the plan from its own resources. If loans from L.I.C. are also taken into account the total plan of about Rs. 106 crores for 1978-83 has to be financed atleast to the extent of Rs. 105 crores through Central assistance with the remaining amount coming from institutional sources and through additional resource mobilisation.

CHAPTER II - PRIMARY SECTOR

1. Agriculture including Plantation Crops.
2. Land Reforms.
3. Minor Irrigation.
4. Soil Conservation.
5. Food & Civil Supplies.

AGRICULTURE AND RURAL DEVELOPMENT.

INTRODUCTION.

The process of agricultural development in the State commenced, in the true sense of the term, only from the year 1976-77 that is with the inception of the Fifth Plan. Previous to that agricultural development planning was haphazard and contained a series of 'ad hoc' measures. From the beginning of the Fifth Plan an attempt was made to tackle the problem in a more scientific way based on the recommendations of a team of experts headed by Shri B.Sivaraman. One of the recommendations was that the entire State should be divided into various eco-geographical regions and in each of these regions adaptive trials of various crops should be conducted so as to evolve the most suitable crop variety for the particular region. Nine regional centres and five sub-centres were set up in accordance with this recommendation and in the past two years an attempt has been made to make these regions, the centres of adaptive research. Apart from setting up such centres the extension agency was also strengthened by increasing the number of V.L.Ws from 20 to 65. The V.L.Ws, who were given specific training, have been entrusted with the responsibility of translating the achievements in the regional centres to the fields. The Department of Agriculture has also taken up a large number of demonstrations and has introduced an effective plant protection mechanism so as to make optimal production - the good of the plan.

The total output of foodgrains at present is estimated to be around 40,000 tonnes. This has been achieved by systematically introducing better methods of cultivation, propagating

high yielding varieties of seeds and by better pest control methods. This target is expected to be increased to 50,000 tonnes by the end of the year 1982-83.

Apart from cereals and other foodgrains the State of Sikkim has considerable potential for horticultural development. The Mandarin orange which is grown in Sikkim over more than 2000 hectares is already one of the more important of the horticultural crops. This crop which is one of the main revenue earners to a vast section of the rural population has been suffering from 'dieback' disease and the production is reported to be declining. In order to sustain the production, rejuvenation schemes and fresh plantations have been taken up during the previous years. In the coming years the programme will be intensified. Apart from orange, the other important commercial crop is that of ammonum cardamom. In order to promote cardamom cultivation in the State the Cardamom Board of India are proposing to establish one of their regional centres in the State. With the help of the Cardamom Board the production of cardamom is expected to increase considerably. This will greatly help the smaller farmers in view of the high prices of cardamom in the main market, and will generate semi skilled employment in the rural areas.

POLICY OBJECTIVES.

The main objectives of the agricultural development plan are to maximise growth with a view to attaining self-sufficiency in foodgrains and to extend horticultural and commercial cropping with a view to generating greater employment opportunities and thereby attaining growth with social justice. It is necessary to develop a strategy

for attaining these objectives. The main approach will be through the extension system which will take into account not only the proper techniques of crop production but will also improve upon the organisational system so that the major inputs are available to the farmer at the appropriate time. The extension system will also gear up the demonstration system so that demonstrations will have the desired impact. As far as possible, demonstrations will be conducted only in fields of very poor farmers not only to help them in the process but also to achieve the object of attracting the attention of other similarly placed poor farmers. An integrated approach will be followed particularly on irrigated areas demonstrating the efficacy of multiple cropping. More number of training programmes will also be organised not only for the departmental staff but also for farmers. A continuous exposition to the latest techniques will, it is hoped, be of benefit to the farmers as well as the field level workers. A system of incentives according to which farmers are rewarded for their efforts will also be instituted so that crop production is optimised. As far as possible labour intensive techniques will be adopted so as to generate employment. Particular attention will be paid towards developing the mixed farming concept and areas declared as surplus under the Land Ceiling Act will be made productive.

In the absence of base level statistics it is difficult to work out a growth rate for the main crops which are foodgrains, oil seeds, orange and cardamom. However, it is expected that the growth rate of foodgrains will be not very much less than the All India growth rate which has been postulated at 3.61%.

LAND UTILISATION.

Proper land utilisation is considered to be an essential pre-requisite for attaining the required production level and for improving the economy of the rural poor. Sikkim being a hilly State with agricultural land situated at altitudes ranging from 1,500' to 9,000', the available cultivable land is exposed to inherent disadvantages. In the first place, the stability of the land is often threatened by soil erosion. The heavy rainfall, apart from aggravating this problem causes the loss of valuable top soil and consequently soil conservation measures are extremely important for the optimal use of land. Soil conservation measures in cultivable land are usually limited to the terracing and bunding of fields. During the fifth plan a scheme, according to which Rs.. 1,000/- per acre is spent on terracing the land was found to be very popular and there was a large demand from the cultivators for more such schemes. Taking into account the demand and the utility of the scheme, a total of nearly 15,000 acres is proposed to be brought under soil conservation during the period from 1978-83. The programme will take into account the need to implement such schemes in areas which are traditionally backward and where there is a concentration of schedule caste population. The non-skilled employment for the programme which will be purely labour intensive is estimated at around 8,600 man years. In order to implement the programme the staff component will also be suitably strengthened. As far as possible the work will be taken up on project area basis covering more than 200 acres in a single project. The total outlay contemplated for the scheme which takes into account, the establishment expenditure also is Rs. 168 lakhs.

The approach in the agricultural plan is to optimally utilise land. For this purpose the available land will be broadly categorised under three categories, namely, irrigated areas, rain fed areas and degraded areas. As far as land utilisation in the first two areas is concerned various specific programmes will be taken up. As regards the last mentioned, the main degradation in the soil is on account of the high acidity content. This is a common problem in hilly areas where the rainfall is high and erosion is intense. Experiments undertaken during the Fifth Plan have revealed that the deficiency in the soil can be corrected to a large extent by lime application. This programme will be intensified and an area approach will be instituted. The programme of soil reclamation will be combined with soil testing and water conservation and production plans drawn up by the V.L.Ws so that with the application of correctives the land could be made more productive. A multi-disciplinary approach will be initiated so that such land could be utilised, if not for crop production, for cultivation of fodder or mulberry or any other suitable crop.

CROP PRODUCTION.

The main objectives of attaining self-sufficiency in food and increasing employment opportunities in the agricultural sector will depend upon the optimum use of agricultural land. In the irrigated areas, the system of multiple cropping will be emphatically brought home. For this purpose, whenever minor irrigation

schemes are investigated the land use pattern will be worked out by the department and the extension agency will prepare production plans. The irrigation scheme will be executed only after these formalities are observed. Suitable crop rotation systems will be worked out in the Regional Centres and this will be extended to the field systematically. In rain-fed areas also multiple cropping will be attempted by a combination of crops, such as paddy and maize with wheat and mustard or paddy with vegetables and so on. The main object is to put the land to maximum use. Apart from cereals and other foodgrain crops, considerable attention will be given towards the introduction of horticultural crops not only in the traditional areas but also in the non-traditional areas. Under horticulture, the main emphasis during the plan period will be to develop more progeny orchards so that the planting material, suitable for the agro-climatic regions of the States, are available within the State. At present, there are four such progeny orchards. Three more will be set up during this period. In order to induce the farmers to take up to horticulture, planting material will be distributed at subsidised rates and the extension mechanism will be geared towards the task of protecting the new seedlings from disease and in inducing the cultivator to adopt proper manuring techniques. The efforts in the progeny orchards will be supplemented by a selective system of identifying private nurseries in which the seeds of high yielding varieties alone will be planted. The intention is to propagate only varieties, which are the best. In the horticultural sector, production of planting materials will be diversified to tree tomato, plums, pears, peaches, lime and lemon, which are grown today only sporadically. The approach will be for more intensive growth in areas which have potential. More location specific plans in horticulture development will be worked out so that the benefits will become meaningful. This will also help in organising the marketing through co-operative and other channels. Such

an approach would also enhance employment opportunities.

Among the commercial crops, the one bringing in maximum revenue to the cultivators is cardamom. An effort will be made to channellise institutional finance through agencies like the A.R.D.C. and the Cardamom Board for increasing the acreage of cardamom from an estimated 3,000 to 9,000 acres. The Cardamom Board of India has already taken a decision to set up a Regional Office in Sikkim and consequently it is expected that the development of this crop would be adequately taken care of. Other than cardamom, the other important commercial crops are vegetables, potato and ginger. Altitudinal variations in the State make it possible for cultivation of different varieties of vegetables. With a properly planned production pattern it will be possible to supply non-seasonal vegetables to important consumption centres. This has the dual advantage of bringing in revenue to the producers and in supplying off season vegetables to consumers. Further, the areas above 7,000 ft. in altitude have been found to be ideally suitable for growing disease-free potato seeds. In the coming years, the programme of vegetable cultivation and potato seed production will be intensified. During the Fifth Plan a scheme of helping the farmers to market their vegetable produce was initiated according to which 'Growers Associations' were formed in three selected regions. The department provided the necessary assistance to these Associations for collection, processing and transport of their produce to the main market in Gangtok. This programme will be continued with a wider coverage.

As far as ginger is concerned, the crop is a very traditional one particularly in the Rangit Valley. The farmers have had to suffer from gluts in the market. In order to help them, a ginger processing plant producing dried ginger is likely to be set up. Dried ginger will be marketed in important centres like Delhi & Calcutta where there is ready market. According to the scheme, the farmers will be given

price of one rupee per kilogram as a support measure. It is expected that this centre will be set up during 1979-80.

Manures and Fertilizers:

The present level of fertilizer consumption is about 600 tons which is considered to be inadequate. With the introduction of high-yielding varieties of seeds, it will become necessary to increase the use of chemical fertilizers. A target of 1,000 tons of fertilizer consumption in 1982-83 is fixed. The main effort of the department will be to improve the organisational system so as to make available balanced fertilizers at the appropriate time to the cultivators. The efforts of the department will be supplemented by the Hindusthan Fertilizer Corporation, which will undertake fertilizer usage on promotional terms. Chemical fertilizers will be distributed at 25% subsidy and 100% transportation subsidy. This will ensure that fertilizers are made available to farmers at reasonable prices.

The use of bio-fertilizers, particularly rural compost has been more or less traditional in the State and, therefore, every effort will be made to popularise the use of such fertilizers. At present, a subsidy is granted to such of those farmers who construct compost pits according to the specifications of the department. This programme will be continued. In addition, the department will undertake to produce rural compost from farm-yard waste, cow dung etc. purely on demonstration basis so as to depict the proper way in which rural composting has to be done. The compost pit construction will provide unskilled employment also which is estimated as 360 man/years for the five-year period.

The question of producing urban compost will also be explored in consultation with the Gangtok Municipal Corporation.

Seeds:

The production of high yielding varieties of seeds is one of the most important programmes of the department. So far, the State was depending upon outside sources for the receipt of quality seeds.

However, a beginning has been made to produce quality seeds in the Regional Centres. The acreage in the regional farms will be extended from 500 to 3,750 in the five-year period. Apart from seed production in the Regional Centres, the programme of community nurseries, which has already begun, will be intensified. A system of registering reliable growers will be worked out and recovery of seed on a seed to seed basis will commence. As it is, Pusa 33, a high yielding variety of paddy has been evolved in the Regional Station and these are being multiplied in community nurseries. Apart from seed production, the extension of area under high-yielding variety is one of the principal objectives of the department. It is expected that in 1982-83, 23,000 acres will be covered under high yielding varieties as against about 13,000 acres at the end of 1977-78.

Plant Protection:

In order to reduce the loss in production on account of pest attack both before and after harvesting, a separate Plant Protection Wing has already been established in the department. Four mobile units, one in each district, will be in operation these teams will not only conduct prophylactic sprayings but will also establish a surveillance system in order to detect pest attacks. As far as possible, non-toxic pesticides will be utilised to prevent pollution and community participation will be encouraged. Power sprayers, hand-operated sprayers and dusters will be purchased and kept in V.L.W. centres and Regional Centres. In selected areas, key farmers will be especially trained for detecting pests so that the onset can be reported to the nearest centre in the quickest possible time. As a preventive measure, large scale and systematic plant protection measures will be taken up in areas where there is a concentration of crops particularly orchards. A small plant protection laboratory will also be organised so as to evolve methods of combating new and unexpected disease.

Mechanisation:

Mechanisation in the Agricultural Sector is comparatively less in Sikkim. However, the demand for small agricultural implements has been increasing of late. A small agricultural engineering wing is proposed to be set up primarily for the purpose of fabricating, testing and distributing farm equipments and implements to cultivators. This will also include animal drawn implements so that the available bullock power can be utilised more effectively. In most of the areas, the soil texture is soft and consequently with a properly designed harness, it would be possible to do the work with one bullock instead of two. Per capita bullock availability can, consequently, be increased. Threshing machines, shellers, drying equipments and horticultural tools are some of the other equipments which will be fabricated for large scale distribution.

Research and Education:

An I.C.A.R. Research Complex has already been established in Sikkim and this Complex is studying the various agricultural problems of the State. The research programme of the State is restricted to adaptive trials, soil testing, soil reclamation, water conservation and micro-nutrient trials. The adaptive trials being conducted in the Regional Stations will be continued during the Plan period. As far as soil testing is concerned, a full-fledged laboratory has been set up and the soil samples are being analysed for detecting the deficiencies of the soil. The soil reclamation programme mainly consists of identifying the areas which are acidic. The soil acidity has the impact of making deficient many micro-nutrients particularly boron, molybdenum and zinc. More than 12,500 samples of soils have already been analysed and liming demonstrations undertaken covering 750 farming families. This programme will be stepped up in the coming year. As far as water conservation is concerned, the main emphasis will be

on popularising tank irrigation, sprinkler irrigation and mulching with a view to finding out varieties of crops which can be grown under these conditions. The micro-nutrient trials will be extended to the farmers' field also.

Agricultural Administration.

A strong administrative structure at the headquarters and at the Regional and Sub-Regional level has been considered to be a basic necessity for the proper implementation of the plan. Most of the technical posts have already been filled up. However the physical facilities in the Regional and Sub-Regional Farms leave much to be desired and during the coming five years office and residential quarters will be put up in these Centres. The Regional Centres will be further developed by improving the land within them. As far as skilled man power is concerned there is still some deficiency in the number of V.L.Ws and field men. Their numbers will be progressively increased and this will be tied up with inservice training programme. A full fledged Statistical Wing will be set up so as to collect relevant statistics on agricultural production for which some field staff is also required for crop cutting experiments. The need for technically qualified staff being on the increase, the department will on its own initiative select local boys and girls for courses in B.Sc. (Agriculture), M.Sc. (Agriculture) B.Sc. (Agriculture Engineering) etc. in the various universities of the country. These candidates will be paid a suitable stipend on condition that they join the department after the course is over .

The entire agricultural development plan will be so shaped that the benefits on account of increased production will percolate to the poorest farmers. In order to achieve this

objective an area approach will be followed according to which selected pockets of backwardness will be specially identified and the agricultural development plan integrated with the development of small and cottage industries so that the process of economic uplift will be meaningful. Location specific planning will be undertaken in each of the nine Regional Centres and five Sub-Regional Centres. It is expected that the major beneficiaries in such areas will be small farmers and agricultural labourers, particularly scheduled castes.

A total investment of Rs. 801 ~~lakhs~~ will be made in the various programmes including plantation crops as shown below:

	<u>Rs. in lakhs.</u>
1. Crop Production	207.54
2. Manures and fertiliser	91.70
3. High yielding variety seeds.....	37.50
4. Plant Protection	75.28
5. Mechanisation	35.19
6. Extension & farmers.....	42.28
7. Research & Education	46.88
8. Agriculture Economics & Statistics	3.55
9. Centrally sponsored schemes.....	43.90
10. Direction and Administration.....	138.83
11. Plantation crops.....	<u>78.35</u>
Total :	<u>801.00</u>

PLANTATION CROPS.

At present there is only one main-plantation crop in the State namely Tea. However, a recent survey conducted by the Coffee Board along with a report prepared by the National Council of Applied Economic Research has brought to light the possibility of raising Coffee plantations also in the State. A beginning has therefore been made by the procurement of Coffee seeds from the Coffee Boards and by planting them in one of the regional stations. The seedlings are growing very well and it is proposed to conduct demonstration plantations of coffee in forest areas. After a couple of years of such demonstration plantation, which will include a certain amount of land improvement and inter planting it is proposed to gradually extend the plantations to private holdings also. By the end of the year 1982-83, 300 acres are proposed to be planted with coffee. Including land acquisition cost, cost of seedlings, land improvement and establishment expenses, an outlay of Rs. 17.35 lakhs is proposed for the coffee programme.

As far as tea cultivation is concerned this is also of recent origin in the State. Although the State borders Darjeeling which is renowned for tea cultivation there was no attempt made in this sphere of activity for a very long time. An attempt to start a Government owned tea garden at a place called Kewzing mainly as a refugee rehabilitation programme met with disaster. Later a tea plantation programme was started at a place called Temi in South Sikkim. This tea garden is today under the control of a Government owned Tea Board and has just entered the international market during the previous year. At present 211 acres of area is under tea at Temi. A further 135 acres is also under tea cultivation at Kewzing. Both these gardens are under the same management.

During the plan period the planted area will be extended by a further area of approximately 400 acres. This will include additional land acquisition as also land preparation planting and maintenance. The expenditure in the tea garden is mainly under two heads namely the garden and the factory. In the garden the main items of expenditure relate to the payment of wages, the procurement of materials including ploythene sleeves seedlings, fertilizers etc. It also includes minor land shaping works, fencing and a system of paying rice concession at the rate of Rs. 16/- per month per worker. On the factory side, apart from the salaries of the fitters and other technicians working in the factory the amount paid to the labour for plucking extra leaves at the rate of Rs. 1 per kg of extra leaf is also debited. During the plan period an additional generator is proposed to be procured mainly to ensure that failure of power supply from the main lines does not hamper production. A few more labour houses have also to be constructed. Twenty such houses are proposed to be constructed in each of the years. One more tractor, a jeep and a truck is also proposed to be procured. The factory building will also be extended for fitting in two more troughs and a fermenting rack. This will be necessary on account of the anticipated increase in production. The estimated production in 1982-83 is 1.20 lakh kgs against 35,000 kgs anticipated to be produced in 1979-80. During the course of the years 1978-83 the revenue earnings estimated on account of the sales of the tea produced are approximately Rs. 78 lakhs. This figure has been worked out keeping an average price of Rs. 25 per kg of tea in the Calcutta auction market. The overall outlay required for the various programmes proposed to be undertaken is Rs. 128 lakhs. It is likely that the composition of the

Tea Board would be so changed that the revenues earned are ploughed back for the working requirements. Under the circumstances the outlay proposed in the State Plan for the five year period is restricted to Rs. 50 lakhs.

The Tea Board is also intending to introduce a pilot programme in a backward area of the State called Rolep in East Sikkim for cultivating tea on co-operative lines. In a nut shell the scheme envisages the maintenance of a nursery from which seedlings would be provided at subsidised cost to the villagers who are expected to plant and maintain them under the direct supervision of the Tea Board. Necessary support to the planting programme in the form of inputs will be provided by the Tea Board. Further, the tea leaves plucked would be processed in a factory to be constructed in a nearby place. The factory will pay the price of the leaves plucked to the cultivators directly. This will be one of the best ways of ensuring an equitable return to the cultivators of an inhospitable region where today there is only sporadic cultivation. The programme envisages a considerable amount of land shaping and also a meaningful extension system so as to bring the cultivators within the discipline of a tea growing concern. The outlay contemplated for this programme for the five year period is Rs. 11 lakhs.

The overall outlay for plantation crops is thus Rs. 78.35 lakhs.

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

Head of Development	Fifth Plan Outlay	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign Exchange content of total outlay	Capital content of total outlay
1	2	3	4	5	6	7	8	9
<u>AGRICULTURE</u>	357.00	209.52	136.60	-	801.00	-	-	143.70

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Development	Minor Head of Development	Fifth Plan out- lay 76-77	1976-78	1978-79	Proposed outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Outlay Total of which MNF	Total	of which	F.E. content of total outlay (As shown in Col.7)	Capital content of total outlay	
1	2	3	4	5	6	7	8	9	10
AGRICULTURE									
1. CROP PRODUCTION									
	(a) Multiplication and Distribution of seeds.		10.18	9.00	-	45.00	-	-	-
	(b) Agriculture Farm		21.52	5.00	-	33.64	-	-	21.20
	(c) Commercial Crop (others)		1.00	2.00	-	34.50	-	-	-
	(d) Agriculture Mar- keting & quality control		3.14	1.70	-	10.44	-	-	2.80
	(e) Horticulture		13.69	16.90	-	83.96	-	-	19.90
Total Crop Production			49.53	34.60	-	207.54	-	-	43.90
2. Manures & fertiliser			39.35	1.00	-	91.70	-	-	0.00
3. High Yielding variety seeds.			5.61	5.00	-	37.50	-	-	-
4. Plant Protection			14.62	8.40	-	75.28	-	-	13.70
5. Mechanisation.			-	5.50	-	35.19	-	-	-
						42.28	-	-	7.70

1	2	3	4	5	6	7	8	9	10
7.	<u>Research & Education</u>								
	(a) Agriculture Education	0.99	1.00	-	10.00	-	-	-	-
	(b) Agriculture Research	12.08	6.80	-	36.88	-	-	-	2.20
	Total (a) & (b)	13.07	7.80	-	46.88	-	-	-	2.20
8.	Agriculture Economics and Statistics	0.34	1.00	-	3.55	-	-	-	-
9.	Centrally Sponsored Schemes.	0.58	5.60	-	43.90	-	-	-	6.00
10.	Direction & Adm.	42.24	34.70	-	138.83	-	-	-	65.70
* 11.	<u>Plantation Crops</u>								
	(a) Tea Garden	40.23	14.00	-	50.00	-	-	-	-
	(b) Rolep Tea Garden	-	2.00	-	11.00	-	-	-	-
	(c) Coffee Plantation	-	2.00	-	17.35	-	-	-	-
	Total Plantation Crops	40.23	16.00	-	78.35	-	-	-	-
T	Total								
	Agriculture	357.00	209.52	136.60	-	801.00	-	-	143.70

* Rs. 73 lakh against tea garden will be met from revenue earned by the garden.

A G R I C U L T U R E .

The details of the financial investment along with anticipated physical targets for the period 1978-83 are given in the following paragraphs. These targets are 'indicative' and will be kept flexible.

(1) Manures & Fertilizers.

	<u>Fifth Plan.</u>	<u>1978-79</u>	<u>79-80</u>	<u>80-81</u>	<u>81-82</u>	<u>82-83</u>	<u>Total</u>
<u>Physical Targets</u>							
Fertilizers (tonnes)							
Nitrogen	450	320	360	400	440	480	2000
Phosphorous	280	240	270	300	330	360	1500
Potash	110	80	90	100	110	120	500
Rural Compost							
Nos. of pits	1500	500	1000	1000	1000	1000	4500
Micro-nutrients (acres)	-	-	500	1000	1500	2000	5000
<u>Financial Targets (Rs. in lakhs)</u>							
(a) Fertilizers.	37.41	10.70	14.70	17.00	18.80	20.60	81.80
(b) Building	-	1.50	1.50	1.50	-	-	4.50
(c) Recurring	1.94	11.80	0.77	0.80	1.18	0.85	5.40
TOTAL	39.35	14.00	16.97	19.30	19.98	21.45	91.70

DIRECTION AND ADMINISTRATION

Physical Targets

Demonstration at Farmers Fields (nos. each of size 0.5 acre)	300	1800	2100	2250	2400	2400	10950
<u>Construction of Building</u>							
(a) Class I	-	-	2	2	-	-	4
(b) Class II	-	15	2	2	1	-	20
(c) Class III	12	-	12	13	12	5	42
(d) Class IV	18	-	10	10	10	-	30
(e) VLW Qrts.	12	20	21	-	-	-	41
(f) Labour Quarters.	70	-	20	20	10	10	60
Purchase of land for Farms and Buildings (acres)	300	20	25	-	-	-	45
<u>Financial Targets (Rs. in lakhs)</u>							
Demonstration/Purchase of Lands.	0.60	2.80	3.60	2.25	2.40	2.40	13.45
Buildings	15.58	15.00	17.70	16.20	10.80	3.50	63.20
Recurring	26.06	16.90	10.80	10.96	12.16	11.36	62.18
TOTAL	42.24	34.70	32.10	29.41	25.36	17.26	138.83

AGRICULTURE ADMINISTRATION

Agriculture Farms

Fifth 1976-79 79-80 80-81 81-82 82-83 Total
Plan

Physical Targets

1. Land improvement including fencing footpath construction etc (acres) including land purchase.	100	150	100	100	100	50	500
2. Purchase of bullocks (pairs)	25	35	10	10	-	-	25
3. Construction of Bullock sheds (Nos)	10	4	-	-	-	-	4
4. Construction of Threshing Floors (Nos)	-	6	6	2	-	-	14
5. Purchase of storage Bins (Nos)	200	80	80	80	80	80	400
6. Purchase of farm implements, equipments etc.	-	-	-	-	-	-	-
7. Development of Irrigation (Acres)	50	-	50	100	100	100	350

Financial Targets (Rs. in lakhs)

	21.52	5.00	7.00	7.40	6.80	5.80	32.00
<u>Buildings</u>	-	-	-	-	-	-	-
<u>Recurring</u>	-	-	0.42	0.38	0.41	0.43	1.64
Total Agriculture Farms	21.52	5.00	7.42	7.78	6.21	5.23	33.64

PLANT PROTECTION

Physical Targets

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
1. Seed Treatment (in quintals)	1,500	3,000	5,000	5,000	5,000	5,000	23,000
2. Soil Treatment (in acres)	1,000	2,000	3,500	3,000	3,500	4,000	15,000
3. Foliar Treatment (acres)	6,000	9,000	13,000	14,000	14,000	15,000	65,000
4. Plant Protection Mobile Units' Campaign (acres) -	-	7,000	12,000	13,000	14,000	15,000	64,000
5. Store Grain pests Control (Qntls)	10,000	13,000	25,000	25,000	25,000	25,000	1,13,000
6. Rodents control							
(a) Field rats (acres)	9,000	10,000	10,000	10,000	10,000	10,000	50,000
(b) House rats (Nos of house)	3,000	4,000	4,000	4,000	5,000	5,000	22,000
7. Weeds control (acres)	10	300	500	600	600	600	2,600
8. Survey/Surveillance -	This will be done on a phased manner starting with major crops followed by others.						
9. Plant Protection Laboratory (No) -	-	-	1	-	-	-	1
10. Class II Qtr.	-	-	-	2	2	1	5
Class III "	-	-	-	2	3	2	7
Class IV "	-	-	-	5	5	3	13

Financial Targets (Rs. in lakhs)

Plant Protection	12.06	6.45	10.47	11.44	12.06	12.91	53.33
<u>Buildings</u>	-	-	2.00	4.50	4.50	2.70	13.70
<u>Recurring</u>	3.22	2.40	2.35	2.30	2.35	2.45	9.85

CROP PRODUCTION.

COMMERCIAL CROPS.

Physical Targets.

	Fifth Plan.	1978-79.	79-80.	80-81.	81-82.	82-83.	Total.
1. Varietal screening (acres)	5	10	10	10	10	10	50
2. Demonstration of package of practices of producing various commercial crops in Farmers Fields (Nos. of size 0.25(each)	100	500	500	500	500	500	2500
3. Distribution of seeds/planting materials of commercial crops (acres)							
i) Vegetables	1000	1500	3000	4000	5000	5000	18500
ii) Potato	-	-	200	300	300	400	1200
iii) Ginger	-	-	5	25	50	70	150
iv) Vegetables and production incentive to farmers (acres)	-	-	100	200	300	400	1000

Financial Outlay Targets (Rs. in lakhs)

(a) Varietal screening, demonstration and distribution of seeds/planting materials	1.00	1.60	5.02	7.32	8.50	10.50	32.94
(b) Recurring	-	0.40	0.28	0.28	0.30	0.30	1.56
(c) Building	-	-	-	-	-	-	-
Total Commercial Crops.	1.00	2.00	5.30	7.60	8.80	10.80	34.50

EXTENSION & FARMERS TRAINING

Physical Targets

	Fifth	1978-79	79-80	80-81	81-82	82-83	Total
Plan							
1. Horticulture							
Demonstration : Orange							
Rejuvenation (acres)	100	300	500	600	600	400	2400
2. Orange new plantation							
(acres)	100	200	300	400	500	500	1900
3. Apple Rejuvenation							
(acres)	-	20	40	60	60	60	240
4. Others (Peach, Plum,							
pears, Almond, Guava,							
Lime and lemon, Kinnow,							
Mandarin etc(acres)	-	-	200	400	600	600	1800
	200	520	1040	1460	1760	1560	6340

1. Apple and Orange							
Rejuvenation (acres)	-	-	30	30	30	30	120
2. New Plantations of							
different fruits							
(acres)	-	-	50	50	50	50	200
	-	-	80	80	80	80	320

Agriculture Information

1. Publication of							
Agriculture and Horticulture							
Calenders (Nos)	1	1	1	1	1	1	5
2. Publication of							
Pamphlets (Nos)	15000	50000	50000	50000	50000	50000	250000
3. Farmers field Days							
(Nos)	16	14	75	75	150	150	464
4. Exhibitions & crop							
competition (nos)	10	20	30	40	50	60	200
5. Farmers Education							
Tours a group of 20							
Farmers (Nos)	1	1	2	3	4	4	14
6. Farmer's Training (Nos)							
of Training with each							
Training comprising of							
20 farmers.	14	10	14	18	29	28	108

Financial Targets (Rs. in lakhs)

(a) Horticulture	-	2.00	4.45	5.40	6.10	4.40	22.25
(b) Agriculture Information:-	0.75	1.00	1.40	1.80	2.10	2.30	8.60
Buildings :-	-	-	3.10	3.10	1.50	-	7.70
Recurring :-	3.20	1.00	0.56	0.59	0.60	0.78	3.51
Total Extension & Farmers	3.95	4.00	9.41	11.30	10.30	7.48	42.28
Training							

MECHANISATION

AGRICULTURE ENGINEERING

Physical Targets

	1978-79	79-80	80-81	81-82	82-83	Total
1. Various kinds of Hand tools bullock driven implements, Hand levellers ridgers, hand hoes etc (Nos)	2,000	2,000	2,000	2,000	2,000	10,000
2. Maize shellers, paddy Threshers, wheat Thresher etc (Nos)	2,000	4,000	6,000	8,000	1,000	2,000
3. Seed storage bins of different sizes, Grain silos etc (Nos)	5,000	1,000	1,000	1,000	1,000	4,500
4. Horticultural tools like secateurs, Pruning saws, etc (Nos)	4,000	4,000	4,000	4,000	4,000	2,000
5. <u>Oil Expellers</u>						
(a) Power Driven	1	1	1	1	-	4
(b) Bullock Driven	1	5	5	5	5	21
6. Drying Equipments	1	1	1	1	1	5
7. Establishing of workshop	1	-	-	-	-	1
8. <u>Buildings</u>						
(a) Shed for workshop	1	-	-	-	-	1

Financial Targets (Rs. in lakhs)

(a) <u>Others</u>						
(i) Hand tools and Bullock driven implements (No. of sets)	1.50	1.50	1.50	1.50	1.50	7.50
(ii) Maize Shellers, Paddy Thresher, wheat Thresher etc.	0.40	0.80	1.20	1.00	2.00	6.00
(iii) Seed Bins and Grain Silos (storage) etc	1.50	3.00	3.00	3.00	3.00	13.50
(iv) Horticultural tools like secateurs, Pruning saws etc (Nos of sets)	0.40	0.40	0.40	0.40	0.40	2.00
(v) <u>Expellers</u> Both Bullock driven and power driven	0.23	0.35	0.35	0.35	0.15	1.43
(vi) Drying Equipments etc.	0.20	0.20	0.20	0.20	0.20	1.00
(vii) Establishment of workshop	0.40	-	-	-	-	0.40
(viii) Buildings	0.62	-	-	-	-	0.62
(c) <u>Recurring</u>	0.25	0.95	0.52	1.15	0.57	2.74
Total Agricultural Engineering	5.50	7.10	7.17	7.60	7.82	35.19

Research & Education

Agriculture Research

Physical Targets

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
(1) Adaptive Trials at Govt. Farmers (acres)	138	100	150	150	150	150	700
(2) Soil Testing (No of samples)	10000	7500	7500	7500	7500	7500	37500
<u>(3) Soil Reclamation</u>							
<u>(a) Trials at Govt. farms</u>							
(No of Trials)	10	30	30	30	30	30	150
<u>(b) Demonstrations at farmers fields</u>							
(Nos)	375	500	500	600	600	700	2900
<u>(4) Water Conservation.</u>							
<u>(a) Trials at Govt. Farms (Nos)</u>							
	4	5	5	5	5	5	25
<u>(b) Demonstrations at farmers' fields (Nos)</u>							
	6	10	15	20	25	30	100
<u>(5) Micronutrient Trials.</u>							
<u>(a) Trials at Govt. Farmers (Nos)</u>							
	8	15	15	20	20	20	90
<u>(b) Demonstrations at Farmers' fields (Nos)</u>							
	25	50	100	150	200	250	750

Financial Targets (Rs. in lakhs)

(a) Agriculture Research	7.44	4.42	6.00	6.35	6.65	6.90	30.32
(b) Buildings	1.68	1.40	0.80	-	-	-	2.20
(c) Recurring	0.28	10.98	0.81	0.83	0.85	0.89	4.36
Total of Agriculture Research	9.40	16.80	7.61	7.18	7.50	7.79	36.88

Agriculture Economics & Statistics

Physical Targets

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
Crop cuttings on important crops (Nos of crops with 305 crop cuttings per crop)							
(a) Field Crop	2	4	5	6	9	10	34
(b) Horticulture Crops	-	2	3	4	5	6	20
Data on cost of production and economics of various crops (Nos of crops with each crops of 10 locations)	-	2	5	5	8	10	30

Financial Targets (Rs. in lakhs)

(a) Crop Cutting, Cost of Production Statistics and other Expenses	0.04	1.00	0.32	0.35	0.50	0.60	2.77
(b) Buildings	-	-	-	-	-	-	-
(c) Recurring	-	-	0.18	0.19	0.20	0.21	0.78
Agriculture Economics and Statistics	0.04	1.00	0.50	0.54	0.74	0.81	3.55

AGRICULTURE EDUCATION.

Physical Targets

1. B.Sc. Ag.	14	5	5	5	5	5	25
2. B.Sc. Ag. Engg.	2	2	2	2	2	2	10
3. M.Sc. Ag.	-	-	2	2	2	2	8
4. Gram Sevak	5	5	10	10	10	10	45
5. Diploma courses in different disciplines.	7	10	10	10	10	10	50
6. Short Courses	-	10	15	10	10	15	60

<u>Financial Targets</u>	0.99	1.00	1.50	2.00	2.50	3.00	10.00
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CROP PRODUCTION

AGRICULTURAL MARKETTING AND QUALITY CONTROL

Physical Targets

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
(a) Growers' Association (Nos)	3	4	5	6	6	6	27
(b) Quality to ^{be} Marketed (tonnes)	1.50	2.00	2.50	3.00	3.50	4.00	15.00
(c) Collection of Agriculture commodities Prices (No. of markets)	6	8	10	12	12	12	54
(d) Construction of collection & grading sheds (Nos)	1	1	2	1	1	1	6

Financial Targets (Rs. in lakhs)

(a) Others

1. Support to 'Growers' Association' (Transport subsidy)	-	0.20	0.25	0.30	0.35	0.40	1.50
2. Materials	-	0.20	0.40	0.40	0.20	0.20	1.40
Total	-	0.40	0.65	0.70	0.55	0.60	2.90

(b) Buildings

1. Construction of collection & grading sheds	-	0.40	0.80	0.80	0.40	0.40	2.80
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(c) <u>Recurring</u>	3.14	0.90	0.86	0.94	1.01	1.03	4.74
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Agriculture Marketting and quality control

3.14 1.70 2.31 2.44 1.96 2.03 10.44

(c) Adaptive Trials

To find out the suitability of different fruits and their varieties at varied agro-climatic regions adaptive trials will be also be conducted at Government's Farms - the targets (Physical and outlay) of which are as follows.

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
Adaptive Trials (acres)	10	20	30	40	50	60	200
(d) Buildings (Nos)							
Class II	-	1	-	-	-	-	1
Class III	-	-	5	5	5	-	15
Class IV	-	-	5	5	5	-	15
Fruit Storage	-	-	5	5	5	-	15
(e) Land Purchase for establishing progeny orchards (acres)	-	25	25	-	-	-	50
(f) Land improvements, irrigation, footpath, (acres)	-	10	10	10	10	10	50

Financial Targets (Rs. in lakhs)

(a) Horticulture's Planting Materials etc.

	12.24	9.50	10.99	11.47	11.82	12.18	55.96
(b) <u>Recurring</u>	1.45	1.50	1.58	1.63	1.71	1.68	8.10
(c) <u>Buildings</u>	-	5.90	4.50	4.50	4.50	0.50	19.90
Total Horticulture	13.69	16.90	17.07	17.60	18.03	14.36	83.96

SEEDS

HIGH YIELDING VARIETIES PROGRAMME.

Physical Targets :

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
Seeds Distribution (acres)							
1. Maize	10,000	5,000	5,000	5,000	5,000	5,000	25,000
2. Paddy	200	1,000	2,000	3,000	4,000	5,000	15,000
3. Wheat	2,500	2,500	3,000	3,500	4,000	5,000	18,000
4. Mustard	500	3,000	5,000	5,000	5,000	5,000	23,000
5. Millet	50	200	500	1,000	1,500	2,000	5,200
6. Others	20	1,000	1,000	1,000	1,000	1,000	5,000
	<u>13,270</u>	<u>12,700</u>	<u>16,500</u>	<u>18,500</u>	<u>20,500</u>	<u>23,000</u>	<u>91,200</u>
Seed Distribution (Tonnes)							
1. Maize	60	30	30	30	30	30	150
2. Paddy	3	15	30	45	60	75	225
3. Wheat	100	100	120	140	160	200	820
4. Mustard	1.25	7.50	12.5	12.5	12.5	12.5	57.50
5. Millet	0.25	2.5	2.5	5.0	7.5	10.0	27.5
6. Others	0.20	10.0	10.0	10.0	10.0	10.0	50.0
	<u>164.70</u>	<u>165.00</u>	<u>205.00</u>	<u>242.50</u>	<u>290.00</u>	<u>337.50</u>	<u>1,330.00</u>
Financial Targets (Rs. in lakhs)							
	5.61	5.00	6.30	7.40	8.50	10.30	37.50

Production of High Yielding Varieties and double or multiple cropping will provide full time employment to cultivators including Agricultural labourers.

LAND UTILIZATION

Soil Conservation on Agriculture Lands

Physical Targets

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
Area to be brought under Soil Conservation (acres)	1,600	1,450	2,500	3,000	4,000	4,500	15,450
Beneficiaries to be covered (Nos of Households)	400	360	620	750	1,000	1,120	4,250

Financial Targets (Rs. in lakhs)

Soil Conservation Subsidy

	13.50	14.50	25.00	30.00	40.00	45.00	154.50
<u>Buildings</u>	-	-	1.50	2.00	1.50	1.50	6.50
<u>Recurring</u>	1.04	0.50	2.19	1.55	1.41	1.47	7.12
Total Soil Conservation	14.54	15.00	28.69	33.55	42.91	47.97	168.12

CENTRALLY SPONSORED SCHEMES

The Department of Agriculture is also taking advantage of the assistance given to the States for Centrally sponsored Schemes. For the present only few such schemes have been taken up. The Centrally Sponsored Schemes in operation in the State Department of Agriculture are :- (1) All India Coordinated I.C.A.R. Maize Scheme, (2) Farmers Training Centre, (3) Rice Community Nurseries, (4) Reclamation of Acidic Soils, and (5) Soil Survey Organisation.

The I.C.A.R. Maize Scheme has been in operation since 1958, Farmers Training Centre from 1977-78, Rice Community Nurseries from 1978-79, Reclamation of Acidic Soils from 1977-78, and Soil Survey Organisation was to be started from 1977-78 but could not be started due to non-availability of suitable persons for recruitment for the various posts. These schemes will be continued subject to approval by the Centre. One more scheme 'Agriculture Implements' is also to be taken up during the year 1978-79 which has not so far been approved.

For taking advantage of the Centrally Sponsored Schemes the State has to provide matching contribution of fund which ranges from 25% to 50% as State's share depending upon the kind of scheme. The Farmers Training Centre is operated with 100% grant from the Centre but the State Government has to provide necessary infrastructure in terms of buildings excepting the Dormitory. The State's share of fund for the various Centrally Sponsored Schemes is, therefore, to be provided under this programme.

The financial Outlays to be provided by the State *as* Counter part funds for the various schemes are anticipated as follows.

Financial Outlays (Rs. in lakhs)

	Fifth Plan	1978-79	79-80	80-81	81-82	82-83	Total
All India Coordinated Maize	0.58	0.20	0.15	0.15	0.15	0.15	0.80
Reclamation of Acidic Soils		2.10	4.50	4.50	4.50	6.50	22.10
Soil Survey Organisation		1.50	1.50	1.50	1.50	1.50	7.50
Agriculture Implements		0.50	1.00	1.50	2.00	2.50	7.50
Farmers Training Centre		1.30	1.70	2.00	1.00	-	6.00
	0.58	5.60	8.85	9.65	9.15	10.65	43.90

The fund provided under the Farmers Training Centre is meeting the expenditures on the construction of residential Buildings for providing accommodations to the staff working under the Farmers Training Centre.

State/U.T.

FIVE YEAR PLAN 1978-83
 Crop Production : Achievements & Targets

Sl. No.	Item	Unit	Actual Production		Target	
			1973-74	1977-78		
1	2	3	4	5	6	
1.	Foodgrains	Total	Thousand tonnes	Not available	35.00	50.00
	(a) Cereals					
	(b) Pulses			Not available	35.00	48.75
					-	1.25
2.	Sugarcane(in terms of cane)	"	"	-	-	-
3.	Oilseeds	Total	"	-	0.10	9.20
	(a) Five Major oilseeds	"	"	-	-	-
4.	Cotton		Thousand bales of 170 Kgs. each		-	-
5.	Jute		thousand bales of 180 Kgs. each		-	-

State/U.T.

Annexure II

AGR-20.

FIVE YEAR PLAN 1978-83
CROP PRODUCTION : TARGETS FOR TERMINAL YEARS

Area - Hectares
Production-tonnes
Yield - Kgs./hectares

Sl. No.	Item	Achievement 1977-78			Targets 1982-83		
		Area	Yield	Production	Area	Yield	Production
1	2	3	4	5	6	7	8
1.	Foodgrains						
	(a) Rice	200	800	160	6,200	800	4,960
	(i) Autumn						
	(ii) Winter						
	(iii) Summer						
	Total (Rice)	200	800	160	6,200	800	4,960
	(b) Wheat	2,400	1,000	2,400	9,600	1,000	9,600
	(c) Maize	4,000	800	3,200	14,000	800	11,200
	(d) Jowar	-	-	-	-	-	-
	(e) Bajra	-	-	-	-	-	-
	(f) Other Cereals	-	-	-	2,000	500	1,000
	(g) Pulses	-	-	-	2,500	500	1,250
	Total -	6,600	-	5,760	34,300	-	28,010
2.	Sugarcane (cane)	-	-	-	-	-	-
3.	Oilseeds	200	500	100	18,400	500	9,200
	(a) 5 Major						
	(b) Total	-					
4.	Cotton						
5.	Jute & Mesta						
6.	Tobacco						
7.	Coconut						
8.	Cashewnut						
9.	Potato	1,380	500	6,900	2,000	5000	10,000

State/U.T.

Annexure III

AGR-21.

FIVE YEAR PLAN 1978-83
SELECTED PROGRAMMES : ACHIEVEMENTS & TARGETS

Sl. No.	Item	Unit	Actual Achievement		Target
			1973-74	1977-78	
1.	High Yielding varieties	Hectares			
	(a) Paddy	"	N.A.	200	6,200
	(b) Wheat	"	N.A.	2,400	9,600
	(c) Maize	"	N.A.	4,000	14,000
	(d) Jowar				
	(e) Bajra				
	Total (a) to (e) -		-	6,600	29,800
2.	Consumption of chemical fertilizers (Nutrients)	Thousand tonnes	N.A.		
	(a) Nitrogenous (in terms of 'N')		N.A.	300	480
	(b) Phosphatic (in terms of P ₂ O ₅)		N.A.	200	360
	(c) Potassic (in terms of K ₂)		N.A.	60	120
	Total (a) to (c)			560	960
3.	Increase in gross cropped area	thousand hectares	N.A.	80	90
4.	Soil and Water Conservation on Agricultural Lands	"	N.A.	360	6,180
5.	Minor Irrigation	"	-	-	-
6.	(technical grade material)	tonnes	N.A.	5.4	50.6

Five Years Plan 1978-83
Selected Programme - Achievements & Targets

Sl. No.	Item	Unit	Achievement 1977-78	Target 1982-83
1	2	3	4	5
1.	Organic Manures & Green Manuring	Hectares	800	3,600
	(a) Urban compost	-	-	-
	(b) Green Manuring	-	-	-
2.	Plant Protection (technical grade material)	tonnes		
	(a) Consumption of pesticides	-		
	(b) Seed Treatment chemical	-	0.41	1.6
	(c) Fungicides	-	4.00	20.0
	(d) Others	-	1.00	30.6
3.	Certified Seed Quantity distributed	thousand tonnes		
	(a) Food crops	"		
	(i) Cereals	"	133.00	1,200
	(ii) Pulses	"	-	62
	(b) Others	"	-	-
	(i) Cotton	"	-	-
	(ii) Oilseeds	"	1.25	58
	(iii) Jute	"	-	-
	(iv) Potato	"	-	720
	(v) Vegetable	"	2.00	37
	(vi) Foddercrops	"	-	-
4.	Agriculture Machinery & Implements	Nos.		
	(a) Tractors	-	-	-
	(b) Power tillers	-	-	-
	(c) Threshers	-	-	2,000
	(d) Seed-cum-fertilizer drills	-	-	-
	(e) Sprayers/dusters	-	-	-
	(i) Hand operated	-	150	3,000
	(ii) Power operated	-	14	61
5.	Agricultural Machinery Hiring Centres.	Nos.		
	(a) Operated by agro-industries Corporations	-	-	-
	(b) Operated by others	-	-	-
6.	Land Reclamation	hectares		
	(i) Alkaline	-	-	-
	(ii) Others	-	100	3,600
7.	(a) Regulated markets	Nos.	-	-
	(b) Sub-market yards	-	-	-

Contd...2

1	2	3	4	5
3..	Grading Units			
	(a) Cooperative	Nos.	-	-
	(b) Departmental	-	-	-
	(c) Others	-	-	-
9.	Storage & Warehousing			
	(a) Owned capacity of State warehousing corpns.	tonnes	-	-
	(b) Owned capacity of other State Godowns	-	400	1600
	(c) Cooperative Godowns	-	-	-
10.	Short-term Agricultural Credit	Rs. crores	-	-
	(a) Advances during the year by cooperatives		-	-
	(b) Advances by commercial banks during the year		-	-
11.	Investment Agricultural Credit	Rs. crores	-	-
	(a) Medium term advances by cooperatives during the five year of plan.		-	-
	(b) Medium Long-term advances by commercial banks during 5 years of the plan		-	-
	(c) Long-term advances by Land Development Banks during five year of Plan (Both ordinary & special loans).		-	-

Five Year Plan (1973-83)Agriculture and Rural DevelopmentHead-wise/Sub-head-wise break-up of the financial outlays:

Sl. No.	Head of Development/ Programmes	Fifth Plan approved outlay	Approved outlay 1973-79	Proposed Outlay 1973-83 Total	Capital	Foreign Exchange
1	2	3	4	5	6	7
	<u>Agriculture</u>	300				
I.	<u>Agricultural Research & Education:</u>					
	(1) Agricultural Research		6.80	36.83	2.20	--
	(2) Agricultural Education		1.00	10.00	--	--
	Total I		7.80	46.83	2.20	--
II.	<u>Agricultural Extension & Administration:</u>					
	(1) Direction & Administration		34.70	133.83	65.70	--
	(2) Agricultural Farms		5.00	33.64	21.20	--
	(3) Extension Education & Farmers Training		4.00	42.23	7.70	--
	(4) Agricultural Economics & Statistics		1.00	3.55	--	--
	Total II		44.70	218.30	94.60	--
III.	<u>Agricultural Inputs</u>					
	(1) Seeds		9.00	35.00	--	--
	(2) Fertilizers & Manures		14.00	91.70	4.50	--
	(3) Plant Protection		3.40	75.23	13.70	--
	(4) Implements & Machinery		5.50	35.19	--	--
	Total III.		36.90	247.17	18.20	--
IV.	<u>Crop Oriented Programmes</u>					
	(1) HVP		5.00	37.50	--	--
	(2) Commercial Crops		2.00	34.50	--	--
	(3) Horticultural Crops & Plant Protection		16.90	106.33	24.90	--
	Total IV.		23.90	178.33	24.90	--
V.	<u>Agriculture Marketing & Quality Control</u>		1.70	10.44	2.80	--
VI.	<u>Centrally Sponsored Scheme</u>		5.60	43.90	6.00	--
	Total I., II., III., IV., V and VI	300	120.00	745.02	148.70	--

LAND REFORMS

INTRODUCTION

The implementation of Land Reform measures is considered to be the main instrument to achieve distributive justice. As in other parts of the country, in Sikkim also the concentration of landed ownership in the hands of a small percentage of landed aristocracy had resulted in the deprivation of social justice to a large section of the population. One of the first moves of the Government after Sikkim became a part of India was to institute a meaningful programme of land Reforms so that the cultivating tenants and the landless labourers are given a fair deal. The Sikkim Agricultural Land Ceiling and Reform Act came ~~into~~ effect only on the 22nd of June, 1978. Since the coming into force of this Act is of very recent origin, the question of distribution of surplus land has not yet been an integral part of any Governmental programme. Nonetheless the main objective in the Plan period 1978-1983 would be to expeditiously distribute available surplus land to the eligible categories of tenants and landless agricultural labourers in accordance with the provisions of the laws. In order to ensure that the land to be distributed is physically delivered to the eligible categories and to ensure that land records are mutated to reflect their rights the existing administrative organisation will be suitably reorganised. The allottees of surplus land will also be given adequate financial and technical assistance in order to bring the distributed land under productive cultivation.

Review of Progress and Proposals for 1978-83:

As already mentioned, Land Reform in Sikkim has had a very recent origin. As a prelude to the introduction of Land Reform measures it was decided that in view of a complete absence of up to date land records, a comprehensive Survey and Settlement operation of agricultural land in Sikkim should be completed. With this end in view a separate Survey and Settlement Directorate was established

and the process of Survey begun during the latter part of the year 1975-76. However, progress was actually achieved only from the year 1976-77. So far 54, 320 hectares of agricultural land has been surveyed. The remaining area, which is approximately 1 lakh of hectares, is proposed to be covered by the end of 1979-80. The major constraint in expeditiously completing the survey work has been the lack of trained Surveyors within the State. To a limited extent the problem was solved by obtaining deputationists from other States for the survey work. However, the quick turnover of personnel aggravated the problem. In spite of this, appreciable progress has been achieved particularly when one takes into account the difficult weather conditions and the lack of communication facilities of the State. Side by side with the completion of survey work a programme of preparing land records has been taken in hand. The up-dating of land records is a crucial factor related to agricultural development. It is very necessary to have up-to-date land records in a system of administration which recognises the existence of a direct relationship between the State and the farmer. The continuous updating of records is therefore a very essential follow-up action which has to be instituted in Sikkim after the survey work is completed. Keeping this object in mind it is proposed to set up a permanent Land Record Directorate. This Directorate will be staffed mainly by the existing Head Surveyors and Surveyors who will be given a more intensive training course so as to enable them to handle such matters like mutation of records and other matters relating to preservation and updating of records. The investment on this purpose is of considerable importance because the preparation of records under the present settlement operation will be of no use unless they are properly preserved and updated. In fact such investment should be accepted as investment in agriculture and should not be judged as expenditure on schemes which yield no return. The setting up a Directorate of Land records also

involve a qualitative strengthening of revenue administration at the field level from the village upwards. It is proposed to divide the State into approximately 50 survey circles which for sake of convenience and uniformity will be termed as 'Patwari' circles. The Patwaris will not be new recruits but will be the existing surveyors who will have other responsibilities like collection of land revenue, enforcement of land reform measures and conducting crop cutting operations. Certain other incidental developmental and Panchayats functions will also be entrusted to them. In other words, the Patwari system which is in existence in other parts of the country will be gradually introduced in the State. For the purpose of completing the survey and settlement work as well as the introduction of a proper land record system it is necessary to have a building at the Headquarters, District and Field levels. While the buildings at the Headquarters and District levels will be constructed from the general funds set apart for public buildings, a specific amount of money is earmarked for the construction of field outposts which will serve as residential-cum-office accommodation for the Patwari. The total outlay for the survey and settlement including the Land records directorate for the period 1978 to 1983 is fixed at Rs. 112 lakhs out of which the expenditure for building is estimated to be approximately Rs. 20 lakhs.

Side by side with the survey and settlement operation the implementation of land reform measures is also expected to take place. With the coming into force of the Ceiling Act the District Collectors will issue notifications calling upon land holders who hold surplus land to file suitable statements giving particulars of such surplus land owned or cultivated by them. The object is to physically distribute the surplus land to the eligible categories before the plan period is over. Current estimation is that about 4000 hectares of land will be available as surplus. Under the existing system prevalent in the State first priority for the distribution of lands

will be given to landless labourers particularly those who are schedule caste but who are Indian citizens. In order to expedite the physical distribution of land and to ensure that the programme is implemented without giving rise to complaints and criticisms District Level Committee including non-officials are proposed to be set up. As soon as the allotments are made land records will be mutated and financial assistance in the form of a loan with easy terms of repayment will be advanced to the allottees. The quantum of loan to be distributed will be determined taking into account the nature of the land so that the loan amount is utilised primarily for the purpose of making the land productive. With the coming into force of the Land Reform Laws and the commencement of the programme of distribution of surplus land, the question of compensating land holders for the excess land taken over by the Government has also to be considered. It is proposed to complete the payment of compensation over a period of four years from 1979 to 82. An amount of Rs. 18 lakhs is estimated for this purpose and this amount is included in the Plan. A certain amount of increase in establishment expenditure is also unavoidable in the context of the land reform measures. In order to meet the cost of administration, compensation to the land holders and for financial assistance to allottees an amount of Rs. 53 lakhs is earmarked for the period 1978 to 83 for Land Reforms. The overall financial outlay for Land Reforms is thus Rs. 165 lakhs. The break up in brief is as follows:

	(Rs. lakhs)
Survey and Settlement including Land Records Directorate	- 112.00
Compensation to Land Owners	- 18.00
Financial Assistance to Allottees	- 15.00
Land Reform Administration	- 20.00
	<hr/>
Total:-	165.00
	<hr/>

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

State/UT SIKKIM
Statement GN-1

(Rs. lakhs)

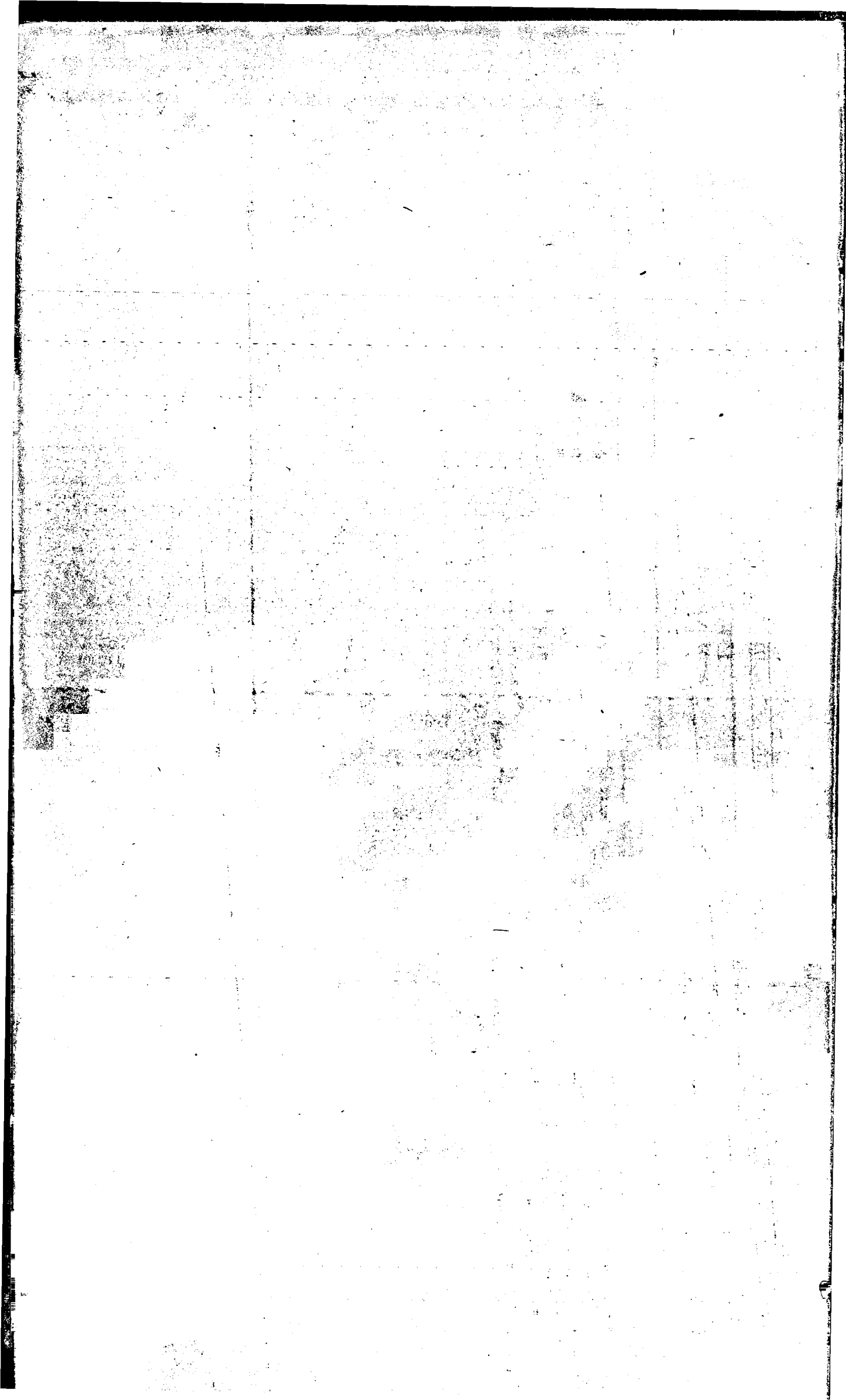
Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed outlay (1978-83)			
			Agreed Outlay Total of which MNP	Total of which MNP	Foreign exchange content of total outlay	Capital content of total outlay		
1	2	3	4	5	6	7	8	9
Land Reforms		34.22	28.00	=	165.00	-	-	20.00

DRAFT PLAN 1978 - 83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)									
Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay (1976- 79)	1976-78	1978-79		Proposed outlay 1978-83			
			Annual Exptr. Actual Exptr.	Agreed Outlay Total	of which MNP	Total	of which MNP	F.E. Content of total outlay (As shown in Col.7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
LAND REFORMS	1. Land Reforms Administration.	11.53	4.37	6.00	-	20.00	-	-	-
	2. Financial assistance to allottees	-	-	-	-	15.00	-	-	-
	3. Compensation to landowners	-	-	-	-	18.00	-	-	-
	4. Survey and settlement including land records Directorate.	-	29.85	22.00	-	112.00	-	-	20.00
	Total		34.22	28.00	-	165.00	-	-	20.00

DRAFT PLAN - 1978 - 83
SELECTED - TARGETS AND ACHIEVEMENTS

Sl. No.	Item	Unit	Fifth Plan Target (1976 - 77)	1976 - 78 Achievement	1978 -79 Target	1978 - 83 Proposed Target
1	2	3	4	5	6	7
I	Land Reforms	Exhaustive Survey of all agricultural lands of Sikkim followed by preparation of land records/attestation.	To Survey the agricultural lands as under:- 1976-77-12,00 hectares 1977-78-31,000 " 1978-79-40,000 " Total 83,000 hectares	Surveyed as under:- 1976-77-15,224.92 hectares 1977-78-39,143.84 Total- 54,368.76 hectares.	To Survey:- 40,000 hectares of land	(i) To Survey remaining 1,00,000.00 hectares of land as under:- 1978-79-40,000 hectares 1979-80-40,000 " 1980-81-20,000 " 1981-82)Preparation of 1982-83) land records and updating them and establishment a permanent land records Directorate with training facilities.



IRRIGATION

INTRODUCTION:

One of the major inputs required for agricultural production is water. Although the State of Sikkim has apparently surplus water due to heavy rainfall, the assured availability of water in the lean period is a problem which has not been adequately tackled so far. The irrigation schemes of the Government are now categorised under medium irrigation and minor irrigation. The Medium Irrigation schemes are however actually under the All India definition, Minor Irrigation Schemes since in no case is the culturable command area more than 2,000 hectares. However, certain schemes, the investment costs of which are more than Rs. 10 lakhs are proposed to be categorised as Medium Irrigation schemes.

A separate wing of the P.W.D. is entrusted with the task of identifying an investigating schemes which have such larger dimensions. Only one ~~scheme~~, the cost of which is approximately Rs. 10.50 lakhs was completed during the fifth Plan period. This has a potential command area of 200 hectares. However, there are five more ongoing schemes which on completion will generate an irrigation potential of 1,350 hectares. The stress in the Plan is for early completion of the ongoing ~~schemes~~. The main objective of the coming plan is to create an irrigation potential of approximately 4,500 hectares through this category of schemes by completing the ongoing projects and by taking up new schemes. The new schemes will be as far as possible in areas which are normally very dry. In other words, ~~even~~ though the investment cost when viewed from the point of view of the per acre cost may be high, the schemes will still be considered for implementation in view of the larger socio-economic benefits that are likely to arise from their implementation. The schemes will be so prepared so as to ensure minimum losses in seepage and ~~evaporation~~. Further, ~~adequate drainage facilities will be~~ provided whenever necessary.

So also the distribution system from the main channel will be worked out before the main scheme is implemented. A close liaison will be maintained with the Agricultural Department so as to ensure proper land utilisation. The cropping patterns will be worked out carefully. Suitable survey and investigation of projects will also be taken in hand so that a shelf of well investigated projects will be available.

Apart from irrigation schemes flood control works are also of great importance. There are a number of bazars which are subjected to the hazards of floods since they are located on river banks. Suitable protective works will have to be undertaken to control the floods not only to safeguard the bazars but also cultivable fields adjoining them. Such protective works will be undertaken in a phased manner during the coming five years.

Since irrigation projects are located in far off places where there are hardly any residential facilities it will be necessary to provide such basic facilities in project areas. A suitable provision has been made for this purpose. The total outlay contemplated for the period from 1978 - 83 for medium irrigation is Rs. 450 lakhs the breakup of which in brief is as follows :

1.	Irrigation schemes including lift irrigation and construction of channels	....	Rs. 280.00 lakhs
2.	Survey and investigation	....	Rs. 30.00 lakhs
3.	Direction and Administration including house building and programmes of machinery..		Rs. 90.00 "
4.	Flood control	....	Rs. 100.00 "
		Total:	Rs. 500.00

MINOR IRRIGATION:

Irrigation as already stated is one of the most essential prerequisites to increase food production and other cash crops. In a hilly terrain there is however only limited scope for bringing additional land under cultivation. Hence the available arable land should be provided with irrigation facilities. The desired increase in production has to come largely from multiple cropping and increased level of productivity. The production can be

increased through a combination of modern agricultural technology with other inputs like high yielding varieties of seeds and fertilizers and above all water.

The minor irrigation schemes in Sikkim are, compared with schemes in this category in other states, very much smaller in dimension. The schemes undertaken by the State Government under the category of minor irrigation are normally not more than Rs. 5.00 lakhs. All the minor irrigation schemes are implemented with active participation of the beneficiaries. Water for the gravity-flow minor irrigation schemes is tapped from ~~streams~~ and Jhoras and taken to the fields in open channel constructed in 1:2:4: plum concrete with facilities for diversion outlets.

The conventional way of making an irrigation channel in hilly area like Sikkim, is, in almost all cases by cutting the hillside and making track of suitable width for making the channel. Past experience has shown that land slides on hill sides occur frequently due to cutting involved in the process of making the channel. To check such slips and save the channel from being damaged, it becomes necessary to provide breast and retaining walls almost throughout the length of the channel. In places where the land is unstable or marshy, polythylene pipes of appropriate diameter are used. The performance of such schemes, that were implemented in the past years, have been found satisfactory.

The schemes of minor irrigation have become very popular amongs the villagers and the Government is receiving several demands from the various Panchayat Unit. It has to be ensured that only such schemes are proceeded for obtaining sanction which provide real impetus to agricultural production. All the minor irrigation schemes are prepared and implemented in close collaboration with the Agricultural Department. Normally, Cost per acre of such schemes range between Rs. 1,200¹ to Rs. 2,000/-

The rainfall in the State is considerably high and monsoon is quite long and wet. Even then the available soil moisture in the winter and summer months is not adequate to support multiple cropping. Therefore, there is an increased need for providing assured supply of water through construction of irrigation channels.

The implementation of the minor irrigation schemes is based on the following conditions adopted by the State Government :-

- (i) All schemes estimated to cost upto Rs. 0.25 lakhs consists 50% subsidy as Government contribution. The beneficiaries contribute the remaining 50% either by way of cash/kind or by providing free labour. The concerned Panchayat Unit looks after the maintenance/protection of the completed channels.
- (ii) The expenditure on schemes costing more than Rs. 0.25 lakh is entirely borne by the State Government and the beneficiaries are charged water-cess @ Rs. 4/- per acre per year. The water-cess thus collected is utilised for repair and maintenance of the particular channel.

During the Five Year Plan (1978-83) it is proposed to continue construction of such minor irrigation channels in the villages. All the schemes, as in the past, will be implemented through the concerned Panchayat Unit with the active participation of the beneficiaries.

During 1976-78 an additional area of 2,093 hectares were brought under assured water supply through M.I. Schemes. During the Five Year Period (1978-83) the proposed target to bring additional area of land under assured irrigation through M.I. Scheme is 5,290 hectares.

Lift Irrigations:

Most of the ~~rivers and streams~~ in Sikkim flow through deep valleys and it has been a problem to utilise its water for useful purposes in an economical way. There are arable lands where irrigation facilities cannot be provided as the perennial streams flow either through deep gorges or at the bottom of the village. To irrigate such areas, lift irrigation is the only solution whereby water can be lifted from the stream flowing at the foot of such fields in an economical way. As an experiment, a Hydraulic Ram (Hydrant) was installed in one of the Agriculture regional Sub-Centre

in East Sikkim during 1977-78. For successful operation of Hydrants, it has been found necessary to have regular maintenance of the machine. It is also found that parts like valves, rubber washers etc., are damaged or quickly worn off.

Sufficient spare parts in hand are necessary for replacement so that the machine may not have to remain idle. There is considerable potential for installation of Hydrants in Sikkim. The Department has selected two places for installation of such machines. Preliminary investigation and survey have been already completed. The installation of these machines will be undertaken and completed by the end of 1979-80. Hydrants will enable the cultivators to lift water from perennial sources with very negligible recurring costs since no electric power is required to lift the water.

With the help of lift irrigation, during 1976-78, an area of 11 hectares have been brought under assured irrigation. By the end of 1982-83 a total area of 138 hectares will have assured water supply by means of lift irrigation.

Ground Water (Dug-Wells)

Certain areas and belts of South and West Sikkim are drought prone and villages within it have acute shortage of drinking water. To solve the problem of drinking water in such villages, Government have already initiated a scheme of tapping available ground water by means of Dug-Wells. The ground water potential so far identified in Sikkim is very little. As such attempts to dig experimental wells in such villages will be continued.

So far 33 wells have been dug in the above mentioned drought prone areas of South and West Sikkim. Most of the wells have been found promising. The water obtained from the wells are being distributed for drinking purposes. However, this being a trial, it is necessary to keep close watch on the functioning of these wells for a considerable period.

During the Five Year Plan period (1973-83) it is proposed to continue the experiments in a more scientific way. Approximately 200 more dug wells will be taken up during 1973-83. It is also proposed to prepare a hydrological map of the area to identify the ground water potential. Beside the exploration, it is proposed to undertake testing of rock sample and make test holes to find ground water. Concerted attempts will be made in prospecting ground water and investigation and studying textural properties and permeability and porosity of different zones will be taken up along with testing of the chemical constituents of water.

To investigate and prospect for ground water, by studying geological features of the area involved, it is necessary to equip the cell with experienced technicians and modern scientific instruments. As such, it is proposed to strengthen the Cell by appointing (i) Hydrogeologist (ii) Senior Surveyor (iii) Drilling Operator and other ministerial staff. Required machineries and equipments will also be purchased.

Man Power/Staffing Pattern:

In order to implement the Minor Irrigation Schemes it is necessary to strengthen the staff particularly at the field level. More technical and non technical personnel would require to be appointed. In addition training facilities for operating drilling equipments and a few other such equipment will also have to be provided. The total outlay for Minor Irrigation including ground water is Rs. 274 lakhs.

A broad break up of the outlay is as follows:

Minor Irrigation Works	-	200.00
Lift Irrigation	-	12.00
Ground Water	-	17.00
Machinery & Equipment	-	15.00
Administration	-	<u>30.00</u>
Total		<u>274.00</u>

DRAFT PLAN - 1973-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed outlay Total of which MNP	Total of which MNP	Foreign exchange content of total outlay	Capital content of total outlay		
1	2	3	4	5	6	7	8	9
<u>IRRIGATION</u>								
1. Medium Irrigation	95.00	34.81	40.00	-	500.00	-	-	30.00
2. Minor Irrigation	80.00	56.00	43.50	-	274.00	-	-	-
Total of (1) and (2)	175.00	90.81	83.50	-	774.00	-	-	30.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

State/U.T.s
Statement No.

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay (1976- 79)	1978-79	1978-79	Proposed Outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Outlay Total of Which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7)	Capital content of total outlay	
1	2	3	4	5	6	7	8	9	10
<u>IRRIGATION</u>	<u>1. Medium Irrigation</u>								
	(a) Irrigation Schemes including lift Irrigation & construction of channel.			27.50	-	280.00	-	-	-
	(b) Survey and Investigation	95.00	34.81	4.60	-	30.00	-	-	-
	(c) Direction & Administration including house building & pro- grammes of machinery			7.90	-	90.00	-	-	30.00
	(d) Flood Control			-	-	100.00	-	-	-
	<u>Total Medium Irrigation</u>	<u>95.00</u>	<u>34.81</u>	<u>40.00</u>	<u>-</u>	<u>500.00</u>	<u>-</u>	<u>-</u>	<u>30.00</u>
	<u>2. Minor Irrigation</u>								
	(a) Direction and Administration			3.00	-	30.00	-	-	-
	(b) Ground water	80.00		2.00	-	17.00	-	-	-
	(c) Minor Irrigation		56.00	41.50	-	200.00	-	-	-
	(d) lift Irrigation			2.00	-	12.00	-	-	-
	(e) Machinery & equipment			-	-	15.00	-	-	-
	<u>Total Minor Irrigation</u>	<u>80.00</u>	<u>56.00</u>	<u>48.50</u>	<u>-</u>	<u>274.00</u>	<u>-</u>	<u>-</u>	<u>-</u>
	<u>Total of (1)&(2)</u>	<u>175.00</u>	<u>90.81</u>	<u>88.50</u>	<u>-</u>	<u>774.00</u>	<u>-</u>	<u>-</u>	<u>30.00</u>

DRAFT FIVE YEAR PLAN - 1978-83
MAJOR & MEDIUM IRRIGATION PROJECTS - OUTLAYS AND EXPENDITURE

Sl. No.	Name of Project	Apprd. Estm. cost (year)	Latest Estm. cost amount (year)*	Expdr. upto end of '73-74	Expdr. during '74-77	1977-78		Total Expdr. to end of '77-78	(Rs. in lakhs)		1979-83 Total Capital	Foreign Exchange	
						Apprd. Outlay	Actual Expdr.		1978-79 Apprd. Outlay	Antic. Expdr.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A.	<u>Pre-Fifth Plan Schemes</u>			NIL								NIL	
B.	<u>New Schemes of Fifth Plan</u>												
II.	<u>Medium Projects-</u>												
1.	Kalej Chu Valley Irrigation Schemes Phase I.	10.55 (76-77)	10.55	NIL	8.42	1.03	1.03	9.45	1.5	1.5	-	NIL	-
2.	Kalej Chu Valley Irrigation Schemes Phase II.	10.26 (76-77)	10.26	NIL	2.64	4.00	4.00	6.64	3.6	3.6	-	NIL	-
3.	Kalej Chu Valley Irrigation Schemes Phase III.	12.80 (77-78)	12.80	NIL	NIL	5.01	5.01	7.8	7.8	7.8	-	NIL	-
4.	Pabung Irrigation Schemes	5.13 (77-78)	5.13	NIL	NIL	0.63	0.63	0.63	4.6	4.6	-	NIL	-
5.	Schemes transformed to Minor Irrigation	14.51 (77-78)	14.51	NIL	NIL	7.23	7.26	7.26	-	-	-	NIL	-
6.	<u>New Schemes of 78-83</u>												
II.	<u>Medium Schemes</u>												
1.	Doderk Therpu Irrigation Schemes.		13.60	NIL		NIL			8.0	8.0	5.60	-	NIL

Contd..../-

1	2	3	4	5	6	7	8	9	10	11	12	13	14
2.	Extension of Kalej Chu Valley Phase II.		3.00	NIL		NIL			2.0	2.0	1.00	-	NIL
3.	Sombaria Damdim Irrigation Scheme Phase II		15.00	NIL	NIL	NIL			-	-	15.00	-	NIL
4.	Rimbi Valley Irrigation Scheme		60.00	NIL	NIL	NIL			-	-	60.00	-	NIL
5.	Rhenock Irrigation Scheme		50.00	NIL		NIL			-	-	50.00	-	NIL
6.	Irrigation Schemes in South District.		50.00	NIL		NIL	NIL		-	-	50.00	-	-
7.	Other gravity Schemes yet to be identified including extension & Improvement		50	-	-	NIL	-	-	-	-	48.90	-	NIL
8.	Lift Irrigation Schemes yet to be identified		80	-	-	NIL	-	-	-	-	10.00	-	NIL
9.	Construction of Field channels		50	-	-	NIL	-	-	-	-	12.00	-	NIL
TOTAL OF C.			496.60	-	-	-	-	-	10.00	10.00	253.50	-	NIL
D.	Water Development Schemes Survey & Investigation.		34.00	-	-	-	-	-	4.00	4.00	26.00	-	NIL
TOTAL OF A + B + C + D			569.34	-	11.06	17.90	17.93	28.99	31.50	31.50	278.50	-	NIL

DRAFT FIVE YEAR PLAN 1978-83
MAJOR AND MEDIUM IRRIGATION PROJECTS - PHASING OF OUTLAYS

Sl. No.	Name of Project	Total outlay Proposed for 78-83	Phasing of Outlays				
			1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8
1.	Kalejchu Valley Irrigation Scheme Phase I	1.5	1.5				
2.	Kalejchu Valley Irrigation Scheme Phase II	3.6	3.6				
3.	Kalejchu Valley Irrigation Scheme Phase III	7.8	7.8				
4.	Pabong Irrigation Scheme	4.6	4.6				
5.	Rodak Tharpu Irrigation Scheme	13.6	8.0				
6.	Extension of Kalejchu Valley Phase II	2.9	2.0				
7.	Sombaria Daramdin Irrigation Scheme Phase II	15.0	-	69.00	69.00	70.00	70.00
8.	Rimbi Valley Irrigation Scheme	60.0	-				
9.	Rhenock Irrigation Scheme	55.0	-				
10.	Irrigation Scheme in South District	70.0	-				
11.	Other Irrigation Schemes yet to be identified including extension & improvement	90.0	-				
12.	Lif Irrigation schemes yet to be identified	40.0	-				
13.	Construction of field channels	20.0	-				
TOTAL:--		384.0	27.5	69.00	69.00	70.00	70.00

Statement IF 3.
STATE : SIKKIM

DRAFT FIVE YEAR PLAN 1978-83
MAJOR AND MEDIUM IRRIGATION PROJECT
Benefits, Targets & Achievements

Sl. No.	Name of Schemes	Distt. to be benefited	CCA	Ultimate Irrigation potn.	Cumulative benefits to end of ('000 hec.)													
					Fourth Plan (Actual) Pot. Utl.	'74-75 (Actual) Pot. Utl.	'75-76 (Actual) Pot. Utl.	76-77 Actual Pot. Utl.	77-78 Actual Pot. Utl.	78-79 Target Pot. Utl.	79-83 Target Pot. Utl.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
A.	Completed Schemes	-	-	-	-	NIL	-	-	-	-	NIL	-	-	-	-	-	-	-
B.	Pre-Fifth Plan Schemes	-	-	-	-	NIL	-	-	-	-	-	-	-	-	-	-	-	-
C.	New Scheme of Fifth Plan																	
II.	Medium Scheme:-																	
1.	Kalej Chu Valley Irrigation Scheme Phase I.	West	0.20	0.20	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	0.20	-	0.01	0.01	0.20	0.07
2.	Kalej Chu Valley Irrigation Schemes Phase II	West	0.40	0.40	-	NIL	-	-	-	-	-	-	-	-	0.40	-	0.40	0.12
3.	Kalej Chu Valley Irrigation Schemes Phase III	West	0.92	0.55	-	-	-	NIL	-	-	-	-	-	-	-	-	0.55	0.165
4.	Pabong Irrigation Schemes	South	0.12	0.128	-	-	-	NIL	-	-	-	-	-	-	0.128	-	-	0.0384
			0.64	1.278											0.728			0.3834
D.	New Schemes of 78-83																	
1.	Dodork Tharpu Irrigation Schemes	West	0.92	0.542	-	-	-	-	NIL	-	-	-	-	-	-	-	0.542	0.10
2.	Extension of Kalej Chu Valley Phase II	West	0.06	0.040	-	-	-	-	NIL	-	-	-	-	-	-	-	0.040	0.01
3.	Sombaria Daramdin Scheme Phase II	West	0.40	0.320	-	-	-	-	-	NIL	-	-	-	-	-	-	0.320	0.04
4.	Rimbi Valley Irrigation Schemes	West	0.80	0.640	-	-	-	-	-	NIL	-	-	-	-	-	-	0.640	0.06

Contd..../-

1.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
5. Rhenock Irrigation Scheme	East		0.32	0.40	-	-	-	-	-	NIL	-	-	-	-	-	-	0.400	0.04	
6. Irrigation Schemes in South District	South		0.66	0.640	-	-	-	-	-	NIL	-	-	-	-	-	-	0.640	0.06	
7. Other Irri/Schemes yet to be identified including expansion	-		1.00	0.800	-	-	-	-	-	NIL	-	-	-	-	-	-	0.480	NIL	
8. Lift Irri/Schemes yet to be identified.	-		0.60	0.600	-	-	-	-	-	NIL	-	-	-	-	-	-	0.300	NIL	
TOTAL :-			4.76	3.982															
			6.40	5.200 +D															
																0.728	0.01	4.512	0.6934

DRAFT FIVE YEAR PLAN 1978-83
MAJOR AND MEDIUM IRRIGATION PROJECTS - PHASING OF BENEFITS

(*000 hectares gross)

Sl. No.	Name of Scheme	Targets of Additional benefits during '78-83										Total Addl. benefits during '78-83	
		1978-79		1979-80		1980-81		1981-82		1982-83		Pot.	Ut1.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Kalej Chu Valley Irrigation Scheme Phase	0.20	0.01	0.20	0.02	0.2	0.04	0.20	0.05	0.20	0.07	0.20	0.07
2.	Kalejchu Valley Irrigation Scheme Phase II	0.40	--	0.40	0.06	0.40	0.08	0.40	0.10	0.40	0.12	0.40	0.12
3.	Kalejchu Valley Irrigation Scheme Phase III	--	--	0.55	0.08	0.55	0.11	0.55	0.14	0.55	0.165	0.55	0.165
4.	Pabong Irrigation Scheme	0.128	--	0.128	0.128	0.128	0.125	0.128	0.132	0.128	0.0334	0.128	0.0348
5.	Dodak Marpu Irrigation Scheme	--	--	--	--	--	--	0.542	0.08	0.542	0.10	0.542	0.10
6.	Extension of Kalejchu Valley Phase II	--	--	--	--	0.04	0.06	0.04	0.08	0.04	0.01	0.04	0.01
7.	Soubaria Daramdin Scheme Phase	--	--	--	--	--	--	--	--	0.320	0.04	0.320	0.04
8.	Rimbi Valley Irrigation Scheme	--	--	--	--	--	--	--	--	0.640	0.06	0.640	0.06
9.	Rhenock Irrigation Scheme	--	--	--	--	--	--	--	--	0.400	0.04	0.400	0.04
10.	Irrigation Scheme in South District	--	--	--	--	--	--	--	--	0.640	0.06	0.640	0.06
11.	Other Irrigation Scheme yet to be identified including extension and improvement	--	--	--	--	--	--	--	--	0.480	NIL	0.480	NIL
12.	Lift Irrigation Scheme yet to be identified	--	--	--	--	--	--	--	--	0.300	NIL	0.300	NIL
TOTAL :-		0.728	0.01	1.278	0.18	1.318	0.261	1.860	0.410	4.640	0.7034	4.640	0.7034

DRAFT FIVE YEAR PLAN 1978-83
FLOOD CONTROL, DRAINAGE, ANTI-SEA EROSION AND WATERLOGGING PROJECTS - OUTLAYS & EXPENDITURE

(Rs. lakhs)

Sl. No.	Name of Scheme	Distt. to be benefited.	Estimated cost		Expdr. upto end of '73-74	'74-77 (Actual expdr.)	'77-78		Total expdr. to end of '77-78	'78-79		1979 - 83		
			Apprd. (yr.)	Latest (yr.)			Apprd. out-lay	Act. expdr.		Apprd. Outlay	Antc. expdr.	Proposed Total	Outlay Capital F.E.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C. <u>NEW SCHEMES OF 78-83</u>														
1.	Flood Control Works in Sikkim	All 4 Districts of State	100			NIL						100.00	100.00	NIL

STATEMENT IF. 7
STATE : SIKKIM

DRAFT FIVE YEAR PLAN 1978-83
REQUIREMENT OF MATERIALS

(Metric tonnes)

Sl. No.	Item	<u>1978-79 requirements</u>		<u>1979-83</u>		Total
		Major & Medium Irrigation Pro- gramme.	Flood Control	Major & Medium Irrigation Pro- gramme	Flood Control	
1	2	3	4	5	6	7
1.	Cement	1,600.0	NIL	18,000.00	250.0	18,250.0
2.	Steel	5.0	NIL	40.0	5.0	45.0
3.	Explosive	0.5	NIL	45.00	0.5	45.5

DRAFT FIVE YEAR PLAN 1978-83
EMPLOYMENT (ABSOLUTE NO. OR NOS.) (MANDAYS).

	Major & Medium Irrigation			Flood Control			
	77-78 (Anticipated)	78-79 (Target)	1979-83 Target	77-78 Anticipated	78-79 Target	1979-83 Target	
	1	2	3	4	5	6	7
A. <u>Engineers</u>							
a) Graduate Engineers		1+4 = 5	1+4	13+3	NIL	NIL	2
b) Diploma Holder		11	13	40	NIL	NIL	6
B. Skilled Workmen & Skilled labourers		66	70	240	NIL	NIL	36
C. Unskilled Labourers		880	1040	3200	NIL	NIL	480

SOIL CONSERVATION.

Soil conservation in the form of terracing fields has already been dealt with in the paragraph relating to land utilisation for which an outlay of Rs. 168 lakhs is proposed. Besides soil conservation on agricultural lands certain investment is necessary for training 'jhoras' which otherwise cause havoc to the rural countryside by large scale erosion during monsoons. Adequate protection works have to be formulated. These are expected to be both biological and mechanical. Wherever possible biological control will be resorted to by planting soil binding species like bamboo. However, there are vast areas which require the construction of side walls and concrete steps so that the fury of the cascading waters can be controlled. A phased programme of protective works will be instituted. As far as possible a watershed area will be taken up and the entire area covered. This will ensure that whatever works are taken up will have a desired and result which will not be forthcoming if works are taken up in scattered locations with no definite area concept in mind. A concerted attempt will be made to control the jhoras causing periodical devastation to Gangtok town. These jhoras will be so trained that the flood water flowing along them are controlled up to the entry point in the river. If not the experience has been that the devastation is more severe in the lower reaches. A total outlay of Rs. 312 lakhs is proposed for both biological and mechanical protective works which will cover not only the Gangtok Municipal Corporation areas but also the areas in the other bazar and villages. The tentative details of Soil and Water Conservation are given below :-

1. Direction and Administration - Rs. 30.00 lakhs.
2. Soil Survey and Testing - Rs. 00.40 lakh
3. Education, Research & Training-Rs. 1.60 lakhs

4. Soil Conservation Schemes :

(a) Protective works (including Rs.80 lakhs for GMC and 20 lakhs for other bazar areas and Rs.120 lakhs for rural areas).	-	-	-	Rs. 220.00 lakhs
(b) Afforestation	-	-	-	Rs. 39.00 lakhs
(c) Nurseries	-	-	-	Rs. 21.00 lakhs
5. Soil Conservation on Agriculture land	-	-	-	Rs. 168.00 lakhs
TOTAL :				<u>Rs. 480.00 lakhs</u>

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development.	Fifth Plan Outlay (76-79).	1976-78 Actuals.	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign exchange content of total out- lay.	Capital con- tent of total outlay.
1	2	3	4	5	6	7	8	9

SOIL & WATER CONSERVATION.

150.00	117.62	75.00	-	480.00	-	-	6.5%
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DRAFT PLAN 1978-83 STATE /U.Ts - MONOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment.	Minor Head of Develop- ment.	Fifth Plan outlay (1976-79). Actual Expdr.	1976-78	1978-79	Proposed Outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Outlay Total. of which MNP.	Total. of which MNP.	F.E. content of total out- lay (As shown in Col. 7).	Capital con- tent of total outlay.		
1	2	3	4	5	6	7	8	9	10
<u>SOIL AND WATER CONSERVATION.</u>	1. Dir. & Adm.		8.95	-	30.00	-	-	-	-
	2. Soil Sur- vey & testing.		0.05	-	0.40	-	-	-	-
	3. Education, Research & training.	150.00	117.62	-	-	1.60	-	-	-
	4. Soil Con- servation schemes.								
	(a) Protective works.		40.00	-	220.00	-	-	-	-
	(b) Affores- tation.		7.00	-	39.00	-	-	-	-
	(c) Nurseries.		4.00	-	21.00	-	-	-	-
	Total of 4.		51.00	-	280.00	-	-	-	-
	5. Soil con- servation on agriculture land.		15.00	-	168.00	-	-	-	6.50
	Total:	150.00	117.62	75.00	-	480.00	-	-	6.50

FOOD AND CIVIL SUPPLIES

In a State like Sikkim where communications are often hampered on account of road blocks and other natural factors, it is very necessary to store adequate quantities of essential commodities in strategic locations so that the people are not deprived of such essential goods. During the Fifth Plan a beginning has been made to construct spacious godowns mainly for storing rice, wheat, sugar and edible oils. Two godowns, one at Gangtok and the other at Jorethang, have already been constructed and two others, one at Mangon and another at Rhenock are under construction. These four godowns will be handled as Food Corporation of India godowns and whatever material is transported to them by the Food Corporation of India will absorb the transportation cost. Apart from these godowns, which have a total capacity of only 2,000 metric tonnes, it has become necessary to construct godowns at other strategic locations particularly in view of the increased offtake of rice. As a matter of fact the amount of rice lifted every month from the Food Corporation of India has increased from 1,200 metric tonnes to 2,200 metric tonnes. With this large scale increase in offtake and the natural hazards that the public distribution system has to face in mountainous terrain the target of godown space by 1982-83 is fixed at 10,000 metric tonnes. With the setting up of such godowns it will be possible to evolve a public distribution system which will involve the Multi-purpose Co-operative Societies as outlet points. The Multi-purpose Co-operative Societies, 33 in number, will distribute essential commodities which will be lifted from these godowns. For the efficient functioning of the public distribution system it is also necessary to provide adequate truck facilities to the Food Department so that the movement of foodgrains from one godown to another and to the Multi-purpose Co-operative Societies is handled properly. Suitable staff will also have to be appointed to be incharge of the godowns. The capital cost of setting up godowns for the five year period from 1973 to 83 is

estimated to be Rs. 25 lakhs.

Apart from building up storage capacity in important locations a system of farm level storage will also be popularised by making available metal storage bins at subsidised cost to farmers. The bins will be so designed as to make them immune to rodent and grain pest attack.

The Food Department is also gradually introducing a system of streamlined distribution of foodgrains by establishing Town Rationing offices. In the first phase these offices are to be set up only in the District Headquarters primarily to ensure that the consumers are properly enumerated and that in times of scarcity a controlled distribution system can be introduced at short notice. Already the distribution of sugar has been brought under such control in Gangtok. This will be extended to other District Headquarters and to six other areas named Rangpo, Jorethang, Singtam, Pakyong and Chungthang. These area offices will also generally coordinate the programme of storage and distribution.

The objective of the public distribution system is to make available essential commodities in backward areas particularly where there is a concentration of economically backward people. The distribution network will be so worked out that this objective is fulfilled along with the generation of rural employment. In order to achieve these objectives a total provision of Rs. 54 lakhs is set apart for Food and Civil Supplies for the five year period from 1973 to 1983.

DRAFT PLAN - 1978 - 83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE - FOOD & CIVIL SUPPLIES

(Rs. lakhs)

Head of Development	Fifth Plan Outlay (76-79)	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total	of which MNP	Total	of which MNP	Foreign exchange content of total outlay	Capital Content of total outlay
1	2	3	4	5	6	7	8	9
<u>Food & Civil Supplies</u>	22-00	13-70	11-50	-	54.00	-	-	31-00
	22-00	13-70	11-50	-	54.00	-	-	31-00

DRAFT PLAN 1978-83 STATE/U.T.s - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Development	Minor Head of Development	Fifth Plan Outlay (76-79)	1976-78		1978-79		Proposed Outlay (1978-83)			
			Annual Expdr. Actual Expdr.	Agreed Total	Outlay of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7)	Capital content of total outlay	
1	2	3	4	5	6	7	8	9	10	
Food & Civil Supplies	(1) Direction & Administration		5.30	2.85	-	17.00	-	-	-	
	(2) Constn. of Godowns		8.13	5.66	-	25.00	-	-	25.00	
	(3) Constn. of Town Rationing Office	22.00	0.22	1.00	-	6.00	-	-	6.00	
	(4) Setting up Storage bins		-	1.00	-	5.00	-	-	-	
	(5) Supply of Nutrition Food		-	1.00	-	1.00	-	-	-	
Total:		22.00	13.70	11.50	-	54.00	-	-	31.00	

CHAPTER II - (CONTD.)

1. Animal Husbandry & Dairy Development.
2. Fisheries.
3. Forestry and Wild Life.
4. Panchayats.

ANIMAL HUSBANDRY AND DAIRYING

INTRODUCTION.

Sikkim has inherent potential in the development of Animal Husbandry activities. The holdings of cultivated lands are relatively small with nearly 60% of the people, owning land less than 10 acres per head. The natural constraints in the utilisation of the land for purely agricultural purposes has naturally created a situation where Animal Husbandry can help to increase the level of income among the rural masses. The technological advances achieved in the field of Livestock Husbandry and product processing have increased the scope for a faster growth rate in this sector. The National Commission on Agriculture has classified livestock production as not only a labour intensive but also labour distributive and rural in nature. This sector could consequently be relied upon as a major instrument to change the socio-economic conditions of the people and to provide large scope for employment in rural areas. Keeping these aspects in view the approach in the Plan for 1973-83 will be to increase livestock production with the help of the weaker sections by evolving an integrated area approach and also by special organisational innovations.

Policies and Objectives:

The principal objective in this sector is to augment the production of livestock products like milk, eggs, poultry mutton and wool. This is proposed to be achieved by (a) promoting improved methods of Animal Husbandry; (b) by intensifying extension service with a view to spreading the latest knowhow in increasing productivity; (c) by organising the supply of inputs including feed, health cover and material to inaccessible areas and by maintaining a constant flow of such inputs; and (d) by organising marketing through an autonomous corporation and by setting up co-operatives on the pattern laid down by the N.D.D.B. in respect of milk and in extending this approach to other fields.

In order to achieve these objectives a suitable strategy taking into account the local conditions has to be evolved. The natural constraints in a hilly State coupled with a basic lack of statistical information has to be taken into consideration while evolving the strategy. In recent years striking advances have been made in the improvement of plants and animals through application of results of genetic, chemical and engineering advances. However, the benefits of scientific advance have not had the desired input in hills. Very often the application of programmes developed in the plains results in partial failure in the hills even though genetic interactions and physio-chemical reactions are the same. The failure can be attributed to a gap in management and field work. The programmes have, therefore, to be based on a system of operational research whereby there is constant feedback of information enabling corrective measures to be adopted in time. The programmes of socio-economic development through livestock production is therefore not merely a duplication of projects and programmes developed elsewhere but consist in evolving a proper strategy and management approach to local conditions.

Main targets of livestock products:

The production of milk in Sikkim was estimated at 10,950 tonnes through a survey conducted by the N.D.D.S. in 1975-76. The present production is estimated at 13,000 tonnes. The production of eggs in the State is estimated at 1.25 million per annum and mutton at 600 tonnes. The production of coarse wool is estimated at 20,000 kgs. and fine wool is negligible. The target for 1982-83 for milk production is 42,000 tonnes and eggs 2 million. Only a small increase in production is contemplated for mutton while the production of wool is to be stepped up by a further 10,000 kgs. of which at least 20% will be medium type wool. There is great scope for increasing the production of all these items particularly in view of an assured market. Intensive efforts made towards livestock production can increase per capita availability

and bridge the gap between demand and supply. The investment to be made in this sector is, from the point of view of the economy in Sikkim perhaps the most paying.

The principle objectives of livestock development are proposed to be achieved through the following schemes.

Veterinary service and animal health:

The National Commission on Agriculture has pointed out the need for organising veterinary public health coverage wherever there is an intensive programme of animal development. Keeping in view this observation the Plan for 1978-83 seeks to introduce a larger health cover and more services. In view of the difficult communications the treatment of animals has largely to be provided at farmers' premises. This is all the more difficult in Sikkim since the population is scattered, the households not being in clusters. A programme of starting veterinary dispensaries and hospitals was conceived of during the Fifth Plan. Certain mobile units were also set up along with disease investigation units. In view of the persistent demand for more veterinary dispensaries a programme of setting up such dispensaries for every 10 kms and a hospital for every 40 kms taking due account of the geo-physical features like rivers and valleys will be implemented. According 25 new dispensaries will be set up and 7 existing dispensaries upgraded to hospitals by 1982-83. A veterinary dispensary will on a rough basis, cater to an animal population of 10,000.

The programme of controlling parasitic diseases in animals by taking up an intensive campaign will also be continued. Likewise, mass vaccination against 'foot and mouth' disease will also be introduced particularly in vulnerable regions. The State is surrounded by three international borders. It is necessary to set up checkpoints at points of entry so as to effectively control diseases. The studies conducted during the Fifth Plan have shown that ingress of diseases mainly takes place from four entry points on these borders. Four units for

surveillance will therefore be set up as a result of which it is hoped to check diseases. These units will be responsible for quarantining sick animals and in conducting mass prophylactic vaccination on the periphery. It is hoped that Sikkim could be developed into a disease free zone. A provision of Rs. 94 lakhs is earmarked for veterinary services and animal health.

Cattle Development:

Cattle development is also an area of crucial importance in this sector. The cattle population is estimated at 3.5 lakhs out of which nearly 50% are milch animals. The cattle are largely cross bred with varying proportions of exotic blood. The average milk production per cow in the milk shed areas is estimated at about 5 litres per day. In the rural areas this is lower. A programme of introducing breeding bulls of Jersey and Brown Swiss was begun in the Fifth Plan. A beginning has also been made in starting A.I. stations. Under the agro-climatic conditions of the State it has been observed that cross breeds with Siri base give a better performance, they being more resistant to disease. The programme therefore aims at producing cross bred bulls using Siri breed as a base and Jersey as the main exotic breed. In certain areas Brown Swiss breeds will also be used. As far as artificial insemination is concerned the initial resistance is gradually being overcome. During the Plan period one frozen semen bank will be established and 30 artificial insemination centres will be set up in various parts of the State. In addition improved breeds of bulls will be distributed for natural services. 100 such bulls are proposed to be distributed out of which 40 would be in replacement of existing ones. A large number of young boys will be trained in insemination work and wherever possible participation by voluntary organisations will be encouraged. It is also proposed to set up 30 model dairy units where a programme of raising cross bred heifers with a target of 5000 heifers will be undertaken. A breeding herd of pure Jersey will also be established and this will be

linked with a scheme of progeny evaluation according to which heifers will be registered and the milk yield of the cows recorded so that the future bulls are progeny tested in the field.

Buffalo development has hitherto not been attempted in the State. The buffalo population is very limited but despite this factor a small herd is proposed to be acquired and developed departmentally in areas below 3000 ft. The overall provision for cattle development is Rs. 60 lakhs for the period 1973-83.

Poultry Development.

The poultry population in Sikkim is currently estimated at about 2.25 lakh birds. These birds are, however, largely maintained in the villages under primitive conditions. During the Fifth Plan an attempt was made to organise the various aspects of poultry development including marketing, feed and other equipments on modern lines. Special emphasis was laid on sustaining small units. Extension services were also widened and more health cover was given. Several progressive farmers took up to commercial raising of poultry. But the overall impact of the programme was not upto the desired level. As a result of the experience gained, it is now felt that the minimum size of a unit should be atleast 200 birds and that poultry development needs intensive service by way of input supply and collection of eggs. The units should, therefore, be nearer to the roads and there should be a veterinary officer not farther than a radius of 30 kilometres. It was also revealed that in backward regions the range system could succeed provided health cover can be organised.

In the Plan period 1973-83, it is proposed to have District headquarters' poultry production-cum-marketing centre each having a minimum of 500 layers. These centres will be serviced by the Livestock Development Corporation particularly for the supply of feed. In addition, 500 units each with 200 layers will also be established. The necessary financial and technical assistance will be provided. In view

of the success of the range system, 1000 such units are proposed. Wherever possible, egg marketing will be organised on co-operative lines.

The National Commission on Agriculture has recommended the cross-breeding of poultry in hill areas. In keeping with this recommendation, 1000 Cockrels of R.I.R. and austrolop breed will be distributed in selected rural pockets.

In view of the ready market in Calcutta, one unit for raising turkeys will also be established on purely experimental basis. So also one unit for producing ducks will also be established.

The total outlay for poultry development is fixed at Rs. 50.00 lakhs for the five-year period.

Sheep and Wool Development:

The raising of sheep has been traditional in the State particularly in North Sikkim. Before the border of Tibet was closed there used to be migration of sheep from Tibet and a carpet and a blanket industry grew up. After the closure of the border, such migration stopped and the high altitude pastures were denuded of sheep population. Further attempts to establish flocks failed mainly on account of mortality due to uncontrolled growth of poisonous plants.

During the Fifth Plan, a programme was taken up of increasing the number of 'Banpala' breed of sheep. Efforts were also made to provide facilities in migration routes. Cross-breeding with improved varieties was also resorted to.

During the Plan 1978-83, the main emphasis will be on increasing the sheep population by the distribution of improved varieties of breeding rams. Corriedale ram for North Sikkim and Merino in other areas will be used. Transit camps with various facilities will be established on the migration routes. Health cover and mass treatment against parasites will be the main activities in the transit camps.

With a view to improving the marketing aspect of wool, a utilisation centre will also be set up particularly for sorting out the varieties of wool. Wherever possible, the marketing of wool would be

organised through co-operatives of sheep breeders.

Apart from sheep, goat development, which has not been taken up so far, will be a major programme in the department. According to the recent livestock census, the population of goats in Sikkim is next only to that of cattle. The National Commission on Agriculture has stated that while the number of goats in the hills should be contained their quality must be improved to get more milk and meat. A selective breeding policy will, therefore, be adopted by locating more improved bucks within the State and by importing the 'Barbari' buck. In the high altitudes of the State, Pashmina goats have been located and in view of the value of Pashmina fibre every effort will be made to identify and develop this breed and also to train the local farmers in the method of handling Pashmina fibre. This will be achieved by sending some farmers to the Ladakh area in Kashmir so that they could learn on the spot.

A total provision of Rs. 40.00 lakhs is set apart for sheep and wool development during the five year period.

Piggery Development:

Pig rearing is one of the most common rural economic activity in the State. The population has acquired considerable skill in raising pigs. The pigs are largely cross-bred having various proportions of Yorkshire blood. There is a regular market for weaned piglets even in rural areas and recognising this aspect efforts were made in the Fifth Plan to multiply and increase the pig population. Breeder units were set up in various parts of the State and a small pork processing unit was started at Gangtok. However, the demand continues and, therefore, in the Plan for 1970-73, it is proposed to set up three sow units at district headquarters. Further, ten large breeder units and 500 small breeder units are proposed for multiplication of the stock. A farm slaughter unit will also be established. The outlay for these purposes is fixed at Rs. 35.00 lakhs.

Other Livestock:

Mules and hill ponys are largely used for transport as well as for carrying loads. Four mule breeding centres have already been established where Jack-Stallion^s are provided. A beginning has been made in distribution brood-mares so that the number of mules and donkeys can be increased particularly to avoid the human drudgery of carrying loads. This activity will be extended in the Plan for 1970-83 by setting up one unit for pony breeding for production of Stallions. More brood-mares will also be provided in the rural areas.

An Angora rabbit unit will be set up in the same location where the Pashmina utilisation centre is to be set up. The total outlay for this programme is Rs. 6.00 lakhs.

Fodder Development:

The need to cultivate fodder has been repeatedly pointed out by the Ministry of Agriculture. The possibility of cultivating fodder as a mixed crop with other agricultural crops or as a part of the social forestry programme will be explored. During the Fifth Plan period, a number of fodder nurseries were established in the veterinary institutions of the State. Through replicated trials, various varieties like Para, Gautamala, Berseem, Kue-babul and Pennesetum have been identified as suitable for local conditions. During the Plan, a systematic attempt to distribute fodder seeds will be followed. Forest produce, which are suitable for cattle feed, will also be identified and efforts would be made to cultivate larger areas with such varieties. The outlay proposed for fodder development is Rs. 20.00 lakhs for five years.

Administration including Extension and Research:

Any programme of livestock development can succeed only if there is a proper organisational set up including specialists. During the Fifth Plan, the organisational aspect has been taken care of not only at the higher levels but also at the lower levels where a large number of Stockmen have been trained. The extension system in Animal Husbandry

dry includes organisation of livestock shows and calf rallies which is the best means of attracting local attention. In the coming years, such programmes will be intensified. In order to implement the larger programme of services and animal health, selected students will be sent for Post-Graduate, Graduate and Diploma courses. Besides, a systematic programme of training Inseminators will be introduced. The publicity aspect will also be given due importance and wherever strengthening of staff is required this will be resorted to. For initiating the farmers into proper animal husbandry techniques, a Pasupalan Vigyan Kendra will also be started.

A certain amount of research will also be undertaken at the State level particularly in regard to disease investigation where the availability of data is minimal. Preliminary studies have shown that the animals in the State suffer from Helminthic parasites. There is also reported incidence of Anthrax. In order to collect basic information and take preventive measures, the Disease Investigating Laboratory will be provided with additional facilities with clinical and diagnostic units attached to it. An animal Nutrition Wing will also be attached to the Laboratory. The total outlay for all these purposes is Rs. 22.00 lakhs.

Sikkim Livestock Development Corporation:

A corporation for handling the commercial aspects of marketing the animal produce has already been established in the State. This Corporation is currently marketing cattle, pig and poultry feed, eggs, milk and certain other ancillary products. Since the N.D.D.B. has included Sikkim in its Operation Flood, Phase II, the Corporation is serving as the nucleus body for its activities. In order to expand the scope of its activities, particularly for taking up commercial ventures, it is necessary to strengthen the share capital base. A sum of Rs. 30.00 lakhs is accordingly proposed for the five year period.

Dairy Development:

One of the most important economic activities in the villages is dairying. With the emphasis laid on improving the breed of cattle and in providing adequate veterinary services, the programme of milk collection and marketing has become very important. The milk collection programme was started some years ago mainly in and around Gangtok, where a dairy plant with a capacity of 1,000 litres per day was started. The quantity of milk processed in the dairy increased and recognising the potential in the State the N.D.D.B. has adopted Sikkim as part of its operation Flood programme. Initially, the milk collection programme was organised on road sides without any quality control. The system of quality control, based on fat percentage in milk, was started on a differential payment basis and at present there are forty such centres in the State. These centres are being converted into Amul-type Co-operatives. The infra-structure has thus been gradually developed for a milk marketing programme.

While the main milk marketing will be undertaken by the Co-operative Milk Union to be organised under the N.D.D.B. scheme, the department has to take into account the milk being produced in remote areas where on account of the heavy cost of transportation the production of milk may not be viable. Recognising this aspect, it is now proposed to convert such milk into by products including lollipops, Churpy and Ghee, which can be more easily transported. Two units for preparing cottage cheese will also be set up. The soft cheese will be sent to a Central factory at Gangtok where after pressing it will be matured, processed and packed.

For the first time, it is proposed to set up bulk can cooling cabinets in the more important centres so that the milk can be stored under satisfactory conditions. Five such cooling cabinets are proposed. A mini dairy plant will be set up at Jorethang and this will help to absorb milk and milk products produced in the rural areas in and around

this Centre. The outlay contemplated for dairy development during the Plan period 1978-83 is Rs. 115.00 lakhs, out of which Rs. 40.00 lakhs would be for building and equipment.

The total outlay for Animal Husbandry and Dairy Development is shown as below :-

A. <u>Animal Husbandry</u>	<u>(Rs. lakhs)</u>
1. Direction & Administration	16.00
2. Veterinary Services & Animal Health	94.00
3. Investigation & Statistics	6.00
4. Cattle Development	60.00
5. Poultry Development	50.00
6. Sheep & Wool Development	40.00
7. Piggery Development	35.00
8. Other Livestock Development	36.00
9. Fodder & Feed Development	20.00
10. Veterinary Research	6.00
11. Assistance to I.C.A.R.	12.00
	<hr/>
	375.00
B . Dairy Development	115.00
	<hr/>
Total :-	490.00
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DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay (76-79)	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Approved Outlay Total	of which MNP	Total	of which MNP	Foreign Exchange content of total outlay	Capital content of total outl
1	2	3	4	5	6	7	8	9
Animal Husbandry & Dairying	155.00	85.68	65.00	-	490.00	-	7.50	127.50

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. Lakhs)

Major Head of Develop- ment.	Minor Head of Development	Fifth Plan Outlay (76-79)	1976-78	1978-79		Proposed Outlay 1978-83			
			Annual Expdr. Actual Expdr.	Agreed Total	Outlay of which MNP	Total	of which MNP	F.E. content of total outlay (as shown in Col. 7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
Animal	(A) <u>Animal Husbandry</u>								
Husban-	1. Direction & Administration			2.65	-	16.00	-	-	-
dry &	2. Veterinary Services & Animal Health			15.15	-	94.00	-	-	22.00
Dairying	3. Investigation & Statistics			1.00	-	6.00	-	-	-
	4. Cattle Development			7.50	-	60.00	-	3.50	12.00
	5. Poultry Development	155.00	70.47	6.00	-	50.00	-	-	5.00
	6. Sheep & Wool Development			3.30	-	40.00	-	2.00	2.50
	7. Piggery Development			7.10	-	35.00	-	1.00	5.00
	8. Other Livestock Development			9.50	-	36.00	-	1.00	35.00
	9. Fodder & Feed Development			3.00	-	20.00	-	-	4.00
	10. Veterinary Research			1.00	-	6.00	-	-	2.00
	11. Assistant to I.C.A.R.			2.10	-	12.00	-	-	-
	Total of (A) Animal Husbandry		70.47	58.00	-	375.00	-	7.50	87.50
	(B)								
	(B) Dairy Development		15.21	7.00	-	115.00	-	-	40.00
	Total (A + B)	155.00	85.68	65.00	-	490.00	-	7.50	127.50

Five Year Plan 1973-83
Animal Husbandry & Dairying

Targets of Production and Selected Physical Programmes

Sl. No.	Item	Unit	Actual Achievement		Targets
			1973-74	1977-78	
1	2	3	4	5	6

I. Livestock Products

1.	Milk	000 tonnes	-	120.00 tonnes	720.00 tonnes
2.	Eggs	In million	-	2.1 million	12.7 million
3.	Wool	Lakh Kgs.	-	1,000 kg.	6,000 kg.

II. Physical Programmes
(CUMULATIVE)

ANIMAL HUSBANDRY

1.	I.C.D. Projects	Nos.	-	1	4 nos.
2.	Frozen semen Stations	"	-	-	1 no.
3.	Artificial Inseminations-				
	a) Performed within in exotic bull semen lakhs		-	2,000 (two thousand)	12,000 (twelve thousand)
	b) Cross-bred calves born	"		1,500 (one thousand five hundred)	
4.	Sheep breeding	Nos.	2	3	4
5.	Sheep & Wool Extension centres	"	-	-	6
6.	Intensive sheep dev. Projects	"	-	1	2
7.	Poultry breeding" Farms		-	1	4
8.	Intensive Egg & poultry production cum marketing centres	"	-	1	2
9.	Pig breeding Units/farms	"	-	2	4

Contd.../-

1	2	3	4	5	6
10.	Piggery develop- ment blocks	Nos.	--	--	--
11.	Fodder seed pro- duction fa-rms	"	--	2	6
12.	Vety. hospitals	"	--	47	27
13.	Vety. dispensaries	"	11	17	25
14.	Vety. Stockman centres	"	--	--	--
<u>DAIRYING</u>					
15.	Fluid milk plants (including composite & feeder/balancing milk plants) in operation	Nos.	11	11	2
(a)	Capacity.	Lakh litres --	--	5,000 (five thousand)	30,000 (thirty thousand)
(b)	Quantity handled	"	--	"	"
16.	Milk products factories including creameries in operation	Nos.	--	3	10
(a)	Capacity	Lakh Litres --	--	500 Lts/day	5,000/-day
(b)	Quantity handled	"	--	"	"
17.	Dairy Coope-rative unions	Nos.	--	--	2
18.	Rural Dairy Producers' Coopera- tive Societies	"	--	30	200

FISHERIES.

INTRODUCTION.

Sikkim State has immense potential for inland fishery development particularly in view of the existence of a large riverine system and a number of cold water lakes. However, until the beginning of the Fifth Plan no real attempt was made to develop the potential. During the past two years, a full fledged fisheries wing under the control of the Chief Conservator of Forests was established. This wing addressed itself to the task of ~~evolving~~ evolving a suitable plan of action to develop types of species most suitable for the State and also in formulating plans for conserving the existing species. Among other things, a patrolling system was introduced and those guilty of illegal fishing were apprehended and punished. A beginning was also made in promoting fish production on scientific lines. For the lower altitudes the carp variety was found to be most suitable and two farms are being set up to produce carp fish seed. In the higher altitudes a similar programme for trout has been started. Along with the production of fish seed a programme under which the farmers are initiated into the benefits of rearing fish has also started. The first few steps in this important sector of economic activity in the rural areas have thus been taken and in the coming Five Year Plan this process will be consolidated.

POLICIES AND OBJECTIVES.

The main objectives will be to augment fish production within the State, since it is eminently suited to assist a large mass of economically weaker

and backward sections of the rural community. Increased fish production would also help in filling the gap between the availability and the requirements of high quality protein. Inland fishery production would be organised on individual family basis by the adoption of high labour intensive and low investment technologies. Out of about 32,000 households in the State 1,700 are proposed to be tapped for taking up to inland fisheries. The production of fish seed will be suitably augmented for serving these families and the extension methods directed towards spreading the "know-how" particularly regarding feed. In areas where conditions permit, the production of carp seed will be increased through induced breeding, mainly for the purpose of supplying fingerlings to deficit States in the country. Fish for sport will also be developed not only as a revenue earner but also to propagate the value of species like rainbow trout, browntROUT and Mahseer. Finally, the marketing of fish through an organised channel would be planned out particularly in relation to trout so that towards the end of 1982-83, a marketing infrastructure would be laid out.

STRATEGY FOR FISH PRODUCTION.

In order to attain the objectives the following main schemes will be taken up for implementation.

FISH FARMS AND HATCHERIES

Four trout rearing farms will be established in the high altitudes and the annual production of ova by 1981-82 will touch a figure of 3 million. Apart from production in the farms trout fish will also be produced by stocking in lakes and cold water rivers. Since trout is a slow growing species commercial pro-

duction is expected to commence only in 1983-84. By that time about 10 metric tonnes will be available per year. This will bring in valuable revenue to the State. The total outlay for the scheme is Rs. 50 lakhs.

A suitable number of carp fish farms including some cat fish will also be established and different varieties of carp seed will be produced for distribution. The target of carp fry in 1982-83 is .25 million. The total outlay, including the capital cost of construction of the fish farms is Rs. 30 lakhs.

INLAND FISHERIES.

Under this scheme 250 kms. of cold water and 250 kms. of tropical rivers and 32 sq. miles of lakes will be specially taken up for conservation of fish. In order to conserve the existing species, of which there are 23 in number and out of which 8 are considered to be of good economic value a system of continuous patrolling will be instituted so that illegal fishing is dealt with severely. Fishing rights will be granted solely on a system of licensing. The scheme is expected to cost Rs. 12 lakhs approximately for which provision has been made.

Masher is one of the exotic varieties of breed found in the Tista river. However, it is fastdwindling owing to indiscriminate catching and also on account of the deleterious interaction of works involving dynamiting which is injurious to the survival of this species. Artificial breeding methods for masher will be evolved so as to regenerate and multiply the species. This will be done in natural river, basins and farms. An outlay of Rs. 10 lakhs is provided for the purpose.

EXTENSION.

An extension agency will be created primarily for the purpose of teaching the local farmers the methods to be adopted for inland fish rearing. Selected families will be granted loans through the Co-operatives for putting up 60' by 30' tanks and suitable varieties of fish seed will be supplied to them at nominal cost. This programme is expected to bring in substantial revenues to the rural masses.

ADMINISTRATION.

The expansion in the activities of the department necessarily calls for strengthening of the administrative set up not only at the Headquarters but also in the field. It also calls for the institution of research and survey particularly for charting of fishing grounds, studies on fish and biological studies propagation potential and topographical studies for introduction of new species. It will also be necessary to impart in service training at various levels so that the latest technological advances are learnt and adapted in the field. A total provision of Rs. 28 lakhs is earmarked for these various purposes.

DRAFT PLAN - 1978-83

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Total of which MNP	Foreign exchange content of total outlay	Capital content of total outlay	
			Agreed Outlay	Total of which MNP				
1	2	3	4	5	6	7	8	9
Fisheries	25.00	12.33	15.00	-	140.00	-	0.10	5.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay (1976- 79)	1976-78	1978-79		Total	of which MNF	P.E. content of total outlay (as shown in Col. 7)	Capital content of total outlay
			Annual Expdr. Actual Expdr.	Agreed Outlay Total	of which MNF				
1	2	3	4	5	6	7	8	9	10
Fisheries	1. Direction & Administration			1.60	-	22.00	-	0.10	5.00
	2. Extension				-	10.00	-	-	-
	3. Fish Farms & Hatcheries		11.33	12.90	-	43.00	-	-	-
	4. Research & Survey				-	3.00	-	-	-
	5. Education & Training		25.00		-	53.00	-	-	-
	6. Inland Fisheries				-	54.00	-	-	-
	7. Processing Preser- vation & Marketing				-	2.00	-	-	-
	8. Mechanisation & Improvement of Fisheries craft				-	1.00	-	-	-
	9. Other Charges		1.00	0.50	-	2.00	-	-	-
	Total	25.00	12.33	15.00	-	140.00	-	0.10	5.00

FIVE YEAR PLAN 1978-83

FISHERIES

TARGETS OF PRODUCTION AND SELECTED PHYSICAL PROGRAMME

Sl. No.	Item	Unit	Actual Achievements		Targets 1982-83
			1973-74	1977-78	
1	2	3	4	5	6
<u>I. PRODUCTION</u>					
1.	Fish Production		-	-	-
	(a) Inland	('000 tonnes)	-	-	0.335
	(b) Marine	"	-	-	-
	(c) Total	"	-	-	0.335
<u>II. PHYSICAL PROGRAMME (CUMULATIVE)</u>					
2.	Mechanised boats	Nos.	-	-	4
3.	Trawlers	"	-	-	-
4.	Refrigeration				
	(a) Cold storages	Nos.	-	-	-
	(i) capacity	Tonnes	-	-	-
	(b) Ice plants	Nos.	-	-	-
	(i) Capacity	Tonnes	-	-	-
	(c) Freezing plants	Nos.	-	-	-
	(i) capacity	Tonnes	-	-	($\frac{1}{2}$ M. ton each)
5.	Fish Seed				
	(a) Produced				
	(i) Fry	Million	-	0.304	
	(ii) Fingerlings	"	-	-	
	(b) Distributed				
	(i) Fry	"	-	0.271	
	(ii) Fingerlings	"	-	0.001	

Contd.../-

1	2	3	4	5	6
6. Fish Seed Farms	Nos.	-	4	9	
(a) Water area	Hectares	-	0.69	4.7	
7. Brackishwater					
Fish farming area	Hectares	-	-	-	

FORESTRY AND WILD LIFE.

INTRODUCTION.

Like all other hilly States forestry development, which includes conservation, is of vital importance to the economic development of Sikkim. Forestry management in the State has been in vogue for a long time but scientific exploitation of the natural wealth and proper survey of the available species have not been attempted in any real sense of the term. During the Fifth Plan a beginning in this direction has been made. The efforts will be continued in the coming years.

POLICIES AND OBJECTIVES.

The main objective of forestry development will be to meet the demand for forest products by evolving a self-contained programme of maintenance and improvement of the existing species. The approach would be to maintain a balance between demand and supply and in the process to confer employment opportunities particularly to the economically backward sections inhabiting the remote forest areas. A closer linkage with the industries department for providing raw material vitally needed for forest based industries will be developed so as to promote employment in the secondary sector. This is proposed to be achieved by identifying quick growing species, both tropical and alpine so that the increasing requirements of industry do not result in the ultimate denudation of valuable forest. The approach to social forestry will be more pragmatic and special emphasis will be laid in planting degraded areas, waste lands and marginal lands with quickgrowing species. An important objective of the social forestry programme will

be to meet the needs of fuel wood and small timber for constructional purposes in the rural areas. The panchayats will be actively involved in social forestry plantation and meaningful schemes by which profits could be shared with Panchayats will be evolved. An effort will also be made to tie up social forestry with Animal Husbandry particularly by developing grazing facilities and by selecting expanding fodder cultivation in forest land.

Both the social forestry programme and production forestry being labour intensive provide an excellent base for promoting forest labour co-operatives which is the only solution to eliminate the middleman.

Protection forestry which includes conservation and protection of forests and in preserving natural flora and fauna will also be given due importance in the forest plan of the State. High altitudes in Northern Sikkim have already been identified as an area consisting of some of the rarest species of wild life and consequently a National Park Development programme on modern lines will be followed up.

Forestry development can succeed only if adequately trained man power is available to implement the various programmes. Keeping this aspect in mind considerable importance will be placed upon programmes of training in specialities.

Details of the schemes proposed for implementation are briefly mentioned below:

PRODUCTION FORESTRY.

The main programme under this sub-head would

be the plantation of various species for industrial and commercial use. A cumulative target of 7,000 acres of departmental plantation is proposed to be achieved by the end of 1982-83. Besides departmental plantation, the question of maintaining and developing nurseries which would provide the planting material has also to be kept in view. 48 acres of new nurseries will be created by the end of 1982-83. Another important area is that of fuel wood plantation particularly in a place like Sikkim where a large section of the population depends upon the timely availability of fuel wood for domestic purposes. Further, the large concentration of the Indian Army also requires timely supply of fuel wood. The target for fuel wood plantation is 2,000 acres. Plantations are also to be protected and hence fencing of areas where new plants are planted has to be undertaken. The 'Taungya' system of cultivation has been found to be of great use in the State because apart from assured plantation it also gives relief to poor families. The target for Taungya plantation is 2,900 acres. The total outlay contemplated for production forestry including certain incidental costs of establishment is Rs. 90 lakhs for the Five year period.

SOCIAL FORESTRY.

Under this scheme one of the main activities will be to plant more trees in degraded areas particularly by a system of extension which will include distribution of saplings under the 'Vanamahotsava'. Pasture development for Animal Husbandry will also be taken up over

800 acres and an orchidium which is already in existence and which has helped to preserve and propagate valuable species of orchids will be expanded and developed.

The sericulture programme which has been recently introduced in the State will be stepped up by increasing nursery facilities so that annually approximately 10 lakhs of saplings are available for distribution. An attempt will also be made to improve the environment by highway plantations. The total allocation for these schemes is fixed at Rs. 43 lakhs.

WILD LIFE AND ENVIRONMENTAL CONSERVATION.

The main programme under this head would be wild life management and conservation. A centrally sponsored scheme is already in existence under which the non-recurring expenses for the establishment of the National Park has been made available. The State has valuable wild life in musk deer, panda and pheasant, which have to be protected against poachers. The necessary equipments and other conveniences have already been made available. However, the area is difficult and proper protection will necessitate the induction of more personnel. In order to meet the cost of personnel and for introducing anti-poaching measures, the total outlay contemplated for wild life management is Rs. 40 lakhs.

In addition to wild life management, the conservation of flora and the protection of forest is also of crucial importance. The latter has become very important in the context of illegal felling and fire occurrences. During the Plan period fire belts are

proposed to be set up at the rate of 200 kms per year.

Checkposts at the rate of two per year will also be organised and wireless sets will be provided to the mobile squads.

In view of the rich variety of wild life in the State a process of evaluation of the relatively minor species which abound in the Sikkim forests will be begun.

A survey and research programme will also be established to conduct environmental and ecological studies. A

programme of commercially exploiting, without endangering life, important species like musk deer will also be started.

The total outlay for these various purposes is Rs. 50 lakhs.

INVENTORY PLANNING AND RESOURCE DEVELOPMENT.

The main activity under this would be to survey khas and gorucharan land so as to ensure that the forest area is not encroached upon. A total of approximately 1,000 kms will be surveyed during the Five year period.

An important aspect of forest resource development is the preparation of working plans. Proper working plans are the only means to ensure the maintenance of a balance between the existing needs of industry and forest. Working plans to cover 1.2 lakh acres are proposed to be finalised during the plan period. Maintenance of 3 year old departmental plantations will also be a part of this scheme.

A botanical survey which has also commenced will be completed so as to evaluate the existing quantum of forest resources. A total outlay of Rs. 45 lakhs is set apart for this purpose.

RESOURCES DEVELOPMENT AND UTILISATION.

The commercial aspect of forestry is likely to be taken over by a Forest development Corporation as and when it is set up. Meanwhile, the department has to mechanise logging and other operations particularly for quick exploitation. Sophisticated equipments like loading winches, skyline crane power chain saws along with adequate number of trucks will be purchased. A part of the timber which is logged will be floated down the Tista. Approximately 10 lakhs cft per year of timber is expected to be floated. The cost of the floating operations will however be outside the plan since it is in the nature of a revolving fund.

In order to promote forest industries based on effective utilisation of timber the Forest Department is running a Wood Working Centre which manufactures mainly furniture. This Centre will be run on stricter commercial lines for which suitable financial assistance will have to be granted to it for sometime. A portable saw mill is also proposed to be established at a place called Sribadam in Western Sikkim.

The Forest Department has also certain cardamom plantations under its control. These plantations will be maintained and medicinal plants of improved varieties introduced in area of 100 acres during the plan period.

The total outlay contemplated for the schemes is Rs. 72 lakhs.

FORESTRY RESEARCH AND TRAINING.

A sum of Rs. 15 lakhs is proposed for meeting the training expenses of Forest Guards, Range Officers and other officers in the important Training institutions of the country. A forestry research programme will also be instituted.

ORGANISATION AND INSTITUTION.

A sum of Rs. 30 lakhs is proposed for meeting the establishment cost of additional staff which will have to be appointed at Headquarters level and field levels consequent on the extension of the activities in the department.

COMMUNICATIONS AND BUILDINGS.

Improvement in forest exploitation can take place only when there are adequate communication and building facilities in the remote forest areas. A total of 10 kms of forest road will be completed during the Plan period and quarters for 11 Range Officers for 12 Block Officers and 53 Forest Guards will be constructed. Besides this forest Inspection Bungalows will be constructed in some of the more remote areas. The total outlay for communication is Rs. 31 lakhs.

OTHERS.

For introducing a system of statistic collection and for publicity a sum of Rs. 10 lakhs is proposed. A State Guest House at Gangtok is being maintained by the Forest Department. In order to improve the facilities in the Guest House a provision of 2 lakhs is proposed making an overall total of 12 lakhs for other programmes.

The scheme in brief with their total outlays for Forestry and Wild Life are shown as under :-

	<u>(Rs. lakhs)</u>
1. Production Forestry	90.00
2. Social forestry	43.00
3. Wild Life & Environmental Conservation	50.00
4. Inventory, Planning & Resource Development	45.00
5. Resource Development & Utilisation	72.00
6. Forestry Research & Training	15.00
7. Organisation & Institution	30.00
8. Communication & Buildings	31.00
9. Others	12.00
Total :-	<u>388.00</u>

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

State/U.T. SIKKIM
Statement GN-1

(Rs. lakhs)

Head of Development	Fifth Plan Outlay (1976-79)	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total	of which MNP	Total	of which MNP	Foreign Exchange content of total outlay	Capital content of total outlay
1	2	3	4	5	6	7	8	9
Forest	157.00	99.81	74.00	-	388.00	-	5.10	42.00

State/U.T. SIKKIM
Statement No. GN-2

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Development	Minor Head of Development	Fifth Plan Outlay (76-79)	1976-78	1978-79		Proposed Outlay (1978-83)			
			Annual Expdr. Actual Expdr.	Agreed Total	Outlay of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7).	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
Forest	1. Production Forestry		35.26	14.35	-	90.00	-	-	-
	2. Social Forestry		6.90	13.25	-	43.00	-	-	-
	3. Wild Life & Environmental Conservation		7.50	9.35	-	50.00	-	5.00	-
	4. Inventory, Planning & Resource Development	157.00	10.97	8.30	-	45.00	-	-	4.00
	5. Resource Development & Utilisation		15.94	16.90	-	72.00	-	-	5.00
	6. Forestry Research & Training		2.32	2.50	-	15.00	-	0.10	-
	7. Organisation & Institution		3.10	3.35	-	30.00	-	-	-
	8. Communication & Building		16.69	5.00	-	31.00	-	-	31.00
	9. Others		1.13	1.00	-	12.00	-	-	2.00
	Total:	157.00	99.81	74.00	-	388.00	-	5.10	42.00

PANCHAYATS

There is no Panchayati Raj system as in other parts of the country in the State. However, there are at present 215 Panchayat units in the State. These Panchayat units are, however, not effective bodies capable of discharging decentralised developmental functions. The present model is a far cry from the concept of the decentralised administrative structure. Taking into account the existing infra-structure and anticipating the probable outcome of the Ashoka Mehta Committee which has been set up to go into the system of Panchayati Raj in the country a beginning has already been made for equipping a few selected panchayat units with panchayat ghars mainly to enable them to organise activities of interest to the community and for holding their deliberations. A programme of constructing 50 Panchayat Ghars was accordingly drawn up. These 50 Panchayat Ghars were so chosen that they would develop themselves as focal points within a given geographical area covering the interests of other Panchayat units in their vicinity. The programme of constructing the Panchayat ghars was initially started as a centrally sponsored scheme. Later, however, this has become a full fledged State scheme.

So far 14 out of 50 Panchayat ghars have been constructed 27 more are under construction. Out of these 11 are two roomed ghars whereas the others are all four roomed constructions. During the Plan period apart from the 27 under construction the remaining 9 will also be completed. The total outlay for building the Panchayat ghars is estimated at Rs. 11 lakhs.

After the construction of the Panchayat ghars these 50 Panchayat units will be categorised as zonal Panchayats which would cater to the requirements of 3 to 4 Panchayat units on an average. The zonal Panchayats will be provided with a full time Secretary who will liaise between the Panchayats and the Government.

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Gradually decentralisation of developmental administration consistent with the recommendations of the Ashok Mehta Committee report will be introduced by equipping the Secretary with administrative and financial powers. Certain financial responsibility particularly in the matter of raising revenues will also be conferred upon the zonal panchayats. Above this tier of the Panchayat system a district Panchayat office is also proposed to be set up. For the present, the district office will function as part of the establishment of the Deputy District Office or the Collector. Above the District level the activities of the Panchayats will be coordinated and supervised through the Rural Works Department. The total requirement for the purpose of completing the construction of the Panchayat ghars and for meeting the establishment expenditure of the zonal panchayat and the district office is placed at Rs. 18 lakhs for the five year period.

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total of which MNP	Outlay Total of which MNP	Total of which MNP	Foreign exchange content of total outlay	Capital content of total outlay	
1	2	3	4	5	6	7	8	9
PANCHAYATS	-	3.90	4.10	-	18.00	-	-	-

DRAFT PLAN 1978-83 STATE/U.T.s - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay (1976- 79)	1976-78	1978-79		Proposed outlay 1978-83			
			Annual Expdr. Actual Expdr.	Agreed Outlay Total	of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col. 7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10

PANCHAYAT

Construction
of Panchayat
Ghars

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3.90

4.10

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18.00

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CHAPTER III - SECONDARY SECTOR

1. Power
2. Small Scale Industries.
3. Industry & Minerals.

(a) To evolve an effective system of transmission and distribution under which transmission losses will be minimal .

(b) To electrify 92 more villages so that by the end of 1982-83 60% of total population in the State will have been benefitted.

(c) To strengthen the organisational capacity for the purpose of maintaining the existing and new power stations in optimum operational conditions, and

(d) To survey and investigate the hydro potential of the State so as to make new starts either during the plan period or in the period 1983-88. Keeping these objectives in view the programmes to be taken up from 1978-83 are described below in brief:

GENERATION.

There are no new generation schemes being implemented by the State. The only scheme which can be considered for increasing the generation potential is the Rimbi augmentation scheme . The existing plant at Rimbi in West Sikkim is a micro hydel unit with an installed capacity of 200 KW. A scheme to augment its capacity by remodelling the intake reservoir and channel and with additional penstocks and turbines has already commenced. The works are expected to be over in all respects during the current financial year. When this work is commissioned the installed capacity will be enhanced by another 400 KW. The demand of Southern and Western region of Sikkim will be partially met after this is commissioned. The total outlay required for completing this ongoing project for the five year period is Rs. 42.00 lakhs. The work is expected to be over in 1979-80.

Gangtok town and various other parts of North, South and East Sikkim are today served by the Sangkhole power house. This is the oldest power station of the State. Its installed capacity is 2100 KW. This power house is, however, running into serious production difficulties not the least of which is due to the wear and tear of the machines which are imported ones and which are

difficult to maintain in a condition of optimum operational fitness particularly in the context of spare part difficulties.

Although the commissioning of Lagyap will overcome the problem, it is necessary to keep the Sangkhola power house as a stand by. Once Lagyap is commissioned, it will provide an opportunity to shut down Sangkhola for a suitable period during which a programme of extensive repair cum replacement-cum remodelling can be adopted. For this purpose a sum of Rs. 21 lakhs is provided in the Plan. Repair work is also due in the power channel and intake at Rothak which is another Micro hydel project in the West. For this Rs. 5 lakhs is provided.

Lagyap project after commissioning will be handed over for maintenance and operation to the State Government. This will necessitate the induction of trained personnel and also certain additional overheads. The outlay required for such purposes are reflected elsewhere in the relevant paragraphs. However, the project, being the biggest in the State is likely to run into initial teething troubles to counter which some minor modifications in machinery parts might become necessary. For this purpose a sum of Rs. 1 lakh is provided for the plan period.

After Lagyap is commissioned the installed capacity is expected to increase to 15 MW. However by 1981-82 the presumption is that the demand will be about 15.5 MW. This estimation is made on present load statistics and survey of future demand which indicates a domestic demand of 4 MW against the present 2.5 MW, an industrial demand of 6 MW against the present 0.8 MW. The latter is estimated on account of the plan to establish a large new cantonment on the suburbs of Gangtok. On account of the factors it is necessary to tap the abundant hydro-potential of the State by formulating a few more hydel projects in consultation with the C.E.A. There are two rivers namely Rathong and Chaking on which preliminary investigations have

already been conducted by the Power Department. According to indications, schemes generating 6 MW and 4 MW respectively can be implemented on these rivers. If so the power requirements of the State can be adequately met and surplus power either sold to West Bengal or fed into the regional grid. Presuming that some provision will be made for the Rothang and Chakung rivers also, a total outlay of Rs. 50 lakhs is provided for the period 1978-83 for generation schemes.

TRANSMISSION AND DISTRIBUTION.

It is essential that Transmission and Distribution keeps pace with the increased generation. A large number of transmission and distribution schemes have already been taken in hand, the most important of which is the 66 KV Gangtok, Melli-Kalimpong line. This is being executed by the NHEPC and is funded fully by the Government of India as loan assistance. The scheme is expected to be complete in 1979 to synchronise with power generation from Lagyap. Apart from this scheme the 66 KV transmission line to Dikchu in North Sikkim is already underway. So far Rs. 10 lakhs has already been spent in the scheme, the estimated cost of which is Rs. 75 lakhs approximately. After the 66 KV line is laid to Dikchu 11 KV lines will be drawn from Dikchu to Mangan, Tsungthang, Lachen and Lachung so that a good part of North Sikkim will have the benefit of electricity. The works are expected to be completed by 1981-82. An outlay of Rs. 64.50 lakhs is required to complete the schemes.

Another important scheme under Transmission and Distribution, which has already been included in the 1978-79 plan is the remodelling of the power system of Gangtok. Such remodelling, which takes into account are, laying of additional 11 KV lines from Tadong 66 KV substations to Gangtok 11 KV lines and provide suitable control switchgears, conversion of existing 3.3 KV system to 11 KV system and laying of underground cables in Gangtok bazar and strengthening of distribution lines is very essential to cope with the larger

output from Lacyap. A sum of Rs. 40 lakhs is estimated for this purpose upto 1980-81.

As far as other sub-transmission and distribution schemes are concerned, the emphasis will be on quick completion of on-going schemes and the implementation of new schemes according to a phased programme. By the end of 1982-83 the total length of 11 KV lines proposed to be covered is 596 kms. These include a length of 58 KM of - 11 KV lines with 'DOG' conductor on steel latticepoles, 315 KM in 'Weasel' conductor on steel poles and 223 kms with farret conductor on steel poles. The programme also includes the construction of 11/0.43 KV substations and L.T.-distribution lines.

~~The details of the schemes proposed along with the tentative financial outlays are given in table-1 power. The total outlay contemplated for transmission and distribution for the five year period is Rs. 386.00 lakhs.~~

Rural Electrification Schemes.

Rural electrification schemes in Sikkim are confined to the electrification of villages. The National priority of energising pump sets cannot be adopted in the State since there are no pump sets used for lift irrigation purposes in the State where the natural terrain renders it well nigh impossible to go in for lift irrigation through pumps.

The villages in Sikkim, unlike in the plains do not have cluster type of dwellings. Therefore, power supply is normally restricted to the extension of lines and the construction of a 11 KV substation in a chosen centre. Distribution lines are drawn only to a few households depending upon demand. Despite the limitations particularly the lack of demand for agricultural and industrial purposes it is felt that the availability of power will be an inducement to the villagers to gradually reshape their economic activities and enhancing the State Domestic product.

Keeping this aspect in view and also the fact that rural electrification is part of the revised Minimum Needs Programme, a total number of 92 more villages are proposed to be electrified during the five year period 1978-83.

The total outlay for R.E. for the five year period is 121 lakhs.

DIRECTION AND ADMINISTRATION.

More Assistant Engineers with supporting staff including overseers and linesmen will be recruited not only to cope with the increased responsibility of the power department but also to adequately handle the Lagyap project. The outlay for administration is kept at Rs. 14.00 lakhs.

MACHINERY & EQUIPMENTS

Measures are already underway for the establishment of a workshop at Jorethang which is a central place for West and South Sikkim. The workshop will be completed by December, 1978. Small workshops are also proposed to be established at Mangan, Gangtok and at Rimbi. The capacity of the existing workshop at Singtam will also be increased. Such workshop facilities are essential not only for attending day to day requirements for the power schemes but also to fabricate small parts.

In addition to the procurement of the machinery, plants and tools for the workshops, more jeeps will have to be procured not only for replacing those that have become old but also for providing greater mobility which is necessary when one takes into account the expanded responsibility envisaged. Further a PX type telephone exchange with 25 lines to different load centres at Gangtok and upto Rongpo will be established for maintaining close contact for operational purposes. The total outlay for machinery and equipments is Rs. 15.50 lakhs for the 5 year period.

SURVEY AND INVESTIGATION

As already mentioned, investigation of the hydro electric potential in the Rathang and Chakung rivers is already in progress.

7

The data already collected is promising and hence a more detailed project report on Rathang and Chakung will be prepared. In addition, investigation of a few other streams like Ronglichu, Kanaka and Kalejchu will also be taken up so that a shelf of well investigated projects are available. An outlay of Rs. 11.00 lakhs is provided for the purpose during the Plan period.

CONSTRUCTION OF BUILDINGS.

Residential and non residential accommodation has to be provided in out of the way places where the departmental staff are located. A phased programme of building construction will be prepared by the department for which Rs. 52.5 lakhs are provided for the five year period.

The scheme in brief with their outlays are:

(a)	Generation	Rs. 50.00
(b)	Transmission & Distribution	Rs. 386.00
(c)	Rural Electrification	Rs. 121.00
(d)	Direction & Administration	Rs. 14.00
(e)	Machinery & Equipment	Rs. 15.00
(f)	Survey & Investigation	Rs. 11.00
(g)	Construction of Building	Rs. 52.00
	Total	<u>Rs. 650.00</u>

State/U.T. SIKKIMStatement GN - 1.DRAFT PLAN - 1978-83HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79.	1976-78 Actuals.	1978-79 Agreed Outlay		Proposed Outlay (1978-83)			
			Total	of which MNP	Total	of which MNP	Foreign exchange content of total outlay.	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.
<u>POWER.</u>	248.00	220.89	135.00	25.00	650.00	121.00	-	-

DRAFT PLAN 1978-83 STATE/U.Ts. - MINOR HEADS - OUTLAYS AND EXPENDITURE.

(Rs. lakhs)

Major Head of Development.	Minor Head of Development.	Fifth Plan Outlay 76-79.	1976-79 Annual Expd. Actual Expd.	1978-79		Proposed Outlay 1978-83.			
				Agreed Total	Outlay of which MNP.	Total	of which MNP	F.F. content of total outlay (as shown in Col.7)	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
GENERATION :									
1. Rongnichu Hydel Project		} 55.72		1.00	-	21.00	-	-	-
2. Rimbi Augmentation				18.00	-	23.00	-	-	-
3. Rothak Micro Hydel				-	-	5.00	-	-	-
4. Lagyap Hydel Project				-	-	1.00	-	-	-
Total of Generation			55.72	19.00	-	50.00	-	-	-
Transmission & Distribution :									
Transmission & Distribution.			113.63	78.84	-	386.00	-	-	-
Rural Electrification		248.00	40.08	25.00	25.00	121.00	121.00	-	-
Survey Investigation			0.93	1.00	-	11.00	-	-	-
Machinery & Equipment			4.64	1.50	-	15.50	-	-	-
Direction & Administration			5.89	3.20	-	14.00	-	-	-
Const. of Buildings			-	6.46	-	52.50	-	-	52.50
TOTAL :			248.00	220.89	135.00	25.00	650.00	121.00	52.50

FIVE YEAR PLAN - 1978-83
POWER PROGRAMMES - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

NAME OF SCHEME	Estimated Cost		Expen- diture to end of 1977-78	1978-79 outlay approved by P.C.	Estimated outlay For				Total 1978- 83	Spill over 1982- 83	Completion Schedule	
	As per Revised invest ment approval by P.C. 76-78	cost (Latest)			1979-	1980-	1981-	1982-			As per 1978-79 plan dis- cussions	As now anti- cipated
1	2	3	4	5	6	7	8	9	10	11	12	13
<u>1 Generation</u>												
<u>(a) Approved and on-going Schemes.</u>												
1. Rimbi Micro Hydel Augmenta- tion.	31.00	41.30	19.00	18.00	5.00	-	-	-	23.00	--	Dec'78	March'79
(Sub-Total (a))	31.00	41.30	19.00	18.00	5.00	-	-	-	23.00	-	-	-
<u>(b) New Schemes Proposed to be started from 1978-79 & there- after.</u>												
1. Renovation of Jali Power House	1.00	21.00	-	1.00	5.00	10.00	5.00	-	21.00	-	-	Dec'81
2. Repair of Rothak PH.	-	5.00	-	-	5.00	-	-	-	5.00	-	-	Dec'79
3. Lagyap Hydel Project	-	-	-	-	-	-	1.00	-	1.00	-	-	1979
Sub-Total (b)	1.00	26.00	-	1.00	10.00	10.00	6.00	-	27.00	-	-	-
<u>Total Generation (a + b)</u>	32.00	67.30	19.00	19.00	15.00	10.00	6.00	-	50.00	-	-	-

	1	2	3	4	5	6	7	8	9	10	11	12	13
I (i) Transmission	-	-	-	-	-	-	-	-	-	-	-	-	-
(ii) Distribution	83.61	79.82	96.40	78.84	75.00	75.00	75.00	82.16	386.00	-	-	-	-
(iii) Reduction of Transmission losses	-	-	-	-	-	-	-	-	-	-	-	-	-
Total (i)+(ii)+(iii)	83.61	79.82	96.40	78.84	75.00	75.00	75.00	82.16	386.00	-	-	-	-
III Rural Electrification.													
(i) Normal													
(ii) Rural Electrification Corpn.													
(iii) Revised MNP	43.27	40.08	40.08	25.00	24.00	24.00	24.00	24.00	24.00	121.00	-	-	-

POWER GENERATION PROJECTS : PHASING OF BENEFITS (MW)

STATE:
STATEMENT II

Name of Scheme	Approved capacity (MW)	Capacity added upto end of 1977-78 (MW)	Capacity Additions					Total 1978-83	Spill over beyond 1982-83	Remarks	
			1978-79 Target	Anticipated	1979 Target	1980 Target	1981 Target				1982 Target
1	2	3	4	5	6	7	8	9	10	11	12
A. <u>Approved/on-going scheme</u>											
1. Augmentation of Rimbi Hydro Scheme.	0.60	0.20	0.40	0.40	-	-	-	-	-	-	-
Sub-total : (A)	0.60	0.20	0.40	0.40	-	-	-	-	-	-	-
B. <u>New Schemes proposed to be started from 1978-79 and thereafter</u>											
2. Chakung Hydro Electric project	-	-	-	-	-	-	-	-	-	-	-
3. Rathang Hydro Electric Project.	-	-	-	-	-	-	-	-	-	-	-
Sub-total : Total (A+B)	0.60	0.20	0.40	0.40	-	-	-	-	-	-	-

Note: The two Hydro Electric Schemes (NEW) above have been investigated for installed capacities of 4 MW and 6 MW respectively. The project will be submitted to the C.E.A. within Sept. '78. It has been proposed to implement these project subject to approval of the C.E.A. and the Planning Commission.

Further details at APPENDIX - 5:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total (i)+(ii)& (iii)	43.27	40.08	40.08	25.00	24.00	24.00	24.00	24.00	121.00	-	-	-	
IV. Surveys & Inves- tigations	1.00	0.93	0.93	1.00	2.00	2.00	3.00	3.00	11.10	-	-	-	
V. Others : Research, Testing Labora- tories.	-	-	-	-	-	-	-	-	-	-	-	-	
Grand Total (I to V)	159.88	188.13	156.41	123.84	116.00	111.00	108.00	109.16	588.00				

- Note : 1. This statement should be based on, and linked with, updated resource-based master control network (i.e.. part chart) for the Project, copies of which should accompany this Statement.
2. A brief note on each on-going generation project may be furnished giving the physical performance and progress, covering the problems and bottlenecks, if any.

Rural Electrification Programme
(For pump set energisation, village electrification
and service connections)

Physical programme/ achievement	Cumulative progress upto 31.3.78	1978-79 (target)	1979-80 (estimate)	1980-81 (estimate)	1981-82 (estimate)	1982-83 (estimate)
1	2	3	4	5	6	7
a) <u>Programme of pump sets/ tubewells energisation under</u>						
i) Normal State plan funds for (rural electrification)						
ii) REC normal programme						
iii) MNP						
iv) CPAD/SFDA/FAL *						
v) tribal/hill area plan *						
vi) Service connections under normal distribution						
vii) Institutional finances like ARDC/LDB/commercial Banks/ C.C.B. *						
viii) Other sources (like consumer deposits scheme etc. (please specify source)						
ix) (Total to viii)						
x) Total by end of the year						
b) <u>Village electrification under (nos)</u>						
i) Normal State Plan						
ii) REC programme						
iii) MNP	48	20	26	16	15	15
iv) CPAD/SFDA/MEAL *						
v) Tribal/hill area plan *						
vi) Normal distribution programme						

	2	3	4	5	6	7
vii) Institutional finances like AREDC/LDB/CB/CCB *						
viii) Other sources like consumer deposits, etc. (pl. specify source)						
ix) Total (1 to viii)						
x) Total by end of the year						
xi) Rural population benefited according to 1971 census by end of year.	18 %	23 %	30 %	38 %	50 %	60 %
C. <u>End benefits by end of the year</u>						
1. Small Industries						
a. no. of connection	10	15	40	65	85	120
b. connected load (KW)	1.00	1.50	1.70	2.00	2.30	3.00
2. Domestic commercial services (Nos.)	1000.00	500.00	600.00	800.00	1000.00	2000.00
3. Street light (nos.)	430	210	260	300	320	400
4. Other rural connections (Nos)	-	-	-	-	-	-
5. Harijan Bastis.	-	-	-	-	-	-

NB. * Please check (/) appropriate source of energisation of pump sets/tubewell, and village electrification.

II. Financial allocation/expenditure
on Rural Electrification (Rs. lakh)

Programme	1978-79 (approved)	1979-80 (estimate)	1980-81 (estimate)	1981-82 (estimate)	1982-83 (estimate)
1	2	3	4	5	6
a) Outlay within the normal State plan for RE works.					
b) REC normal loans					
c) DPAP/SFDA/MFAL/MNP	25.00	24.00	24.00	24.00	24.00
d) Tribal/Hill Area Plans *					
e) Funds utilised for RE works from within the provision under normal development, subtransmission and distribution.					
f) Institutional finances from AIDC/LDB/CB/CCB *					
g) Other sources like consumers deposit scheme etc. (pl). specify source in each case)					
h) Total 'a' to 'g'	25.00	24.00	24.00	24.00	24.00

* Please check (/) appropriate source of funding).

STATEMENT - VII

Work : Investigations and Surveys

Name of the Scheme	Total Cost	Expenditure incurred upto the end of 1977-78	Annual Phasing of Outlay					Total 1978-83	Spillover if any beyond 1982-83
			1978-79	1979-80	1980-81	1981-82	1982-83		
a) Continuing :									
1. Rathang Chu									
2. Chakung Chu		0.93	1.00	1.50	1.00	1.00	0.50		
3. Rongli Chu									
b) New :									
1. Kalej Chu									
2. Kanaka Chu		-	-	0.50	1.00	2.00	2.50		
Total :		0.93	1.00	2.00	2.00	3.00	3.00	11.00	

The requirement is to be supported by the time bound programme with brief de tails of each schemes.

POWER
MANPOWER PLANNING AND REQUIREMENTS

STATEMENT - VIII

STATE SIKKIM
PROJECT

Category/ type of skill	Manpower required during construction			No. required. during opera- tion & maint. phase.	1979-80 No reqd. for const.	No reqd. for oper- ation & maing.	1980-81		No. reqd. & maint. duri- ng con- st.	No. reqd. dur- ing con- st.	1982-83	
	Peak require- ment	No. in position as on 31.3.78	1973-79 no. required				No. reqd. for const.	No. reqd. for opn. & maint.			No. reqd. dur- ing con- st.	No. reqd. dur- ing con- st.
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Managerial/ supervisory												
a) Technical		15	30	10	35	10	45	15	40	15	40	15
b) Non-Technical												
2. Skilled												
a) Technical		100	120	15	115	20	120	25	115	25	120	25
b) Non-Technical		20	20	10	30	10	30	20	30	15	30	15
3. Semi-skilled		120	125	20	120	20	130	30	150	30	150	30
4. Un-skilled		300	350	20	350	25	400	30	415	30	430	30
5. Others (if any)		-										
Total		555	675	75	650	85	725	126	750	115	770	115

N.B. : No. required to be filled in after man power obtiminsation.

DRAFT PLAN - 1978.83

MINIMUM NEEDS PROGRAMME -- OUTLAYS AND EXPENDITURE -- TARGETS AND ACHIEVEMENTS

Y

Location: Districts Towns Villages.	Name of Fifth Scheme Plan (1976-78) (Rs.lakhs).	1976-78	1978-79	1978-83	Unit.	Physical Targets.				
		Actual Expdr. (Rs.lakhs).	Approved outlay (Rs.lakhs).	Proposed Outlay (Rs.lakhs).		Achievement in 1976-78.	Target in 19- 78-79.	Likely achieve- ment in 1978-79.	Pro- posed target (1979- 83).	
1	2	3	4	5	6	7	8	9	10	11

- 76-77 76-77
1. East Tathangchen
 2. East Sichey
 3. East Tadong
 4. East Syari
 5. North Penlong-Kabi
 6. 9th Mile
 6. East Rumtek
 7. South Temi-Tarku
 8. East Martam-Khamdong
 9. West Tashiding
 10. West Upper Daramdin
 11. West L. Darandin
 12. West Pechrek
 13. South Mamring
 14. West Kyongsa
 15. West Naku-Chumbung
 16. West Darap
 17. West Hee
 18. West Middle Gyalsing

1 2 3 4 5 6 7 8 9 10 11

19. West Timburbung
20. South Nandu Gaon
21. West Yoksom
22. North Ringing
23. North Manul
24. North Lower Singhil
25. South Mikhola
26. South Kitam
27. West Dentam
28. West L/U-Burmiok
29. West Mangmu
30. West Barthang
31. West Tikjek
32. West Soreng
33. West Guruthang
34. West U/L Tadung
35. East Linzey
36. North U/Khandong
37. East 2nd Mile Dikling
38. East Duga-Pandam
39. East Pandam
40. East Tirkutam

78-79 78-79

1. West Bega
2. West Bhaluthang
3. West Geylling Samsing
4. South Wok
5. South Turung
6. East Aritar
7. South Burmiok-Tokel
8. South Ben
9. East Saj-ung
10. East Ronyak
11. North Tumina

1	2	3	4	5	6	7	8	9	10	11
13.	North	Rongong								
14.	North	Labrang								
15.	North	Namok								
16.	North	Ranka								
17.	North	Sandung	43.27							
18.	North	Parving		40.08	25.00	121.00	No	40.00	46.00	20.00
19.	North	Tintek								72.00
20.	East	Dikling								
21.	East	Bojaghari								
<u>79-83</u>		<u>79-83</u>								
1.	West	22 Nos								
2.	South	25 Nos								
3.	North	10 Nos								
4.	East	15 Nos								
<u>Total</u>		<u>72 Villages</u>								
Total ::	-	43.27	40.08	25.00	121.00	Nos	40.00	46.00	20.00	72.00

See Appendix - 6

TABLE - I - POWER

TRANSMISSION & DISTRIBUTION SCHEMES

Outlay 78-79 Rs. lakh	Proposed outlay in Rs. lakh					Total
	79-80	80-81	81-82	82-83		
74-74	106.00	85.40	75.55	82.00		348.95
<u>A. CONTINUING SCHEMES:</u>				<u>APPENDIX -4-I</u>		
Sl No.	Name of Schemes	Outlay 78-79 Rs. lakh	Proposed Outlay 79-80	80-81	81-82	82-83
1.	North Sikkim Trans- mission estimated cost 74-51 Expenditure up to 77- 78. 10.00 lakhs	20.00	25.00	15.00	4.50	-
2.	Remodelling Gangtok Electricity Supply system. Estimated cost Rs. 40.00 lakhs.	15.00	20.00	5.00	-	-
3.	Completion of Sub- Transmission and Dis- tribution works of 77-78. Estimated cost 43.15 lakh 13.15	-	-	-	-	-
4.	Sub-Transmission & Distri- bution schemes started in 78-79. Estimated cost: 37.35 lakh Revised cost: 42.00	26.09	15.91	-	-	-
TOTAL : -		78.84	60.91	20.00	4.50	-

Contd/.....2..

B. NEW SCHEMES : 1979-80 -

5

1.	11kv. lines with 'DOG' conductor on Steel Lattice poles.		
	(i) Melli - Jorethang	-	20 KM
	(ii) Gangtok - Fangla	-	12 KM
	<u>Total -</u>		<u>32 KM</u>
			16.00 lakhs.

2.	Sub-Transmission 11Kv. with 'Wassel' conductor on steel poles.		
	(i) Lower Fabang-Lungchok	-	5 KM
	(ii) Soreng-Singling, Burakhop	-	5 KM
	(iii) Rhenock-Reshi	-	3 KM
	(iv) Pakyong-Dikling	-	5 KM
	(v) Rabongla-Rabon-Namthang	-	10 KM
	(vi) Namthang-Kabarak-Karet	-	5 KM
	(vii) Turung-Danak	-	5 KM
	(viii) Namok-Mangasila Tungchen	-	10 KM
	<u>Total -</u>		<u>48 KM</u>
			15.00

3.	11/0.43 Kv. Sub-stations		
	(i) Fangla, 150KVA	-	0.40
	(ii) Addition of one 500 KVA S/S at Jorethang.	-	1.00
	(iii) Addition of 2x100KVA Sub-station one each at Gyalshing and Rabdense.	-	0.60
	(iv) Addition of 2x100KVA Sub-stations at Namchi	-	0.60
	<u>Total :-</u>		<u>2.60</u>

4. L.T. Distribution Lines :

Place	5-Wire	3-Wire	
(i) Fangla	2KM	2.5KM	
(ii) Jorethang	3KM	2KM	
(iii) Namchi	1KM	2KM	
(iv) Gyalsing	2KM	2KM	
(v) Rabdentse	2KM	1.5KM	
<u>Total</u>	<u>10KM</u>	<u>10 KM</u>	<u>6.49</u>

NEW SCHEMES: 1980-81

1.	11kv. Transmission with (Dog) conductor on steel lattice poles		Rs. lakh
	(i) Gangtok-Bhusuk Cantt.	10KM	
	(ii) Jorethang-Legshep.	16KM	
	<u>Total:-</u>	<u>26KM</u>	<u>13. 13.00</u>

6 2. Kv. Transmission with 'FERRET' conductor on steel poles.

(a) (i)	Singtam - Makha	-	15 KM	
(ii)	Rongli-Phoamchen	-	20 KM	
(iii)	Rinchempong-Reshi	-	15 KM	
Total:-		-	50 KM	18.50

(b) 11 Kv. Transmission with 'Weasel' conductor on steel poles.

(i)	Sangklang-Tolung	-	30 KM	
(ii)	Sombaria-Hilay	-	20 KM	
(iii)	Yangang-Makha	-	13 KM	
Total:-		-	63 KM	19.45

3. 11/0.4 Kv. Sub-stations

(i)	Addition of 100KVA S/s at Naya Bazar.		0.30
(ii)	500KVA additional S/s at Karfek Tar for Industries Department.		1.00
(iii)	500 KVA S/s at the District Industrial centre at Rothak .		1.00
(iv)	Addition of 200 KVA S/s at Singtam bazar.		0.40
(v)	Addition of 100KVA S/s at Takshi Area.		0.30
(vi)	Addition of 100KVA S/s at Pelling complex.	0.30	
(vii)	100KVA S/s at Hiley.		0.30
(viii)	63KVA S/s at Tolung.		0.25
(ix)	100KVA S/s at Makha		0.35
Total :-			4.20

4. L.T. Distribution Lines :

Place	Circuits		KM
	5-wire	3-wire	
(i) Naya Bazar	1.00	1.00	
(ii) Karfek Tar	3.00	1.50	
(iii) Singtam	2.00	1.00	
(iv) Rothak(DIC)	2.00	1.50	
(v) Takshe	1.50	2.00	
(vi) Pelling	1.00	1.00	
(vii) Hiley	-	2.50	
(viii) Tolung	-	2.00	
(ix) Makha	-	3.50	
Total		16 KM	16 KM
			10.25

NEW SCHEMES

1981-82

1. 11 Kv. Transmission line with 'FARRET' conductor on steel supports.

(i)	Makha-Dikchu	25 KM	
(ii)	Phadamchen-Kupuk (Army Cant)	20 KM	
(iii)	Pakhong-Machong	20 KM	
(iv)	G.N.Road-Changu	20 KM	
(v)	Namthang-Namchi	15 KM	
Total:-		100 KM	37.00

2. 11 Kv. Transmission with 'Weasel' conductor on steel poles.

(i)	Makha-Limgmo-Lingi	20 KM	
(ii)	Naya Bazar-Tharpu-Daramdin	15 KM	
(iii)	Ragongla-Sangmo-Rarapathing Yangang	15 KM	
(iv)	Central Pandam-Singtam	19 KM	
(v)	Padung to Lower Sichey	4 KM	
Total:-		73 KM	22.75

3. 11/0.43KV. Sub-stations:

(i)	200 KVA S/s at Chagu	0.40	
(ii)	Addition of 200KVA S/s at Melli, Rangpo.	0.80	
(iii)	Addition of 100 KVA S/s. at Rongli, Rhenock, Legshep, Rumtek and 3 nos. at Gangtok.	2.10	
Total:-		3.30	

4. L.T. Distribution Lines :

Place.	Circuits		KM
	5-wire	3-wire	
(i) Chaggu	2.00	2.50	
(ii) Melli & Rangpo	4.00	3.00	
(iii) Rongli, Rhenock, Legshep, Rumtek and Gangtok	8.00	5.00	
Total:-	14.00KM	10.50KM	8.00

NEW SCHEMES

1982-83 :

1. 11 Kv. Transmission with 'FARRET' conductor on steel supports

(i)	Pakyong-Assam-Bhusuk	20 KM	
(ii)	Rangpo-Rorathang	10 KM	
(iii)	Damthang-Namchi	8 KM	
Total:-		38 KM	14.00

2. 11 Kv. Sub-Transmission with 'Wegsel' conductor.

(i)	Soreng-Malbasi	5KM	
(ii)	Aritar-Dalapchen	5KM	
(iii)	East Pandam-Kamery Bhasmey	15KM	
(iv)	Ralang-Brong	5KM	
(v)	Namthang-Nagi Pali- thang	5KM	
(vi)	Namchi-Bomtar-Fali- dara	5KM	
(vii)	Namthang-Katang	5KM	
		45KM	13.50

3. 11/0.43-Kv. Sub-stations

One L.T. distribution lines including addition of capacities of existing Sub-stations. 8.80

VILLAGE, SMALL AND MEDIUM INDUSTRIES

INTRODUCTION

Prior to Sikkim joining the mainstream of National Life Industrial Development in the State was confined mainly to the development of handicrafts particularly traditional craft like carpet weaving and wood-carving. Among the larger units there were only four main establishments namely the Sikkim Distillery, the Government Fruit Preservation Factory, the Sikkim Mining Corporation and the Sikkim Jewels. During the Fifth Plan an attempt to revitalise the small industry sector was made by the creation of a separate Directorate of Industries. It was felt that suitable adaptation of the various schemes and programmes in the rest of the country would have a beneficial impact in the State particularly in the field of small industrial development. The question of improving the facilities in the Government Institute of Cottage Industries was also considered from the angle of socio-economic development and every attempt was made to give reasonable incentives for new industry. In the Plan for 1978-83 the accent will be to identify a suitable number of industries which would create employment opportunities and which would be of low capital investment. This programme will be tied up with marketing and organisation of credit facilities. The idea is that no industrial venture should suffer either on account of lack of marketing facilities or lack of initial investment capital.

Review of Progress:

With the setting up of the Directorate of Industries an attempt was made to frame a policy for achieving industrial growth within the shortest possible period. The main measures initiated were to disseminate information on prospective industries, to provide training to prospective entrepreneurs including management and preparation of project profiles and to prepare schemes which did not involve sophisti-

oated technology or heavy costs on materials. The basic objective in adopting such a policy was to attract and demonstrate to local people that the establishment of industries on a selective basis is definitely possible in the State. Apart from creating a proper administrative unit the Directorate of Industries took the lead in constituting a **State Level Coordination Committee** charged with the responsibility of planning and reviewing programmes of various industries and in introducing the registration procedure for industrial units as applicable elsewhere in the country. Grant of industrial loans particularly to the poorer section of craftsmen and the provision of incentives like capital grant and subsidy for backward area including transport subsidy helped in engendering gradually an industrial climate. The development of a proper infrastructure particularly in the form of industrial sites was another measure undertaken by the department. An industrial training institute was also established with a view to provide facilities for basic trade. Further, the system of project formulation was also introduced so that the projects would stand scrutiny by financing institutions. Although inadequacy of complete and upto date statistics for many industries particularly the traditional ones is a handicap for making an assessment of the progress in the industrial sector, there is no doubt about the fact that more full time employment has been generated in most of the traditional industries. The main objective in the coming plan would be to generate such employment opportunities particularly by revitalising and developing the existing traditional industries. In addition, intensive development of a selected number of new and viable small industries will be taken up and credit facilities organised. The training facilities will be so shaped that a trainee coming out of an institution is ready to set up an independent unit.

The schemewise details are given below:

'Medium Industries'

(a) Industrial Survey and Reports:

In order to explore the possibility of starting new industries techno-economic surveys and preparation of feasibility studies in different areas will be necessary and such work will have to be entrusted to some of the more wellknown institutions of the country. During the previous years such reports had been prepared for several purposes like the establishment of a Roller flour mill, a Watch Assembly Unit and the expansion of the Fruit Factory. Besides, industrial potential survey was prepared by a team of IDBI. In order to continue such a programme a provision of Rs. 5 lakhs is made for the Five Year period.

(b) Investment in Public undertakings:

A State owned Watch Assembly Unit under the name of Sikkim Time Corporation was set up during the year 1976-77 at Gangtok. This unit is today merely an assembly unit and is functioning from one of the buildings of Government on a temporary basis. It has been set up with the collaboration of HMT. Selected boys and girls, numbering about 60, were specially trained in the art of assembly in the HMT factory at Babgalore. On completion of their training they have been absorbed into the Time Corporation and today the unit has a capacity of assembling 2.5 lakhs watches per year. The daily assembly rate is approximately two thousand. At present HMT air transports the parts and on receipt they are assembled and air transported back to HMT. The freight on the to and fro transport is not very heavy since the parts are small and light. The Time Corporation is paid a commission of Rs. 1/50 per watch if the parts arrive under SKD conditions and Rs. 5/60 per watch if the parts arrive under CKD conditions. So far the majority of the parts have come under the former category. However, gradually the technique of assembling watches under CKD conditions is being learnt by the local boys and girls. The value added is sufficiently large to enable the HMT to make a profit even after paying the commission.

A separate building for the factory is now under construction. It is expected to be complete during the year 1978-79.

During the Plan period the production capacity of this unit will be further expanded. This will necessitate not only the appointment of more personnel but also the purchase of more equipment. Being a labour intensive project the Government proposes to encourage its expansion. The skill and dexterity of the local boys and girls in handling and assembling precision material has already convinced the HMT that apart from mere assembly of watch parts the conditions are suitable for manufacturing various components of watches. To start with watch cases and straps are likely to be taken up for manufacture. This will be followed up by the manufacture of various other ancillaries including watch jewels. The intention of the HMT is that as many parts of the watches should be manufactured at Sikkim itself and assembled on the spot. Further, the idea is that marketing of such watches would also be region based. In other words, watches manufactured from Gangtok would ordinarily find a market in the North Eastern Region of the country. A production cum marketing programme is thus on the anvil. Such a line of industrial production is consistent with the National policy of hiking industrial investment with employment generation and in ensuring an assured market. In order to cater to the various avenues of expansion and to tie up marketing with production a sum of Rs. 150 lakhs as proposed for the five year period 1973-83 for this purpose.

3

Another State owned Corporation is the Sikkim State Trading Corporation. This Corporation is the main agency to supply goods and materials to the various Government departments for developmental activities. Such a Corporation is essential because most goods have to be procured from outside the State. The S.T.C. is also acting as the agent of the Fruit Preservation factory in the Calcutta region. The S.T.C. charges an agency commission of 3% on all goods supplied to Government departments. The Corporation is also distributing indane gas to consumers in Gangtok. In the coming year the State Trading Corporation will enter into the marketing fields of a few selected items and will expand its role. An administrative building cum showroom will also be constructed. The authorised share capital is Rs. 400 lakhs out of which paid up share capital is only Rs. 14 lakhs. A further sum of Rs 18 lakhs is set apart for the period 1978 - 83 as additional share capital for the STC.

The Government Fruit Preservation Factory is one of the oldest of the commercial units. This factory is func-

tioning today as a departmental unit. However it is run on commercial lines. This factory which has earned a name for itself in the production of quality goods particularly orange juice is proposed to be expanded. Already a central team had visited the factory and given a report on the basis of which steps for expansion and modernisation are being taken. The product being orange juice a proposal is underway for important a polycitrus plant. Once this plant is established the ^{output} of the factory will increase considerably and quite naturally other ancillary facilities will also have to be developed. Since the orange season is only for a few months the factory will have to process other fruits like mango and pineapple which have to be procured from outside the State, if it is to be kept in a running condition for the full year. In addition to the production of fruit juices and other products, the factory is also contemplating investment for the manufacture of metal cans so that the requirements of the factory for storing its products can be met by itself. A detailed project report will be get prepared for this purpose by a reputed concern. Certain other areas of diversification are also being thought of. So far the factory has been running as a departmental unit. A proposal has already been prepared for converting the factory into a fully corporate body after which it will only be necessary for Government to contribute to the share capital of this body. Keeping in mind the possible expansions and the need for constructing more quarters and factory space the additional financial assistance which may be in the form of loan and equity is fixed at Rs. 60 lakhs for the Five year period.

On the basis of a project report prepared by the NIDC the Government have already taken a decision to entrust to the Projects and Equipments Corporation of India on turnkey basis the setting up of a Roller Flour Mill with a 30 tons per day capacity essentially for the manufacture of wheat products like atta, maida and suji. The

construction of the factory building is expected to be complete in early 1979. Thereafter, some amount of money would be required for certain staff quarters. For all these purposes an outlay of Rs. 42 lakhs is envisaged for the Five Year period. This project when commissioned will make it possible for those in and around Gangtok to obtain clean and wholesome wheat products.

An Industrial Development and Investment Corporation has already been set up in the State mainly to be the agency for providing industrial loans for small and medium scale industries, to undertake the development and construction of industrial sheds, procurement of raw materials, establishment of units in the public sector and for the provision of marketing facilities. This Corporation has an authorised share capital of Rs. 100 lakhs. The present paid up share capital is only about Rs. 8 lakhs. In the coming years the scope of the financing activities of this Corporation will be enlarged particularly in the field of financing the construction of hotels. A further sum of Rs. 70 lakhs is expected to be invested as share capital of the Corporation in the coming five years. This Corporation will avail of refinancing facilities from the IDBI.

Another State owned Corporation is the Sikkim State Trading Corporation. This Corporation is the main agency to supply goods and materials to the various Govt. departments for their developmental activities. Such a Corporation is essential because most goods have to be procured from outside the State. The State Trading Corporation is also acting as the agent of the Fruit Preservation Factory in the Calcutta region. The State Trading Corporation charges an agency Commission of 3% on all goods supplied to Govt. dependents. The Corporation is also distributing indiaric gas to consumers in Gangtok. In the coming year the State Trading Corporation will enter into the marketing fields of a few selected items and will expand its role. An administrative building cum showroom will also

be constructed. The authorised share capital is Rs. 400 lakhs out of which paid up share capital is only Rs. 14 lakhs. A further sum of Rs. 18 lakhs is set apart for the period 1973-83 as additional share capital for the State Trading Corporation.

In order to promote joint venture units the Government are looking out for suitable entrepreneurs particularly in industries like paints and varnish, building hard wares, CSR conductors etc. One joint venture unit called the Sikkim Wood Industries has already been established. A total outlay of Rs. 5 lakhs is contemplated as Government investment in such joint ventures.

To provide for new starts the Government are contemplating investment in a mini-cement plant and a ginger processing unit. Feasibility studies for both these products have already been completed and taking into account the availability of raw material for these projects it appears that both of them would have no difficulty in becoming viable. As far as the ginger processing project is concerned it will have the advantage of providing a reasonable floor price to the producers many of whom have to face glut in the market. Both these units are proposed to be in the public sector and to meet their requirements the outlay contemplated is Rs. 40 lakhs.

The overall investment in Government undertaking is therefore Rs. 330 lakhs.

Village and Small Scale Industries:

The basic objective in developing small scale and village industries is to promote such projects and activities which generate employment and larger incomes on a more durable basis. Keeping these two aspects in mind it is proposed to establish atleast 75 small scale units by a selective approach whereby a suitable number of carefully chosen fields would be tapped. These would cover manufacture of pencil slats, match splints, panel doors and windows, and semi-mechanised carpentry which are all wood based industries for which there

will be no dearth of raw material. Such industries would confer large scale employment and tap some of the traditional skills. Besides wood based industries, the other areas which have considerable promise are cattle and poultry feeds, general engineering and auto repair shops, stone chips, semi-mechanical bricks, ready made garments, agricultural implements, PVC pipes, card board boxes etc. In order to promote the establishment of such industries a package of services and assistance will be rendered through the District Industries Centres which will be progressively expanded. Wherever possible these ventures would be promoted by providing margin money assistance through the Industrial Development Corporation. Marketing facilities would be arranged through organised channels and as far as possible Government and public undertakings will adopt a policy of purchase preference so that there would be a direct incentive for the producers. With a view to providing more marketing facilities, necessary assistance for entrepreneurs in setting up retail shops wherein the sale of the products of the industries assisted by Govt. would be an essential precondition will be given. Adequate training facilities to selected entrepreneurs in management aspects will also be organised. Apart from concentrating on such selected industries self-employment ventures will be promoted by identifying atleast 200 artisans particularly in sectors like handloom and handicrafts where large number of people with traditional skill and with acquired skill can be tapped.

Various promotional schemes which have already been instituted including incentives for new industries, capital subsidy and loans under liberalised terms and conditions will be continued. In order to extend the promotional and expansion services in some of the more difficult areas, more offices including publicity wings will be opened with adequate residential facilities. The object is to attract as many of the local entrepreneurs as possible towards the field of

selected and a full fledged research and design wing organised so that there would be continuous experimentation in designing. On the production side the emphasis will be on maintaining adequate production levels and in formulating a meaningful policy of advertisement and publicity. Emporia will be opened in some of the more important cities of the country. In order to boost production a concerted attempt will be made to keep track of the ex-trainees so that after completion of training these trainees have adequate equipment and working capital for producing their own goods. Suitable loans in cash and in kind will be advanced and the recovery ensured by purchasing the finished products. Since the value added will be more than the loan component the recovery of the loan will not be a problem. In order to meet the various requirements of the institute a sum of Rs. 94 lakhs is ear-marked purely for the GICI for the years 1978-83.

Khadi and Village Industries:

The Khadi and Village Industries Board in the State has been undertaking training and other commercial activities for a few years now. With the emphasis being given on the diversification of small and cottage industries greater attention will be given in making available to the State Khadi Board sufficient finances both for Khadi production and for village industrial development. In the field of Khadi the main requirement of the Board is for training and commercial activities under which suitable stipend and wages have to be paid. The Board has not got adequate number of buildings and today much of the activities are taking place in hired buildings. A phased programme of building construction in selected parts of the State will be taken up. As far as Village Industries are concerned the main industries will be cane and bamboo, carpentry and blacksmithy, leather goods and handmade paper. A certain amount of quality improvement will also be attempted particularly for the purpose of raising the earnings

of the khadi spinners and weavers. For improving quality suitable incentives will be granted. The State Board will pay greater attention to the formulation of detailed programmes and to intensify promotional activities like assisting groups of small producers. The total outlay for Khadi and Village Industries for the period 1978-83 is Rs. 78 lakhs.

Sericulture.

The State Government have taken up a large scale plantation programme for sericulture. It is expected that the climate necessary for the institution of a Sericulture Industry will be gradually developed. Meanwhile, the mulberry saplings produced by the Forest Department will have to be distributed on a loan cum-subsidy basis to the beneficiaries who will have to construct rearing houses where the cocoons have to be reared. For these various purposes an outlay of Rs. 10 lakhs is contemplated.

Industrial Training Institute.

The Industrial Training Institute was set up initially at Rangpo in August, 1976. Previously there was no such institute in the State. The purpose of setting up this unit was primarily to give opportunities to the local boys and girls to acquire proficiency in some of the more useful crafts which would enhance employment opportunities. Initially five trades namely that of motor mechanics, fitter, draftsmen, plumber, motor mechanics and wiremen were introduced. In the next year two other trades namely welding and cutting and tailoring were added. The capacity of the institute is to train 100 candidates at a time. During the past years the Institute has been functioning under severe strain in the absence of proper building facilities not only for the workshop sheds but also for the hostel. In the plan period from 1978-83 the main emphasis will therefore be on completing the construction of the workshops the administration building and the hostel. Besides, several items of basic machinery and equipments will have to be procured so that the Industrial Training Institute will be recognised in the country. In order to provide better training facilities more instructors will also be appointed. The overall provision for the I.T.I. for these various purposes is Rs. 35 lakhs.

The total outlay for Village Small and Medium Industries including the I.T.I. for the Five Year Period 1978-83 is Rs. 900 lakhs, The broad distribution of which is:

Medium IndustriesRs. 390.00

Village & Small Industries.....Rs. 475.00

I.T.I.Rs. 35.00

Total : Rs. 900.00

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

Head of Development	Fifth Plan Out- lay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total	of which	Total	of which MNP	Foreign exchange content of total outlay	Capital content of total outlay
1	2	3	4	5	6	7	8	9
Village, Small and Medium Industries	226.00	132.50	98.55	-	900.00	-	-	475.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Proposed outlay 1978-83

Major Head of Development	Minor Head of Development	Fifth Plan Outlay 76-79	1976-78 Annual Expdr. Actual	1978-79 Agreed Outlay Total	of which MNP	Total	of which MNP	F.E. content of total outlay (as shown in Col. 7)	Capital content of total outlay.
1	2	3	4	5	6	7	8	9	10
	<u>1. Medium Industries</u>								
	(a) Survey & Reports								
<u>Village, Small and Medium Industries</u>	(b) Investment in Public undertakings	110.00	1.53	1.00	-	5.00	-	-	-
			60.72	43.00	-	385.00	-	-	385.00
	<u>Total Medium Industries</u>	110.00	62.25	44.00	-	390.00	-	-	385.00
	<u>2. Village & Small Scale Industries</u>								
	(a) Small Scale Industries including Direction & Administration.		20.56	18.40	-	113.00	-	-	25.00
	(b) Industrial Estates.		3.06	2.00	-	109.00	-	-	50.00
	(c) Handloom Industries		0.49	1.00	-	43.50	-	-	-
	(d) Handicrafts	104.00	-	2.00	-	31.50	-	-	-
	(e) Govt. Institute of Cottage Industries.		16.01	14.50	-	94.00	-	-	-
	(f) Khadi & Village Industries		16.90	8.00	-	78.00	-	-	-
	(g) Sericulture		-	0.10	-	10.00	-	-	-

	1	2	3	4	5	6	7	8	9	10
Total of Village and Small Scale Industries			104.00	57.02	46.00	-	475.00	--	-	75.00
3. Industrial training Institute			12.00	13.23	8.55	-	35.00	-	-	15.00
TOTAL			226.00	132.50	98.55	-	900.00	-	-	475.00

FIVE YEAR PLAN 1978-83 - STATE/UNION TERRITORIES
INDUSTRY & MINING PROJECTS - OUTLAYS & EXPENDITURE.

Sl. No.	Name of Project/Scheme.	Status regarding approval etc.	Date of start of project.	Date of completion.	Cost of the Project		F.E. component.	Expdr. upto 73-74.
					Original.	Revised cost (latest) (Rs.lakhs)		
1.	2.	3.	4.	5.	6.	7.	8.	9.
A.	<u>Continuing Scheme/Projects.</u>							
1.	Govt. Fruit Preservation Factory.	Govt. Unit	1966	1968	8.00	36.00	-	12.00
2.	Sikkim Jewels	Company in Joint sector.	1972	1975	35.00	39.00	16.00	35.00
3.	Sikkim Time Corpn.	Govt. Co.	1975	1976	32.00	38.00	-	-
4.	Sikkim Wood Inds. Pvt. Limited.	Company in Joint venture	1976	1977	12.00	12.00	-	-
5.	Roller Flour Mill	Govt. Unit	1978	1979	35.00	45.00	-	-
B.	<u>New Starts/Schemes Project.</u>							
1.	Mini Cement Plant	-	-	-	-	-	-	-
2.	Ginger Processing Project at Jorethang.	-	-	-	-	-	-	-

STATEMENT IM - 1 I&M - 6.

Sl. No.	Fifth Plan Expdr. 74-78.	Proposed Outlay (78 - 83)		Year wise phasing (outlay)					Value of output.	Employment	
		Total	F.E.	1978 (apptoved outlay.)	1979.	1980	1981	1982		During construction.	During operation.
	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.
A.1.	13.70	60.00	-	5.00	10.00	15.00	15.00	15.00	60.00	-	150
2.	4.00	-	-	-	-	-	-	-	15.00	-	75
3.	32.00	150.00	-	6.00	30.00	34.00	38.00	42.00	150.00	25	105
4.	4.00	-	-	-	-	-	-	-	14.00	10	15
5.	8.00	42.00	-	15.00	25.00	2.00	-	-	42.00	5	20
B.1.	-	35.00	-	-	5.00	10.00	15.00	5.00	-	20	100
2.	-	5.00	-	-	2.00	2.00	1.00	-	-	4	25

FIVE YEAR PLAN ; 1978-83 - STATE/UNION TERRITORIES.

Projects Undertaken/to be undertaken by State Industrial Development Corporation/Sugar Corporation/Textile Corporation/Cement Corporation/Regional Development Corporation etc.

I&M - 7.

Sl. No.	Name of the Corporation Name of the Project.	Annual capacity.	Status* of the project.	Date of start.	Expected date of completion	Latest Cost Estimated		
						Total cost.	Equity	Debt.
1.	2.	3.	4.	5.	6.	7.	8.	9.
A.	Continuing Schemes Sikkim Industrial Development and Investment Corporation.	-	-	1.4.77	3.4.79	100.00	75.00	25.00
B.	New Starts	-	-	-	-	-	-	-

* Please indicate if the letter of indent/licence has been obtained foreign collaboration (if necessary) finalised and C.G. Clearance given. In the case of joint Sector projects please indicate if agreement with the joint partner has been reached and approved.

Contd.

(Rs. in lakhs)

If joint sector		Equity Capital Contribution by Govt./Corp.®							Employment.		
Name of Private Sector/participation.	Extent of participation.	Equity capital to be provided by Govt./Corp.	Upto 1977-78	1978-79 approved outlay	79-80	80-81	81-82	82-83	Total Five Year plan 78-83.	During construction (nos.)	During Operation.
10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21
A. -	-	-	5.00	10.00	15.00	15.00	15.00	15.00	70.00	-	15
B. -	-	-	-	-	-	-	-	-	-	-	-

® In the case of Corporation, the internal Resources expected to be generated by the Corporation and the assistance required for the Government may be furnished.

FIVE YEAR PLAN : 1978-83 - STATES/UNION TERRITORIES
INDUSTRIAL AREA DEVELOPMENT PROGRAMMES.

Industrial Areas Under Development/Proposed To Be Taken Up During 1978-83.

Sl. No.	Location & District.	Total Programme.					Progress upto the end of 1977-78		
		Land to be developed (hectares)	No. of plots.	Estimated cost (Rs. lakhs)	Date of start.	Expected date of completion.	Land acquired (hectares)	Land developed (hectares)	Expenditure (Rs. lakhs)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.	<u>East Dist.</u>								
	i) Tadong	6.00	45	25.00	1.4.81	1.4.83	-	-	-
	ii) Singtam	0.08	10	5.00	1.4.80	1.9.80	-	-	-
	iii) Rangpo (Majitar)	6.40	50	20.00	1.4.80	1.4.83	6.40	-	1.99
2.	<u>South Dist.</u>								
	i) Jorethang	4.00	15	5.00	1.8.78	31.3.79	4.00	-	0.79
	ii) Rothak	18.00	100	30.00	1.4.79	31.3.83	18.00	-	2.50
3.	<u>Industrial Housing (No. of houses)</u>	-	200	50.00	1.4.79	31.3.82	-	-	-

Programme for Five Year Plan 1978-83

	Land to be acquired.	Land to be developed.	No. of plots to be allotted.	Outlay proposed.
	11.	12.	13.	14.
1.				
i)	6.00	6.00	45	25.00
ii)	0.08	0.08	10	5.00
iii)	-	6.40	50	20.00
2.				
i)	-	4.00	15	5.00
ii)	-	18.00	100	30.00
3.	-	2.00	200	50.00

STATE : SIKKIM
Statement GN-5

DRAFT PLAN - 1978-83
CENTRALLY SPONSORED SCHEMES - OUTLAYS AND EXPENDITURE

(Rs. in lakhs)

Name of Scheme	Fifth Plan Outlay (1974-79)	1974-78 Annual Expdr.	1978-79 Approved Outlay	1978-83 Proposed Outlay	REMARKS
Rural Industrial Project (Jorethang)	1.50	0.79	-	-	R.I.P. is merged with District Industries Centre from 1978-79.
District Industries Centre	-	-	8.00*	27.14*	

*-Inclusive of 25% State contribution.

VILLAGE AND SMALL INDUSTRIES - DRAFT FIVE YEAR PLAN - 1978-83
SUMMARY STATEMENT OF OUTLAYS/EXPENDITURE

(Rs. lakhs)

Sl. No.	INDUSTRY.	Fifth Plan		Five Year Plan 1978-83 (Proposed).							
		Outlay 1976-78 as finalised in Oct. 1976.	(actual expenditure).	1978-83	Total Capital Fo- rei-outlay.	1978-79	1979-80	1980-81	1981-82	1982-81	
1	2	3	4	5	6	7	8	9	10	11	12
1.	Handloom Industry.	0.70	0.49	43.50	14.00	-	2.00	8.25	9.00	10.25	14.00
2.	Powerlooms.	-	-	-	-	-	-	-	-	-	-
3.	Khadi & Rural Industries.	-	-	-	-	-	-	-	-	-	-
4.	Small Scale Industries.	23.05	20.56	109.59	35.00	-	16.40	19.27	21.99	24.73	26.45
5.	Industrial Estates.	6.00	3.06	105.00	-	-	2.00	26.00	22.00	30.00	25.00
6.	Handicrafts.	-	-	31.50	11.00	-	2.50	4.75	6.50	8.25	9.50
7.	Sericulture.	0.25	0.20	10.00	5.00	-	0.60	1.95	2.20	2.45	2.80
8.	Coir Industry.	-	-	-	-	-	-	-	-	-	-
Total:		30.00	24.41	299.59	65.00	-	23.50	60.22	61.69	75.68	77.75

VILLAGE AND SMALL INDUSTRIES - KRAFT FIVE YEAR PLAN 1978-83
Scheme wise details of outlay/expenditure

(Rs. in lakhs).

SL. NO.	INDUSTRY.	Fifth Plan 1976-78 Actual Expdts	Five yr. Plan 1978-83 Proposed		1978-83					When likely to be completed.	
			Total	Capital Foreign exchange.	1978-79 Approved outlay.	1979-80	1980-81	1981-82	1982-83		
1	2	3	4	5	6	7	8	9	10	11	12
1.	<u>Handloom Industry.</u>										
	<u>A. Continuing Schemes.</u>										
	1. Community Work-sheds.	-	15.00	-	-	1.00	1.50	3.00	4.00	5.50	
	2. Loans for Handloom Industry.	0.49	14.00	-	-	1.00	1.50	2.50	3.50	5.50	
	TOTAL 'A' =	0.49	29.00	-	-	2.00	3.00	5.50	7.50	11.00	
	<u>B. New Schemes.</u>										
	1. Dyeing and Processing Centre for Cotton & Woollen yarns.	-	12.00	-	-	-	5.00	3.00	2.00	2.00	
	2. Rebates on sales promotion	-	2.50	-	-	-	0.25	0.50	0.75	1.00	
	TOTAL 'B' =	-	14.50	-	-	-	5.25	3.50	2.75	3.00	
	TOTAL 'A' + 'B' =	0.49	43.50	-	-	2.00	8.25	9.00	10.25	14.00	

Contd. 2.

1	2	3	4	5	6	7	8	9	10	11	12
2.	Small Scale Industries.										
	<u>A. Continuing Schemes:</u>										
	1. Direction & Adm.	6.80	25.79	-	-	6.00	3.87	4.49	5.13	6.30	
	2. Construction of building.	1.30	-	-	-	-	-	-	-	-	
	3. Incentives for new industries.	2.22	16.15	-	-	2.40	3.00	3.25	3.50	4.00	
	4. Modernisation of S.S.I.	0.12	2.50	-	-	0.55	0.45	0.50	0.50	0.50	
	5. Entrepreneurship Development.	0.42	4.20	-	-	0.45	0.50	0.75	1.00	1.50	
	6. Information & Publicity.	0.59	10.00	-	-	1.00	1.50	2.00	2.50	3.00	
	7. Marketing Assistance.	0.08	2.20	-	-	0.40	0.35	0.40	0.50	0.55	
	8. Collection of Statistic.	0.06	0.50	-	-	0.10	0.10	0.10	0.10	0.10	
	9. Training to Rural Artisans.	-	12.50	-	-	1.50	2.00	2.50	3.00	3.50	
	10. Loans to Village & Small Scale Industries Units.	8.97	25.00	-	-	4.00	4.00	5.00	6.00	6.00	
	Total 'A' =	20.56	98.84	-	-	16.40	15.77	18.99	22.23	25.45	

Contd/..... 3.

1	2	3	4	5	6	7	8	9	10	11	12
B. New Schemes.											
1. Construction of building											
i) District Office, Mangan. - 3.00 3.00 - - 1.50 1.00 0.50 -											
ii) Staff Quarter at Mangan. - 3.50 3.50 - - 1.00 1.00 1.00 0.50											
iii) Construction of Information & Publicity centres. - 3.50 3.50 - - 1.00 1.00 1.00 0.50											
Total: 'B' - 10.00 10.00 - - 3.50 3.00 2.50 1.00											
Total: 'A'+ 'B' 20.56 108.84 10.00 - 16.40 19.27 21.99 24.73 26.45											
3. Industrial Estates/ areas:											
A. Continuing Schemes.											
1. Industrial Estate at Jorethang/Rothak											
3.06 35.00 - - 2.00 6.00 7.00 10.00 10.00											
TOTAL: 'A' 3.06 35.00 - - 2.00 6.00 7.00 10.00 10.00											

1	2	3	4	5	6	7	8	9	10	11	12
<u>B. New Schemes.</u>											
1. Development of industrial areas at Gangtok, Singtam, Rongpo & Melli.											
-			20.00	-	-	-	5.00	5.00	5.00	5.00	
2. Functional Bldgs.											
-			50.00	-	-	-	15.00	10.00	15.00	10.00	
Total: 'B'											
-			70.00	-	-	-	20.00	15.00	20.00	15.00	
Total: 'A' + 'B'											
3.06			105.00	-	-	2.00	26.00	22.00	30.00	25.00	
<u>4. Handicrafts.</u>											
<u>A. Continuing Schemes.</u>											
1. Construction of Community Worksheds.											
-			16.00	6.00	-	2.00	2.50	3.00	4.00	4.50	
2. Loans for Handicrafts industries.											
-			11.00	-	-	0.50	1.50	2.50	3.00	3.50	
Total: 'A'											
-			27.00	6.00	-	2.50	4.00	5.50	7.00	8.00	
<u>B. New Schemes.</u>											
1. Rebates on sales promotion											
-			4.50	-	-	-	0.75	1.00	1.25	1.50	
Total: 'B'											
-			4.50	-	-	-	0.75	1.00	1.25	1.50	
Total: 'A' + 'B'											
-			31.50	6.00	-	2.50	4.75	6.50	8.25	9.50	

1	2	3	4	5	6	7	8	9	10	11	12
5. Sericulture.											
<u>A. Continuing Schemes.</u>											
1. Development of Sericulture.	0.20	0.50	-	-	-	0.10	0.10	0.10	0.10	0.10	
2. Loans for Sericulture industry.	-	5.00	-	-	-	0.50	1.10	1.10	1.10	1.20	
Total: 'A'	0.20	5.50	-	-	-	0.60	1.20	1.20	1.20	1.30	
<u>B. New Schemes.</u>											
1. Training & Research centres.	-	3.50	-	-	-	-	0.50	0.75	1.00	1.25	
2. Rebates on sales promotion.	-	1.00	-	-	-	-	0.25	0.25	0.25	0.25	
TOTAL: 'B'	-	4.50	-	-	-	-	0.75	1.00	1.25	1.50	
TOTAL: 'A' + 'B'	0.20	10.00	-	-	-	0.60	1.95	2.20	2.45	2.80	

VILLAGE AND SMALL INDUSTRIES - DRAFT FIVE YEAR PLAN 1978-83
Statement of physical targets and achievements

Sl. No.	INDUSTRY.	Fifth Plan 1977-78 achievement	Five Year Plan 1978-83 - Targets				
			1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8
I.	<u>Handloom Industry</u>						
	1. No. of handlooms						
	- in cooperative sector.	-	-	-	-	-	-
	- outside cooperative sector.	-	2	4	6	10	15 only for training.
	2. Production of Handloom cloth (million mets).	-	-	-	-	-	-
	3. No. of weavers employed (Nos).	-	4	8	12	20	30
	4. Amount of working capital loans obtained by the weaver's cooperatives under RBI scheme of finance (Rs.lakhs)	-	-	-	-	-	-R.B.I. scheme not extended.

Contd/..... 2.

1	2	3	4	5	6	7	8
<u>II. Powerlooms.</u>							
1. No. of Powerlooms.	--		6	6	6	6	6 Single shift basis.
2. Production(m.metres)	-	60,000	60,000	60,000	60,000	60,000	
3. No. of persons employed (Nos)	--		18	18	18	18	13
<u>III. Khadi & Rural Industries.</u>							
<u>Employment (Total in Nos)</u>							
1. Khadi	198		200	300	400	400	300
2. Rural Industries	36		500	1000	1500	2000	1400
<u>IV. Small Scale Industries.</u>							
<u>1. (a). No. of new units set up</u>							
<u>East District (Gangtok)</u>							
- in urban area	5		5	-			
- in rural areas	25		20	3	4	5	2
<u>South District (Jorethang).</u>							
- in urban areas	-		-	-	-	-	-
- in rural areas	15		10	7	6	5	8

Contd/..... 3.

1	2	3	4	5	6	7	8
B. <u>Type of Industries.</u>							
<u>East District.</u>							
	1. Engineering	2	2				
	2. Chemical	3	2				
	3. Leather	4	4				
	4. Food products	5	5				
	5. Wood products	6	4				
	6. Servicing	10	7				
	7. Textiles	-	1				
<u>South District.</u>							
	1. Engineering	1	-				
	2. Food products	2	2				
	3. Wood products	1	4				
	4. Servicing	11	4				
C. <u>Investment proposed.</u>							
	<u>East District.</u>	8.00	4.00	5.00	5.00	6.00	10.00
	<u>South District.</u>	2.00	2.00	3.10	5.10	7.10	6.20
2.	<u>Nb. of units going in for expansion/diversification*</u>		2	2	1	1	3
	Similar information as for 1(a), (B) and (c) above may be supplied.						
3.	<u>Addl. employment created (Nb. of persons)</u>						
	- in urban areas	50	100	10	10	10	20
	- in rural areas	400	900	90	90	90	180

Contd/..... 4.

1	2	3	4	5	6	7	8
4.	Loans advanced under State Aid to industries/Act/Rules.						
	- Amount (Rs.lakhs)	5.50	6.00	8.10	11.10	13.10	16.20
	- No. of units.	20	20	20	20	30	35
5.	Margin/Seedmoney advanced.						
	- amount (Rs.lakhs)	-	0.50	1.00	1.00	1.00	1.50
	- No. of units.	-	5	10	10	10	101
V-	<u>Industrial Estates:</u>						
	1. No. of estates/areas completed but not functioning.	-	1	1	2	-	2
	2. No. of functioning estates/areas						
	- No. of sheds	-	10	10	10	10	10
	- No. of units working	-	10	10	10	10	15
	- No. of persons employed	-	100	100	100	200	250
VI.	<u>Handicrafts.</u>						
	1. Adnl. employment created (No.)	5	10	15	20	30	50
	2. Sales, through State Emporia (Rs.lakhs)	-	-	-	0.50	1.00	2.00

1	2	3	4	5	6	7	8
<u>VII. Sericulture.</u>							
1. Production(lak.Kgs.)							
- mulberry	-	-	-	-	-	-	-
- Non-mulberry	-	-	-	-	-	-	-
2. Addl. employment created(NO).	10	20	20	30	40	50	
<u>VIII. Coir Industry.</u>							
1. No. of coop. societies	-	-	-	-	-	-	-
- Viable	-	-	-	-	-	-	-
-Potentially viable	-	-	-	-	-	-	-
- Others	-	-	-	-	-	-	-
2. Institutional credit obtained by cooperative societies (Rs.lakhs)							
- No. of societies	-	-	-	-	-	-	-
- Amount (Rs.lakhs)	-	-	-	-	-	-	-

Contd/..... 6.

1	2	3	4	5	6	7	8
	3. Employment (lakhs)	-					
	- total	-	-	-	-	-	-
	- Within cooperation fold	-	-	-	-	-	-
IX.	<u>General.</u>						
	1. Please attach brief notes about the principal activities and achievements of the State Corporation for small scale industry.	-	-	-	-	-	-

(* Information in respect of i(a) to (c) and 2 may be supplied for each district of the State separately).

INDUSTRY AND MINERALS.

Large Industries.

There are no large industries in Sikkim. According to the definition adopted in the State an industry is categorised as a large industry only when the investment in plant and machinery is over Rs.100.00 lakhs. The only project which might ultimately come under this category is a paper factory for which certain preliminary studies have already been conducted by the Hindustan Paper Corporation. This unit, according to the project report, is expected to produce fine paper like electrical condenser tissues and carbon paper with finish collaboration. However, the investment decision by the Hindustan Paper Corporation has not yet been taken and hence it is not possible to estimate what exactly would be the counterpart assistance required by the State Government. This project has therefore to be categorised as one which has not yet been fully appraised by financial institutions. Since a degree of uncertainty is inherent in regard to the project until the financing pattern is formally settled an aggregate lumpsum provision of Rs. 10.00 lakhs alone is made as the possible counterpart assistance from the State.

Mining and Geology.

The State of Sikkim is quite rich in mineral ores as has been revealed through preliminary studies undertaken by the Geological survey of India and by the Department of Geology. In spite of this basic information proper commercial exploitation of the available ores has not yet been undertaken. The

attempts so far made by the fledgling Department of Mining and Geology has been rather haphazard particularly because this department has got only a nucleus staff without any supporting facilities in the form of laboratories and equipments. During the Fifth Plan a beginning was made to organise the Department on proper lines. At present there are two Mining Engineers and one Chemist. A geologist has also been recruited and sent for advances training. During the plan 1978-83 the department will be further strengthened particularly by organising a full fledged laboratory in which technical persons will be employed to analyse the samples of rock and ores collected by the department. Adequate machinery and equipment will also be provided so that a meaningful programme of continuous and intense exploration can be charted out. In order to equip the department with necessary personnels for the future a programme of training will also be instituted under which selected persons would be sent for specialised training to the higher institutions of Mining and Geology in the country. In the future the activities of the Department are proposed to be widened not only for undertaking routine explorations and investigations but also to offer consultancy services for construction and soil conservation projects. River geology is another area for which there is ample scope. Keeping these aspects in mind the department will strengthen itself by induction of technical personnel in a phased manner.

One of the most important requirements of the department is to set up a laboratory. This laboratory

will have two main wings mainly the chemical section and the petrology and ore dressing section. A chemical laboratory has already started by making make shift arrangements in a rented building. However, only partial chemical analysis is possible at this stage. In the coming years a building will be constructed to house the laboratory and it will be provided with sophisticated equipments and instruments like spectrophotometer, chromatographic equipments, electrophoresis equipments etc. It is expected that once the laboratory becomes functional the stage will be set for a meaningful programme of mineral exploration and analysis.

Among the areas where exploration is contemplated special mention may be made of dolomite and limestones, tungsten and graphite. In all these three areas there is already evidence of sufficient deposits. During the period 1978-83 more complete information will be collected about the types of ore deposits and proposals for organising production units will be made. There are possibilities of production units for ground lime for agricultural purposes and for a mini-cement plant. As far as graphite is concerned a detailed exploration is being undertaken by the G.S.I but certain infra-structure facilities like roads will have to be provided by the State Government.

The total outlay for the Mining and Geology department for these various programmes is fixed at Rs. 50/- lakhs for the period 1978-83.

Sikkim Mining Corporation.

The Sikkim Mining Corporation which is a joint venture between the Central and the State Government, is in the doldrums particularly because of erratic power

supply during the past few months which has seriously hampered the production of copper, zinc and lead concentrates. The power position is expected to improve by the middle of 1979 when the Lagyep Power Project which is expected to generate 6 megawatts is commissioned. Even after this project is commissioned and production commences is full swing, the losses sustained by the S.M.C. are so enormous that it will take quite sometime for the project to break even. In view of the fact that this is a unit which employs quite a number of persons, technical skilled and unskilled, it might be necessary for the State to offer some kind of a support for meeting the wage and welfare requirements of the Corporation atleast till 1980. Besides, it is necessary for the Corporation to conduct a programme of mine development for which a detailed plan has already been drawn up. Some more exploration of ore bodies will also have to be undertaken. In order to meet these various requirements a sum of Rs. 50.00 lakhs is provided for the year 1978-83.

Another important project is the Dikchu Copper Mining prospect which is now in the hands of the Mineral Exploration Corporation of India. The detailed exploration plan of this prospect is likely to be completed in two to three years time after which the M.E.C. is likely to hand over the project to the State Government. In order to meet the requirements of the State if and when they take over the project a sum of Rs. 10.00 lakhs is set apart.

DRAFT PLAN - 1978-83

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign Exchange content of total outlay	Capital content of total outlay
1	2	3	4	5	6	7	8	9
Industry and Minerals.	135.00	6.00 28.51	19.00	-	110.00	-	-	-

DRAFT PLAN 1978-83 STATE/U.Ts- MINOR HEADS -OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Development	Minor Head of Development	Fifth Plan Out-lay 1976-79	1976-78	1978-79		Proposed Outlay 1978-83			
			Annual Expdr. Actual Expdr.	Agreed Total	Outlay of which MNP	Total	of which MNP	F.E. content of total outlay (As in Col. 7)	Capital content of total outlay.
1	2	3	4	5	6	7	8	9	10
Industry & Minerals.	A. Mining & Geology.								
	1. Direction & Administration	185.00	6.00 28.57	2.40	-	35.50	-	-	-
	2. Mineral Exploration			0.30	-	5.10	-	-	-
	3. Training			-	-	1.40	-	-	-
	4. Establishment of Laboratory.			1.30	-	8.00	-	-	-
	Total of A.		6.00 28.57	4.00	-	50.00	-	-	-
	B. Sikkim Mining Corporation			15.00	-	60.00	-	-	-
	Total of A & B.	185.00	6.00 28.57	19.00	-	110.00	-	-	-

CHAPTER IV - TERTIARY SECTOR

1. Co-operation.
2. Transport & Communication.
3. Road Transport.
4. Tourism.
5. General Education.
6. Art & Culture.

CO-OPERATION.

INTRODUCTION.

A well organised Co-operative structure is the best answer to rapidly lift the standards of life in a State like Sikkim where general backwardness, traditional mindedness and lack of education have inhibited the growth potential. A Co-operative system can bring together the people of the villagers not only for productive purposes but also for organising other economic activities including marketing which has the benefit of eliminating interference by unscrupulous middlemen. If the fruits of economic development are to percolate to the lowest rungs of the society it is necessary to promote a healthy Co-operative system. This system is also the best agency for instituting a proper public distribution system which is an essential part of the Government's programme of ushering in growth with social justice.

Review of Progress :

Before the commencement of the Fifth Plan very little was being achieved in the name of Co-operation. The total membership of the Societies put together was only about four thousand and the quantum of annual loans distributed was never more than a lakh of rupees. As soon as Sikkim became the 22nd State of the Union, the Government took a decision to organise the Co-operative structure in a proper manner for which purpose, a high power team chaired by the Deputy Governor of the Reserve Bank of India submitted a report after making an on the spot study. The Co-operative structure was reshaped in accordance with the recommendations of this Committee. In a nut-shell, the Committee suggested the creation in the first phase of 35 base level Multi-purpose Co-opera-

tive Societies which would handle not only credit functions but would also serve as outlets for essential commodities. These societies were also to be given a few banking responsibilities in the later stages. Such a recommendation was made by the Committee because it was recognised that in this State few numbers of such institutions would be the best instruments to serve the credit and other needs of the rural population. Following the recommendations of the Committee 33 societies have already been established. In other aspects of the recommendations relating to the appointment of trained staff in each of the Societies and in relation to the need to have an Apex Co-operative bank were also followed up. There are at present 18 Co-operative Inspectors trained in higher diploma and 32 secretaries trained in Co-operative management. The Supervisory role of the Inspectors has been emphasised. The present position is that most of these Co-operative are running on well organised lines and it is expected that the overdue position will not be such as to cause any undue alarm. The total membership has increased to over 10,000 and the annual loaning programme crossed the figure of Rs. 10 lakhs. Apart from disbursement of credit, the multipurpose co-operative societies were brought into the picture for marketing orange which is the most important cash crop of the State. The success of the programme has given cause to extend it to other fields like cardamom and ginger. A scheme of constructing godown-cum-offices for the various societies has also been initiated during the Fifth Plan so that the societies would have adequate physical facilities for discharging their business activities. The societies

were developed into retail outlets for the sale of commodities which are used from time to time by the people.

Policies and Objectives :

By and large the National policy resolution on co-operatives will be adopted in the State. Credit has to be made available to the farmer in rural areas at a time when he requires it. In order to develop the institutions on proper lines and to help the farmer to obtain timely credit the policy proposed is to set up societies in suitable locations so that no farmer member need cover more than 5 kms to obtain his requirements. Apart from increasing the number of such societies to fulfil the above norm, the procedures would be so streamlined that by simple pass books the loans could be sanctioned. Adequate storage facilities will also be developed so that the kind component of the loans can be made available easily from the societies. The managements would be completely de-politicalised and would consist of people who understand and appreciate the genuine problems of the rural population. Further, the scheduled caste members will be given extra benefit by earmarking a selected percentage of the loan amount which would be made available at 9½ interest as against the normal 12%. Apart from credit operations the Multi-purpose Co-operative Societies will also be part of the public distribution system through which articles of daily use would be sold. More marketing and processing societies will also be set up. The marketing societies will mainly deal with cardamom, orange and ginger. The credit inputs will be delivered in the form of package programmes combining the various requirements of the

farmers so that such inputs would have a meaningful impact on agricultural production. In order to achieve these objectives brief details of the schemes proposed are as follows:-

Co-operative Credit.

With a view to establishing Multipurpose Co-operative Societies in such manner that no member need cover more than 5 kms to avail himself of the services of a Society, 33 more societies will be set up. However, these new societies will be considered only as branches of the existing societies. The share capital assistance from the Government will be restricted to Rs. 10,000 per branch as against Rs. 30,000 per mother society. In addition to share capital for the credit societies a sum of Rs. 5 lakhs will also be contributed as share capital for the apex Co-operative Bank which will be the sole financing agency. In continuation of the past practice, managerial subsidies will also be made available for meeting the salaries of the staff in the societies and in the bank. The total loan target by 1982-83 is expected to be Rs. 388 lakhs ending with Rs. 115 lakhs in the year 1982-83 with a bench mark of Rs. 48 lakhs. In view of the large quantum of the loan and taking into account, the items for which loans are advanced it is proposed to earmark 2.5% of the total loan as a risk fund. This will also encourage the proper utilisation of seasonal loans. The total outlay for these various purposes of credit has been worked out to Rs. 25.37 lakhs for the five year period.

Co-operative Storage.

Each of the societies is to be provided with godown space at the rate of 50 tons per society. The construction will be so designed that the quarters of the Secretary will be attached to the godown. Godowns will be provided for all the 33 existing societies before the end of 1978-83. The capital outlay required for this purpose is estimated to be Rs. 22.60 lakhs. Besides the godowns, furniture and fixtures have also to be provided for which a provision of Rs. 1 lakh is kept. In view of 33 new branches of the existing societies coming up a certain amount will have to be provided as rental subsidy to each of these branches since they will not have buildings of their own. For this purpose also a sum of Rs. 1 lakh is earmarked. The total amount for Co-operative Storage for the five year period is fixed at Rs. 27.20 lakhs.

Processing Co-operatives.

The main Processing Co-operatives, namely, a cold storage unit and a ginger processing unit are proposed to be set up during the Plan period. The cold storage unit will be a Society which will have some of the Multi-purpose Co-operative Societies within the orange and cardamom belt as members, the Government Fruit Preservation Factory and the Denzong Co-operatives, which is a society organised mainly to supply the requirements for the army, as additional members. These proposed members will be given grants for the purchase of shares in the proposed society. In a similar manner but with different

members a ginger processing society which will produce dried ginger is also proposed to be set up in South Sikkim. The economic viability of both these units has been well established. The outlay contemplated for the processing co-operatives for the Plan period is Rs.23.60 lakhs.

Marketing Co-operatives.

There is ample scope for organising the marketing of the general cash crops like ginger, cardamom and orange on co-operative lines. Apart from eliminating the middleman a system of co-operative marketing will ensure a floor price to the weaker members. During the plan period co-ordination of such marketing will be undertaken by a supply and marketing federation which is proposed to be set up. Working capital loan on concessional rates will be required for organising the marketing of such crops, the success of which will depend to a large extent on maintaining close liaison with the main markets in Delhi, Calcutta, Bombay etc. In order to compete with the market prices the marketing system should have an inbuilt transport subsidy which is also proposed to be advanced at the rate of 1% of the marketing loan requirement. Managerial subsidy will also be provided. To start with the supply and market federation will be assisted to the extent of Rs. 3 lakhs as share capital assistance and to the extent of Rs.8 lakhs as working capital loan. Including managerial and transport subsidy payable through the marketing federation the total outlay contemplated is Rs.18.95 lakhs.

Consumers' Co-operatives.

The main object of organising consumers' Co-operatives is to distribute articles of daily use including controlled cloth both in the rural and urban areas at reasonable prices. The target is to cover atleast 50% of the population through the establishment of Consumers' Co-operatives which will be located in the same premises as that of the credit societies and under the same management so that these institutions would be purely multipurpose in character. For this purpose necessary working capital at the primary and the State Level is required. It is also proposed to grant initial capital grants in order to enable the primary to start business activities. Managerial and transport subsidies will also be extended at the apex level. The Sikkim Consumers' Co-operative Society will also be given the due amount of managerial subsidy. The total outlay for the five year period is Rs. 18.78 lakhs.

Miscellaneous Co-operatives.

The role of the Co-operative Department will be gradually extended to cover a part from the farmer, artisans and self-employed workers in the rural areas. Efforts would be made to organise societies of weavers and small industrial workers so as to stimulate production in the village industry sector. In order to meet the probable share capital requirement a lump-sum aggregate of Rs. 1 lakh is earmarked for this purpose.

Administration including Education and Training :

In order to equip the department to handle the added responsibilities, a certain amount of additional staff will have to be appointed to supervise the work in the field. This will also require the purchase of a few additional jeeps and one or two trucks, the latter for facilitating the movement of goods not only for bringing in essential commodities but also for taking out commodities like orange, cardamom and ginger. Provision of training to the office bearers of the Society is also of supreme importance so that they should be constantly in touch with the new policies of the department. A beginning will also be made for training members of the society so as to develop co-operative consciousness among them. Higher level training will also be imparted to departmental staff and publicity and information will be given greater priority. The outlay for this purpose is Rs.25.10 lakhs for the five year period. The break-up of the various outlays proposed in brief are as follows:-

1)	Direction and Administration	Rs.23.10	Lakhs.
2)	Education, Research and Training.....	Rs. 2.00	"
3)	Credit Co-operatives	Rs.25.37	"
4)	Co-operative Storage	Rs.27.20	"
5)	Processing Co-operatives	Rs.23.60	"
6)	Marketing Co-operatives	Rs.18.95	"
7)	Consumer Co-operatives	Rs.12.78	"
8)	Miscellaneous Co-operatives	Rs. 1.00	"
	Total:	Rs.140.00	"

State/UT _____

Statement GN-1.

DRAFT PLAN 1978-83

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. Lakhs)								
Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay	Total of which MNP	Total of which MNP	Foreign exchange content of total outlay	Capital content of total outlay	
1.	2.	3.	4.	5.	6.	7.	8.	9.
Co-operation.	50.00	34.87	20.00	-	140.00	-	-	21.90

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE.

(Rs. Lakhs)

Major Head of Develop- ment.	Minor Head of Development.	Fifth Plan Outlay (1976- 79)	1976-78	1978-79	Proposed outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Outlay Total of which MNP	Total	of which MNP	F.E. content of total outlay (as shown in Col. 7)	Capital content of total outlay.	
1	2	3	4	5	6	7	8	9	10

Co-Operation

1.	Direction & Administra- tion.	18.00	10.18	7.50	-	23.20	-	-	-
2.	Education Training & Research.	1.35	1.00	0.25	-	2.00	-	-	-
3.	Co-operative Credit.	14.30	12.66	2.50	-	25.37	-	-	7.90
4.	Co-operative Storage.	3.80	1.68	2.10	-	27.20	-	-	-
5.	Processing Co-operatives.	2.95	0.50	2.00	-	23.60	-	-	-
6.	Marketing Co- operatives.	4.90	4.48	5.65	-	18.95	-	-	14.00

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<u>Co-operation</u>									
	7. Consumer Co-operatives.	4.70	4.37	-	-	18.78	-	-	-
	8. Misc. Co-operations.	-	-	-	-	1.00	-	-	-
	TOTAL	50.00	34.87	20.00	-	140.00	-	-	21.90

TRANSPORT AND COMMUNICATION.

ROADS.

Introduction.

The role of road building activity in a hill State where most parts are inaccessible needs no emphasis. A comprehensive road development programme has a pivotal role to perform in the economic development of the State. Advancement in other sectors like agriculture, rural industries and social services will become meaningful only if integrated with a road development programme. Besides being an important component of the basic infra-structure for economic development of a hill State, the road development programme is perhaps the one single item of development which generates maximum employment. The employment potential in the road construction sector is much more in a hill State and therefore a sizeable allocation for the road sector will result in rapidly generating employment. In Sikkim the per kilometer cost of road construction is much more than in the plains not only on account of shortage of material but also due to the larger transportation cost involved. This is an unavoidable factor, but has been kept in mind while providing for a total outlay of Rs. 25 crores for roads in the Plan for 78-83.

Review of Progress.

During the course of the successive plans one of the main concerns has been to improve the existing communication network by taking up an integrated programme of widening existing roads, providing proc-

protective works so as to safeguard the roads against landslides, in carpeting and providing drainage facilities so that easy flow of traffic would be possible. At the end of the year 1977-78 the total length of roads in Sikkim was 1410 kms out of which surfaced roads covered 1000 kms and the rest were unsurfaced. Besides this in 1976, that is at the beginning of the Fifth Plan, the total length of bridle roads was approximately 240 kms. The main programmes undertaken during the Fifth Plan were to convert the bridle roads into jeepable standards and to improve the existing surface and unsurfaced motorable roads not only by widening but also by easing the steep gradients. A large number of smaller bridges and culverts were also constructed. Among the major bridges the two most important ones commissioned during this period were the Sirwani Bridge which connects East Sikkim to South and the Ramam Bridge which connects South and West Sikkim to West Bengal on the Darjeeling side. Since the roads in Sikkim are susceptible to damages on account of land slides a number of protective works were also taken up in order to ensure that the roads are not irreparably damaged. During the Fifth Plan the Public Works Department of the State was also strengthened by appointing more technical personnel and also by equipping the workshops with more machinery and equipment.

Apart from the Public Works Department a separate Rural Works Department is also in existence so as to deal exclusively with village road development.

This department was responsible for constructing small village roads and foot and suspension bridges essentially for pedestrian traffic.

Policies and Objectives.

The overall objective of the road plan is to develop a communication net work which would ultimately connect the various hamlets, bazars and towns in such a manner that the movement of goods and people through a well maintained road system is ensured. For this purpose inter-village communication will be established by (a) the construction of more village roads including suspension foot bridges and small RCC bridges essentially for pedestrian and animal traffic (b) converting about 180 kms of existing bridle roads into jeepable roads, (c) improving approximately 575 kms of roads having low specifications not only by providing missing links but also by the construction of small bridges and culverts and (d) constructing new all weather roads and bridges so as to open up the interior. In addition road development will be specifically taken up in the Gangtok Municipal Corporation, in other bazar areas and in centres like industrial complexes, mining areas and places of tourist attraction. Wherever possible wayside amenities will be provided particularly for transit parking of trucks. Accident prone areas will be identified and improved from the safety angle and to avoid the damages on account of the heavy rainfall drainage facilities will be developed on road sides. In order to attain these objectives the schemewise description is given below:-

Minimum Needs Programme.

Since Sikkim is predominantly a rural area except for a few urban centres most of the road development programme will come under the category of the Minimum Needs Programme. It is difficult to identify these schemes which can be considered as providing road links to villages with a population of 1,000 since there are no cluster type of dwelling in the villages of the State. Consequently, only those road works which come under the category of village roads including foot suspension bridges and small RCC bridges and the new schemes in specially backward areas which provide an opportunity to the rural population to make use of the road network for improving their economic prospects are considered to be with the category of Minimum Needs Programme. The outlay for these schemes projected for the five year plan period is Rs. 665 lakhs.

Past experience has shown that when village roads with a width of 4' are constructed but if they do not have stone soling and drains they are very often washed away by the rains and floods. It is therefore proposed to provide such roads with soling and edging in the future. Drains and culverts will be provided in the vulnerable areas and in the steep areas, provision for stone or plum concrete steps will also be made. In the past, these roads used to be constructed with the Government paying a flat rate of Rs. 750/- per mile as subsidy to the Panchayat nominee. The remaining cost was to be made good by public contribution. This amount will have to be

increased on account of the changed specifications. The actual amount payable will be worked out in due course. Along with the construction of the village roads, suspension foot bridges and small RCC bridges which are 4' to 6' wide and suitable for pedestrians and loaded mules and animals will be constructed. The proposed target for the period 1978 to 1981 is 140 suspension bridges and 392 RCC bridges. The proposed road length is 960 kms. For these various purposes a sum of Rs. 250 lakhs is proposed.

A large number of jeepable roads in backward areas have already been taken up for development under the Minimum Needs Programme. In order to complete the ongoing schemes a sum of Rs. 15 lakhs is required. Further schemes which have already been identified are proposed to be taken up in such areas. A list of the schemes with their approximate length is given in table I - Jeepable roads under MNP.

Table I - Jeepable roads under MNP.

1. Yoksom Tashiding		
2. Darap Namba	-	10 kms
3. Ralong-Karchi-Tashiding	-	64 kms
4. Lachung Sarchu	-	3 kms
5. Sankhang Lingthem	-	10 kms
6. Dikchu Gaur	-	8 kms
7. Darandin-Lungchok-Dalam	-	16 kms
8. Namchi-Salghari-Jorethang	-	24 kms
9. Sumbuk-Turuk	-	10 kms
10. Sikip-Wok-Namchi	-	24 kms
11. Phurchachu-Tinkitam		
Chemchey Damthang	-	32 kms
12. Namchi-Pong-Sumbuk	-	19 kms
13. Melli-Melli Danra	-	10 kms
14. Hilley-Phalut	-	39 kms

15.	Soreng-Burikhop-Sombaria	-	26 Kms
16.	Rongli-Rolep	-	13 Kms
17.	Machong-Rongli	-	20 Kms
18.	Lingdem-Pentok	-	13 Kms
19.	Bey-Sakyong	-	8 Kms
20.	Duga-Pakyong	-	6.5 Kms
21.	Rumtek-Ray-Ranka	-	25 Kms
22.	Martam-Zali P.H.	-	14.50 Kms
23.	Rishi-Rinchenpong	-	24 Kms
24.	Manpur-Sumbuk	-	16 Kms
25.	SBS to Tingbong	-	8 Kms
26.	Kimbubotey to Sokpay	-	20 Kms
27.	Lachen Thangu	-	24 Kms

A lumpsum amount of Rs.400 lakhs is provided for taking up these works. The overall outlay on the Minimum Need Programme is thus Rs.665 lakhs.

Schemes for removal of deficiencies in existing network.

Maximum priority is proposed to be given to remove the deficiencies in the existing network of roads. This will be done by providing for missing road links, missing bridges, both major and minor on important river crossings, and, in the improvement of very low grade sections which are found all over the State. In all these items spillover liability has to be considered and therefore suitable provisions are proposed for meeting the cost of the ongoing projects with a view to completing them in the quickest possible time. As far as improving the low grade section is concerned a sizeable provision of Rs. 75 lakhs is set apart for improving the low grade parts within the Gangtok Municipal town. For other bazars and for the District Headquarters a sum of Rs. 50 lakhs is provided. The overall outlay for the

scheme coming under this category is Rs. 1111 lakhs. The details of the works proposed are given in Statement TR I.

Replacement.

The replacement of the existing sub-standard structures which include weak and narrow bridges, culverts and weak pavements is another important area which has to be attended to. The total outlay for the replacement programme is Rs. 343 lakhs. The details of these works proposed to be undertaken are also given in TR I Statement.

Expansion of the existing network.

The selection of new schemes for expansion purposes is proposed to be done very carefully giving maximum importance to roads in backward areas which comes under the category of the Minimum Need Programmes. A few roads will be constructed in the Mining area and the industrial complex coming up in the suburb of Gangtok. Roads to centres of tourists' interest will also be given due importance. The total provision for expansion of the network is Rs. 599 lakhs out of which Rs. 415 lakhs is already shown as the Minimum Need component.

Since the roads in Sikkim are susceptible to frequent damages on account of land slides a lump sum of Rs. 150 lakhs is also included under this item for slope treatment and protective works in the slip areas.

7

Additional facilities to cater for traffic needs.

Gangtok town is gradually becoming congested with a heavy volume of traffic. In order to ease congestion a proposal to construct a by pass connecting the National Highway to the G.N.road is already under the consideration of Government. However, whether this work should be taken up by Border Roads Organisation or by the State Government is still under consideration. Pending settlement of this issue a token provision of Rs. 5 lakhs is included for this work.

Machineries and equipment.

With the increased activities in the road construction and building sectors the Public Works Department is contemplating the establishment of different workshops to be located at Gangtok, Mangan, Jorethang and Gyalzing. These workshops will have to be provided with construction equipment and necessary tools and plant. One mobile crane is also proposed to be provided. Transport facilities for the staff will also have to be increased. For these various purposes an outlay of Rs. 138 lakhs is projected for the five year period.

Direction and Administration.

Although not many new posts will be created during the period from 1979 to 1983 certain miscellaneous expenditure particularly for survey and investigation, planning and research and for training programmes will have to be made. An

outlay of Rs. 52 lakhs is projected for these purposes. The overall outlay for roads and bridges is thus Rs. 2500 lakhs, the breakup of which in brief is as follows :

1) <u>Development of road network.</u>	
(a) Minimum Needs Programme	665.00
(b) Removal of deficiencies in existing network	1111.00
(c) Replacement	343.00
(d) Expansion	186.00
(e) Additional facilities.....	5.00
2) Machinery & Equipment	138.00
3) Administration	52.00
	<hr/>
Total:	2500.00
	<hr/>

DRAFT PLAN - 1978-83

HEAD OF DEVELOPMENT -- OUTLAYS AND EXPENDITURE

Head of Development	Fifth Plan Outlay 76-79.	1976-78 Actuals.	1978-79		Proposed outlay(1978-83)				
			Agreed outlay Total	of which MNP	Total	of which MNP	Foreign exchange content of total outlay.	Capital content of total outlay.	
Y	1	2	3	4	5	6	7	8	9
ROADS.	1000.00		613.85 576.85	350.00	35.00	2500.00	665.00	-	1778.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment.	Minor Head of Develop- ment.	Fifth Plan Out- lay 1976- 79.	1976-78	1978-79	Proposed outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Total of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col. 7)	Capital con- tent of total outlay.	
1	2	3	4	5	6	7	8	9	10
<u>ROADS.</u>	1. Development of road net- work.								
	(a) Minimum Needs Programme.	68.50	56.58	35.00	35.00	665.00	665.00	-	-
	(b) Removal of defi- ciencies in existing net- work.			131.35	-	1111.00	-	-	1111.00
	(c) Replacement.	821.50	452.53	78.15	-	343.00	-	-	343.00
	(d) Expansion.			56.50	-	186.00	-	-	186.00
	(e) Additional facilities.			-	-	5.00	-	-	-
	Total of (1)		516.11	301.00	-	2310.00	665.00	-	1640.00
	2. Machinery & equipment.	50.00	64.22	22.00	-	138.00	-	-	138.00
	3. Direction & Administra- tion.	60.00	33.52	27.00	-	52.00	-	-	-
	Total:	1000.00	576.85	350.00	35.00	2500.00	665.00	-	1778.00

SIXTH FIVE YEAR PLAN 1978-83

ROAD SECTOR.

(Rs. in lakhs)

Item.	Category SH/MDR etc.	Total cost.	Fifth Plan Outlay (76-79)	Expdr. up to 77-78 in case of spell over schemes.	Proposed outlay 78-83	Outlay 78-79	79-80	80.81	81-82	82-83
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
(I)	Schemes for Removal of Deficiencies in existing Net Work. 537 CCI(3)									
A.	<u>Missing Road Link.</u>									
(a)	Spillover Schemes. -	124.10	-	88.59	27.00	13.50	13.50	-	-	-
(b)	New Schemes. -	507.50	-	-	200.00	5.50	48.00	48.00	48.00	50.00
B.	<u>Missing Major Bridges.</u>									
(a)	Spillover Schemes. -	24.20	-	19.03	7.00	5.85	1.15	-	-	-
(b)	New Schemes. -	362.10	-	-	150.00	7.00	38.00	35.00	35.00	35.00
C.	<u>Missing Miner Bridge.</u>									
(a)	Spillover Schemes. -	16.33	-	8.24	11.00	5.50	5.50	-	-	-
(b)	New Schemes. -	201.00	-	-	70.00	7.00	18.00	15.00	15.00	15.00
D.	<u>Improvement of Low Grade Section.</u>									
(a)	Spillover Schemes. -	39.22	-	20.98	21.00	14.00	7.00	-	-	-
(b)	New Schemes. -	1543.50	-	-	625.00	73.00	142.00	140.00	135.00	135.00

FIVE YEAR PLAN - 1978-83
(Roads Sector)

State Sikkim
Statement TRI

Item	Category SH/MDR etc.	Total cost	Fifth Plan outlay	Expenditure upto 77-78 incase of spill over schemes	Proposed Outlay 78-83	Outlay				
						1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11
I Schemes for Removal of Deficiencies in Existing road Net Work.										
A. <u>Missing Road Link.</u>										
i) Spillover Schemes										
a) Damthang Rabangla- 12.8 KMs.	O.D.R.	28.66		19.8	9.00	4.50	4.50	-	-	-
b) Makha Samdong Dik- chu 19.2 KMs	M.D.R.	41.12		37.12	4.00	4.00	-	-	-	-
c) Rakdong Dikchu 16 KMs	O.D.R.	35.00		26.6	2.00	1.00	1.00	-	-	-
d) Assam Pakyong 15.2 KMs	M.D.R.	7.65		3.40	2.00	2.00	-	-	-	-
e) Namchi Namthang 19.2 KMs	O.D.R.	11.67		1.67	10.00	2.00	8.00	-	-	-
Total:		124.10		88.59	27.00	13.50	13.50			

FIVE YEAR PLAN - 1978-83
(Roads Sector)

State Sikkim
Statement TRI

Rs. lakhs.

Item	Category SH/MDR etc.	Total cost	Fifth Plan outlay	Expenditure upto 77-78 incase of spill over schemes	Proposed outlay 78-83	Outlay				
						1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11
(ii) New Schemes.							48.50	48.00	48.00	50.00
(a) Makha-Samdong Dikchu 19.2 Kms.	M.D.R.	30.00	-	-	}	-	-	-	-	-
(b) Rakdong-Dikchu 16 KMs.	O.D.R.	25.00	-	-		-	-	-	-	-
(c) Sakyong-Gerethang 16 KMs.	O.D.R.	50.00	-	-		-	-	-	-	-
(d) Khoche-pheri- Rathang 12.8 KMs.	O.D.R.	40.00	-	-		-	-	-	-	-
(e) Lower Samdong-Rak- dong 11.2 KMs.	O.D.R.	35.00	-	-		-	-	-	-	-
(f) Dikchu-Namok 16 KMs.	O.D.R.	50.00	-	-		-	-	-	-	-
(g) Raley-Samdong Bazar 3 KMs	O.D.R.	7.50	-	-		200.00	-	-	-	-
(h) Raniool -Lin- zey 10 KMs	O.D.R.	30.00	-	-		-	-	-	-	-
(i) Central Pandam- Sumin 14.5 KMs.	O.D.R.	45.00	-	-		-	-	-	-	-
(j) Duga - Pandam 9.6 KMs	O.D.R.	30.00	-	-		-	4.00	-	-	-

Contd.../-

1	2	3	4	5	6	7	8	9	10	11
(k) Simchuthang-Namphur Yangang 14 Kms.	O.D.R.	45.00	-	-	}	1.00	-	-	-	-
(l) Aritar-Rangli 6.5 KMs	O.D.R.	20.00	-	-		-	-	-	-	-
(m) Phongla-Bermiok 16 KMs	O.D.R.	50.00	-	-		0.50	-	-	-	-
(n) Legship-Tashiding 16 KMs	O.D.R.	50.00	-	-		-	-	-	-	-
181.00 KM		507.50	-	-	200.00	5.50	48.50	48.00	48.00	50.00
Sub-Total (A)		631.60	-	88.59	227.00	19.00	62.00	48.00	48.00	50.00

FIVE YEAR PLAN - 1978-83
(Roads Sector)

State Sikkim
Statement TRI

Rs. Lakhs										
Item	Category	Total cost	Fifth Plan outlay	Expenditure upto 77-78 incase of spill over schemes	Proposed outlay 78-83	Outlay				
						1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11
B. Missing Major Bridges										
(i) Spillover Schemes										
(a)	Benkhola 100 Span- S.B.	- 3.00	-	1.94	1.06	5.85	1.15	-	-	-
(b)	Rangchang 150'-50 -40' S.B.	- 8.45	-	4.80	3.65	-	-	-	-	-
(c)	Tumin 110' S.B.	- 3.55	-	2.71	0.84	-	-	-	-	-
(d)	425' Suspension Bridge Goskhan Danra Singtam	- 11.00	-	9.55	1.45	-	-	-	-	-
		26.00	-	19.00	7.00	5.85	1.15			

FIVE YEAR PLAN - 1978-83
(Roads Sector)

State Sikkim
Statement TRI

Rs. lakhs

Item	Category	Total cost	Fifth Plan outlay	Expenditure upto 77-78 incase of spill over schemes	Proposed outlay 78-83	Outlay				
						1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11

(ii) New Schemes

(a)	Bridges along Rongli-Rolep Rd.	-	40.00	-	-	150.00	-	38.00	35.00	35.00	35.00
(b)	Bridges along Machong-Rongli Rd.	-	30.00	-	-	-	-	-	-	-	-
(c)	Lachung Bridges 130'	-	10.50	-	-	-	-	-	-	-	-
(d)	130' Rangpo Khola on Sinohuthang - Yangang Rd.	-	10.50	-	-	-	-	-	-	-	-
(e)	Kali Khola 150' span on Melli Phong	-	12.00	-	-	-	-	-	-	-	-
(f)	Khani Khola 130' span Melli Phong	-	10.50	-	-	-	-	-	-	-	-
(g)	Andheri Khola 150' span Melli Phong	-	12.00	-	-	-	-	-	-	-	-
(h)	Tholungchu Bridge at Bay'150'	-	12.00	-	-	-	-	-	-	-	-
(i)	Hee Khola 100' span Melli-Turuk	-	8.00	-	-	-	-	-	-	-	-
(j)	Tintek 200' span	-	16.00	-	-	-	1.00	-	-	-	-
(k)	Lokchu 120' span	-	9.60	-	-	-	-	-	-	-	-

Contd...../-

	1	2	3	4	5	6	7	8	9	10	11
(l) Raksey 100' span	-	-	8.00	-	-	-	2.00	-	-	-	-
(m) Rabi Khola 425' suspension	-	-	11.00	-	-	-	4.00	-	-	-	-
	-	-	190.10	-	-	150.00	7.00	33.00	35.00	35.00	35.00
(n) Bridges on Lachen-Jhangu Rd. 4 Nos.	-	-	40.00	-	-	-	-	-	-	-	-
(o) Bridges on Gangtok Ranka-Rey-Rumtek Rd. Rani Khola etc.	-	-	10.00	-	-	-	-	-	-	-	-
(p) Kalej Bridge on Barmiok Phongla Rd.	-	-	10.00	-	-	-	-	-	-	-	-
(q) Dikling khola-Duga Pakyong	-	-	16.00	-	-	-	-	-	-	-	-
(r) Bridges on Martam Sangh Khola Rd.	-	-	10.00	-	-	-	-	-	-	-	-
(s) Sakyong Bridge on S.B.S.	-	-	12.00	-	-	-	-	-	-	-	-
(t) Kao Khola on Sakpey Road	-	-	10.00	-	-	-	-	-	-	-	-
(u) Bhuray Khola on Sakpey Road	-	-	8.00	-	-	-	-	-	-	-	-
(v) Bridges on Yoksom Tashiding Rd. 2 Nos.	-	-	20.00	-	-	-	-	-	-	-	-
(w) Bridges on Rashi-Rinchompey Rd.	-	-	20.00	-	-	-	-	-	-	-	-
(x) Rathong Bridge	-	-	16.60	-	-	-	-	-	-	-	-
	-	-	362.10	-	-	150.00	7.00	38.00	35.00	35.00	35.00
Sub-Total (B)	-	-	388.10	-	19.00	157.00	12.85	39.15	35.00	35.00	35.00

FIVE YEAR PLAN - 1978-83
ROADS

State Sikkim
Statement TRI

Rs. lakhs

Item	Category	Total cost	Fifth Plan Outlay	Expenditure upto 77-78 incase of spill over schemes	Proposed Outlay 78-83	Outlay				
						1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11
<u>C. Missing Bridges</u>										
<u>(i) Spill over Schemes</u>										
(a) Rakdong 130' span	-	5.00	-	2.45	2.50	1.00	1.50	-	-	-
(b) Marchak 80' span	-	1.80	-	0.38	1.40	0.50	0.90	-	-	-
(c) Chewnachu (Ran- chung II)	-	1.80	-	-	1.80	0.60	1.20	-	-	-
(d) Taryangchu	-	0.81	-	-	0.80	0.40	0.80	-	-	-
(e) Nechu 110' span	-	4.62	-	3.92	0.70	-	0.70	-	-	-
(f) Kali, Khola	-	2.30	-	1.49	0.80	-	0.80	-	-	-
(g) Construction of short span bridges and culverts in four division	-	-	-	-	3.00	3.00	-	-	-	-
		16.33		8.24	11.00	5.50	5.50			

FIVE YEAR PLAN - 1978-83
ROADS

State Sikkim
Statement TRI

Rs. Lakhs

Item	Category	Total cost	Fifth Plan outlay	Expenditure 77-78 in case of spill over schemes	Proposed outlay 78-79	Outlay				
						1978-79	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11

(ii) New Schemes

(a)	Khandong Bridge 60'	-	2.00	-	-	-	-	-	-	-
(b)	Hem Khola Bridge 60'	-	4.80	-	-	2.00	-	-	-	-
(c)	7th Mile Lingdon Rd. 60'	-	2.00	-	-	-	-	-	-	-
(d)	Tanam Khola 60'	-	2.00	-	-	-	-	-	-	-
(e)	Sukha Jhora 60'	-	2.00	-	-	-	-	-	-	-
(f)	Turuk Khola 60'	-	2.00	-	-	-	-	-	-	-
(g)	Bhaley Khola 60'	-	3.50	-	-	-	-	-	-	-
(h)	Bridge on D.S.M. to Gatt.	-	12.00	-	-	-	-	-	-	-
(i)	Bridge-s on Lingden- Pentok	-	20.00	-	-	-	-	-	-	-
(j)	Bridge on Aitabarey- Yangang	-	5.00	-	-	-	-	-	-	-
(k)	Bridge on Road to Sokpey Ranglachu	-	3.00	-	-	-	-	-	-	-
(l)	Bridge on Road to Sukhachu	-	2.00	-	-	-	-	-	-	-
(m)	R.C.C. Bridges on new Roads in all the 4 division	-	60.00	-	-	4.00	-	-	-	-
(n)	Bridges on Soreng- Sombaria Road	-	12.00	-	-	-	-	-	-	-

Contd.

	1	2	3	4	5	6	7	8	9	10	11	12
o. Bridges on Namchi vok		-	12.00	-	-		-	-				
p. Facheuchu 80'		-	6.50	-	-		0.50					
q. Changey Bridge 80'		-	6.50	-	-		0.80					
r. Bridge on Namchi-Sumbuk Rd.		-	10.00	-	-	70.00			18.00	15.00	15.00	15.00
s. Bridge on Melli-Melli Dauver		-	10.00	-	-							
t. Raychu on RTK-Ranka 100'		-	8.00	-	-							
u. Kalichu - do -		-	4.00	-	-							
v. Chitray Khola-Ranka 100'		-	8.00	-	-			1.00				
w. Narak Bridge 60'		-	5.00	-	-							
			201.00			70.00	10.80	7.00				
Sub-Total (c)		-	217.33	-	8.24	81.00	18.61	12.50	23.50	15.00	15.00	15.00

FIVE YEAR PLAN- 1978 -83

State _____
Statement TR-I

ROADS

ITEM	Cate- gory SH/MDR etc.	Total Cost	Fifth Plan Outlay	Expendi- ture 1977-78 in the case of spill- over schemes	Proposed outlay 1978-83	Anti- cipated Expendi- ture 1978-79	OUTLAY			Rs. Lakh. Employment Poten- tial in mandays		
							1978-	1979-	1980-81	1981-82	1982-83	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	
D. <u>Improvement of</u>												
<u>Low grade Section</u>												
(i) Spillover Schemes												
(a)	Namchi - Nayabazar	SH	25.00	-	20.00	8.00	-	8.00	-	-	-	-
(b)	Tarku - Damthang	SH	7.40	-	0.47	6.90	-	3.00	3.90	-	-	-
(c)	Penlong - Lingdok	DR	6.82	-	0.51	6.10	-	3.00	3.10	-	-	-
			39.22	-	20.98	21.00	-	14.00	7.00			

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
(n) Damthang-Rabongla- 13 Kms		ODR	16.00	-	-	-	-	-	-	-	-	-
(o) Gangtok-Rumtek-Kham- dong 43 Kms.		MDR	40.00	-	-	-	-	-	-	-	-	-
(p) Namchi-Nayabazar 19.2 Kms		SH	24.00	-	-	-	-	-	-	-	-	-
(q) Namchi-Damthang 13 Kms		SH	10.00	-	-	-	-	-	-	-	-	-
(r) Akkar Zhum 5 Kms.		ODR	3.00	-	-	-	-	-	-	-	-	-
(s) Sombaria Hilley 29 Kms.		MDR	90.00	-	-	-	-	-	-	-	-	-
(t) Melli-Nayabazar 27 Kms.		SH	34.00	-	-	-	-	-	-	-	-	-
			979.90	-	-	-	-	41.00	-	-	-	-
(u) Nayabazar-Legship 25.5 Kms		SH	80.00	-	-	625.00	-	-	142.00	140.00	135.00	135.00
(v) Budang Sorong 27 Kms		MDR	34.00	-	-	-	-	-	-	-	-	-
(w) Makha-Yangang 22.5Kms.		ODR	70.00	-	-	-	-	12.00	-	-	-	-
(x) Khamdong-Lingzea-Rakdong 25.5 Kms.		ODR	80.00	-	-	-	-	4.00	-	-	-	-

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
(y) Lingthem-Lingdem 5 Kms.		ODR	15.00	-	-	-	-	2.00	-	-		
(z) Rabongla-Ralong 13 Kms.		ODR	40.00	-	-	-	-	5.00	-	-		
(a) Pelling-Rembi 14.5 Kms.		MDR	45.00	-	-	-	-	-	-	-		
(b) Mamring-Phongla 24 Kms		ODR	80.00	-	-	-	-	-	-	-		
(c) Rabongla-Yangang 16 Kms.		ODR	50.00	-	-	-	-	-	-	-		
(d) Urban Roads/Bazars			55.00	-	-	-	-	10.00	-	-		
			1543.50	-	-	625.00	-	73.00	142.00	140.00	135.00	135.00
Subtotal (D)			1582.72	-	20.98	646.00	-	87.00	149.00	140.00	135.00	135.00

II REPLACEMENT

Weak Major Bridges (a) Spillover Schemes

i) Nehru Bridge			75.00	-	10.52	64.50	-	39.15	25.35	-	-	-
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1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
(ii) Dikchu Bridge		8.50	-	4.05	4.00	-	3.00	1.00	-	-	-
(iii) 160' Bridge on Pabong		3.50	-	-	3.50	-	-	3.50	-	-	-
		<u>87.00</u>	-	<u>14.57</u>	<u>72.00</u>	-	<u>42.15</u>	<u>29.85</u>	-	-	-
(b) <u>New Schemes</u>											
i) Akkar	-	75.00	-	-	-	-	-	-	-	-	-
ii) Gaur	-	75.00	-	-	-	-	-	-	-	-	-
iii) Sanklang	-	60.00	-	-	-	-	-	-	-	-	-
iv) Mamring	-	60.00	-	-	-	-	2.00	-	-	-	-
v) Ringyang	-	10.00	-	-	-	-	-	-	-	-	-
vi) Legship	-	20.00	-	-	-	-	2.00	-	-	-	-
vii) Rimbi	-	5.00	-	-	-	-	-	-	-	-	-
viii) Hee (Kaluk-Dentam)	-	5.00	-	-	-	-	-	-	-	-	-
ix) Dentam	-	20.00	-	-	-	-	-	-	-	-	-
x) Adampul	-	5.50	-	-	-	-	2.00	-	-	-	-

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12	13
xi) Taryang	-	20.00	-	-	-	-	-	-	-	-		
xii) Maneychu	-	10.00	-	-	-	-	-	-	-	-		
xiii) Ringyang	-	15.00	-	-	-	-	-	-	-	-		
xiv) Detkhola	-	15.00	-	-	-	-	-	-	-	-		
		395.50	-		150.00		6.00	38.00	36.00	35.00	35.00	
Subtotal (A)					122.00		48.15	67.85	36.00	35.00	35.00	

B. Strengthening of Weak pavements U

a) Single lane Section

1. Spillover Schemes

i) Melli-Nayabazar	SH	23.62	-	15.91	7.71	-	6.00		-	-	-	
ii) Singtam-Makha 16 KmsMDR		3.75	-	-	3.53	-	1.00		-	-	-	
iii) Nayabazar-Soreng-Dentam	MDR	9-25	-	0.65	8.60	-	2.00	6.00	-	-	-	
iv) Rangpo-Duga	ODR	1.95	-	1.59	0.36	-	1.00		-	-	-	
v) Mamring-Phongla	ODR	10.80	-	10.80	0.80	-	4.00		-	-	-	
		49.37		23.95	21.00		15.00	6.00				9.01

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	
<u>2. New Schemes</u>												
1. Melli-Nayabazar (27 K)	SH	24.00	-	-	-	-	-	-	-	-	-	
ii) Nayabazar-Sombaria (29)	MDR	27.00	-	-	-	-	-	-	-	-	-	
iii) Legship-Rabongla	MDR	24.00	-	-	-	-	-	-	-	-	-	
iv) Legship-Geyzing (16)	SH	15.00	-	-	-	-	-	-	-	-	-	
v) Geyzing-Pelling	MDR	15.00	-	-	-	-	-	-	-	-	-	
vi) Singtam-Makha (14.5)	MDR	22.50	-	-	-	-	-	-	-	-	-	
vii) Ranipul-Rumtek (13)	MDR	10.00	-	-	-	-	-	-	-	-	-	
		<u>137.50</u>			<u>50.00</u>	<u>-</u>	<u>-</u>	<u>15.00</u>	<u>-</u>	<u>15.00</u>	<u>10.00</u>	<u>10.00</u>
Subtotal (B)					71.00		15.00	21.00	15.00	10.00	10.00	

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12	13
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C. Minor Bridges/Culverts

1. Conversion of causeways into culverts.

a) Spillover schemes.

b) New Schemes.

c) In all the State of Sikkim.

- 30.00 - - 20.00 - 7.00 5.00 3.00 3.00 2.00

20.00 7.00 5.00 3.00 3.00 2.00

2. Short Span bridges

a) Spillover Schemes.

b) New Schemes.

i) In all the State of Sikkim

- 40.00 - - 30.00 - 8.00 7.00 5.00 5.00 5.00

30.00 8.00 7.00 5.00 5.00 5.00

III Additional Facilities to cater for traffic needs

A. Nil

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
B. Construction of By-passes.													
i) Spillover Schemes													
ii) New Schemes													
1. Road from Nam-Nam to middle Secretariate	-	5.00	-	-	5.00	-	-	1.00	2.00	1.00	1.00		
2. Western-Bypasses ((Ando Goloi to Burtuk)		5.00	-	-	5.00	-	-	1.00	2.00	1.00	1.00		
IV Expansion of Existing Net Work.													
A.													
B. Roads in Mining area.													
a) Spillover Schemes.													
i) Dikchu-Mines.	ODR	2.60	-	0.48	2.00	-	1.00	1.00	-	-	-		
		2.60		0.48	2.00		1.00	1.00	-	-	-		.47
b) <u>New Schemes</u>													
i) Pangthang Dikchu Mines	ODR	35.00	-	5.00	-	-	-	-	-	-	-		
ii) Utterey-Chewa	ODR	65.00	-	-	-	-	-	-	-	-	-		
iii) Dikchu Mines	ODR	5.00	-	5.00	-	-	-	-	-	-	-		
		105.00	-	10.00	-	-	-	4.00	2.00	2.00	2.00		

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
x) Sikip-Wok-Namchi 24 Kms		120.00										
xi) Phurchachu-Tinkitam- Chemchey Damthang 32Kms		75.00										
xii) Namchi-Rong-Sumbuk 19 Kms.		60.00										
xiii) Melli-Melli Dara 10Kms		30.00										
xiv) Hilley-Phalut 39 Kms		120.00										
xv) Soreng-Burikhop- Sombaria 26 Kms		80.00										
xvi) Rongli-Rolap 13 Kms		40.00										
xvii) Machong-Rongli 20 Kms		60.00					3.00					
xviii) Lingdem-Pentok 13 Kms.		40.00										
xix) Bey-Sakyong 8 Kms		25.00										
xx) Duga-Pakyong 6.5 Kms		25.00					1.00					
xxi) Rumtek-Rey-Ranka 25 Kms		80.00										
xxii) Martam-Zali P.H. 14.50Kms		45.00										
xxiii) Rishi-Rinchenpong 24 Kms		75.00					5.00					
xxiv) Manpur-Sumbuk 16 Kms		50.00					0.5					

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
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xviii) 15th & 22nd mile Assam
Pakyong 5.00

~~xix~~) Saleley slip 5.00

xx) 1st & 2nd miles
Rumtek Rd. 10.00

xxi) Passingdang slip
3rd S.B.S. 5.00

xxii) Slip below Tingbong
5th mile 5.00

xxiii) Tarku slip SPR 2.00

xxiv) 11th 12th Makha Yangang 3.50

xxv) 13th & 14th Makha
Yangang 3.50

130.00

ROAD TRANSPORT

Sikkim being completely a hilly State there are no rail or air facilities for passenger and freight traffic. Consequently the public road transportation system has a tremendous role to perform in the economy of the State. The transport system in the State has been nationalised. However, there is no road transport corporation in the State. A department of the Government called Sikkim Nationalised Transport is in charge of the transportation system catering both to passenger and goods traffic. At present, the Sikkim Nationalised Transport has a fleet of 50 buses and 93 trucks and a few jeeps.

During the Fifth Plan period the working of the Sikkim Nationalised Transport has been toned up considerably. The number of vehicles laid off for repair work has come down from approximately 40% to 18%. The replacement of old vehicles with new ones is being done according to a phased plan giving up the earlier 'ad hoc' measure. New routes have been opened in order to connect remote areas although some of the routes are un-economical. To compensate for this loss the tonnage of goods was increased by 35% bringing in substantial revenues. Further, a plan for setting up a full fledged workshop at Siliguri and to extend the workshop facilities at Gangtok was prepared and work in this regard has already commenced.

During the plan period 1978-83 the main policy of the Government would be to increase passenger amenities and to introduce larger movement of goods traffic. The former will be achieved not only by increasing passenger services in existing routes but also by opening up new routes particularly to those areas which are economically backward.

In order to facilitate the smooth flow of passenger traffic booking offices and passengers' waiting sheds will be constructed in places like Temi, Soreng, Butang etc. On an average four buses will be purchased for expansion in each of the years. As a result the number

of passengers being serviced by the public transportation system is expected to increase by atleast 30%-

A well thought out programme of replacement of both buses and trucks will be implemented so that only road worthy vehicles are plied. On an average six to eight buses will be replaced every year and ten to twelve trucks per year.

The construction of modern workshops at Siliguri and Gangtok will be completed as early as possible. The workshops will be developed into functional complexes having recreational facilities and other amenities. Apart from the construction of such workshops they will be equipped with modern tools and equipments which are very essential for the proper functioning of workshops. Commensurate with the expansion of the transport undertaking not only in relation to the number of vehicles but also on the workshops additional staff will have to be recruited. Adequate in-service training will also be provided to the existing staff. Particular emphasis will be placed upon developing proper store management in order to introduce inventory management.

A total sum of Rs. 275 lakhs is proposed for the various schemes contemplated in the road transport sector.

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

State/UT SIKKIM
Statement GN-1

(Rs. Lakhs)

Head of Development	Fifth Plan Outlay (76-79)	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign Exchange content of total outlay	Capital content of total outlay
	2	3	4	5	6	7	8	9
Road Transport	95	61.92	50.00	-	275.00	-	-	239.00

State/UT - SIKKIM
Statement GN- 2

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)									
Major Head of Development	Minor Head of Development	Fifth Plan Outlay (1976-78)	1976-78	1978-79		Total	Proposed Outlay (1978-83)		
			Annual Expendr. Actual Expendr.	Agreed Outlay Total	of which MNP		F.E. content of total outlay (As shown in Col. 7)	Capital Content of total outlay.	
1	2	3	4	5	6	7	8	9	10
Road Transport	(1) Direction & Administration								
	(a) Management		4.75	5.18	-	16.00	-	-	-
	(b) Operation	95	1.63	1.82	-	5.00	-	-	-
	(2) Tools & Plants		3.58	1.00	-	15.00	-	-	-
	(3) Acquisition of Fleet		30.64	6.00	-	75.00	-	-	75.00
	(4) Replacement of Fleet		9.26	26.00	-	114.00	-	-	114.00
	(5) Workshop Facility		12.06	10.00	-	50.00	-	-	50.00
	Total:	95	61.92	50.00	-	275.00	-	-	239.00

T O U R I S M .

INTRODUCTION .

Sikkim like many other hill States could be a veritable paradise for tourists. Apart from the scenic beauty of the place the salubrious climate and the variety of flora and fauna make it a must for both domestic as well as foreign tourists. A large number of sacred places and age old monasteries make it one of the most important centres for Buddhist culture. Foreign and domestic tourists interested in Buddhist culture have therefore much to gain by paying a visit to this place. It is also one of the most interesting places for nature lovers particularly those interested in floriculture. The large variety of orchids, rhododendrons and other flora make it a unique place for this category of tourists. Above all the increasing number of young mountaineers both from within the country and abroad find a whole lot of pleasure in trekking the mountain sides. Although this vast potential for developing a full fledged tourist industry in the State was an open invitation very little was done for promoting tourism till the beginning of the Fifth Plan. With the inception of the Fifth Plan greater attention was bestowed on this vital aspect of development and it was immediately recognised that there were several constraints operating against the promotion of this industry. The two most important ones were the lack of accommodation facilities and the paucity of transport services. The other constraints related to an improper information and publicity service and the difficulties encountered by foreigners in gaining entry permits to the State which is situated at a vulnerable area on the Indo-Tibet Boarder. Taking into account these constraints and realising the necessity to remove them a beginning was made to provide the basic infrastructure in the form of accommodation and transport. A tourist hostel was constructed at

Gangtok mainly to provide for low budget tourist groups. In addition a luxury lodge was constructed at Pemayangtse in West Sikkim essentially to house foreign tourists who would have the facility to have a panoramic view of the Kanchenjunga range from this place. One of the best Buddhist monasteries is also located close to this lodge. Realising the fact that Government alone cannot handle all the accommodation problems a programme of sanctioning hotel construction loans particularly to those who had the means to put up good hotels with comfortable rooms and restaurant services was introduced. This scheme paid rich dividends and today Gangtok town has much more bed space as a result of an expansion in the hotel industry. The Government also took the initiative to renovate and remodel one of the oldest but the most renowned hotel in Gangtok which after renovation has been handed over to a leading hotel magnate of the country. The Government have also started a way side restaurant at Rangpo which is the entry point from West Bengal on the National Highway. Tourist transport services have also been improved by the acquisition of two mini buses through which conducted sight seeing programmes have been arranged. The department has also gone in for the purchase of land rovers and wagonnetes for the purpose of taking tourists to some of the interior parts.

POLICIES AND OBJECTIVES.

The basic infrastructure having been built in the two years of the Fifth Plan the main objective in the Plan for 1978-83 is to expand the accommodation facilities which will be so shaped that it would cater to domestic tourist of low and middle income as also to affluent foreign tourists. More comfortable transportation arrangements are also envisaged. Equipments for tourist interest including those for mountain climbing angling and certain other sports would be stocked by the

department and provided to tourists on nominal charges. A more systematic programme of advertising the tourist potential in the State will also be followed up by printing of brochures and picture postcards. Finally Tourist Information Centres will be strengthened in Delhi, Calcutta and Darjeeling which have been identified as the main originating centres for tourists. In order to fulfil these objectives the schemes proposed to be implemented are detailed below in brief :-

Scheme No. 1 - Tourist Accommodation.

In order to add to the existing accommodation facilities the department proposes to set up another tourist hostel at Gangtok which would be a luxury hostel. Consistent with the National policy the department also intends to construct Janata lodges not only in Gangtok but also in certain other areas so as to promote tourism in the interior. For the more adventurous log cabins and alpine house are also proposed to be put up, in selected places. Camp sites will be developed and the necessary equipment for setting camp will be provided. In order to meet the cost of constructing these lodges as well as for meeting the overheads in running them a provision of Rs. 85 lakhs is set apart for accommodation.

Scheme No. 2 - Tourist Transport.

Past experience has shown that possession of a fleet of vehicles under the control of the department is the best answer to organise group tourism. The taxi service is undependable and irregular. It is therefore proposed to purchase two more mini buses and four more land rovers immediately. These vehicles will be used both for inter and intra State tourist transport. As far as possible vehicles will be plied to and fro from Darjeeling to Gangtok via Pemayangtse so that an organised tourist travel route can be developed. The question of purchasing more vehicles will be

considered after watching and reviewing the performance of the additional vehicles proposed to be purchased immediately. In order to provide for the cost of the vehicles as well as for maintenance and other facilities the provision proposed for the five year period under this scheme is Rs. 30 lakhs.

Scheme No. 3 - Tourist Information and Publicity.

Promotion of tourism can be best guaranteed by following a meaningful publicity and information programme which will provide all the information that tourists want about Sikkim. A properly organised Information and Publicity Cell will not only be promotional in nature but will also help in on the spot guidance. Mass publicity for attracting tourists will be resorted to not only by producing picture postcards and brochures but also by introducing advertisements in leading National and foreign journals. The information and publicity aspect of the tourist industry will also be attended to by the organisation of Information Centres particularly at places like Calcutta, Delhi and Darjeeling which are the places from which most of the tourists plan their visit to Sikkim. Already a separate tourist office has been sanctioned for Calcutta and Darjeeling. It is expected that these office with another one at Delhi will provide the promotional nucleus for tourism. The outlay for Information and Publicity is placed at Rs. 28 Lakhs. It does not take into account the overhead expenses of the information centres which will be shown under Direction and Administration.

Scheme No. 4 - Developing Places of Tourist Interest.

There are a large number of places in Sikkim which can be developed to cater to the varying interests of tourists. These include monasteries and other religious places, strategic observation points and simply places of scenic splendour. In order to beautify and develop such selected places and to

integrate this with Information and Publicity it is necessary to make a special allocation for such purpose. Accordingly a sum of Rs. 22 lakhs is earmarked for this purpose.

Scheme No. 5 - Survey and Statistics.

No authentic data is currently available to indicate the number of incoming and outgoing tourists. Any programme of tourism development should have a proper statistical base to support it. A beginning has already been made to appoint a statistical assistant to compile and collate data particularly regarding the type of tourists who visit this place giving their age groups, nationalities and professions. This work will be continued and the scope of information proposed to be collected will be widened. A provision of Rs. 1 lakh is made for this purpose for the five year period.

Scheme No. 6 - Other Projects.

Tourists visiting Sikkim, particularly those domestic tourists who do not come up as group tourists, sometimes look out for spending their time more fruitfully. In order to ensure that they have sufficient avenues of recreation it is proposed to extend the scope of activity of the Tourism Department by organising separate reception and hospitality services. The personnel in this cell will not only help tourists to spend their time usefully but will also guide them in the proper way. More number of guides will be specially trained particularly to explain the intricacies of Sikkimese culture and art. Various other recreation facilities will also be arranged. This will include the development of angling spots and picnic spots. There are a number of places in the State where there are natural hot springs and at these places facilities for bathing will be developed. Other areas where something tangible can be done include construction of a skating ring in Gangtok

and also the organisation of periodical cultural programmes wherein traditional Sikkimese culture is to be staged. There is also immense potential to organise tourist festivals particularly during the rush seasons. An integrated programme will be chalked out and developed for these various purposes. An outlay of Rs. 37 lakhs is projected for the five year period under this head.

Direction and Administration.

With the Government of India relaxing the conditions of gaining an entry permit for foreign tourists particularly those interested in trekking and mountaineering there has been an increase in the number of such tourists entering the State. Consequently, the need to strengthen the administrative hierarchy has been felt not only in respect of headquarter services but also in the field where guides play an important role. A certain amount of strengthening, by a functional division of the department has already been done. However, some more posts particularly on the ministerial and accounting side as also in the information side is necessary. In order to meet the extra establishment expenses a sum of Rs.15 lakhs is projected for this purpose.

The overall outlay for tourism is Rs.218 lakhs, the board division of which is as follows :-

1)	Direction and Administration	-	Rs. 15 lakhs.
2)	Tourist Accommodation	-	Rs. 85 "
3)	Tourist Transport	-	Rs. 30 "
4)	Tourist Information & Publicity-	-	Rs. 28 "
5)	Developing Places of Tourist Interest	-	Rs. 22 "
6)	Survey & Statistics	-	Rs. 1 lakh
7)	Other Projects	-	Rs. 37 lakhs.
	TOTAL	-	<u>Rs.218 lakhs.</u>

DRAFT PLAN - 1978-83

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

Head of Development	Fifth Plan Outlay 76-79.	1976-78 Actuals	1978-79 Agreed Outlay		Proposed Outlay (1978-83)			
			Total	of which MNP	Total	of which MNP	Foreign exchange content of total outlay	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.
TOURISM	81.00	51.11 66.10	24.80	-	218.00	-	-	50.00

DRAFT PLAN 1978-83 STATE/U.Ts. - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. in lakhs)

Major Head of Development.	Minor Head of Development.	Fifth Plan Outlay 76-79.	1976-78 Annual Expdt. Actual Expdr.	1978-79 Agreed Outlay		Proposed Outlay 1978-83			
				Total	of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7)	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<u>TOURISM</u>									
1. Direction & Adm.	}		2.47	2.00	-	15.00	-	-	-
2. Tourist Accommodation			40.56 56.15	9.35	-	85.00	-	-	50.00
3. Tourist Transport			3.92	4.00	-	30.00	-	-	-
4. Tourist Information & Publicity		81.00	3.86	4.00	-	28.00	-	-	-
5. Developing Places of Tourist Interest.			1.70	3.70	-	22.00	-	-	-
6. Survey & Statistics			-	0.10	-	1.00	-	-	-
7. Other Projects			1.60	1.65	-	37.00	-	-	-
TOTAL		81.00	51.11 66.70	24.80	-	218.00	-	-	50.00

E D U C A T I O N .

INTRODUCTION.

With the inception of the Fifth Plan the educational system in the State underwent a sea change. The enrolment at the primary level increased by leaps and bounds making it extremely difficult for the Government to cope with the additional requirements of not only teachers but also in building space. Such improvement was perceptible in other spheres of education as well. A scientific approach towards the problems of education at all levels was followed and every attempt was made to improve the quality of education by adopting a phased programme of training teachers. At the higher level, for the first time a Degree College was established in the State at Gangtok. In order to widen the horizon of the child a beginning was also made on sports and youth welfare activities.

POLICIES AND OBJECTIVES.

The main policy in the Plan for 1978 to 1983 will be to consolidate the levels of education already attained particularly at the primary level. Attempts will be made to provide the required physical facilities so that the instructions imparted at the primary level will be in congenial surroundings. Every possible effort will be made to avoid wastage and stagnation. A serious effort will be made to organise non-formal and adult education so as to adhere to the national policy of providing educational opportunities for the drop outs and to adults particularly in the 15 to 35 age group. As far as possible the qualitative aspect of educational instruction will also be taken care of mainly by improving the teacher training aspect.

The details of the various programmes contemplated are given below :-

Elementary Education.

(a) Pre-primary.

A system of pre-primary education has been in vogue from the beginning of the Fifth Plan.

The main idea in establishing such centres is to provide facilities for working mothers to leave their children in the care of trained school mothers who would look after the children not only in the capacity of nurses but will also initiate them into the school atmosphere by providing them basic lessons. In all these centres playing equipment and furniture have been supplied. These centres were opened only in those areas where the ICDS programme was not in existence. During the Plan Period from 1978-83 the I.C.D.S. is expected to be extended throughout the State. Hence the programme of pre-primary education will be integrated with that of the I.C.D.S. and restricted to placing the school mothers at the disposal of the I.C.D.S. centres. A total outlay of Rs.10 lakhs is contemplated for this purpose mainly to meet the salaries of the School Mothers.

Primary Education.

(b) Universalising primary education is one of the items of the minimum needs programme.

During the Plan this objective will be kept foremost in mind and a close system of monitoring and evaluating the enrolment aspect will be instituted.

Judging from the trend established in the past couple of years the anticipated increase in enrolment per year at the primary level is 5000 on an average. The enrolment figure in 1977-78 at the primary level is 33497 consisting of 20766 boys and 12731 girls. By 1982-83 the figure will be 64000. In order to meet this anticipated increase in enrolment 825 teachers are expected to be appointed additionally during the plan period. This will include 485 general teachers 136 language teachers and 204 teachers for providing teacher-aid to taken over private schools. Since many of the Primary schools do not have adequate class-room facilities, a programme of constructing on an average 60 class-rooms per year will be taken up. Apart from class-room facilities one of the main constraints in developing primary education is the lack of teachers' quarters. In order to make good

this lacuna ten teachers' quarters per year will be constructed in the primary schools of the State. Certain other facilities in the form of furniture, playgrounds, drinking water, ^{and} lavatory are also proposed to be provided wherever there are primary schools. In view of the fact that apart from English Nepali, Lepcha, Limbu and Tibetan are also taught the teacher pupil ratio is currently on an average 1:20. However, keeping in view the guidelines that the number of teachers additionally recruited should be the bare minimum the ratio is proposed to be increased to 1:30. This will however be much lower in certain schools which are located in out of the way places. The total outlay contemplated for Primary Schools is Rs.186 lakhs of which the building costs are estimated at Rs.70 lakhs.

(c) Junior High Schools.

Junior High Schools are those schools having classes up to Eighth Standard. These schools require atleast five graduate teachers each. With the expected increase in enrolment the number of graduate teachers will also have to be increased. It is proposed to upgrade on an average eight Primary schools to the level of Junior High Schools each year. This will necessitate the appointment of five graduate teachers in each of the upgraded schools. This will be done in a phased manner during the course of three consecutive years. In all 238 graduate teachers will be appointed during the plan period. Many of the Junior High Schools do not have adequate class-room facilities. On an average 30 class-rooms will be additionally constructed during 1978-83. In addition, residential facilities are also proposed at the rate of ten units of class III quarters and ten units of class IV quarters for each year. These schools have to be provided with science equipments, furniture and library books. These schools will also have to be provided with playgrounds. In order to meet these requirements the outlay contemplated for the five year period is Rs.152 lakhs, out of which the capital component is Rs.92 lakhs.

(d) Text Books.

According to the education policy of the State, text books are distributed at the elementary level with a subsidy to all students. However, students belonging to the schedule caste community and the poor children of ex-servicemen are given a further benefit by making available such text books free of cost. In view of the fact that the text books are costly these days the subsidy offered will be a great incentive to prevent wastage and drop out. Consequently, this programme is proposed to be continued with the objective of universalizing elementary education. The distribution of text books on such a basis involves some administrative expenditure also since a text book purchase officer will have to function with a complement of staff required for distribution. Further, adequate storage facilities are also required not only at the Headquarters level but also at the District level. In order to meet the cost of the subsidy as well as the overheads a provision of Rs.21 lakhs is earmarked for the five year period.

(e) State Institute of Education.

The State of Sikkim has not got a State Institute of Education. The need for possessing such an Institute has been felt for a long time now and it is therefore proposed to make a beginning in this field. This institute will have three wings namely the Teachers' Training Institute, the Science Education Wing and the Educational Technology Cell. As far as the Teachers' Training Institute is concerned it is acknowledged that this part of the institute will serve the crying need of the hour namely to train the teachers adequately for imparting a meaningful system of education. The training of teachers will be essentially that for primary teaching. However, other aspects including physical education will be handled by this institute. As regards the science co-ordination cell, attempts will be made to improve the standard of imparting education mainly in mathematics, physics, chemistry and life sciences which are the areas presently identified as being weak.

Full fledged science co-ordinators will be appointed and continuous experimentation in the methods to be adopted will be undertaken. The third wing of the institute dealing with educational technology will be financed as a centrally sponsored item under which new and modern aids of training teachers particularly in developing the English language will be adopted. Courses for English language through the medium of the radio is also a part of this programme. It is expected that central assistance will continue to be forthcoming for the education technology cell in the coming years.

The State Institute of Education will have to be accommodated in a building of its own and so a sum of Rs. 10 lakhs is proposed for the building and a further sum of Rs.12 lakhs for other purposes making an overall total of Rs.22 lakhs for the State Institute.

The overall outlay under Elementary education for the above mentioned items, works out to Rs.391 lakhs. This is the amount earmarked under the Minimum Needs Programme.

SECONDARY EDUCATION,

(1) * High and Higher Secondary Education.

Every year there is demand for upgrading Junior High Schools to High Schools. In the current year seven schools are to be upgraded. This programme of upgradation will be continued, but keeping in mind the national policy of restricting the expansion of higher education, the number of Junior High Schools proposed to be upgraded as High Schools will be only four per year. Consequent on the upgradation, eight graduate teachers will have to be appointed in each of the years. Besides the appointment of graduate teachers on account of upgradation additional teachers will have to be appointed for the increase in enrolment also. The total number of graduate teachers proposed to be appointed by 1983 is estimated to be 60. In High Schools, besides teachers, staff like librarian, laboratory attendant assistance etc. will also have to be appointed.

As far as Higher Secondary Schools are concerned the number of High Schools which will be upgraded will be limited. However, trained graduate teachers and post-graduate teachers will have to be appointed in Higher Secondary Schools to cater for additional sections and additional enrolment.

The High Schools and Higher Secondary Schools like the other schools of the State do not have adequate building facilities. Most of these schools have deficiency in laboratory facilities and hence ~~a~~ suitable provision will have to be made not only ~~for the building construction but also for the~~ provision of science equipments.

A scheme for granting free boardership at the rate of Rs.60/- per month for boys and girls who belong to the weaker sections of the community is already in existence. This scheme will be expanded so as to provide facilities for 50 more such students per year. In addition, for the first time, a merit scholarship is proposed to be awarded at the class 5, 8 and 10 stages. These scholarships will be awarded both at the State and District levels. The total outlay for High and Higher Secondary Schools is Rs.158 lakhs for the five year period which takes into account a capital cost of Rs.80 lakhs.

(2) Assistance to Non Government Schools.

There are few non-Governmental High and Higher Secondary Schools in the State which are provided with assistance in the form of grants not only for meeting the expenditure in relation to staff salaries but also for meeting the building cost particularly for the expanded area of activity consequent on plus two system. The schools to whom such assistance are being granted to day are Tashi Namgyal Academy, The Paljor Namgyal Girls' Higher Secondary School at Gangtok and R.C. Mission High School, Pakyong. Taking into account the possible expansion of these schools in the coming years an amount of Rs.16 lakhs ~~is set aside for providing such assistance.~~

ADULT EDUCATION.

Consistent with the national policy of covering as many illiterate adults as possible under a revised programme of Adult Education, the State Government also proposes to lay considerable emphasis on this vital aspect of the National Development Programme. A beginning has already been made in this direction and by the end of 1978-79 there will be 400 centres where non-formal and adult education will be imparted. During the five year period from 1978 to 1983, 100 more centres will be started. The main emphasis in the programme will be to produce teaching materials which are of immediate relevance to the beneficiaries. Since the main beneficiaries are those between 15 to 35 years of age the teaching material will not only take into account basic principles of science including mathematics but also some of the more important aspects of arts and humanities and of day to day life. Keeping this objective in mind it is proposed to integrate into the curriculum various matters pertaining to developmental planning with particular emphasis on agriculture and allied activities. The idea is to promote the feeling in each citizen that he is a part of the machinery being used for developmental planning. This programme necessitates the preparation of suitable literature and other teaching aids for which certain amount of imagination is required. Seminars and discussion groups will be organised to evolve the material. Follow up literature will also be essential because it has to be ensured that those to whom the initial instruction has been imparted do not forget it and lapse back into illiteracy. In order to organise a proper system of adult education and in order to provide for the type of beneficiaries that are likely to avail themselves of the facilities a provision of Rs. 35 lakhs is made during the five year period. This reflects only 50% of the total cost involved. The remaining will be provided by central funds. As a result of this programme 56,000 number of illiterate adults are expected to be covered.

UNIVERSITY EDUCATION.

There is one degree College in Gangtok which was established only after the Fifth Plan commenced. At present, Arts, Commerce and Science faculties have been organised in this College. The college is however functioning with great difficulty not only on account of the lack of a building of its own but also because of the lack of staff. In the coming years, the objective is to run the college on a more firm basis for which the main programme will be to construct a full fledged building. This building will provide for suitable number of residential quarters for teaching staff also. Such facilities are absolutely necessary to attract qualified persons to take up teaching assignments. In addition, laboratories will also be established. The playground being an essential adjunct for a college will also have to be organised. Every college requires a library and so measures will have to be undertaken for setting up a library. An amount of Rs.25 lakhs is set apart for the purpose of constructing a College Building which will take into account the land acquisition cost, the cost of the building, the cost of furniture and other accessories, electrification, sanitation, water supply etc. A few staff quarters for the teaching staff will also be constructed. Besides the capital cost the items on which financial assistance from the Government is necessary are the salaries of the lecturers and materials and supplies of other items of recurring nature. For this purpose a sum of Rs.15 lakhs is set apart making an overall provision of Rs.40 lakhs for the college.

PHYSICAL EDUCATION, SPORTS AND YOUTH WELFARE.

So far no real attempt has been made to organise youth activities including sports on sound lines. An Assistant Director of Sports has started an establishment and during the current year, five coaches are expected to join the State from the National Institute of Sports, Patiala. A comprehensive programme of

of coaching school boys and girls as well as non-school going rural youth in some of the more popular games will be organised. These coaching programmes will be supplemented by the organisation of tournaments so as to follow the well-known principle that real improvement can be had only by match practice. Apart from tournaments within the State the boys and girls of the State will be especially encouraged to participate in National and Regional tournaments elsewhere in the country. No school in the State today has a properly trained Physical Education Instructor. During the Plan period the schools will be provided in a phased manner the services of Physical Education Instructors who are specially trained for the purpose either through the T.T.I. or from other sectors. In order to provide for the overall expenditure involved in the organisation of sports and tournaments and for buying necessary machinery and equipment, a total sum of Rs.16 lakhs is earmarked for sports. Out of this a small amount will also be set apart as counterpart assistance for the construction of an indoor stadium in Gangtok for which the bulk of the assistance will come from the Central Government. Indoor stadium are extremely important in a place like Sikkim where the heavy rain fall deters the organisation of outdoor games.

As regards youth welfare activities and programmes organising camps and excursions will be arranged. The intention is to widen the horizon of the child by showing him different parts of the country and also by encouraging team work. Scouts and Guides movement will also be strengthened and Nehru Yuvak Kendras given more specific roles in mobilising the youth for building community assets. The N.C.C. which is of recent origin in the State will also be expanded by wider coverage. A sum of Rs.8 lakhs each for Youth and N.C.C. respectively is set apart making an overall provision of Rs.41 lakhs for Sports and Youth Welfare.

ADMINISTRATION.

With the increase in the workload of the Education Directorate both on the academic side and on the accounts side suitable strengthening of staff becomes necessary. The statistical aspect will also have to be given due importance. A State Board of Education is to be set up shortly mainly for the purpose of starting an Examination Board. For these various purposes adequate strengthening of staff is necessary for which a provision of Rs.19 lakhs is made for the five year period.

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State/U.T. SIKKIM
Statement GN - 1.

DRAFT PLAN - 1978-83.

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE.

(Rs. in lakhs)

Head of Development	Fifth Plan Outlay 76-79.	1976-78 Actuals.	1978-79 Agreed Outlay		Proposed Outlay (1978-83)			
			Total	of which MNP	Total	of which MNP	Foreign exchange content of total outlay.	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.
EDUCATION	244.00	160.25 193.83	114.00	65.00	700.00	426.00	-	302.00

State/U.T. SIKKIM
Statement No. GN - 2.

DRAFT PLAN 1978-83 STATE/U.Ts. - MINOR HEADS - OUTLAYS AND EXPENDITURE.

(Rs. in Lakhs)

Major Head of Development.	Minor Head of Development.	Fifth Plan Outlay 76-79.	1976-78	1978-79		Total	of which MNP	F.E. content of total outlay (as shown in Col.7)	Capital content of total outlay.
			Annual Expdr. Actual Expdr.	Agreed Outlay Total	of which MNP				
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.

EDUCATION.

(i) <u>ELEMENTARY EDUCATION</u>									
1.	Pre-primary.	)	0	3.00	3.00	10.00	10.00	-	-
2.	Primary Education.	)		30.50	30.50	186.00	186.00	-	70.00
3.	Junior High School.	)		24.50	24.50	152.00	152.00	-	92.00
4.	Text Books.	)	104.91	2.00	2.00	21.00	21.00	-	-
5.	State Institute of Education.	)	138.49	2.00	2.00	22.00	22.00	-	10.00
Total of Elementary Education.		)	104.91	62.00	62.00	391.00	391.00	-	172.00
(ii) <u>SECONDARY EDUCATION</u>									
1.	High/Higher Secondary School.	)		29.00	-	158.00	-	-	80.00

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
2.	Assistance to non-Govt. High/Higher Secondary Schools.	244.00	29.53	4.00	-	16.00	-	-	10.00
Total of Secondary Education			29.53	33.00	-	174.00	-	-	90.00
(iii)	Adult Education		2.00	3.00	3.00	35.00	35.00	-	-
(iv)	University Education		6.39	5.80	-	40.00	-	-	25.00
(v)	Physical Education, Sports & Youth Welfare.		6.62	6.00	-	41.00	-	-	15.00
(vi)	Direction & Adm.		10.80	4.20	-	19.00	-	-	-
TOTAL :		244.00	160.25 193.83	114.00	65.00	700.00	426.00	-	302.00

ART & CULTURE

Sikkim's heritage in art, literature, dance, drama and music has to be developed in response to the urges of a new generation. The archaeological monuments and ancient art are to be preserved and interpreted for communication Sikkim's underlying cultural unity. The important steps to be taken are to reorganise the department of Art & Culture, establish an Academy of Dance, Drama & Music, a State Museum, a Modern Art Gallery, District Libraries in the District-Head-quarters and prepare and compile the Gazetteer of Sikkim.

The assessment of monuments, copying of ancient paintings and survey of antiquities on which not much has been done has to be stepped up.

The training of personnel required for successful implementation of various schemes will be arranged and creative talents encouraged through scholarships for students and young workers in different cultural fields.

REVIEW OF PLAN PERIOD (1976-78)

The Department of Art & Culture in keeping with its responsibilities of not only working for the promotion of the culture of the State but also for the preservation of its cultural heritage was reorganised to some extent by obtaining an officer on deputation. During the period under review a beginning was made by undertaking the work of renovation and preservation of some of the sacred religious places which were in a dilapidated condition owing to lack of funds. Besides, to gear up the construction work of Archives-cum-Museum Building, a site a little beyond the Institute of Tibetology, near Deorali has been tentatively selected and plans for its construction are under preparation. Similarly, a site for the construction of a combined building for the Library & Public Community Hall at Namchi has been selected and plans are under preparation. Till now no Community Hall is in existence in any of the three District-head-quarters of North, South & West. Small grant-in-aids to local Cultural Organisations for promotion of cultural dance, drama and music were paid.

PROGRAMMES FOR THE PLAN 1978-83.

In the year 1978-83 the promotion of art and culture will be further stepped up by implementing specific programmes. Bonafide cultural organisations will be given grant and aid so that they could promote dance, drama and music with particular reference to the cultural heritage of the State. Inter-state exchange of cultural troupes will be arranged so that there will be a close interaction between the cultures of the States in India. Besides the encouragement proposed to be given to cultural troupes, efforts will be made to provide suitable facilities for staging cultural shows within the State by the construction of community halls in the District Headquarters. The existing community hall at Gangtok will also be improved and hostel type of accommodation facilities will be provided within its premises so as to accommodate artists from rural areas. An endeavour will also be made to establish a permanent cultural troupe who can give performances at short notices particularly when V.I.Ps visit the State.

Along with the construction of community halls public libraries will also be developed. This will enable those desiring to acquire knowledge to gain easy access to selected quality books. Trained librarians will be appointed in these centres.

Apart from promoting art and culture an important objective of the Cultural Department will be to preserve ancient monuments in proper shape. In Sikkim there are several old monasteries and other religious places which are in a state of neglect mainly on account of lack of finances. Although a separate Ecclesiastical Department is helping some of these monasteries in renovation work

the amount of money provided is invariably insufficient. The Culture Department will therefore take up the work of renovating some of the more important monasteries which are important not only from the point of view of religion but also from the point of view of a historical monument. A full-fledged archaeology wing will be organised and survey work will be undertaken so as to identify and locate those monuments which have to be preserved.

Another important aspect of work in the department has been to organise and to set up an archives section right from scratch. The objective is to set up the Sikkim State archives on modern lines so that valuable public records are properly preserved. A beginning in this direction has already been made and short course training programmes for record assistants of the various Government Departments in maintenance and preservation of records have been arranged. A number of valuable publications on a reciprocal basis have also been acquired from the National Archives. In the coming years the programme of archival development will consist in instituting a regular record management programme, preparation of suitable reference media setting up of adequate repair and reprography facilities and in salvaging and maintaining private records. This will necessitate the induction of more trained staff members which will be duly attended to.

The question of setting up a museum which will house a State Library and the State Archives is already under the consideration of the Government. A site has been tentatively selected near the Institute of Tibetology and it is expected that the building will be completed during the coming three years. A total outlay of Rs. 21 lakhs is estimated for the purpose of the building. This building is expected to be a show piece which will be unique in the sense that it will house some of the more important museum pieces which are peculiar to this region adjoining Tibet.

Last but not the least is the work being undertaken by the department for the publication of the Sikkim Gazetteer. This work is already in progress and is expected to be completed by 1980-81. The gazetteer will be a valuable document providing information the various aspects of Sikkimese life and culture.

In order to strengthen the activities of this department in the archaeological and other sections the staff will be suitably enhanced. In addition the department will be provided with suitable transport

PROGRAMMES FOR THE PLAN 1978-83.

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facilities particularly in view of the nature of the work undertaken which involves extensive touring.

The overall outlay for the sub-sector is Rs. 82 lakhs the break up of which is as follows:

1. Promotion of Art and Culture	-	Rs. 16 lakhs.
2. Preservation of ancient monuments	Rs.22 "	
3. Organisation of archives and museum	-	Rs. 28.50 lakhs.
4. Public libraries	-	Rs. 6.50 "
5. Gazetteer	-	Rs. 1.00 lakh
6. Administration	-	<u>Rs. 8.00 lakhs.</u>
Total:		<u>Rs. 82.00 "</u>

DRAFT PLAN - 1978-83

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign exchange content of total outlay	Capital content of total outlay
1	2	3	4	5	6	7	8	9
ART AND CULTURE	30.00	7.86	10.00	-	82.00	-	-	31.50

DRAFT PLAN 1973-83 STATE/UTs - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay 76-79	1976-78	1978-79	Total	Proposed outlay 1978-83			
			Annual Expdr. Actual Expdr.	Agreed Outlay Total		of which MNP	of which MNP	P.E. content of total outlay (As shown in Col. 7)	Capital content of total outlay.
1	2	3	4	5	6	7	8	9	10
ART & CULTURE	1. Direction and Administration		0.87	0.70	-	8.00	-	-	-
	2. Promotion of art & culture	30.00	3.27	2.50	-	16.00	-	-	10.50
	3. Preservation of Ancient Monument		1.44	3.00	-	22.00	-	-	-
	4. Organisation of Archives & Museum		1.54	1.80	-	28.50	-	-	21.00
	5. Public Libraries		0.08	1.50	-	6.50	-	-	-
	6. Gazetter		0.16	0.50	-	1.00	-	-	-
	Total :	30.00	7.36	10.00	-	82.00	-	-	31.50

CHAPTER IV - (CONTD.)

7. Health & Family Welfare.
8. Water Supply & Sewerage.
9. Housing.
10. Urban Development.
11. Information & Publicity.
12. Labour Welfare.

HEALTH AND FAMILY WELFARE.

INTRODUCTION.

Despite the fact that the State of Sikkim is geographically a small area where the population is also sparse the need to expand medical facilities has been felt for a long time. The norms that have to be followed in a hilly State where there are problems of inaccessibility cannot be on a par with those in the plains and have to be shaped in accordance with the real needs on account of the nature of the terrain. Keeping these aspects in view a beginning was made with the inception of the Fifth Plan to organise medical facilities in such a way that starting from the Primary Health Sub-Centres in the rural areas a network of medical institutions was gradually developed during the course of the past two years. Thus, eight Primary Health Centres and twenty one Primary Health Sub-Centres have already been established. A district hospital with a capacity of 50 beds is being constructed at Singtam and the facilities for inpatient treatment in the other district hospitals have also been improved. In the Central Referral Hospital at Gangtok new specialities particularly in ENT and ophthalmology have been introduced. In order to equip the State with qualified personnel for taking care of the health needs of the population in future, a regular programme of sending selected persons for training purposes and for regular MBBS courses has also been instituted. One of the difficulties faced in expanding medical facilities to the rural areas has been the dearth of qualified doctors. This will be removed when the Sikkimese students complete their courses and come back to the State.

POLICIES AND OBJECTIVES.

Consistent with the national objective of providing basic health facilities in the rural areas the main objective of the Health Department of the State for the 1978-83 plan will be to provide a comprehensive integrated health service so that the people of all walks of life are equally benefited. The model of pacting important urban centres with specialities and paying inadequate attention to the basic health needs in the rural sector will be gradually altered so as to maintain a balance between the specialised urban centres and the rural health services. The preventive and promotional aspect of health service will be given more importance than in previous years. This programme will be closely linked to an expanded Health Education system so that the preventive aspects may be emphasized in a proper manner. Health Services will be closely integrated with family welfare programmes so that the growth in population can be kept at a level which would not upset the growth attained in real terms in the economy.

The details of the programmes are as follows:

PROGRAMME FOR 1978-83.

Ru Health Programme.

This part of the programme constitutes an item under the revised Minimum Needs Programme and has therefore great importance. The main aspect of the Rural Health Programme will be to complete the construction of atleast 15 Primary Health Centres and 45 Primary Health Sub-Centres before 1982-83, When once this target is achieved we shall be exceeding the national norm of setting up atleast 50% of Primary Health Sub-Centres at the

rate of one for 5,000 population. The estimated population in Silkin by 1982 -83 will be approximately $3\frac{1}{2}$ lakhs and so the norm will be reached with the setting up of 35 Primary Health Sub-Centres . One out of every four Primary Health Centre will be upgraded to a rural hospital with in patient facilities for 20 people. The rural hospitals will function as a midway system so that certain cases which cannot be handled at the level of the Primary Health Sub-Centres but which are not so serious as to be referred to the District Hospitals can be attended to at these rural hospitals. Besides the construction of the buildings needed to house the Primary Health Centres and Primary Health Sub-Centres the need to provide basic medicines and drugs on a timely basis will be given due importance. For this purpose the Central Medical stores at Gangtok will be adequately strengthened not only by the purchase and stock of more medicines but also by the appointment of trained staff on store management. In order to meet the increased demand of medical and para-medical personnel a programme of sending local youth to Medical Colleges has already been started. It is expected that the manpower needed to meet the expanded programme of rural health cover can be met from within the State. Most of the Primary Health Centres and Primary Health Sub-Centres are located in out of the way places where even communication facilities are bad. Unlike the plains where there are reasonable facilities in the hills and so the cost of construction is usually ~~there are no such facilities~~ / on the high side. The areas being inhospitable it is

very necessary to provide a suitable number of quarters also so that the doctors and other para-medical staff can live in these areas comfortably. The estimated cost of a full fledged Primary Health Centre complex including residential accommodation and land acquisition cost is Rs. 8 lakhs. Similarly for the Primary Health Sub-Centre it is Rs. 0.82 lakh. These figures when compared with the norms prescribed are on the high side but cannot be avoided in view of the difficult terrain. Every attempt will be made during the plan period 1973-83 to complete the construction of these buildings and to make them functional.

Another area of rural health which requires attention is the organisation of Community Health Workers. It is anticipated that this will continue as a centrally sponsored scheme under which the training cost and other incidental costs of maintaining a team of Community Health Workers is borne by the Central Government. The programme of Community Health Workers will be expanded progressively with the ultimate objective of providing health care at the doorstep of the rural population, with one worker serving a population of 1000. These workers will render first aid and other assistance needed to treat common ailments but will refer cases which they feel are beyond their control to the nearest Primary Health Sub-Centre or Primary Health Centre. The total outlay under the MIP is Rs. 232 lakhs out of which the capital component is Rs. 76 lakhs.

Control and Eradication of Communicable diseases.

Among the communicable disease the ones which are more common in Sikkim are T.B. Malaria and to some extent cholera. A preventive programme of B.C.G. vaccinations

for controlling T.B. is already in existence and for this purpose special training programmes have been instituted. The programme will be continued with greater vigour by making use of the assistance given by the Central Government for the purchase of drugs. In order to treat existing T.B. cases the existing T.B. hospital at Gangtok will be upgraded and a separate building provided. T.B. specialists will be appointed according to a phased programme at the District Hospitals also along with other para-medical staff. As far as malaria, leprosy and small pox are concerned these are fully centrally sponsored schemes and they will be carried forward. Suitable provisions will be made for combating sexually transmitted diseases and cholera by equipping the Central medical stores with suitable quantities of medicine. Likewise better equipment like x-ray plants will be provided for detection of T.B. and other diseases. So far the multipurpose worker has not been appointed for preventive work in the field of eradicating communicable diseases. The training for this purpose with the help of the Government of India is however started and the question of appointing these personnel on a regular basis will be given due consideration.

One of the most common ailments in the State is the existence of worm infestation both in adults and in children. With the help of the multipurpose workers various anti helminthic programmes will be carried out so that the worm infestation is decreased. As far as possible drinking water sources will also be protected by chlorination. The total outlay for prevention of communicable diseases is Rs. 7 lakhs.

Hospitals and Dispensaries.

Under this programme mention may be made about the establishment of the district hospitals and the Referral Hospital at Gangtok. Regarding Primary Health Centres and Primary Health Sub-Centres the details have already been mentioned. A full fledged Central Referral Hospital with various specialist facilities and with a capacity of 250 beds will be established at Gangtok. The hospital will have a blood bank with a mobile blood unit donor. Besides, few more quarters for doctors and nurses will have to be constructed. The District Hospitals will be 50 bedded ones and in each of these hospitals there will be seven Medical Officers headed by a Chief Medical Officer. These specialities will be general medicine surgery, gynaecology and ophthalmology. Besides, there will be one Medical Officer for Family Welfare and another perinatologist under the PDS programme. The District hospitals will also be provided with blood bank facilities. The needed number of para-medical staff will also be provided. It is expected that with the setting up of a full fledged Central Referral Hospital at Gangtok and smaller referral hospitals with the basic specialities in the District Headquarters the health coverage can be so extended as to cover a vast section of the population.

Health Education.

The Health Education Wing was created very recently. It is proposed to suitably expand the programme by creating a Health Education Bureau. Two more Health Educators will be trained and appointed within the Bureau. Simple

and effective Health Education measures through extension education, mass media and person to person contact will be developed. The main idea is to create a sense of health consciousness among the people particularly in the rural areas. The School Health Programme, a part of which is a centrally sponsored item, will also be supplemented by the proposed Health Education Bureau and small Working Cells established for this purpose in the rural areas. Adequate mobility will also be granted to the Bureau by equipping it with transport facilities. The total outlay for this purpose is Rs. 8-50 lakhs for the five year period.

Training Programme.

Programmes for evolving a suitable career structure for para-medical personnel and qualitative improvement in training programmes are contemplated. At present training facilities have been established for training pharmacists and laboratory technicians. For other para-medical personnel including staff nurses, training programmes have to be arranged with the help of outside institutions. During the course of the plan period the facilities for training para-medical staff within the State will be progressively improved so that the requirements of the State could be met from within. The system of selecting local boys and girls for MBBS Courses in the Medical colleges of the country will also be continued. Total provision for training is Rs. 10 lakhs.

Indigenous System of Medicine.

In order to encourage the indigenous system, two posts of Homeopathy doctors and two of Ayurvedic doctors have already been created. During the Plan

period organisational arrangements for these four doctors will be provided. The programme will be further reviewed in order to assess whether there is scope for further expansion. An outlay of Rs. 1.50 lakhs is provided for the plan period.

Administration.

The Directorate of Health Services will be expanded by the induction of a few more personnel. Additional jeeps will be provided to specialist. The Central Medical Stores which will be directly under the control of the Directorate will substantially expanded so that adequate medicines and drugs can be stocked for distribution to all hospitals. A sizeable amount is therefore required for materials and supplies .

Since the department has under its control various ambulances and jeeps and since the maintenance of the fleet is of crucial importance for the proper delivery of medicines and services a transport and maintenance wing is proposed to be established at Gangtok. This wing will undertake the maintenance work of not only the vehicles of Health Department but also those of other sister departments. The outlay fixed for administration is Rs. 55 lakhs.

The financial break up under the Health and Family Welfare Sector for the five year period is proposed to be :

Rural Health Services (MIP)	Rs.	237.00 lakhs.
Control of Communicable diseases.....	Rs.	7.00 "
Hospitals.....	Rs.	81.00 "
Health Education.....	Rs.	8.50 "
Training.....	Rs.	10.00 "
Indigenous System of Medicine.....	Rs.	4.50 "
Administration.....	Rs.	55.00 "
Total :		Rs. 400.00

Family Welfare.

The Family Welfare Programme is expected to continue as a fully centrally sponsored scheme. There are no basic statistics available in the State to assess the present birth rate per 1,000 population. However, the growth in population per year is presumed to be less than 3%. During the Plan period the Family Welfare Programmes would be shaped in accordance with the directions of the Government of India and be promoted in a purely voluntary manner laying emphasis on proper education and motivation. In all those areas where hospital facilities are available family welfare services will be provided through well planned out post partum centres. The infra-structural deficiencies will ~~be~~ be made good and the post partum centres organised in such manner that ante-natal care is also given due importance. So also the post delivery services including immunisation will be strengthened.

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

Head of Development	Fifth Plan Outlay 76-79	<u>1976-78</u> Actuals	<u>1978-79</u>		<u>Proposed Outlay(1978-83)</u>			
			<u>Agreed Outlay</u> Total	<u>of which</u> MNF	Total	of which MNF	Foreign exchange content of total Outlay	Capital content of total Outlay
1	2	3	4	5	6	7	8	9
HEALTH AND FAMILY WELFARE	218.00	105.86 95.32	70.70	33.70	400.00	237.00	-	136.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay 76-79	1976-78	1978-79		Proposed outlay 1978-83			Capital content of total outlay.
			Annual Expdr. Actual Expdr.	Agreed Outlay Total	of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7)	
1	2	3	4	5	6	7	8	9	10
<u>HEALTH AND FAMILY WELFARE</u>	1. Rural Health services (MNP)			33.70	33.70	237.00	237.00	-	76.00
	2. Control of Communicable diseases			1.60	-	7.00	-	-	-
	3. Hospitals and Dispensaries	218.00	95.32 105.86	27.00	-	81.00	-	-	60.00
	4. Health Education			1.40	-	8.50	-	-	-
	5. Training Programme			2.00	-	10.00	-	-	-
	6. Indigenous system of medicines.			-	-	1.50	-	-	-
	7. Direction and Administration			5.00	-	55.00	-	-	-
	Total	218.00	105.86 95.32	70.70	33.70	400.00	237.00	-	136.00

HEALTH
FIVE YEAR PLAN (1978-83) FINANCIAL OUTLAYS -- HEALTH PROGRAMMES.

Sl. No.	Programme	Plan period		1978-83										Phasing of outlays for 1978-79				
		1974-78		Capital					Revenue					appro-ved out-lays	79-80	80-81	81-82	82-83
		App- roved out-lay	Expdr. 76-78	Spill- over	New works	Total	New works	Con- nuing works	Total	Staff	Equip- ment.	Cont- inge- ncies	Total					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.	Rural Health Programmes.				237.00	237.00	136.00	-	137.00	-	-	-	101.00	33.70	50.30	50.00	51.00	52.00
2.	Control of Communicable diseases.				7.00	7.00	-	-	-	-	-	-	7.00	1.60	1.40	1.50	1.50	1.00
3.	Hospitals and Dispensaries	218.00	95.30		81.00	81.00	60.00	-	60.00	-	-	-	21.00	27.00	13.00	13.00	14.00	14.00
4.	Medical Edn. and Research				8.50	8.50	-	-	-	-	-	-	8.50	1.40	2.10	2.00	1.50	1.50
5.	Training Programme				10.00	10.00	-	-	-	-	-	-	10.00	2.00	2.00	2.00	2.00	2.00
6.	Indigenous systems of medicine and Homoeopathy.				1.50	1.50	-	-	-	-	-	-	1.50	0.50	0.25	0.25	0.25	0.25
7.	Other Programmes				55.00	55.00	-	-	-	-	-	-	55.00	5.00	12.00	12.00	13.00	13.00
Total :-		218.00	95.30		400.00	400.00	196.00	-	196.00	-	-	-	205.00	70.70	81.05	80.75	83.25	83.75

For Fifth Plan
This relates to minimum needs programme

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
I. Rural Health Programmes.																		
i. Primary Health Centres and Sub-Centres																		
	-	-	-		237.00	237.00	136.00	-	136.00	-	-	-	101.00	33.70	50.30	50.00	51.00	52.00
II. Control of communicable diseases.																		
i. N.M.E.P.																		
	-	-	-		2.50	2.50	-	-	-	-	-	-	2.50	0.50	0.50	0.50	0.50	0.50
ii. Cholera																		
	-	-	-		0.50	0.50	-	-	-	-	-	-	0.50	0.10	0.10	0.10	0.10	0.10
iii. T.B.																		
	-	-	-		3.50	3.50	-	-	-	-	-	-	3.50	0.90	0.70	0.80	0.80	0.30
iv. STD (VD)																		
	-	-	-		0.50	0.50	-	-	-	-	-	-	0.50	0.10	0.10	0.10	0.10	0.10
III. Training																		
	-	-	-		10.00	10.00	-	-	-	-	-	-	10.00	2.00	2.00	2.00	2.00	2.00
IV. Indigenous system of medicine																		
	-	-	-		1.50	1.50	-	-	-	-	-	-	1.50	0.50	0.25	0.25	0.25	0.25

DETAILS RELATING TO HOSPITAL BEDS-STATE

STATE : SIKKIM

Agency/Nature of beds	Central Beds		T.B. Beds		Leprosy Beds		Others.		Total of all beds.	Patent of days (in 1000)		No. of deaths among patients		Beds position as on 77-78.	Target 82-83
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural		In	Out.	Out	In		
	1.	2.	3.	4.	5.	6.	7.	8.		9.	10.	11.	12.			13.	14.	15.
1. At State Head quarters.	200	-	67	-	-	10	-	-	277	NA	NA	NA	NA	NA	NA
2. District level	40	-	10	-	-	-	-	-	50	NA	NA	NA	NA	NA	NA
3. Taluka level	20	-	-	-	-	-	-	-	10	NA	NA	NA	NA	NA	NA
(NA - Not Available)															

Health programmes-Targets and Achievement for State areas separately where sub-plan exists and Union territories.

HLH-19
Appendix IV(H)

Programme	Unit	Achievements of physical targets (cumulative as on 1973-74)	Position at the end of Fifth Plan i.e. position obtaining in 1977-78.	Target fixed for the Plan 1978-83	1978-79		Phasing for 1979-83			
					Target fixed.	Likely achievement.	1979-80	80-81	81-82	82-83
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.

I. Minimum Needs Programme.

1. Primary Health Centres -			8	7	2	2	1	2	1	1
2. Primary Health Sub-Centres. -			21	24	4	4	4	5	5	6

WATER SUPPLY AND SEWERAGE.

INTRODUCTION.

High priority is being accorded in the National plan for providing water supply facilities to cover all the problem and difficult villages of the nation. The problem villages are broadly divided into three categories namely :-

- (a) those which do not have an assured source of drinking water within a distance of 1.6 kms;
- (b) those where the source of water supply is exposed to water borne diseases like cholera and guinea worms and ;
- (c) those which suffer from excessive salinity iron or fluorides.

As far as Sikkim is concerned no village comes under ^{the} latter two categories. Although no chemical tests of raw water have been conducted in the numerous water sources there has been no indication of gross turbidity or existence of harmful bacteria in the water carrying water borne diseases. People of the rural areas have been consuming the water since a long time and this is adequate proof of the non-existence of pathogenetic bacteria in the natural springs and ground water which provide the sources. Similarly there are no sources which suffer from salinity in the hills. There is of course some mica content in the water, but this is not alarming. Therefore, the villages to be covered with drinking water supply schemes, are those which come under the first category that is those for which the water has to be tapped from long distances.

RURAL WATER SUPPLY SCHEMES.

So far drinking water supply schemes in the rural areas have been implemented on an adhoc basis. There is no systematic evaluation to consider which of the villages are more problematic than the others.

The scheme used to be executed on the basis of recommendations made by the District Planning Committee and mainly through the existence of favourable factors making it easier to tap the sources. Consequently, it is not possible to give the exact number of problem villages which have been covered so far. However, for the future the whole State is to be divided into 430 revenue blocks. Each revenue block will be considered to be the basic unit for the supply of drinking water. Since in each of the revenue blocks there is likely to be three or four villages or hamlets it is difficult to say whether any of the revenue block has been fully covered with drinking water supply schemes. The department of Rural Works which is in charge of implementing the schemes is however preparing a map to indicate the works in each of the revenue blocks. Pending this it is proposed to formulate more water supply projects so as to cover the entire revenue blocks in a phased manner. By the end of the Plan period 1982-83 at least one third of the revenue blocks that is approximately 140 of them will be fully covered with safe drinking water schemes. While formulating the projects priority would naturally be given to those villages which are drier than others and those where there are special institutions like monasteries and temples.

The drinking water supply schemes in the rural areas are being implemented by constructing small intake tanks and after natural sedimentation and providing for a mesh to isolate floating impurities the water is led through low density polyethylene pipes to a central point of the village although the construction of such schemes was found to be both economical and convenient the end result has not been fully satisfactory because of the lack of civic sense among the villagers. The polypipes are very often cut open by the beneficiaries so as to draw water from more convenient points. As a result of this experience gradually a shift.

to GI pipes will be made although the initial investment is higher. The maintenance cost of schemes implemented through G.I. pipes is far less than that of poly pipes. However, since large stocks of poly pipes have been acquired the shift will be made very gradually in such manner that only by the end of 1982-83 all the schemes will be through G.I. pipes. None of the rural water supply schemes implemented so far has provided for water treatment. However, rudimentary methods of plain sedimentation and filtration have found to be effective in reducing the turbidity and in removing the cyst, ova and relatively large organisms including suspended matters. During the plan period steps will be taken to introduce a system of disinfecting water by chlorination so as to kill whatever pathogenic organisms are found in the water. The chlorination method will be so chosen that it can be practised by the beneficiaries themselves. Adequate training programmes will be organised for this purpose. It is expected that by this method the purity of the water to be supplied to the rural population will be greater than at present.

Apart from the schemes undertaken by the State Government a centrally sponsored scheme known as the accelerated rural water supply scheme has already been introduced in the State. The purpose and the objectives of this scheme are similar to that of the other rural water supply schemes. However, these schemes were financed fully in the first year by the Centre and in the current year the States have been asked to contribute 25% of the cost. It is expected that the quantum of central assistance will be gradually diminished. In order to make sure that the schemes are not left behind in implementation, a suitable provision as counter-part assistance by the State is included. The total amount for rural water supply schemes which will include 343 numbers of new schemes, a few treatment plants with chlorine and a selected number of schemes where dried up sources are revived. A sum of Rs.200 lakhs is set apart out of which Rs. 177 lakhs will be for the schemes to be

implemented by the State and the remaining 23 as counterpart assistance to the centrally sponsored scheme. This amount is part of the revised minimum needs programme.

URBAN WATER SUPPLY.

During the Fifth Plan a water supply programme covering Gangtok town was completed. Under this scheme, a reservoir with a capacity of 1 million gallons has been built along with a treatment plant. In spite of a fairly abundant quantity of filtered water now being available in the town, it is observed that there is still shortage of water. It is therefore proposed to lay 8" pipe lines from the source to the reservoir and to extend the distribution system through new pipe lines covering more areas of the town particularly in the suburbs. The total outlay for the augmentation scheme within the town is projected as Rs.60 lakhs. After the completion of this scheme it is expected that Gangtok town will have regular supply of water for 24 hours. This facility is very essential in the context of more industries and tourism developing in the State.

Apart from Gangtok town there are other District Headquarters and bazars where augmentation as well as fresh schemes are required. A list of the bazars proposed to be covered under fresh schemes is given in table I-Water Supply. Augmentation schemes will be taken up in Singtam, Jorethang and Rabongla where the existing quantity of water supply is found to be inadequate. It is also proposed to set up treatment plants in all the District Headquarters and in Singtam, Rangpo and Jorethang which are the more important places from the point of view of population and industry. An amount of Rs.90 lakhs is proposed for other bazar water supply schemes which include new and augmentation schemes and treatment plants.

TABLE - I - WATER SUPPLY.

List of Bazars Proposed to be Covered During 1978-83.

New Scheme.

Makha.
Temi.
Yangyang
Lingdock
Middle Camp
New Singtam Bazar
Machung
Tashiding
Phodong

Augmentation.

Danthatang
Kewzing
Revangla
Pakyong
Singtam
Jorethatang & Nayabazar
Melli
Mangan
Legship
Rongli
Sombaria
Daramdin
Dikchu
Soreng
Majitar
Chungthatang

SEWERAGE

An underground sewerage system will be introduced in Gangtok town during the plan period. The project which is estimated to cost approximately Rs.75 lakhs has already been technically cleared by the Central Public Health and Environmental Engineering Organisation. The work has now been put to tender and it is expected that the laying of the pipes will be completed during the course of a year. Meanwhile, enquiries are already under way for the erection of the effluent plant and other accessories required for treating the sewerage. The scheme that has been sanctioned does not cover Gangtok town fully. It will therefore be extended in due course to cover the remaining areas. In order to take into account the price escalation factor and to make a beginning of the second phase of the scheme an outlay of Rs.100 lakhs is provided for the plan period.

The overall outlay for water supply and sewerage is thus Rs.450 lakhs, the breakup of which

is as follows :-

1.	Rural Water Supply Schemes (Minimum Needs Programme)	-	Rs. 200 lakhs.
2.	Augmentation Scheme in Gangtok.	- -	Rs. 60 lakhs.
3.	Other bazar Water Supply Schemes.	- -	Rs. 90 lakhs.
4.	Gangtok Sewerage.	-	Rs. 100 lakhs.
	TOTAL :		<u>Rs. 450 lakhs</u>

State/U.T. SIKKIM

Statement GN - 1.

DRAFT PLAN - 1978-83.HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE.

(Rs. in lakhs)

Head of Development.	Fifth Plan Outlay 76-79.	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay		Total	of which MNP	Foreign exchange content of total outlay	Capital content of total outlay.
			Total	of which MNP				
1.	2.	3.	4.	5.	6.	7.	8.	9.
Watersupply and Sewerage.	185.00	112.13	64.00	24.00	450.00	200.00	-	160.00

State/U.T. SIKKIM

Statement No. GN - 2.

DRAFT PLAN 1978-83 STATE/U.Ts. - MINOR HEADS - OUTLAYS AND EXPENDITURE.

(Rs. in lakhs)

Major Head of Development.	Minor Head of Development	Fifth Plan Outlay 1976-79.	1976-78 Annual Expdt. Actual Expdr.	1978-79 Agreed Outlay		Proposed Outlay (1978-83)			
				Total	of which MNP	Total	of which MNP	F.E. content of total outlay (as shown in Col.7)	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<u>WATER SUPPLY AND SEWERAGE.</u>									
1. Rural Water Supply Schemes(MNP)	)		46.04	24.00	24.00	200.00	200.00	-	-
2. Urban Water Supply)								
a) Augmentation Scheme in Gangtok.	)	185.00	21.04	10.00	-	60.00	-	-	60.00
b) Other bazar water supply schemes.	)		44.03	15.00	-	90.00	-	-	-
3. Gangtok Sewerage.	)		1.02	15.00	-	100.00	-	-	100.00
TOTAL :		185.00	112.13	64.00	24.00	450.00	200.00	-	160.00

HOUSING

Review of progress.

Till the beginning of the Fifth Plan there were no Housing Schemes worth the name within the Plan. During the Fifth Plan period greater importance was given to this aspect of developmental planning mainly to cater to the accommodation requirements of Government staff, both deputationists as well as locals, the number of whom rapidly increased with the expanded activity of Government. Accordingly a phased programme of constructing Government quarters mainly Class II, Class III, Class IV was initiated in Gangtok town. During the Fifth Plan period 66 units of Class III quarters and 12 units of Class II quarters were constructed as multi-storeyed buildings. Despite this rapid advancement in construction work it has not been possible to meet the housing needs of the State Government employees. During the Plan period a large number of Government quarters will therefore be constructed. Such quarters will not only be put up in Gangtok but also in other District Headquarter towns as well as in places like Rangpo, Singtam and Jorethang where there are ^Uovernment establishments.

During the Fifth Plan for the first time the State availed itself of loan assistance from the Life Insurance Corporation. The amount of loan so far drawn from LIC is Rs. 10 lakhs. In order to meet the growing demands of housing, it is necessary to set up a Housing Board as in the other States so that there will be greater dependence on institutional financing particularly from HUDCO rather than dependence on the Government budget. A Housing Board will therefore be established.

So far, very little has been done in the field of Social Housing. The only Social Housing programme taken up was to make a beginning in the construction of houses for labourers in the Sikkim Mining Corporation under the subsidised Industrial Housing Scheme.

Contd.../-

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A sum of Rs. 2 lakhs has been provided in the current year for constructing teachers quarters in the remote areas which also can be considered as a Social Housing Scheme. No progress has been achieved in granting house sites to landless labourers mainly on account of the fact that it has been difficult to decide as to who is a landless labourer of the State. This difficulty will cease to exist since the Land Reform law has now come into being. The scheme of granting house sites to the landless will therefore be pursued vigorously in the coming years. Another category of beneficiaries has been Government servants who construct their own houses by availing themselves of loans directly from the Government. Since there is a large demand for such loans this scheme will also be continued during the Plan period.

The brief details of the schemes proposed for 1978-83 are as follows:

(a) Rental Housing.

The Rental Housing Scheme which is the scheme for constructing quarters for Government servants will be implemented through the Housing Board from 1979-80 onwards. The Board is expected to be set up during the course of the current financial year. The rental housing scheme will take into account the residential requirements of not only State Government officers and deputationists working on behalf of the State but also Municipal employees of the Corporation. A phased programme of construction will be chalked out by the Housing Board. In order to meet the requirements of the rental housing scheme which includes an outlay of Rs. 33 lakhs for the current year at the disposal of the S.P.W.D. an amount of Rs. 108 lakhs is proposed. Deducting the amount of Rs. 33 lakhs the remaining Rs. 75 lakhs will be in the form of share capital assistance to the Housing Board. With this amount the Housing Board is expected to avail itself of nearly
Contd.../-

Rs. 250 lakhs of institutional finance.

Apart from the rental housing scheme the Housing Board, when set up, will develop certain residential colonies more or less on the same pattern as are developed within City Improvement Trust areas. Such buildings will be available for purchase by members of the public. This is part and parcel of the House Buildings Programmes assisted by the Hudco, and so the State Housing Board will avail itself of the opportunity.

SOCIAL HOUSING.

Under the Social Housing Schemes the most important one will be the scheme for granting house sites to the landless labourers. The objective is to benefit the poorest sections of the population. According to the Land Reforms Act only those tenants who cultivate land belonging to landlords holding more than the ceiling will be eligible for getting an allotment of the surplus land. Since there would be a large number of other categories of tenants and landless labourers who cannot hope to gain ownership rights the scheme will be extended to them provided they are Indian citizens. In accordance with the guidelines of the Government of India the scheme will be implemented by developing plots spending approximately Rs. 700 to 800/- per plot. In addition, building materials will also be advanced at subsidized rates, Low cost construction techniques will be popularised so that as many dwelling places might come up in the least possible time. The programme of providing rural water supply and electricity will be coordinated in such a manner that areas where there is a concentration of such houses will be given due priority. An amount of Rs. 16 lakhs is proposed for the scheme.

The subsidised Industrial Housing Scheme under which low cost houses are constructed for labourers of certain industrial undertakings like the Mining Corporation, the Government Fruit Preservation Factory and the Tea Board will be continued for which a sum of Rs. 8 lakhs is proposed. Contd..../-

So far, schemes for the economically weaker sections and for the low income groups have not been instituted in the State. A beginning will be made in this direction by placing suitable amounts at the disposal of the District Collectors. Rules of EWS and LIG schemes will be drawn up by adopting similar rules of the neighbouring States. Such schemes it is hoped will serve the requirements of the poorer section of the population particularly in the rural areas. The outlay contemplated for these schemes is Rs. 28 lakhs.

LOANS TO GOVERNMENT SERVANTS

So far only about 15% of the total number of loan applications for House Building advances by the Government employees has been dealt with. In the year 1977-78, 49 cases were disposed of and in the current year 56 more applications are proposed to be considered. From 1979-80 onwards about 80 to 100 applications are proposed to be considered and for this purpose the outlay will be progressively increased from Rs. 4 lakhs of the current year to Rs. 7, 9, 10 and 10 lakhs in the subsequent years. The overall outlay contemplated for the scheme is Rs. 40 lakhs.

The total outlay for Housing is Rs. 200 lakhs, brief details of which are as follows:

1.	Rental Housing including share capital to the Housing Board	Rs. 108 lakhs
2.	<u>Social Housing</u>	
	(a) House sites to landless	Rs. 16 "
	(b) Industrial Housing	Rs. 8 "
	(c) EWS and LIG	Rs. 28 "
3.	Loans to Government Servants	Rs. 40 "
		<hr/>
	Total :	Rs. 200 lakhs
		<hr/>

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79 Agreed Outlay Total of which MNP	Total of which MNP	Foreign exchange content of total outlay	Capital content of total outlay		
1	2	3	4	5	6	7	8	9
HOUSING	54.00	52.00	40.00	-	200.00	-	-	148.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan outlay 1976-79	1976-78	1978-79	Proposed outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Outlay Total	of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7)	Capital content of total outlay.
1	2	3	4	5	6	7	8	9	10
HOUSING	1. Rental Housing including share capital to the housing board		40.52	33.00	-	108.00	-	-	108.00
	2. Social Housing								
	(a) House site to landless	54.00	0.50	0.50	-	16.00	-	-	-
	(b) Industrial Housing		0.96	2.50	-	8.00	-	-	-
	(c) Economically Weaker Section & Low Income group Housing.		-	-	-	28.00	-	-	-
	Total of (2)		1.46	3.00	-	52.00	-	-	-
	3. Loans to Govt. Servants		10.04	4.00	-	40.00	-	-	40.00
	Total 1,2,& 3	54.00	52.02	40.00	-	200.00	-	-	148.00

URBAN DEVELOPMENT, HOUSING, WATER SUPPLY & SEWERAGE

URBAN DEVELOPMENT.

There are no large towns as in the plains in Sikkim. However, the capital town of Gangtok which has an estimated population of about 40,000 at present can be considered as an urban centre particularly in the light of increased urbanisation in the form of more buildings, more industries and other economic activities developing within this area. There was no Municipal authority before 1975. Gangtok Municipal Corporation, which is a nominated body came into existence towards the end of 1975. During the Fifth Plan period the Corporation was given assistance by the State Government in the form of grants. With the help of these grants various programmes for the benefit of the public have already been implemented. These include the construction of public latrines, market sheds, parks and improvement of existing meat stalls. A system of garbage disposal has also begun. The Gangtok Municipal Corporation has also developed an engineering section within it and they have successfully taken up a programme of widening some of the more important roads in the town and in training 'Jhoras'.

The future programme of the development of the Gangtok Municipal Corporation will be shaped keeping in mind the recommendations made in the Master Plan which was prepared by a team of experts from the Central Government. Suitable changes will be made to suit the existing conditions. So far the revenue earnings of the Gangtok Municipal Corporation have been very negligible. However proposals are underway to find ways and means of ensuring that more revenue flows into the Corporation through special taxes on property, licence fees etc. During the coming few years the Corporation will also make an attempt to float debentures so that an independent source of revenue can be explored. In other words complete dependence upon the Government will be dropped gradually.

Gangtok town is so situated that the provision of better facilities for the public has not only the effect of improving amenities to those residing in Gangtok but also to those living in surrounding rural areas because by providing a variety of centralised services, it will be possible for the rural people to market at Gangtok agricultural supplies and produce of village and small industries. On the other hand the town will be also be above to provide specialised skills not available in the rural areas like medicines building materials etc. Planned urbanisation is therefore a necessary component of the economic development programme. Such development will however bring in its wake various other problems the result of which is the growth of slums. The need to provide environmental improvement of slums without demolition and re-location is therefore a part of the revised minimum needs programme. Fortunately there are no slums as such in Gangtok town and hence no special programme is envisaged for environmental improvement of slums. However, there are certain areas in the town which are somewhat congested and where existing sanitation facilities are poor and where on account of lack of other civic amenities the environment is generally polluted. A scheme to improve the surroundings of such areas by proper drainage and cleaner approaches will be taken up in the plan period. A provision of Rs. 10.00 lakhs is earmarked for this purpose which could come under the category of revised minimum needs programme.

In order to improve the amenities in the town the Corporation will continue its programme of constructing public latrines. A few rain-shelters will also be put up particularly near places like schools and government offices where there is a large congregation of persons. There is a large demand for more shopping centres from the residents of the town living in certain isolated pockets. A phased programme of developing and constructing such shopping centres in atleast three more areas will be taken up. Construction of parks and recreation centres is also one of the prime responsibilities of

the Corporation and therefore small parks with recreation facilities and playing facilities for children will be constructed in different places.

The general upkeep of the town is also the responsibility of the Corporation. Periodical cleaning of the town wherever there are choked drains and other obstructions should be resorted to. For this purpose water hoses and other equipment will be purchased.

So far the Gangtok Municipal Corporation have not been providing certain types of services which are normally provided by urban local bodies. Among these special mention may be made of rounding up of stray dogs and in the disposal of the carcasses of dead animals. Special attention will be paid to these services and suitable strengthening of staff will be made for these purposes. This will also include the claiming of dead bodies from S.T.N.M. Hospital when there are no claimants.

There are no proper parking places for vehicles in the town. So also the existing community hall is a very small hall which can accommodate only about 250 persons. Both for developing parking places and for constructing a full fledged town hall with proper stage facilities a large amount of capital finance is required. Reputed financing agencies particularly HUDCO will be approached for providing finances for these purposes. In addition a social housing scheme within the Municipal Area will also be formulated with HUDCO finance. These houses will be provided not only for the weaker sections of the population but also for the sweepers engaged by the municipality. In order to meet the proportionate cost of these schemes a total sum of Rs. 55 lakhs is set apart for the Plan period.

Among the civic amenities to be provided another area requiring some money is in respect of garbage disposal. The Corporation is contemplating the acquisition of a land to be developed as a dumping ground and to acquire suitable number of vehicles like trucks and tractors for the removal of the garbage. An incinerator will also have to be procured. For these purposes Rs. 8 lakhs is provided.

As regards the roads, water supply and 'Jhora' training suitable proposals have been included in the respective sectoral plans. For the other items connected with the Corporation alone the total amount required is Rs. 103 lakhs for the five year period from 1973 to 1983. Out of this the internal resources of the Corporation are estimated to be Rs. 95 lakhs. The assistance by the Government will be the remaining Rs. 95 lakhs out of which the staff salaries of the Corporation are also expected to be partially met.

OTHER BAZARS.

As far as other bazars are concerned there are quite a number of small bazars in the State. These bazars are to be suitably developed in accordance with the technique of Town Planning. For this purpose the Local Self Government Department will be adequately strengthened in its engineering cell not only by the induction of more officers and draftsmen but also by appointing an expert in Town Planning. Adequate finances are necessary for developing the bazars by acquiring land adjoining to the existing market centres. After acquisition of land the future development will be based on the plan prepared by the Town Planning expert. Among the amenities contemplated in the bazars are construction of public latrines, hat sheds and meat stalls. In some of the bazars there is acute congestion of households impairing the environmental conditions. In such areas special programmes for improving the general surroundings will be undertaken. In particular draining facilities will be improved. In most of the bazars the sweepers do not have residential facilities. Since they belong to a disadvantaged section of society a programme for constructing quarters for them adopting low cost techniques will also be instituted. Most of the bazars are in urgent need of protective works not only to safeguard them against landslides and erosion but also from the fury of the rivers. Suitable allocations have been made for these purposes in the soil conservation and flood control sectors. Such programmes will be taken up by maintaining close coordination between the concerned departments.

A summary of various programmes with their financial outlays :

for the five year period is given below :

GANGTOK MUNICIPAL CORPORATION.

1. Environmental improvement	....	Rs. 10	lakhs
2. Social Housing including land acquisition		Rs. 28	"
3. Public latrines	....	Rs. 7.	"
4. Rain shelters	....	Rs. 2	"
5. Shopping centres	....	Rs. 5	"
6. Parks	....	Rs. 3	"
7. Upkeep of town and provision of community services		Rs. 1	"
8. Parking place for vehicles	....	Rs. 10	"
9. Town hall	....	Rs. 12	"
10. Quarters for sweepers	....	Rs. 2	"
11. Garbage disposal	....	Rs. 8	"
12. Direction and Administration	....	Rs. 15	"
		<u>Total Rs. 103 lakhs</u>	

Out of this amount Rs. 8 lakhs will be internal revenues of the Corporation. Government assistance is thus limited to Rs. 95 lakhs.

OTHER BAZARS.

1. Public latrine	....	Rs. 10	lakhs
2. Hat sheds	....	Rs. 9	"
3. Strengthening of the Engineering cell and institution of Master Plan	....	Rs. 10	"
4. Meat stall	....	Rs. 6	"
5. Environmental improvement of slums	....	Rs. 3	"
6. Land Acquisition to extend bazars	....	Rs. 10	"
7. Quarters for sweepers	....	Rs. 7	"
8. Machinery and equipment including motor vehicles		Rs. 2	"
		<u>Total : Rs. 57 lakhs</u>	

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAY-S-AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign exchange content of total outlay	Capital content of total outlay
1	2	3	4	5	6	7	8	9
Urban Development	36.00	21.39	13.50	-	160.00-			22.00

DRAFT PLAN 1978-83 STATE/U.T.s - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Out- lay (1976- 79)	1976-78	1978-79		Proposed outlay 1978-83			Capital content of total outlay.
			Annual Expdr. Actual Expdr.	Agreed Outlay Total of which MNP	Total	of which MNP	F.E. content of total out- lay (As shown in Col.7)		
1	2	3	4	5	6	7	8	9	10
<u>Urban Deve-</u> <u>lopment.</u>	^A Assistance to Gangtok Municipal Corporation.								
	(1) Environ- mental Im- provement		-	-	-	10.00	-	-	-
	(2) Social housing including land acqui- sition.		-	-	-	26.00	-	-	-
	(3) Public latrines.	36.00	2.80	1.90	-	7.00	-	-	-
	(4) Rain shel- ters.		-	0.75	-	2.00	-	-	-
	(5) Shopping centres & Meat stalls.		2.41	1.60	-	5.00	-	-	-

1	2	3	4	5	6	7	8	9	10
(6) Parks			1.59	1.00	-	3.00			
(7) Upkeep of town and provision of community services.			-	-	-	1.00			
(8) Parking place for vehicles.			-	1.25	-	10.00			
(9) Town hall			-	-	-	12.00			12 00
(10) Quarters for Sweepers.			-	1.00	-	2.00			
(11) Garbage disposal			-	-	-	8.00			
(12) Direction & Administration.			8.73	2.00	-	15.00			
Total assistance of Gangtok Municipal Corporation.			15.53	9.50	-	103.00			12.00

Contd/v..... 3

1	2	3	4	5	6	7	8	9	10
<u>Urban Deve-</u>									
<u>lopment.</u>									
(B). <u>Other</u>									
<u>bazar areas.</u>									
1. Public latrines.	3.51	1.40	-	10.00	-	-	-	-	-
2. Hat sheds.	1.40	1.60	-	9.00	-	-	-	-	-
3. Strengthening of Engg. Cell & instituting Master Plan.	-	-	-	10.00	-	-	-	-	-
4. Meat stalls.	-	-	-	6.00	-	-	-	-	-
5. Environmental improvement of slums.-	-	-	-	3.00	-	-	-	-	-
6. Land acquisition to extend bazars.	0.95	1.00	-	10.00	-	-	-	-	10.00
7. quarters for sweepers.	-	-	-	7.00	-	-	-	-	-
8. Machinery & Equipment including motor vehicles.	-	-	-	2.00	-	-	-	-	-
Total:- Other bazar Areas.	5.86	4.00	-	57.00	-	-	-	-	10.00
Total: A & B.	36.00	21.39	13.50	-	160.00	-	-	-	22.00

INFORMATION AND PUBLICITY.

A separate department for Information and Publicity has been functioning in the State for a longtime. So far, the main work of this department has been in producing material for disseminating the official news of the Government and in projecting the developmental work of the Government through various publicity media. These have been achieved primarily by publishing a tri weekly news bulletin known as Sikkim Herald not only in the English language but also in the Nepali language. A beginning has been made in printing the Sikkim Herald in the Lepcha language also. So far as other publicity measures are concerned the department has been organising film shows and exhibitions where still photographs of governmental activities are depicted prominently. With a view to widening the publicity coverage District Information Centres have already started in two out of the four districts of the State. These centres are expected to provide the rural areas with adequate publicity material and a system of feedback will be evolved so that a critical assessment of developmental programmes can be made properly. This will enable the Government to initiate remedial measures, whenever due. During the next Five years, the District Information Centres will be strengthened and expanded by providing them with adequate man power and equipments including vehicles. Trained personnel will be posted particularly with a view to obtaining meaningful feedback.

The main policy of the department will be to improve the method of publicity which will be achieved not only through audio-visual methods but also in more meaningful publications. A full-fledged film service section will be essentially created for the purpose of producing films on developmental

projects. The films so produced will show clearly how by virtue of proper investment the developmental process can set in motion various ^{economic} activities. This section will be gradually developed into a self-reliant unit until which time help from other sources will be procured. Along with the production of such films the photographic coverage of government activities will also be widened by equipping the section with more sophisticated cameras. As far as publications are concerned the get-up of the Sikkim Herald will be improved upon by creating an editorial Board which will have a fair degree of autonomy. In addition, monthly or fortnightly magazines mainly consisting of photographs with choice captions will be produced. The object is that with wider distribution of photographic material the masses can better appreciate the governmental work than ordinary literature.

In order to keep pace with the developments in this field it is necessary to train the local persons in institutions like the Indian Institute of Mass Communication. A phased programme of training will be worked out that trained personnel would be available if and when the new All India Radio Station contemplated at Gangtok comes into being.

The overall staff strength of the department will also be suitably increased so as to meet the additional requirements particularly in the Information Centres. In order to ensure mobility, which is an essential pre-requisite to the success of publicity measures, suitable number of vehicles will also be provided. Further, a Translation Wing will have to be organised particularly in view of the need to translate into the local language the publicity material.

In order to meet the various requirements of the department as mentioned above a provision of Rs. 50 lakhs is earmarked for publicity for the period 1978-83.

State/UT _____
Statement GN-I.

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Outlay of which MNP	Total	of which MNP	Foreign Exchange content of total outlay	Capital content of total outlay
	2	3	4	5	6	7	8	9
235. Information & Publi- city	21.00	17.91	7.00	-	50.00	-	-	-

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Deve- lopment	Fifth Plan Out- lay (1976-79)	1976-78	1978-79		Proposed Outlay 1978-83			
			Annual Expdr. Actual Expdr.	Agreed Total	Outlay of which MNP	Total	of which MNP	F.E. content of total outlay (as shown in Col. 7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
285. Infor- mation & Publi- city	(a) Direction & Adminis- tration	1.68	0.74	0.53	-	3.45	-	-	-
	(b) Advertise- ment & visual Publicity	8.85	7.06	2.78	-	12.30	-	-	-
	(c) Information Centre	2.15	1.09	0.85	-	9.10	-	-	-
	(d) Publica- tions	8.32	6.36	2.84	-	13.90	-	-	-
	(e) Research & Training	-	-	-	-	0.25	-	-	-
	(f) Films	-	-	-	-	5.00	-	-	-
	(g) Photo Ser- vice	-	-	-	-	6.00	-	-	-
TOTAL :-		21.00	15.25	7.00	-	50.00	-	-	-

LABOUR AND LABOUR WELFARE.

A department of Labour Welfare was established for the first time only after Sikkim became a part of the Union of India. The main purpose of the department is to put into operation the provisions of labour laws so that satisfactory working conditions, safety of workers and provision of facilities to the workers can be ensured. With the extension of various Central Acts to the State the enforcement of the provisions of these statutes will have to be made more vigorously and for this purpose suitable strengthening of the office machinery will have to be undertaken. So far no attention has been paid towards the development of welfare and recreation centres in industrial growth points. Such centres are essential to provide recreation to the labourers and their families and also to inculcate in them habits like reading and leading group discussions etc. These centres can also be developed into night schools. Keeping these aspects in mind atleast five to six such centres will be set up during the plan period. Another area on which some attention will be paid is to render necessary help in setting up Workers' organisations. This is relevant not only in the context of preventing their exploitation but also to ensure to them the benefits under the development measures. With the extension of the Trade Union Act the growth of such organisation will be automatic and to help them in their initial stages suitable financial assistance has to be extended. Wherever bonded labour has been noticed the evil will be specially tackled so that such labour is rehabilitated. Contract labour will also be discouraged. A total provision of Rs. 10.00 lakhs is proposed for these purposes.

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978 - 79		Proposed Outlay (1978-83)			
			Agreed Outlay Total of which MNP	Total of which MNP	Foreign exchange content of total Outlay	Capital content of total outlay		
1	2	3	4	5	6	7	8	9
Labour and Labour welfares	1.00	0.76	0.45	-	9.50	-	-	3.25

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

State/U.T SIKKIM
Statement No. GN - 2

(Rs. lakhs)

Major Head of Development	Minor Head of Development	Fifth Plan outlay 1976-79	1976-78	1978-79		Proposed Outlay 1978-83			
			Annual Edpdr. Actual Expdr.	Agreed Total	Outlay of which MNP	Total	of which MNP	F.E. content of total outlay (As shown in Col.7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
Labour and Labour welfares	1. Direction and Administration	1.00	0.76	0.45	-	1.50	-	-	-
	2. Welfare centres		-	-	-	5.25	-	-	3.25
	3. Bonded Labour		-	-	-	1.50	-	-	-
	4. Grants in aid for workers organisation		-	-	-	1.00	-	-	-
	5. Training of workers		-	-	-	0.25	-	-	-
TOTAL:		1.00	0.76	0.45	-	9.50	-	-	3.25

CHAPTER IV - (CONTD.)

13. Development of Backward Classes.
14. Social Welfare.
15. Nutrition.
16. Planning Machinery.
17. Press.
18. Public Works.

Development of Backward Classes:

Consistent with the main objective of the National Plan in ameliorating the conditions of the scheduled castes and Scheduled tribes and other backward communities of the State a separate department for this purpose was created during the Fifth Plan period. So far however the progress achieved has been only negligible. The identification of Scheduled Castes has itself been a problem and it was only very recently that the Government of India classified Scheduled tribes in the State. Now that the department has been set up the main objective of the Plan of 1978-83 would be to promote schemes which will ultimately remove social disabilities and inhibitions. The strategy would be to raise the literacy rates by providing meaningful scholarships and by bringing about changes in occupational patterns so as to provide adequate living standards. Apart from special schemes emphasis will be laid on the identification of schemes in the general sectors of development which will be of special benefit to Scheduled Castes and Tribes. This, preference will be given for locating primary schools, PHCs and drinking water schemes to areas where there is a larger concentration of Scheduled Castes. So also for agricultural development schemes including Animal Husbandry special efforts will be made to quantify benefits for this section of the population.

No attempt has been made so far in the Plan to divert funds from other development sectors exclusively for the purpose of scheduled castes. Whatever little has been done has been only through special programmes

which were mainly the provision of grants to the few members who have been identified. The grants were mainly for housing and other self employment ventures like the purchase of sewing machines, knitting machines etc.

During the period 1978-83 an attempt will be made to disaggregate the amount in each sector of plan activity purely for the benefits of schedule castes and tribes. This will ensure that a sizeable part of the Plan outlay will be utilised for the benefit of Scheduled castes and tribes. The department which is in charge of this section of the population will be adequately strengthened particularly by providing transport facilities. Specific amounts will be earmarked for the grant of scholarships and stipends both for students up to class XII and after class XII. Similarly, books and stationaries will be provided free of cost to the poorer section of students belonging to the community. Wherever possible such students will be given special facilities for coaching so that their academic attainment will not be impaired. Apart from the students community those who are older will be helped in setting up household industries by providing the needed assistance in the forms of tools and machinery. In particular women will be provided with sewing machines and if necessary training programmes will be organised in conjunction with the industries department. Likewise distribution of milch cows, poultry and goats will also be undertaken. In order to improve housing facilities construction grants will be made available particularly for purchasing thatching material. The total outlay for Scheduled Caste Welfare will be Rs. 35.00 lakhs for those various purposes.

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(in lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			Capital content of total outlay
			Agreed Outlay	Total of which MNP	Total of which MNP	Foreign exchange content of total outlay		
1	2	3	4	5	6	7	8	9
Development of Backward classes	7.00	3.86	4.00	-	35.00	-	-	-

DRAFT PLAN 1973 - 83 STATE/U.T.s - MINOR HEADS - OUTLAYS AND EXPENDITURE

State/U.T. SIKKIM
Statement No. GN - 2.

Major Head of Development	Minor Head of Development	Fifth Plan Outlay 1976-79	1976-78 Annual Expd. Actual Expd.	1973-79 Agreed Outlay		Proposed outlay 1973 - 83			
				Total of which MNP		Total	of which MNP	F.E. content of total outlay (As shown in Col. 7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
Development of Backward classes	1. Direction and Administration	7.00	3.85	1.00	-	9.81	-	-	-
	2. Educations		-	-	2.00	-	-	-	-
	3. Economic aid		3.00	-	23.19	-	-	-	-
TOTAL :		7.00	3.86	4.00	-	35.00	-	-	-

(Rs. lakhs)

SOCIAL WELFARE AND NUTRITION.

INTRODUCTION.

Social Welfare programmes were introduced in the State only after the Fifth Plan came into being. The programmes are designed mainly for the purpose of helping the down trodden section of the population and physically handicapped persons particularly those belonging to the vulnerable sections of society to become self-reliant. During the last two years measures were undertaken to provide facilities for destitute children, for working women and for infants of working women in the form of day care centres.

In the plan for 1978-83 these programmes will be further expanded and so formulated as to make them preventive rather than relief oriented. As far as possible these will be expanded to the rural areas so as to give relief to weaker sections of the community.

Review of the Previous Plan.

During the previous plan a working women's hostel was taken up for construction at Gangtok for providing accommodation for 90 inmates. Construction of this building has been completed and it will be opened for occupation during the course of this year. A destitute home for children with a capacity of 25 has been started at Kaluk which is a rural area in West Sikkim. Six creches for working women's children were established mainly to provide facilities for the children whose mothers have to work on construction sites. For the first time a State Social Welfare Board was also set up and various programmes providing benefit to war widows and others were initiated under its auspices. The

main handicap in accelerating the progress of work through the Social Welfare Board has been the near total absence of voluntary organisations.

Strategy and Programmes for the Plan 1978-83.

With the general economic development in the State leading to occupational mobility and with the increase in the levels of education and urbanisation the traditional social structure is rapidly undergoing a change in the State. People from different strata and social background are requesting for jobs un-related to their earlier family backgrounds. As a result of such changes the provision of welfare services has to be planned out in such manner that women in particular and children are adequately taken care of by preventive and developmental services. The schemes to be implemented will take into account the need to adequately impart training and production skills for women, and other physically handicapped so that they could gradually become self-reliant. A number of voluntary organisations which are very limited in number will be expanded by offering reasonable incentives. The main schemes are the following:

Women and Child Welfare.

In order to provide facilities for women particularly from the disadvantaged classes and for those who need protection and care two more working hostels will be constructed in two of the District Headquarters.

Destitute women will be rehabilitated through residential care and vocational training such as tailoring, knitting and weaving so that their production skills are increased. They will be given necessary fa-

cilities for setting up small production units. Schemes providing part time employment, including domestic services will also be taken up for implementation.

Since the programme of providing creches for children of working mothers has been found to be of immense use in Sikkim, one hundred creches are expected to be set up by 1983. Financial assistance will be provided to the voluntary organisations for running such creches both by recurring and non-recurring grants.

Attention will also be paid for one welfare of destitute children. Two more destitute homes, one at Namchi for one hundred inmates and another in the North District for 50 inmates will be constructed.

All these programmes are expected to be continued as centrally sponsored schemes out of which the commitment of the State is expected to be only ten percent of the total recurring and non-recurring cost.

Welfare of physically handicapped.

Not much work has been done so far in providing facilities in the form of curative and rehabilitative services for the physically handicapped. However, a beginning has been made for starting a school for the blind. A survey is being conducted to locate such blind children in the State. One blind student has been sent to Calcutta for a teacher's training course so that he can be employed in the blind school as and when it comes up. Further, stipends for hostels and school fees have been provided to one blind girl who has been admitted in the Nowgong blind school in Assam. A physically handicapped boy has also been similarly assisted for admission in one of the local schools. During the five year period from 1978 to 1983 particular emphasis will be laid on starting a school for

the blind within the State. This also is expected to be a Centrally sponsored scheme in which State's share is ten percent.

Social Defence.

So far the Children's Act and other legislative measures covering children have not been extended to Sikkim. There are no correctional Institutions and the pernicious practice of housing juvenile offenders with adults in the local jails has been adopted. This will be gradually done away with and during the period from 1978 to 1983 at least one remand home for the rehabilitation and reformation of juvenile delinquents, waifs and strays will be started. Adequately trained probation staff will also be appointed for the purpose. A research programme of social defence will also be instituted in order to assess the magnitude of the problem in the State so that the future programmes can be shaped in accordance with such findings. The possibility of providing social security by providing some financial assistance to old and destitute people in dire need will also be explored.

Grants in aid to Voluntary Organisations.

Grant in aid will be provided to voluntary organisations specially identified by the State Social Welfare Board. The utilisation of funds by the voluntary organisations will be strictly supervised.

Direction and Administration.

In order to meet the establishment cost of the Social Welfare Department which will be adequately strengthened with more personnel and vehicles, suitable provision is made.

The total provision for social welfare is Rs. 25.00 lakhs. The distribution in brief is as follows:

1)	Welfare of women and children	....	Rs.10.50 lakhs
2)	Welfare of handicapped	....	Rs. 3.00 "
3)	Social Defence	....	Rs. 2.00 "
4)	Aid to voluntary organisations	....	Rs. 3.00 "
5)	Direction and Administration	....	Rs. 6.50 "
	Total:		<u>Rs. 25.00 "</u>

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total of which MNP		Total of which MNP	Foreign Exchange content of total outlay	Capital content of total outlay	
1	2	3	4	5	6	7	8	9
Social Welfare	11.00	4.89	4.30	-	25.00	-	-	6.00

DRAFT PLAN 1978-83 STATE/ULIs - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs).

Major Head of Development	Minor Head of Development	Fifth 1976-78		1978-79		Proposed outlay 1978-83			Capital content of total outlay.
		Plan Outlay 1976-79	Annual Expendr. Actual Expendr. 79	Agreed Outlay Total	of which MNP	Total of which MNP	F.E. content of total outlay (AS shown in Col. 7)		
1	2	3	4	5	6	7	8	9	10
Social Welfare	1. Direction & Administration	4.20	2.61	1.35	-	6.50	-	-	-
	2. Welfare of the children	2.33	0.69	1.28	-	6.00	-	-	1.00
	3. Welfare of women	2.60	1.25	0.50	-	4.50	-	-	3.00
	4. Welfare of handicapped	0.37	-	0.37	-	3.00	-	-	1.50
	5. Aid to voluntary organisation	1.50	0.34	0.50	-	3.00	-	-	-
	6. Training Research & Social Defence	-	-	0.30	-	2.00	-	-	0.50
	Total:	11.00	4.89	4.30	-	25.00	-	-	6.00

DRAFT PLAN - 1978-83
SELECTED - TARGETS AND ACHIEVEMENTS

Sl. No.	Item.	Unit	Fifth Plan Target (1976-79)	1976-78 Achievement	1978-79 Target	1978-83 Proposed Target
1	2	3	4	5	6	7
1.	Working Women's Hostel	No.	1 No.	1 No.	Nil.	3 Nos.
2.	Destitute Homes.	No.	4 Nos.	2 Nos.	2 Nos.	3 Nos.
3.	Creches for the working Women's Children	No.	26 Nos.	8 Nos.	26 Nos.	100 Nos.
4.	Welfare of the Handicapped					
	(a) Scholarships for the handicapped.	No.	20 Nos.	Nil.	20 Nos.	80 Nos.
	(b) Construction of Blind School & Hostels.	No.	Nil.	Nil.	Nil.	One each (Hostel and school).
5.	Social Defence. (Construction of Remand Home and operation).	No.	Nil.	Nil.	Nil.	1 No.

DRAFT PLAN - 1978-83

Centrally Sponzored Schemes - Outlays and Expenditure.

Name of Scheme	Fifth Plan Outlay (1976-79)	1976-78 Actual Expdr.	(Rs. in lakhs)	
			1978-79 Approved Outlay.	1978-83 Proposed Outlay.
1	2	3	4	5
1. <u>Working Women's Hostel.</u>	2.30	1.25	0.27	3.00
2. <u>Welfare of desti- tute children.</u>	1.52	0.35	0.87	3.00
3. <u>Creches for working women's children.</u>	0.81	0.24	0.41	2.00
4. <u>Welfare of destitute women.</u>	0.40	Nil.	0.30	1.50
5. <u>Wel-fare of handi- capped.</u>	0.37	Nil.	0.37	.00
6. <u>Aid to Voluntary Organisxtion.</u>	1.50	0.34	0.50	3.00
7. <u>Social Defence.</u>	Nil.	Nil.	Nil.	2.00
Total:	6.80	2.18	2.65	17.50

STATEMENT SHOWING OUTLAY EXPENDITURE IN THE FIFTH PLAN AND PROPOSED OUTLAY FOR THE NEXT
FIVE YEAR PLAN - 1978-83 - SOCIAL WELFARE SECTOR.

Y

Sl. No.	Programme	Fifth Plan Approved outlay 76-79	Expdr. 76-78	Five Year Plan (78-83)				Phasing of outlays for				
				Spill over	New	Total	Capital	(1978-79) (approved Outlay)	1979-80	1980-81	1981-82	1982-83
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	<u>Direction and Administration (including training).</u>	4.20	2.61	—	6.00	6.00	—	1.35	1.15	1.15	1.15	1.20
2.	<u>Women Welfare.</u>											
	(a) Working Women's Hostel:	2.30	1.25	—	3.00	3.00	3.00	0.29	1.00	1.20	0.30	0.30
	(b) Welfare of Destitute Women:	0.30	Nil.	—	1.50	1.50	—	0.30	0.30	0.30	0.30	0.30
3.	<u>Child Welfare</u>											
	(a) Creches for the working women's children.	0.31	0.24	—	2.00	2.00	—	0.41	0.36	0.33	0.40	0.45
4.	<u>Welfare of handicapped.</u>	0.37	Nil.	—	3.00	3.00	1.50	0.37	1.50	0.35	0.28	0.40

Contd/-

1	2	3	4	5	6	7	8	9	10	11	12	13
	Others :-											
5.	<u>Correctional Services</u>											
	(a) Establishment of Remand Home	Nil.	Nil.	—	2.00	2.00	0.50	0.30	1.20	0.15	0.15	0.20
	(b) Training and re-search											
6.	<u>Welfare of Destitute and poor.</u>											
	(a) Construction & maintenance of destitute homes at Chakhung, Kaluk & Gangtok.	1.52	0.35	—	3.00	3.00	1.00	0.87	0.70	0.43	0.45	0.55
7.	<u>Grant-in-aid to Voluntary Organisations.</u>											
	aid to State Social Welfare Board.	1.50	0.34	—	3.00	3.00	—	0.50	0.60	0.60	0.60	0.70

Total approved Annual Plan outlays for 1976-79 = Rs. 11.00 lakhs.

Statement showing estimated level of non-plan component of expenditure reached at the
end of 1977-78 and 1978-79 - Social Welfare Sector.

Sl. No.	Programme	Estimated committed level of expenditure (non-plan expenditure) as on :	
		1.4.1978	1.4.1979.
1	2	3	4
I.	<u>Direction & Administration (including training)</u> i) ii) etc.		
II.	<u>Family & Child Welfare</u> <u>A. Women Welfare</u> i) Working women's Hostel ii) Welfare of poor destitute women. etc.	5.00 -	1 lakh. -
	<u>b. Child Welfare</u> i) Creches for working women's children. ii) etc.	60,000	2 lakhs.
III.	<u>Welfare of handicapped.</u> i) ii) etc.	Nil.	1 lakh.
IV.	<u>Correctional Services.</u> i) ii) etc.	Nil.	Nil.

Contd/-

1	2	3	4
V.	<u>Welfare of destitute and poor.</u> i) ii) etc.	2.40	4 lakhs.
VI.	<u>Grants-in-aid to voluntary organisations.</u> i) Grant to State Social Welfare Board. ii) etc.	21,500/-	35,000/-
VII.	<u>Other Schemes.</u> i) Border Area Project ii) Holiday Home etc.	Nil. 8,000/-	2.00 15,000/-

Statement showing achievement and proposed physical targets - Social Welfare Sector.

Sl. No.	Programme	Unit	Cumulative achievement at the end of fourth plan 1973-74)	Additions during Fifth Plan 1976-79	Proposed target (1978-83)	1978-79		Proposed phasing for 1979-83				Remarks.	
						Target fixed	likely achievement.	1979-80	1980-81	1981-82	1982-83		
1	2	3	4	5	6	7	8	9	10	11	12	13	
I.	Direction and Administration (including training).												
	i)												
	ii)												
	etc.												
II.	<u>Family & Child Welfare</u>												
	<u>a. Women Welfare</u>												
	i) Working Women's Hostel.	No.	Nil.	1 No.	3	3	Nil.	Nil.	1 no.	1 no.	Nil.	Nil.	Proposed to start 2 more working women hostels at the district.
	ii)												
	etc.												
	<u>b. Child Welfare</u>												
	i) Crèches	No.	Nil.	20 nos.	100	20	20	20	20	20	20	20	
	ii)												
	etc.												
III.	<u>Welfare of handicapped</u>												
	i) Stipend to blind children & physically handicapped.	No.	Nil.	20	80	22	22	30	40	60	80		
	ii) Establishment of blind school & Hostels.	No.	Nil.	1 no.	1	Nil.	Nil.	1					Contd/-

1	2	3	4	5	6	7	8	9	10	11	12	13
IV.	<u>Correctional services.</u> i) Reform Home ii) etc.	No.	Nil.	Nil.	1 No.	Nil.	Nil.	1No.	Nil	-	-	-
V.	<u>Welfare of destitute and poor.</u> i) Destitute Home ii) etc.	No.	2 Nos.	2 Nos.	1 No.	1No.	1 No.	-	-	-	-	-
VI.	<u>Grants-in-aid to voluntary organisations.</u> i) ii) etc.											
VII.	<u>Other Schemes.</u> i) ii) etc.											

Note : Please give information regarding Scheduled Castes and Scheduled Tribes covered separately.

N U T R I T I O N .

INTRODUCTION.

The Nutrition Programme in the State is also one of recent origin. It was with the introduction of the ICDS programme which has now been extended to three out of four Districts of the State that a real impetus has been given to this programme. Taking into account the difficult communication facilities of the State and the lack of facilities in some of the rural centres it was decided that the nutritious food material to be manufactured and supplied to the beneficiaries should be dry and easily transportable stuff which can be distributed easily to the beneficiaries. So far the main item being distributed is soya bean biscuits, which are manufactured under the directives of the department mainly to ensure the protein content.

POLICIES AND OBJECTIVES.

Under the supplementary nutrition programme which is an integral part of the I.C.D.S., children of the pre-school level who are severely under-nourished and expectant and nursing mothers are supplied with nutritious food. Past experience has shown that while the programme is popular, the coverage has not been extended fully and that even such of those beneficiaries who are identified do not partake in the programme on a regular basis. One of the reasons is because of the type of food material. With a view to diversifying the production pattern not only from the point of view of taste but also from the point of view of hygiene a proposal has been mooted for setting up a food processing unit with the help of UNICEF. The type of machinery and equipment to be supplied has already been settled. The food material that will be produced will be through an extrusion cooker and will be in dried form which can be packed and transported easily. Along with the proposed food processing unit it is also proposed to start a laboratory which will be equipped to analyse food under the Prevention of Food Adulteration Act and also to conduct other tests to determine the nutritious value of food material. This laboratory will also

State/U.T. _____

Statement GN - 1.

DRAFT PLAN - 1978-83HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE.

(Rs. Lakhs)

Head of Development	Fifth Plan Outlay 76-79.	1976-78 Actuals.	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total of which	of which MNP	Total of which MNP	Foreign exchange content of total outlay.	Capital content of total outlay.	
1.	2.	3.	4.	5.	6.	7.	8.	9.
Nutrition	44.00	18.46	21.50	-	165.00	-	-	-

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE.

(Rs. Lakhs)

Major Head of Development.	Minor Head of Development.	Fifth Plan Outlay 76-79.	1976-78 Annual Expendr. Actual Expendr.	1978-79		Proposed Outlay 1978-83			
				Agreed Outlay Total	of which MNP	Total	of which MNP	F.F.E. content of total (as shown in Col. 7)	Capital content of total outlay.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
NUTRITION.									
	1. Direction and Adm. of Honorary to gram-sevikas.					3.00	-	-	-
	2. Supplementary Nutrition Programme.			9.00		72.00	-	-	-
	3. Midday Meal Programme.	44.00	18.46	12.00		72.00	-	-	-
	4. Applied Nutrition Programme.			0.50		8.00	-	-	-
	5. Establishment of Food Laboratory.					6.00	-	-	-
	6. Nutrition Demonstration.					1.00	-	-	-
	TOTAL	44.00	18.46	21.50		165.00	-	-	-

AND PROPOSED OUTLAY FOR THE NEXT FIVE YEAR PLAN (1978-83)

NUTRITION SECTOR.

Sl. No.	Programmes	Fifth Plan		Five Year Plan '78-83			Phasing of outlay for :-				
		Outlay approved 1976-78.	Expdr. 76-78.	Spill over	New	Total	1978-79 (Appvd.)	79-80	80-81	81-82	82-83
1.	Mid day Meal Programme	20.00	18.46	-	73.00	73.00	12.00	13.00	14.00	16.00	18.00
2.	Special Nutrition Programme			-	72.00	72.00	9.00	12.00	14.00	17.00	20.00
TOTAL		20.00	18.46	-	145.00	145.00	21.00	25.00	28.00	33.00	38.00

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APPENDIX N-II

STATEMENT SHOWING ESTIMATED LEVEL OF NON-PLAN COMPONENT OF
EXPENDITURE REACHED AT THE END OF 1977-78 AND 1978-79
(NUTRITION SECTOR)

		(Rs. in lakhs)	
Sl. No.	Programme	Estimated Committed level of expenditure (non-plan) for 1976-79 as on	
		1.4.78	1.4.79
1.	Midday Meals Programme	-	-
2.	Special Nutrition Programme for :		
	(i) Pre-School Children (0 - 6 years)	-	-
	(ii) Pregnant & lactating mother.	-	-

PLANNING MACHINERY.

Introduction.

The department of Planning and Development is in charge of formulating and evaluating the progress of plan implementation. This has been the practice even before the Fifth Plan. During the Fifth Plan the role of the Planning Department was given a greater stress not only by strengthening the evaluation aspect but also by introducing more detailed methods of plan formulation. The State however, does not have a special body as in certain other parts of the country for detailed plan preparation. Having become only very recently a part of the country and with no statistical base has perhaps resulted in the plan formulation being essentially the work of a single Department.

The role of the Planning Department will continue more or less on the same lines in the coming Plan period. However, it will be made much more effective mainly through the introduction of detailed concurrent evaluation on a quarterly basis of the schemes in the various sectors. Keeping in view the National policy of integrated rural development the evaluation machinery will take into account the extent to which such integration has been achieved in the field. Unlike in the past corrective measures will also be suggested and followed up in subsequent quarterly reviews. The Planning Department has not so far undertaken post evaluation studies. A selected number of completed projects will be taken up for post evaluation

studies in the coming years, not only to assess whether the physical and financial targets were properly attained but also to assess the impact that such projects have had on the socio-economic aspects of development. The intention is to highlight those pitfalls which can be avoided for the future. In order to undertake such evaluation studies both at the concurrent level and at the post-project level a certain amount of strengthening of the Planning Department is required. Officers specially trained for appraising projects from the social cost benefit angle will have to be appointed not only in the Planning Department but also in some of the key departments. In order to achieve this objective a system of training younger and middle level officers in the various training institutions of the country and abroad will be co-ordinated from the Planning Department. Part of the work has already begun by the constitution of a Man Power Planning Cell. This cell which has started functioning only very recently will continue to assess the critical shortages of man power requirements not only for general development administration but also for specialising in fields like medicine, engineering etc. The Man Power Planning aspect is of considerable importance particularly in a State like Sikkim where the absence of trained man power has resulted in slackening the pace of development.

Along with the Evaluation and Man Power Cell it is also proposed to establish an Employment Service unit. There is no Employment Ex-

change as in the other States, one of the reasons being that the compulsory Notification of Vacancies Act has not yet been extended to Sikkim. However, the need to centralise appointments atleast up to a particular level has already been felt and taking into account the circumstances prevailing in the State and the conditions of entering into Government services it has been felt that the best agency to handle such work would be the Man Power Evaluation Cell of the Planning Department. Accordingly the registration of job seekers and their placements in vacancies arising now and then would be attended to by this Cell by following procedures similar to those adopted in Employment Exchange.

For the institution of effective monitoring, evaluation training and employment services apart from suitable strengthening of staff additional equipments are required. This would include not only office equipment but also some of the more important visual aids which help in developing macro view on the various interdependent issues. The evaluation particularly will require greater mobility also and hence atleast one vehicle will have to be additionally provided. For strengthening the evaluation set up and the plan formulation machinery it is hoped that central assistance will continue.

Apart from the Planning Department at the Headquarters level which will be adequately strengthened, a certain amount of decentralisation in Planning is contemplated for the future. At pre-

sent there is hardly any decentralisation in Planning. In all the district, Planning Committees have been set up. However, they are not actively involved either in formulation or implementation of plan schemes. The result is that the District Planning Committees have functioned merely as bodies of nominated people voicing their demands and grievances. This kind of a set up although useful to a limited extent has not had the desired effect in involving the local people in the planning process. This situation is proposed to be remedied partly through the institution of the integrated rural development scheme. Wherever intensified rural development is taken up as a special programme small but effective committees are proposed to set up not only for formulating schemes but also to ensure that there is meaningful integration of the activities in the rural economy. The role of such agencies will be constantly reviewed and suitable modifications made wherever necessary.

ECONOMIC ADVICE AND STATISTICS.

Plan implementation and evaluation has been handicapped in Sikkim because there has been no agency for collecting and analysing basic data on the various socio-economic aspects of life in the State. This resulted in 'ad hocism' in plan formulation. Realising this basic drawback in the implementational aspect of planning the question of starting a Statistical Bureau was considered as early as 1976. A special team of officers studied the situation and recommended the setting up of a Statistical Bureau

which was to initially attend (1) to co-ordinate and guide the collection of Statistics by different departments and to enforce uniform standards, concepts and procedures for such purpose;

(2) to undertake collection of special statistics not collected by other departments;

(3) to undertake sample surveys and evaluation studies and

(4) to disseminate Statistical Information by bringing out Statistical abstracts containing important time series.

Pursuant to the recommendations of the Committee a Statistical Cell has now been set up as part of the Planning Department. An officer has been obtained on deputation to organise the cell. A beginning has been made in collecting some of the basic data but owing to unavoidable constraints not much headway could be made in the implementation of the programme of work which was originally anticipated.

The types of surveys that are proposed to be undertaken in the Plan period are given below:

(i) Organisation of Crop Estimation Surveys for assessing the area and yield of crops:

For this purpose it is proposed to select 80 Revenue Blocks all over the State and carry out spot enumeration of areas under crop and various other land uses in 8 clusters of 5 survey numbers each, in each of the selected Revenue Blocks. In addition crop cutting exts. on an appropriate scale will be organised on Paddy and Maize to begin with.

(ii) Socio-economic Surveys :

It is proposed to take up an exploratory survey on population, births and deaths and Consumer Expenditure both in the Rural

and Urban areas. The details of the programme will be settled in consultation with the NSS organisation of the Government of India.

(iii) Preparation of Statistical Abstract :

A beginning will be made by collecting data on various sectors from the various Departments and other sources and bring them out in the form of a Statistical Abstract.

The programme is sought to be followed vigorously, and with this end in view the following action has been taken :-

(a) A scheme for the participation of Sikkim in the NSSO surveys has been prepared and forwarded to the NSS Organisation in the Department of Statistics in February, 1978. Clearance is awaited.

(b) It is contemplated to take up a Economic Census during the year. Necessary preliminary work in this connection is under way.

(c) Two publications viz (1) Sikkim at a Glance and (2) Sikkim an Economic and Development profile have been prepared and will be issued shortly.

(d) Collection of Retail Prices. Collection,

monitoring and analysis of prices occupies an important place in the larger sphere of planned economy. So far no information on this aspect has been collected and the Government has found itself greatly handicapped for want of these data. To overcome this lacuna a scheme for collection of retail prices has been prepared and will shortly be put under execution. Under this scheme retail prices for as many as 100 commodities/services will be collected every month from the various markets in the State through the help of Village Level Workers.

As soon as the clearance for the scheme sent to the NSSO is received steps would be taken to under

take the following surveys:

(i) Organisation of Crop Estimation Surveys

Initially area enumeration surveys on a sample basis; and crop cutting surveys on Paddy and Maize will be taken up. These surveys will gradually be extended to Cardamom, Oranges and other important crops during this period.

(ii) Socio-Economic Surveys:

As suggested by the team initially Socio-economic surveys specially in the fields of consumer expenditure, population births and deaths will be organised. The State will then switch over to the all-India programme of surveys as decided by the NSSO from time to time.

(2) Dissemination of Statistical Information

In addition to adhoc publications which may be of interest to the State, steps would be taken to bring out regular annual publications such as the Statistical Abstract,, Statistical Pocket Book, Periodic Digest of Statistics etc.

(3) State Income

Having built up an adequate base for statistical data in the first three/four years of the Plan, A State Income Unit will be set up and arrangements for calculation of State Income on a regular basis from year to year will be made.

(4) Other Studies.

A cell will be set up to take up adhoc studies which may be of relevance to the State from time to time. These may include Evaluation Studies on specific schemes, Area studies etc.

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- (c) Two publications viz (1) Sikkim at a Glance and (2) Sikkim an Economic and Development profile have been prepared and will be issued shortly.

(d) Collection of Retail Prices. Collection, monitoring and analysis of prices occupies an important place in the larger sphere of planned economy. So far no information on this aspect has been collected and the Government has found itself greatly handicapped for want of these data. To overcome this lacuna a scheme for collection of retail prices has been prepared and will shortly be put under execution. Under this scheme retail prices for as many as 100 commodities/services will be collected every month from the various markets in the State through the help of Village Level Workers.

As soon as the clearance for the scheme sent to the NSSO is received steps would be taken to under

take the following surveys:

(i) Organisation of Crop Estimation Surveys

Initially area enumeration surveys on a sample basis and crop cutting surveys on Paddy and Maize will be taken up. These surveys will gradually be extended to Cardamom, Oranges and other important crops during this period.

(ii) Socio-Economic Surveys.

As suggested by the team initially Socio-economic surveys specially in the fields of consumer expenditure, population births and deaths will be organised. The State will then switch over to the all-India programme of surveys as decided by the NSSO from time to time.

(2) Dissemination of Statistical Information

In addition to adhoc publications which may be of interest to the State, steps would be taken to bring out regular annual publications such as the Statistical Abstract, Statistical Pocket Book, Periodic Digest of Statistics etc.

(3) State Income

Having built up an adequate base for statistical data in the first three/four years of the Plan, a State Income Unit will be set up and arrangements for calculation of State Income on a regular basis from year to year will be made.

(4) Other Studies.

A cell will be set up to take up adhoc studies which may be of relevance to the State from time to time. These may include Evaluation Studies on specific schemes, Area studies etc.

WEIGHT AND MEASURES.

Another area where a beginning has been made is regarding the extension of the Weights and Measures Act primarily to protect the interest of the consumers. Measures have been undertaken to organise the nucleus for this purpose and it is expected that the Weights and Measures Act 1976 will be extended to Sikkim very soon. As soon as the Statute is extended to the State a mobile laboratory will go around for checking the use of weights and measures. Those found violating the statute will be punished. Suitable number of branch offices will be set up for this purpose along with the organisation of a testing laboratory.

The total outlay for the Planning Department which included the amounts for the evaluation, monitoring, man power and employment cells, the statistical cell and the weights and measures unit is Rs. 17 lakhs. It is expected that for evaluation and strengthening of the planning machinery as well as for the organisation of specific statistical surveys a proportionate amount of assistance would be forthcoming from the Central Government. Anticipating such assistance the State share is particularly broken up as follows:

1)	Evaluation and machinery	Rs.6.00 lakhs.
2)	Statistical Cell	Rs.7.00 "
3)	Weights and Measures	Rs.4.00 "
	Total:	<u>Rs.17.00 "</u>

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs).

Head of Development.	Fifth Plan. Outlay 78-79.	1976-78 Actuals.	1978-79		Proposed Outlay (1978-83).			
			Agreed Outlay Total. of which MNP.		Total. of which MNP.	Foreign exchange content of total outlay.	Capital content of total outlay.	
1	2	3	4	5	6	7	8	9

Planning Machinery.	16.50	4.14	2.50	-	17.00	-	-	-
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DRAFT PLAN 1978-83 STATE/U.Ts - MONOR HEADS - OUTLAYS AND EXPENDITURE.

685

(Rs. Lakhs). U

Major Head of Develop- ment.	Minor Head of Develop- ment.	Fifth Plan Outlay (1976-79).	1976-78	1978-79		Proposed Outlay 1978-83.			
			Annual Expdr. Actual Expdr.	Agreed Total. of which	Total. of which	MNP.	Foreign content of total out- lay (As shown in Col.7).	Capital con- tent of total outlay.	
1	2	3	4	5	6	7	8	9	10
<u>PLANNING</u>									
<u>MACHINERY.</u>									
	1. Evaluation & Machinery			0.40	-	6.00	-	-	-
	2. Statistical Cell.	16.50	4.14	1.00	-	7.00	-	-	-
	3. Weights & Measures.			1.10	-	4.00	-	-	-
	Total:	16.50	4.14	2.50	-	17.00	-	-	-

P R E S S .

The Sikkim Government Press has been undertaking the work of printing not only various forms required by the State Government departments but also the printing of important documents like the budget and so on. The Sikkim Herald which is the news bulletin of the State Government is also being printed by the Government Press. Printing is undertaken not only in English but also in Nepali. The Press also undertakes printing work of private parties and other public sector undertakings.

In spite of the existence of a Press much of the work to be got done by Government departments has had to be through other agencies including the Government of India Press. The main objective in the coming years is therefore to improve the performance of the Press. This will be achieved not only by providing more equipment but also by providing more space. As a policy, the Press will take up only Government jobs. Printing in the Lepcha language will also be taken up.

A scheme of appointing apprentices on a stipendiary basis will be initiated so that such persons can be usefully employed either in the Press itself or in any other printing agencies. Two cylinder machines and other machines like Platen machines, Wire Stitching Machines, Lathe Machine and Zerox Machines will be procured so that the Press can be optionally used. Since the fluctuation in power has disrupted the work in the Press, an automatic Voltage Regulator will also be purchased. Timely replacement of Mono Matrices and other accessories needed for good printing will be resorted to. The existing building of the Press is not spacious enough to accommodate the new machineries and therefore it will be extended. A few Class III and Class IV quarters for the personnel working in the Press will also be constructed, because, if they are accommodated near the Press it would be possible to make use of their services both during day and night.

In order to attain these objectives an amount of Rs. 20 lakhs has been set apart for the Press during the Five Year period 1978-83.

State/UT SIKKIM
Statement GN-1

DRAFT PLAN - 1978-83
HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay	1976-73 Actuals	1978-79		Total	Proposed Outlay (1978-83)		Capital content of total outlay
			Agreed Total	Outlay of which MNP		of which MNP	Foreign Exchange content of total outlay	
1	2	3	4	5	6	7	8	9
253. Stationery & Printing	7.50	4.50	3.00	-	20.00	-	-	4.00

State/UT SIKKIM
Statement No. GN-2

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Development	Minor Head of Development	Fifth Plan Outlay (1976-79)	1976-78	1978-79		Total	Proposed Outlay 1978-83		
			Annual Expdr. Actual Expdr.	Agreed Total	Outlay of which MNP		of which MNP	F.E. content of total outlay (as shown in Col.7)	Capital content of total outlay
1	2	3	4	5	6	7	8	9	10
258. Stationery & Printing	(a) Direction & Administration		1.07	0.60	-	2.70	-	-	-
	(b) Machines & Equipment	7.50	3.43	1.40	-	13.30	-	-	-
	(c) Press extension and construction of staff quarters		-	1.00	-	4.00	-	-	4.00
TOTAL :-		7.50	4.50	3.00	-	20.00	-	-	4.00

PUBLIC WORKS.

After Sikkim became a part of the country there has been considerable expansion in Government services. The growth in services has however outstripped the pace of construction of Government offices. Taking into account the need to provide a full fledged Secretariat at Gangtok this programme was initiated in late 1975. The first phase of the building is almost complete. The second phase which consists of building an annexe will be taken up during the plan period. Smaller buildings of this nature to house the District offices are also required and provision has already been made for such constructions in two out of the three remaining district headquarters. During the Plan 1978 to 1983 the remaining District Headquarter will be provided with a multi-purpose office building so as to accommodate the various offices. In addition to office buildings in the District Headquarters, a few other buildings will be necessary in certain other places where there is a concentration of Government offices. In particular the P.W.D. requires sub-division offices mechanical workshop buildings and some more rest houses in various parts of the State. A phased programme of construction will be undertaken in order to meet these demands. In Gangtok, provision has already been made for the construction of a hostel for the M.L.As. This will be completed in the year 1979-80. Meanwhile proposals are also underway for the construction of a new legislative Assembly Hall. It is expected that this will also be taken up during the course of the Plan period. In order to meet the requirements of the various civil works for construction of office buildings, Public Works Department, Rest Houses and the legislature a provision of Rs. 200 lakhs has been made for the plan period.

DRAFT PLAN - 1978-83

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Outlay 76-79	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Outlay Total of which MNF	Total of which	Foreign exchange content of total outlay	Capital content of total outlay		
1	2	3	4	5	6	7	8	9
PUBLIC WORKS	91.00	76.86	30.00	-	200.00	-	-	200.00

DRAFT PLAN 1978-83 STATE/U.Ts - MINOR HEADS - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Major Head of Develop- ment	Minor Head of Develop- ment	Fifth Plan Otu- lay 76-79	1976-78	1978-79	Proposed outlay 1978-83				
			Annual Expdr. Actual Expdr.	Agreed Outlay Total of which MNP	Total	of which MNP	F.E. content of total outlay (as shown in Col.7)	Capital content of total outlay	
1	2	3	4	5	6	7	8	9	10
<u>PUBLIC WORKS</u>	1. Gangtok Secretariat		57.08	10.00	-	40.00	-	-	40.00
	2. District Secretariats		5.95	15.00	-	52.00	-	-	52.00
	3. Government offices other than district secretariats.	91.00	8.83	4.00	-	83.00	-	-	83.00
	4. MLA's Hostel		-	1.00	-	15.00	-	-	15.00
	5. Legislature Assembly		-	-	-	10.00	-	-	10.00
	Total	91.00	74.86	30.00	-	200.00	-	-	200.00

CHAPTER V - SUMMARY

1. Target & Achievements.
2. Abstract Outlay.

DRAFT PLAN 1978-83
SELECTED TARGETS AND ACHIEVEMENTS
(Please indicate cumulative totals for each year)

Sl. No.	Item	Unit	Fifth Plan Target ('76-79)	1976-78 Achievement	1978-79 Target	1978-83 Proposed Target
1	2	3	4	5	6	7
I.	<u>Agriculture & Irrigation.</u>					
1.	Area under forests.	Hectares	265.22	-	-	-
2.	Area under Plantations	"	2.16	0.72	0.80	3.50
3.	Area under Orchards	"	2,720	2,700	3,520	8,320
4.	Area under other horticultural crops	"	14,300	15,500	16,500	20,500
5.	Net cropped Area	1000 Hectares	64	64	64	64
6.	Gross cropped area	'000 "	80	73	80	698.6
7.	<u>Area under Minor Irrigation.</u>	"				
	(a) New Area (Potential added).	"	2.55	2.21	1.50	6.00
	(b) Depreciation on existing works	"	-	-	-	-
	(c) Total potential available	"	-	-	-	-
	(d) Utilisation (i) Net	"	-	-	-	-
	(ii) Gross	"	-	-	-	-
8.	<u>Foodgrains.</u>	'000 "	-	-	-	-
	(i) <u>Kharif</u>					
	(a) Total area	"	64.6	64.0	64.6	72.6
	(b) Irrigated area.	"	-	-	-	-
	(ii) <u>Rabi</u>					
	(a) Total area.	"	16.00	9.00	16.00	26.0
	(b) Irrigated area	"	-	-	-	-
	<u>Foodgrains (Total)</u>					
	(a) Total area		80.60	73.00	80.60	98.6
	(b) Irrigated area.		-	-	-	-

Contd..../-

1	2	3	4	5	6	7
9.	Area under Commercial Crops					
	1. Ginger	Hectares	4.40	400	440	840
	2. Potato	"	1,440	1,380	1,580	2,000
	3. Vegetables	"	1,400	1,400	1,600	2,400
	4. Oranges	"	2,000	1,400	2,000	3,600
	5. Apples	"	440	360	440	600
	6. Others	"	280	200	280	3,480
	Total :-		6,000	5,140	6,340	12,920
	7. Cardamom	Hectares	9,000	8,000	8,000	9,000
10.	High yielding Varieties. Seed Distribution (tonnes)					
	1. Maize	tonnes	90.00	80.00	52.00	210
	2. Wheat	"	180.00	120.00	150.00	960
	3. Paddy	"	15.00	7.00	13.00	186
	4. Millet	"	7.00	-	7.00	28
	5. Mustard	"	6.00	0.80	5.20	58
	6. Potato	"	90.00	160.00	70.00	720
	7. Ginger	"	24.00	4.00	20.00	90
	8. Others	"	1.20	0.80	4.00	40
	Total :-		413.20	372.60	321.20	2,292
11.	Area consolidated	'000 Hec.	2.36	1.50	0.80	4.00
12.	Total No. of Markets at Mandi Levels	Nos.	3 Nos.	3 Nos.	-	-
13.	Number of regulated markets	Nos.	4 Nos.	4 Nos.	-	-
14.	Storage capacity available					
	i) State Sector	1000 M. T.	4.00	2.00	1.00	8
	ii) Co-operative Sector	50 M.T.	10.00	10.00	3.00	23

DRAFT PLAN - 1978-83
SELECTED TARGETS AND ACHIEVEMENTS
(Cumulative totals for each year)

(Medium Irrigation)

Sl. No.	Item	Unit	Fifth Plan Target 1976-78	1976-78 Achieve- ment	1978-79 Target	1978-83 Proposed Target
1.	2	3	4	5	6	7
1.	Area under Medium Irrigation Schemes	'000 Hec.	0.2	0.2	0.528	4,312
	a) New Area Potential	"	0.2	0.2	0.728	4,512
	b) Total potential available	"	NIL	NIL	0.008	0.560
	c) Utilisation	"	NIL	NIL	0.01	0.693
	i) Net					
	ii) Gross					

DRAFT PLAN - 1978-83.

SELECTED - TARGETS AND ACHIEVEMENTS.

(Please indicate cumulative totals for each year.)

Sl. No.	Item.	Unit.	Fifth Plan target (1976-79)	1976-78 Achievement.	1978-79 Target	1979-80 proposed target
1.	2.	3.	4.	5.	6.	7.
<u>POWER</u>						
(i)	Installed capacity	(MW)		2.55 MW	0.4 MW	Nil
(ii)	Electricity generated	"		6 MKWH	4 MKWH	60 MKWH
(iii)	Electricity sold.	"		5 MKWH	3.5 MKWH	55 MKWH
(iv)	Transmission Lines (220 KV and above).	Km.				
(v)	<u>Rural Electrification :</u>					
(a)	Villages electrified	Nos.	35	40	20	72
(b)	Pump sets energised by Electricity.	Nos.	-	-	-	-
(c)	Tube Wells energised by electricity.	Nos.	-	-	-	-

Note : The Lower Lagyan Havel Project is expected to be commissioned by the end of 1979. The generation figure, are based on the presumption that the project will go under commercial

DRAFT PLAN - 1978-83
SELECTED - TARGETS AND ACHIEVEMENTS

(Please indicate cumulative totals for each year)

Sl. No.	I T E M	Unit	Fifth Plan Target (1976-78)	1976-78 Achievement	1978-79 Target	1978-83 Proposed Target
1	2	3	4	5	6	7
<u>Village and Small Industries.</u>						
1.	<u>Small Scale Industries</u>					
	i) Units functioning	(Nos.)	60 Nos.	45 Nos.	80	120
	ii) Persons employed	(Nos.)	1,000 Nos.	450 Nos.	1,000	1,500
2.	<u>Industrial Estates/Areas.</u>					
	i) Estates/Areas functioning	(Nos.)	1	-	2	5
	ii) Employment	(Nos.)	10	2	20	50
3.	<u>Handloom Industry.</u>					
	Production	(M.Metres)	-	-	1,000	5,000
4.	<u>Powerloom Industry.</u>					
	Production	(M.Metres)	-	-	30,000	2,70,000
5.	<u>Sericulture.</u>					
	i) Production of raw-silk	('000 Kgs.)	-	-	-	-
	ii) Employment	(Nos.)	-	-	40	250
5.	<u>Coir Industry.</u>					
	i) Production of yarn	('000 tonnes)	-	-	-	-
	ii) Production of other items	('000 tonnes)	-	-	-	-
	iii) Employment	(No. thousand)	-	-	-	-
7.	<u>Handicrafts.</u>					
	Employment	(Nos.)	500	300	500	1,000

Sl. No.	Item.	Unit	Fifth Plan Target 1976-79	1976-78 Achieve- ment.	1978-79 Target.	1978-83 Proposed Target.
1.	2.	3.	4.	5.	6.	7.
<u>EDUCATION</u>						
A. <u>ELEMENTARY EDUCATION</u>						
I.	<u>Classes I - V</u> (Age-group 6-11)		39,000	34,502	39,502	64,562
	<u>Enrolment</u>					
	a) Boys	(000)		21,718	24,218	38,637
	b) Girls	"		12,784	15,284	25,825
	c) Total	"		34,502	39,502	64,562
II.	<u>% age of age-group</u>					
	a) Boys	%		93.1	92.4	92.2
	b) Girls	%		82.3	87.4	89.1
	c) Total	%		88.8	90.0	92.3
III.	<u>Classes VI-VIII</u> <u>Age -group 11-14</u>					
	<u>Enrolment</u>	(000)	6000			
	a) Boys	"		2827	3427	5827
	b) Girls	"		1241	1641	3241
	c) Total	"		4068	5068	9068

Contd.

1.	2.	3.	4.	5.	6.	7.
IV.	<u>% age to age-group</u> †					
	a) Boys	%		24.6	28.2	35.4
	b) Girls	%		16.3	20.2	29.5
	c) Total	%		21.3	25.0	33.1
B.	<u>SECONDARY EDUCATION</u>					
	<u>Class IX-X</u>					
	(age group 14-16)					
	Enrolment	(000)	2,000			
	a) Boys	"		715	955	1807
	b) Girls	"		297	457	1205
	c) Total	"		1012	1412	3012
	<u>% age of age-group</u>	%				
	a) Boys	%		11.5	14.5	20.0
	b) Girls	%		7.1	13.9	20.0
	c) Total	%		9.8	12.9	20.2
	<u>Classes XI-XII</u>					
	<u>ENROLMENT IN GENERAL</u>	(000)	200			
	<u>EDUCATION</u>					
	a) Boys	"		97	137	272
	b) Girls	"		20	38	95
	c) Total	"		117	175	367
	<u>ENROLMENT IN VOCATIONAL</u>					
	<u>COURSE</u> *					
	Post-elementary stage.	Nos.				
	Post high school stage.	"				

Contd.

Continuation.

1.	2.	3.	4.	5.	6.	7.
<u>ENROLMENT IN PART-TIME/ CONTINUATION COURSE.</u>						
	<u>Age-group 6-11</u>	Nos.				
	Age-group 6-11	"				
	Age-group 11-14	"				
	Age-group 14-16	"				
	Age-group 16-18	"				
	Total.					
 A. <u>TEACHERS</u> :						
	a) Primary Schools	Nos.	1,000	832	1055	1798
	b) Middle Schools	"	500	449	485	647
	c) High/Hr.Sc. Schools	"	500	450	504	600
 B. <u>ADULT EDUCATION</u>						
	<u>Number of Participants</u>	Nos.				
	a) 15-25 years)	"	5,000	3,908	5,000	56,000
	b) Over 25 years)					
	c) Total)					
	d) No. of Centres	Nos.	400	384	400	500
	i) Central	"	200	192	200	250
	ii) State	"	200	192	200	250
 C. <u>LIBRARIES</u> :						
	i) District Libraries	"				
	ii) Block Libraries	"				
	iii) Village Libraries	"				
	iv) Mobile Libraries	"				

1.	2.	3.	4.	5.	6.	7.
<u>D. UNIVERSITY EDUCATION</u>						
(Excluding Correspondence course) (Degree College)						
Enrolment	)		100	46	46	146
a) Pre-degree level)					
b) First-degree level)					
c) Post graduate level)					
<u>E. ENROLMENT IN CORRESPONDENCE COURSES</u>						
		(000)				
a) Pre-degree level	"		925	750	125	300
b) First-degree level	"		350	275	100	350
c) Post-graduate level	"		-	-	-	-
<u>F. TECHNICAL EDUCATION</u>						
(ANNUAL INTAKE)						
a) Diploma Courses	Nos.					
b) Degree Course	"					
+ Percentage coverage of enrolment may be indicated only with reference to total position as given in columns 3,5,6, and 7. Estimated population in the concerned age-group may be used as supplied by the office of the Registrar General, Government of India through the Ministry of Education and Social Welfare.						
* Courses and programmes of varying duration, offered by various departments/agencies including education, which are oriented towards education, training and preparation for employment for different sectors of economy and for self-employment.						

State - SIKKIM

Statement No. GN-5

DRAFT PLAN - 1978-1983

CENTRALLY SPONSORED SCHEMES - OUTLAY AND EXPENDITURE

Name of Scheme.	Fifth Plan Outlay 1976-79.	1976-78 Actual Expdr.	1978-79		1978-83
			Approved	Outlay	Proposed Outlay
1.	2.	3.	4.		5.
Adult Education	5.00	2.00	3.00		35.00

DRAFT PLAN - 1978-83
SELECTED TARGETS AND ACHIEVEMENTS
(Please indicate cumulative totals for each year)

Sl. No.	Item	Unit	Fifth Plan target (1976-79)	1976-78 Achievement	1978-79 Target	1978-83 Proposed Target.
1	2	3	4	5	6	7
<u>Code No. 3220 Production Forestry</u>						
1.	(i) Department Plantation	acres	2400	1400	1000	7000
	(ii) Nurseries	acres	60	60	60 maintenents	43 new
	(iii) Fencing	km.	24	14	10	50
	(iv) Jaungya Plantation	acres	1300	1200	600	2900
	(v) Highway Plantation	Km.	160	100	25	- *Rest done under C.S.S.
2.	(i) Fuel wood Plantation	acres	1200	600	400	2000
	(ii) F. Nursery	acres	24	20	(maintenance only)	4 maintenance
3.	Establishment	nos.	-	Purchased 4 jeeps	maintenance of 7 jeeps & purchase of 1 jeep for replacement.	4 jeeps.

Code No. 3222 Social Forestry

1. Farm Forestry

(i) Ext. & Dev. of Orchidarium

-	Extension & Improvement of Orchadariums)	Extended	Construction of Orchid shades supplementation of planting materials.
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Contd..../-

1	2	3	4	5	6	7
(ii)	Extension Forestry (Distribution of tree saplings)	lakhs	13	8	5	25
(iii)	Development of Pastures-	acres	-	-	-	800
(iv)	Rehabilitation of Degraded Forests.	-	under C.S.S.	-	-	-
(v)	Sericulture (Distribution of Mulberry saplings)	lakhs	5.50	1.50	4.00	10.00 saplings 2 jeep for Sub-Div.
2.	<u>Recreational Forestry</u>					
(i)	Environmental Improvement	-	creation & Improvement	of Parks & Gardens	-	

Code No. 3223 Wildlife & Environmental conservation.

1.	Wildlife Management & Conservation		-	Establishment expenses	-	
2.	Conservation of Flora		-		Establishment of Sanctuaries	
3.	Protection of Forests	Km.	400	320	160	960 Fire lines creation 10 checkposts & Installation of wireless set.

Contd..../-

1	2	3	4	5	6	7
Code No.	Inventory, Planning & Resource Development.					
3224						
(1)	Demarcation Survey	Km	300	432	240	1040
(2)	Working Plan	acres	40,000	19,000	20,000	1,20,000
(3)	Cultural Operations		Maintenance of unestablished plantation			
(4)	Botanical Survey	-	Herbarium construction		Herbarium const. & Appointment of Staff.	Completion of spill over work on establishment expenses.

Contd.../-

1	2	3	4	5	6	7
Code No.	Resource Dev. Utilisation			Floatation of	1 lakhs	
3225:						
1.	Mechanised Logging, Extraction & Marketing of timber & fuelwood.		Cft. & Extrac-	60,000 logs 401,000 completed purchased	Purchase of essential machinery & Equipments & Vehicles. Construction of 2 KM logging 41 KM link road.	Given in G.N. 1.
2(i)	Dev. of Forest Based Industries	-	-	-	Estd. of 1 Saw Mill at Sribadem	
(ii)	Loan to Wood Working Centre	-	-	-	-	
3.	Dev. of M.F.P.					
(i)	Medicinal Plantation	acres 50	50	60	20	100
(ii)	Cardamom Plantation	acres 600	600	400	200	1000

1	2	3	4	5	6	7	
Code No. 3226:	Forestry Research & Training						
(1)	Forestry Research	To train up adequate number of officers/ staff during the plan period			Proposed appoi- ntment of 1 Re- search Officer & other staff.		
(2)	Training of Personnels	4 officers 4 R.Os. 20 B.Os. 30 F.Gs.			2 officers 8 R.Os. 12 B.Os. 60 F.Gs.		Proposed to train 15 offi- cers, 24 R.Os, 130 technical staff & inser- vice training or study tours.

1	2	3	4	5	6	7
Code No. 3227:	Organisation & Institution.					
1.	Intensification of Forest Management		Appointment of adequate staff for smooth running of the depart- ment.	Appointment of some of the staff completed.	Appointment of 2 officers, sub- ordinate staff.	Proposed to appoint ment 18 officers, 24 R.O., 140 tech. & staff & purchase of assential equipments

Contd.../-

1	2	3	4	5	6	7
Code No. <u>3228:</u>	Communication & Building	To provide accommodation facility to the staff working in outlying areas.	4 class I & II 4 unit class II III & IV 1 Godoun 1 B.Os or 1 Inspection hut.	4 class I & II 4 unit class II III & IV 1 Godoun 1 B.Os or 1 Inspection hut.	3 R.Os or cum off. 4 B.Os or 13 F.Gs or 1 Insp. (spi- llover work)	Proposed to construct 3 Inspection huts at Gor. Hee & Lingthem & 11 R.Os Qrs @ 2p.a. 12 B.O. " @ 2p.a. 53 F.Gs. " @ 10p.a. 20 staff " @ 5p.a. mostly in the inte- riors.

Contd.../-

11

1	2	3	4	5	6	7
Code No. <u>3229</u> :	Others		-	-	-	
29.1.	Forest Publicity, relations & extensions		-	-	-	Publication of forest bulletins & other sta- tistical data etc.
2.	Planning, Statistics & Evaluation		-	-	-	Proposed appointment of adequate/officers/staff, & purchase of 1 jeep & other establishment assets.
3.	State Guest House		-	-	-	Construction of addition- al staff Qr., Garrage, Store room etc.

Contd..../-

DRAFT PLAN - 1978-83.
SELECTED TARGETS AND ACHIEVEMENTS

State/J.T. Sikkim
Statement GN - 3.

(please indicate cumulative totals for each year).

Srl.No.	Item	Unit	Fifth Plan Target 1976-78.	1976-78 Achievement	1978-79 Target	1978-83 Proposed Target.
(1)	(2)	(3)	(4)	(5)	(6)	(7)

1. Direction and Administration:
I-Strengthening of Adm.
(a) Technical.

(b) Administration.

III. Programmes.

Extension & Training.

1)	Cattle Shows and Calf Rallies	No.	50	35	10	50
2)	Post graduate Training	No.	5	1	1	5
3)	Graduate level	No.	33	11	-	30
4)	Dairy Diploma	No.	10	1	8	30
5)	Stockmen	No.	150	100	20	150
6)	Inseminators	No.	-	-	20	150
7)	Farmers	No.	300	200	50	500

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>2) Veterinary Services & Animal Health.</u>						
1)	State Vety. Hospital (Strengthening Of)	No.	1	1	-	-
2)	Addition of Radiology Unit	No.	1	-	1	-
3)	Central Vety. Stores	No.	-	-	-	-
4)	District Vety. Hospital (Strengthening of)	No.	-	-	-	4
5)	Upgradation of Vety. Dispensaries to Hospital.	No.	3	2	1	7
6)	New Dispensaries	No.	11	17	6	25
<u>New Schemes.</u>						
1)	Surveillance Unit and checkpost	No.	-	-	-	4.
2)	Live, fluk campaign unit	No.	-	-	-	1.
3)	F.M.D. control unit	No.	-	-	-	1.
4)	Rabies control	No.	-	-	-	4.
<u>(3) Investigation and Statistics.</u>						
1)	Centrally sponsored unit	No.	1	1	-	-
2)	Strengthening of Statistical Unit.	No.	-	-	-	1.
<u>(4) Cattle Development.</u>						
1)	Bull for natural service	No.	100	120	30	40 replacement 100 distribution new
2)	Semen banks (main A.I. Centre)	No.	2	1	1	-
3)	Frozen semen bank	No.	-	-	-	1.
4)	A.I. Sub-Centres	No.	20	11	10	80
5)	Model dairy unit	No.	-	-	4	8
6)	Heifer feeding programme	No.	-	-	500 heifers	5,000
7)	Milk recording and registration unit	No.	-	-	-	3
8)	Purchase of bull calves from breeders	No.	-	-	30	150.
9)	Establishment of breeding herd and progeny testing	No.	1	-	-	-

* The project is awaiting clearance of planning commission. If it is not cleared it will be established during the next plan.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Cattle Development.</u>						
10)	Bull Rearing Farm	No.	1	-	1	-
11)	Buffalo demonstration farm	No.	-	-	2	2
<u>(5) Poultry Development.</u>						
1)	Strengthening of Extension block	No.	2	2	-	4
2)	Setting up of intensive Poultry dev. block with district farm	No.	-	-	-	4* District demonstration unit will be upgraded.
3)	Setting up 50 layer unit at dispensaries	No.	5	5	-	5
4)	Expansion of 50 layer unit into 200 layer unit	No.	-	-	-	5.
5)	Poultry Extension:-					
	Establishment of Private Units 100 & above.	No.	300	200	50	200
6)	Range units.	No.	500	400	100	500
7)	Poultry cross breeding by distribution of cockrels	No.	-	-	100	1,000
8)	Turkey Breeding Unit	No.	-	-	-	1
9)	Duck Rearing Unit	No.	-	-	-	1
<u>(6) Sheep and Wool Development.</u>						
1)	Creation of Sheep Development cell	No.	1	1	-	-
2)	Strengthening of Sheep Farm.	No.	2	1	-	1
3)	Sheep and Wool Extension Centres & Transit camp.	No.	9	3	1	7
4)	Distribution of rams	No.	50	40	20	100

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Goat Breeding.</u>						
1)	Expansion of goat unit for meat.	No.	-	-	1	1
2)	Goat unit for Pashmina	No.	-	-	1	1
3)	Distribution of bucks	No.	-	-	-	100
4)	Pashmina Demonstration Centre	No.	-	-	-	1
<u>(7) Piggery Development.</u>						
1)	Expansion of piggery farm to 200 sows.	No.	1	-	1	-
2)	Existing 20 sow unit to 50 sow unit.	No.	1	-	1	-
3)	Establishment of 30 sow unit at district H.Q.	No.	-	-	1	3
4)	Distribution of small farmer unit	No.	100	90	100	500
5)	Breeder's unit	No.	10	5	1	10
6)	Fork Processing unit	No.	1	1	-	-
7)	(Farm Slaughter)	No.	-	-	-	1
b)	(Large Unit.)					
<u>(8) Other Livestock Development.</u>						
1)	Mule Breeding - Distribution of Jackstallion.	No.	2	5	-	5
2)	Hill Pony breeding station	No.	-	-	1	1
3)	Ongora rabbit farm	No.	-	-	-	1
4)	Livestock Dev. Corporation	No.	1	1	-	1*

* The Corporation will be strengthened by providing more funds.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(9)	<u>Fodder Development.</u>					
1)	Fodder seed farm	No.	2	2	-	2
2)	Demonstration nurseries at Govt. Institutions.	No.	12	12	-	10.
3)	Demonstration Unit at Private Farms	No.	100	22	78	500
4)	Installation of Hay baler	No.	1	1	-	1
5)	Distribution of Chaff Gutter	No.	-	-	50	500
6)	Distribution of rooted cutting and seeds.					
	(Farmers to be covered)	No.	-	-	-	2000 farmers.
(10)	<u>Dairy Development.</u>					
1)	Dairy Project Gangtok	No.	-	-	1	1
2)	Dairy Project Gorethang	No.	1	1	-	-
3)	Cheese Units	No.	-	-	1	2
4)	Cheese Processing factory	No.	-	-	-	1
5)	Can Cooling Units.	No.	-	-	1	5
6)	Setting of Milk Co-operatives Union	No.	-	-	1	1

DRAFT PLAN -- 1978-83
SELECTED - TARGETS AND ACHIEVEMENTS
(Please indicate cumulative totals for each year)

STATE : SIKKIM
Statement GN-3

Sl. No.	Item	Unit	Fifth Plan Target (1976-79)	1976-78 Achievement	1978-79 Target	1978-83 Proposed Target
1	2	3	4	5	6	7
Road Transport						
1.	Direction & Administration					
	a) Management & Operation	No. of staff	193	184	193	293
2.	Tools & Plants	Purchased specialised Tools & Machines worth	5.10	3.03	1.00	15.00
3.	Acquisition of Fleet	No. of vehicles	59 Nos.	35 Nos.	24 Nos.	161 Nos.
4.	Replacement of Fleet	-- do --				
5.	Workshop facilities	Item of works	14	9	5	20

DRAFT PLAN - 1978-83 - ABSTRACT

STATE : SIKKIM
Statement GN-1

HEAD OF DEVELOPMENT - OUTLAYS AND EXPENDITURE

(Rs. lakhs)

Head of Development	Fifth Plan Cutlay (76-79)	1976-78 Actuals	1978-79		Proposed Outlay (1978-83)			
			Agreed Total	Cutlay of which MNP	Total of which MNP	F.E. content of total cutlay	Capital content of total cutlay	
1	2	3	4	5	6	7	8	9
<u>PRIMARY SECTOR</u>								
1. Agriculture including Plantation Crops	357.00	209.52	136.60	-	801.00	-	-	143.70
2. Land Reforms	45.00	34.22	28.00	-	165.00	-	-	20.00
3. Minor Irrigation	175.00	90.81	88.50	-	774.00	-	-	30.00
4. Soil Conservation	150.00	117.62	75.00	-	480.00	-	-	6.50
5. Food & Civil Supplies	22.00	13.70	11.50	-	54.00	-	-	31.00
6. Animal Husbandry & Dairy Development	155.00	85.68	65.00	-	490.00	-	7.50	127.50
7. Fisheries	25.00	12.33	15.00	-	140.00	-	0.10	5.00
8. Forestry and Wild Life	157.00	99.81	74.00	-	388.00	-	5.10	42.00
9. Panchayats	-	3.90	4.10	-	18.00	-	-	-
Total : Primary Sector	1086.00	667.59	497.70	-	3310.00	-	12.70	405.70
<u>SECONDARY SECTOR</u>								
10. Power	248.00	220.89	135.00	25.00	650.00	121.00	-	52.50
11. Industries, including Village and Small Scale Industries	226.00	132.50	98.55	-	900.00	-	-	475.00
12. Industry & Minerals	185.00	28.51	19.00	-	110.00	-	-	-
Total : Secondary Sector	659.00	381.90	252.55	25.00	1660.00	121.00	-	527.50

Contd..../-

	2	3	4	5	6	7	8	9
TERTIARY SECTOR								
13. Co-operation	50.00	34.87	20.00	-	140.00	-	-	21.90
14. Transport & Communication	1000.00	613.82	350.00	35.00	2500.00	665.00	-	1778.00
15. Road Transport	95.00	61.92	50.00	-	275.00	-	-	239.00
16. Tourism	81.00	66.70	24.80	-	218.00	-	-	50.00
17. Education	244.00	193.83	114.00	65.00	700.00	426.00	-	302.00
18. Art & Culture	30.00	7.36	10.00	-	82.00	-	-	31.50
19. Health & Family Welfare	218.00	95.32	70.70	33.70	400.00	237.00	-	136.00
20. Water Supply & Sewerage	185.00	112.13	64.00	24.00	450.00	200.00	-	160.00
21. Housing	54.00	52.02	40.00	-	200.00	-	-	148.00
22. Urban Development	36.00	21.39	13.00	-	160.00	-	-	22.00
23. Information & Publicity	21.00	17.91	7.00	-	5.00	-	-	-
24. Labour Welfare	3.00	0.76	0.45	-	9.50	-	-	3.25
25. Development of Backward Areas	7.00	3.86	4.00	-	35.00	-	-	-
26. Social Welfare	11.00	4.89	4.30	-	25.00	-	-	6.00
27. Nutrition	44.00	18.46	21.50	21.50	165.00	165.00	-	-
28. Planning Machinery	16.50	4.14	1.50	-	17.00	-	-	-
29. Press	7.50	4.50	3.00	-	20.00	-	-	-
30. Public Works	91.00	71.86	30.00	-	200.00	-	-	200.00
Total : Tertiary Sector	2194.00	1585.74	829.75	179.20	5638.50	1693.00	-	3097.65
31. Flood Control	25.00	-	-	-	-	-	-	-
Grand Total :-	3964.00	2435.23	1580.00	204.20	10608.50	1814.00	12.70	4030.85