



**NORTH EASTERN COUNCIL
ANNUAL PLAN
1988 - 89**

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NORTH EASTERN COUNCIL SECRETARIAT
Ministry of Home Affairs
Government of India
SHILLONG

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CHAPTER-1

I N T R O D U C T I O N

1.01 The North Eastern Region comprises the seven States of Assam, Manipur, Meghalaya, Tripura, Nagaland, Mizoram and Arunachal Pradesh. The region accounts for 7.7% of the country's total land area and has a population of 266 lakhs (1981 census) representing 3.88% of the country's total population. 70% of the area is hilly and 84% people live in villages. The average population density is low i.e. 104 against the all-India average of 216; the density is very low in the mountainous terrain though the plains of Assam & Tripura are thickly populated. The literacy rate in the region is above the all-India average of 36.23 (1981) except for Arunachal Pradesh (20.79) and Meghalaya (34.08). The region is economically more backward than other regions in terms of key development indicators.

1.02 Under the North Eastern Council Act, 1971 the Council has been designed as an Advisory Body and to discuss matters in which some or all of the constituent units or union and one or more of the States represented in the Council have a common interest. In the context of North Eastern areas, this commonality of interest extends to critical spheres of planning for power generation, flood control, inter-state transport and communications and accordingly the Council has been formulating regional plans in addition to State Plans in regard to matters of common interest. Broadly the NEC Plans has two components, viz. one implemented by the constituent units directly and the other by Central agencies and regional corporations sponsored by the NEC. Apart from the nature of the schemes, locational, technical and administrative reasons determine the agency for implementation. For instance, due to difficult terrain and lack of suitable field organisation, a number of inter-state roads and roads of economic importance have to be assigned to BRDB. Similarly autonomous societies were created for establishment of NERIST at Itanagar and

Regional Medical College at Imphal and Regional Corporations like NEEPCO and NERAMAC were established for power generation/distribution and marketing/processing of agriculture produce. These Corporations/Bodies receive funds directly from the NEC Plan and work in close collaboration with the State Governments. Under the NEC Plan, the main thrust has, therefore, been given to schemes of regional importance whose benefits can be shared by all units. However, as a part of its effort to achieve balanced development, the Council has also been supporting several schemes of broad economic importance in States particularly in backward and remote regions and taking up schemes for introduction of new technology, new commercial crops and establishment of training institutions. The regional planning process adopted by the Council is based on periodic discussions and review with the constituent units and the central implementing agencies and field visits by its experts. This has enabled the Council to identify major constraints both short-term and long-term on development of the region. The Council has a catalytic role and is to take a regional view of development needs and to support the State Plans. Due to the efforts made over the last one decade, it has been possible for the Council to a certain extent, to remove the basic infrastructural deficiency in the region. Nevertheless, there are still many areas of deficiency and the work of the Council is therefore to be taken up on a firmer and more sustained basis in the field of upgradation of infrastructure, exploitation of the vast resources of the region raising thereby the productivity and income of its population and proper development of human resources by spread of education and appropriate technology.

1.03 The NEC commenced functioning practically from the last year of the Fourth Five Year Plan. An abstract of NEC Plan performance in financial terms since inception is given below :-

| Period | (Rs. in crores) | |
|---|------------------|---------------|
| | Approved Outlays | Expenditure |
| (a) Fourth Five Year Plan (Last year of the Plan i.e. 1973-74). | 0.33 | 0.28 |
| (b) Fifth Five Year Plan 1974-75 to 1977-78.. | 65.11 | 53.93 |
| (c) Rolling Plan 1978-79 to 1979-80. | 82.45 | 65.33 |
| (d) <u>Sixth Five Year Plan.</u> | | |
| i) 1980-81 | 64.00 | 50.86 |
| ii) 1981-82 | 70.00 | 64.29 |
| iii) 1982-83 | 80.00 | 87.30 |
| iv) 1983-84 | 95.00 | 81.23 |
| v) 1984-85 | 107.75 | 101.66 |
| Total Sixth Plan | 417.15 | 385.34 |
| Seventh Plan 1985-90 Approved outlay | 675.00 | |
| 1985-86 | 125.00 | 96.46 |
| 1986-87 | 145.00 | 144.13 |
| 1987-88 | 150.00 | 150.00 |

1.04 The Council had proposed a Seventh Plan outlay for about Rs.1271.60 crores. However, an outlay of Rs.675.00 crores only was approved by the Planning Commission, comprising Central assistance of Rs.575.00 crores and LIC loan of Rs.100.00 crores to be drawn by NEEPCO. The Members of the Council in the Twenty Fifth Council Meeting held on August 28, 1985 expressed the view that the Seventh Plan outlay of Rs.675.00 crores for the North Eastern Council was inadequate and needs to be raised substantially. Accordingly, the Council Secretariat had proposed a supplemental outlay of Rs.152.00 crores to raise the size of the Seventh Five Year Plan from 675.00 crores to Rs.827.00 crores while presenting Annual proposal for 1986-87. The Planning Commission however, took a view that the Seventh Plan size of NEC had been recently finalised at Rs.675.00

crores which was 98.53 per cent higher than the approved Sixth Plan outlay and expressed its inability to raise it further on grounds of resource constraints. However, the Planning Commission had agreed that if NEC considered inclusion of any new schemes as vital for regional development, it could be taken up in Seventh Plan within the overall approved outlay. This might ultimately lead to some augmentation in the plan outlay.

1.05 The Council Secretariat proposed an outlay of Rs.177.19 crores for 1986-87 NEC Plan comprising Rs.144.70 crores for continuing schemes and Rs.32.49 crores for new schemes (including supplementary proposals of Rs.9.27 crores. Final outlay of Rs.145.00 crores was decided for 1986-87 NEC Plan, which included Rs.20.00 crores to be raised as LIC loan by NEEPCO. The share of continuing schemes in 1986-87 was Rs.117.71 crores and Rs.27.28 crores for new schemes including Rs.2.80 crores for supplementary schemes not initially included. Learning from the experience of 1985-86 Plan where Plan funds could not be utilised fully, the Council Secretariat reviewed the position and took effective measures for better utilisation of Plan funds during 1986-87. As a result of these efforts the Council Secretariat was in a position to utilise 99.5 per cent of the plan funds for 1986-87.

1.06 The point of inadequacy of NEC Seventh Plan outlay was further stressed in the meeting of the Council held on 29th July 1986 particularly in strategic sector like road building and hence there was still an urgent need for raising the Seventh Plan size by inclusion of additional schemes for reducing the accumulated development lags in the region. The Annual plan proposals of 1987-88 were thus based on the recommendation of the Council and contained a set of supplementary proposals. An outlay of Rs.178.37 crores including Rs.10.40 crores for supplementary proposals was proposed for the 1987-88 Annual Plan of NEC which comprised of Rs.16.16 crores for Agriculture and Allied Sector, Rs.64.87 crores for Water and Power Development, Rs.73.45 crores for Transport and Communication.

Rs.15.58 crores for Manpower Development, Rs.2.47 crores for Industries and Minerals, Rs.3.68 crores for General Services and Rs.2.16 crores for Social and Community Services. In the final round of discussion between Chairman, NEC and Deputy Chairman, Planning Commission held on 21st January, 1987 inclusion of important supplementary proposals was agreed to at the instance of the Chairman, NEC. An important supplementary proposal included at this stage was the "Expansion of Bokajan Cement Plant" (not initially proposed in Draft Plan) for meeting the requirement of cement of Mizoram and Tripura States by establishment of one Clinker grinding plants in each area based on supply of clinker from Bokajan Plant of Cement Corporation of India. The final outlay for NEC Annual Plan 1987-88 was agreed to Rs.165.00 crores. This included Rs.25.00 crores to be raised as LIC loan for power projects. In the approved Plan 1987-88 the share of Transport and Communication is 42.10% and Power & Water Development 39.11%, 6.13% is the approved outlay for Manpower Development, 7.47% for the Agriculture and Allied Sector, 4.01% for Industries and Minerals sector, 0.83% for General services and 0.35% for Social and Community Services.

1.07 With the continued efforts during 1987-88 for effective utilisation of funds it was expected to achieve the target of full utilisation of funds. The Planning Commission, however, had reduced NEC Annual Plan 1987-88 by Rs.10 crores for mobilisation of resources for drought relief measures warranted by this year's unprecedented drought. Besides, following the decision of the Govt. of India to provide in NEC Plan funds for Rail-cum-Road bridge at Jogiahopa to ensure that a firm beginning of the project is made, a sum of Rs.5.00 crores has already been made available to Railways from NEC Annual Plan 1987-88. The NEC Annual Plan 1987-88 size, is therefore of the order of Rs.150.00 crores. In pursuance of the economy instructions issued by the Ministry of Finance recently, scheme to scheme review of NEC 1987-88 Plan schemes was conducted and

the implementation of some schemes sanctioned recently but not taken up so far, has been deferred to 1988-89.

1.08 Annual Plan proposals 1988-89 have been finalised keeping in view the suggestions made by the Hon'ble Members of the Council from time to time and in consultation with the State Govts and other implementing agencies. The 1988-89 NEC Annual Plan proposals are of the order of Rs.237.55 crores, of which Rs.16.34 crores in Agriculture and Allied sector, Rs.70.26 crores in Water and Power Development, Rs.17.63 crores in Industries and Minerals Rs.117.15 crores in Transport and Communications, Rs.12.41 crores in Manpower Development, Rs.1.32 crores in Social & Community Services and Rs.2.44 crores in General Services. The Sector-wise details of proposed outlays are given below :

| Sector | (Rs. in crores) | | | | | |
|-------------------------------------|------------------------------|----------------------------|----------------------------|-----------------------------------|-----------------------------------|-----------------------------|
| | Seventh Plan Approved outlay | Actual expenditure 1985-86 | Actual expenditure 1986-87 | 1987-88 Annual Plan Appvd. outlay | 1987-88 Annual Anticipated Expdr. | Proposed outlay for 1988-89 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I. Agriculture & Allied Programmes. | 46.47 | 3.50 | 8.73 | 12.33 | 10.83 | 16.34 |
| II. Water & Power Development. | 278.08 | 38.58 | 46.06 | 49.54 | 45.56 | 70.26 |
| III. Industries & Minerals. | 10.60 | 0.94 | 1.79 | 6.62 | 3.19 | 17.63 |
| IV. Transport & Communication. | 297.53 | 41.69 | 75.11 | 69.46 | 83.08 | 117.15 |
| V. Manpower Development. | 33.80 | 10.67 | 11.14 | 10.11 | 5.37 | 12.41 |
| VI. Social & Community Services. | 1.61 | 0.47 | 0.46 | 0.57 | 0.86 | 1.32 |
| VII. General Services | 6.92 | 0.51 | 0.84 | 1.37 | 1.11 | 2.44 |
| Total : | 675.00 | 96.46 | 144.13 | 150.00 | 150.00 | 237.55 |

1.09 It may be recalled that the NEC Seventh Plan approved outlay of Rs.675 crores was against the proposals of Rs.1271.60 crores and was considered meagre by the Council in

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view of the developmental lags that exist in the region and call for a substantial step up in the Plan outlay.

1.10 Against the approved provision of Rs.675 crores, expenditure in the first three years of the plan i.e. from 1985-86 to 1987-88 will be of the order of Rs. 390.59 crores leaving thereby a balance of only Rs.284.41 crores for the remaining two years of the Plan. In order to implement the sanctioned schemes particularly the continuing roads and the commitment arising out of new schemes finalised with substantially higher outlays than what was initially provided in the Plan, usual cost escalation etc, the Planning Commission has already been requested while carrying out Mid-term Review of the Seventh Plan to necessarily raise the NEC Seventh Plan outlay from Rs.675 crores to Rs.927 crores or so. The proposals for 1988-89 Annual Plan of NEC therefore, need to be considered in this background.

1.11 The Sector/Scheme-wise details of NEC Annual Plan proposals for 1988-89 are given in Statement-I.

Scheme-wise Outlay for NEC Annual Plan - 1988-89

Statement-I
(Ref. Para 1.11)

(Rs. in lakhs)

| Sl. No. | Name of the Scheme | Seventh Plan Approved Outlay | Actual Expenditure 1986-87 | 1987-88 | | Proposed Outlay for 1988-89 |
|--|---|------------------------------|----------------------------|-----------------|-------------------------|-----------------------------|
| | | | | Approved outlay | Anticipated Expenditure | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| A. SOIL CONSERVATION AND AGRICULTURE. | | | | | | |
| 1. | Pilot Project on Watershed Management. | 456.58 | 91.68 | 116.00 | 75.45 | 113.25 |
| | (a) Popum Poma, Arunachal Pradesh. | | 3.00 | 15.00 | 3.75 | 1.25 |
| | (b) Hirihiri, Assam | | 15.00 | 15.00 | 10.70 | 20.00 |
| | (c) Luwangleima, Manipur. | | 5.00 | 10.00 | 5.00 | 19.00 |
| | (d) Umtongphar, Meghalaya. | | 15.00 | 25.00 | 10.00 | 25.00 |
| | (e) Teirei, Mizoram. | | 15.00 | 20.00 | 15.00 | 25.00 |
| | (f) Dikhu, Nagaland. | | 18.68 | 15.00 | 15.00 | 10.00 |
| | (g) Rangacherra & Makadini, Tripura. | | 20.00 | 16.00 | 16.00 | 7.00 (Rangacherra) |
| 2. | <u>Survey & Investigation Cells</u> | 50.00 | 5.95 | 12.00 | 14.87 | 12.65 |
| | (a) Arunachal Pradesh | | 0.92 | 1.71 | 1.71 | 2.15 |
| | (b) Assam | | 0.92 | 1.72 | 1.72 | 2.20 |
| | (c) Manipur | | 0.92 | 1.72 | 2.25 | 1.80 |
| | (d) Meghalaya | | 0.92 | 1.72 | 2.83 | 1.25 |
| | (e) Mizoram | | 0.43 | 1.71 | 2.57 | 2.00 |
| | (f) Nagaland | | 0.92 | 1.71 | 2.08 | 1.50 |
| | (g) Tripura | | 0.92 | 1.71 | 1.71 | 1.75 |

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| | 1 | 2 | 4 | 5 | 6 | 7 |
|--|-------|---|-------|---------------|---------------|---------------|
| 3. PPM Cell in N.E.C. Secretariat. | 20.00 | | 5.00 | 5.00 | 4.00 | 4.00 |
| 4. Regional Soil Conservation Training Centre, Meghalaya. | 50.00 | | 10.00 | 10.00 | 9.65 | 15.00 |
| 5. Survey of Catchment Area, Rangabadi, Arunachal Pradesh. | 25.00 | | 2.95 | 2.00 | 2.00 | 5.00 |
| 6. Foundation Seed Farm for Major Crops, Manipur. | 46.15 | | - | 10.00 | 10.00 | 12.00 |
| 7. Regional Centre for Production of Bio-Fertilizers in A.A.U. | 5.00 | | 2.50 | 2.00 | 1.50 | 0.30 |
| 8. Joint Input Testing Laboratory, Tripura. | 29.35 | | 5.00 | 8.00 | 3.01 | 12.00 |
| 9. Regional Sub-Centre for Training-cum-Production of Mushroom in Mizoram. | 15.00 | | 7.00 | 5.00 | 5.77 | 1.50 |
| 10. Regional Farm for Production of Pulses & Oil Seeds, Manipur. | 54.40 | | 6.00 | 8.00 | 10.48 | 18.00 |
| 11. Mushroom Development Centre, Arunachal Pradesh. | 14.50 | | 1.16 | 5.00 | 5.50 | 6.00 |
| 12. Regional Bio-Fertilizer Production Centre, Tripura. | 24.90 | | 2.00 | 4.00 | 4.00 | 11.00 |
| 13. Regional Breeder Seed Farm, Tripura. | 29.00 | | - | 10.00 | 10.00 | 9.00 |
| 14. Regional Mushroom Spawn Production Centre, Tripura. | 15.10 | | 3.00 | 2.00 | 2.00 | 5.00 |
| 15. Pilot Project on Dry Land Agriculture, Water Harvesting, Nagaland. | 43.60 | | 10.00 | 10.00 | 10.00 | 6.75 |
| 16. Regional Cotton Seed Multiplication & Development Centre, Tripura. | 54.28 | | 5.00 | 15.00 | 14.42 | 20.00 |
| 17. Establishment of Regional Seed Certification Agency. | - | | - | 5.00 | - | 10.00 |
| SOIL CONSERVATION & AGRICULTURE | | | | 229.00 | 182.65 | 261.45 |

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| 1) | 2 | 3 | 4 | 5 | 6 | 7 |
|--|--------|--------|--------|-------|--------|---|
| B. HORTICULTURE | | | | | | |
| 1. Regional Vegetable Seed Farm, Maicherre in Tripura. | 23.05 | 5.00 | 5.00 | 3.62 | 5.00 | |
| 2. Regional Orchard-cum-Nursery for Citrus, Mynkre, Meghalaya. | 5.21 | 3.00 | 4.00 | 3.00 | 3.50 | |
| 3. Regional Coconut Seed Garden, Tripura. | 42.37 | 6.00 | 8.00 | 8.00 | 8.00 | |
| 4. Regional Seed Garden for Spices and Bettle leaf, Tripura. | 51.46 | 5.00 | 15.00 | 11.20 | 22.00 | |
| 5. Development of Temperate Nut and Almond Crops, Arunachal Pradesh. | 32.45 | - | 10.00 | 9.80 | 12.00 | |
| 6. Temperate Fruit and Nut Nursery, Arunachal Pradesh. | 26.09 | 0.20 | 10.00 | 10.00 | 12.00 | |
| 7. Scheme for Survey of Area & Production of Horticultural Crops. | 10.00 | 9.40 | 8.00 | 8.00 | 8.00 | |
| (a) Assam | - | - | 3.00 | 3.00 | 4.00 | |
| (b) Meghalaya | - | - | 3.00 | 5.00 | 4.00 | |
| (c) Nagaland | - | - | 2.00 | - | - | |
| 8. NERAMAC, Gauhati | 325.00 | 200.00 | 100.00 | 25.00 | 100.00 | |
| 9. Foundation Seed Farm for Potato in Manipur. | 28.15 | 10.00 | 5.00 | 5.00 | 10.00 | |
| 10. Foundation Seed Farm for Potato in Meghalaya. | 50.00 | - | - | - | 10.00 | |
| 11. Foundation Seed Farm for Potato in Mizoram. | 40.10 | 1.00 | 5.00 | 0.08 | 1.00 | |
| 12. Establishment of Seed Farm for Production of Certified Seeds of Potato, Tripura. | 65.00 | 3.00 | 15.00 | 12.00 | 27.00 | |
| 13. Regional Tuber Crops Farm, Tripura. | 38.00 | 3.00 | 17.00 | 14.60 | 17.00 | |
| 14. Regional Vegetable Seed Farm, Arunachal Pradesh. | 26.00 | 0.24 | 10.00 | 9.00 | 11.52 | |

(1.10)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------|--|-------|-------|--------|--------|--------|
| 15. | Regional Vegetable Seed Farm, Manipur. | 27.12 | 12.00 | 9.00 | 9.00 | 8.00 |
| 16. | Scheme for establishment of Clonal Seed Garden for Banana, Tripura. | 60.00 | 2.00 | 25.00 | 23.00 | 15.00 |
| 17. | Scheme for Rejuvenation of Old Orange Orchards, Tripura. | 20.00 | 2.00 | 5.00 | 4.00 | 5.00 |
| 18. | Establishment of Citrus Demonstration and Development Centre, Mizoram. | 20.35 | 3.00 | 5.00 | 5.00 | 4.50 |
| 19. | Establishment of Large Cardamom Nursery, Mizoram. | 28.18 | 2.00 | 6.00 | 13.64 | 7.13 |
| 20. | Promotion of Floriculture, Tripura. | 22.00 | 1.00 | 6.00 | 5.66 | 5.00 |
| 21. | Introduction of Saffron, Arunachal Pradesh. | 11.00 | 0.20 | 3.00 | 3.00 | 5.00 |
| Total : HORTICULTURE | | | | 271.00 | 182.60 | 304.65 |

C. PLANTATION

| | | | | | | |
|----|---|--------|-------|-------|-------|-------|
| 1. | Detailed Insitu Survey of land suitable for Coffee in the N.E. Region. | 10.00 | 4.00 | 6.00 | 3.50 | 3.55 |
| 2. | Factory for Small Farmer's Tea Estate, Tripura. | 204.00 | 55.00 | 20.00 | 20.00 | 83.00 |
| 3. | Rubber Processing Factory, Tripura. | 137.00 | 50.00 | 50.00 | 35.00 | 85.00 |
| 4. | Raising of Dioscorea Floribunda Plantation & Processing for manufacture of Diosgenin/16-DPA, Tripura. | 151.00 | 20.00 | 40.00 | 30.00 | 60.00 |
| 5. | Establishment of Rubber Demonstration-cum-Training Centre, Assam. | - | - | 10.00 | - | 50.00 |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------------------------|---|---|---|--------|-------|--------|
| 6. Establishment of Rubber Nursery : | | | | | | |
| i) One in Nagaland | | - | - | 2.50 | - | 2.30 |
| ii) Two in Assam | | - | - | 2.50 | - | 15.00 |
| iii) One in Tripura. | | - | - | - | - | 2.70 |
| TOTAL : PLANTATION | | | | 131.00 | 88.50 | 301.55 |

D. FOREST & PLANT RESOURCES

| | | | | | | |
|---|--------|-------|-------|--|-------|----------|
| 1. Survey of Forests Resources of N.E. Region. | 15.00 | - | 56.00 | To be taken up by Deptt. of Forests & Environment. | | |
| 2. Afforestation of New Catchment Areas of - | | | | | | |
| (a) Umiam Hydro Electric Project, Meghalaya. | 75.00 | 12.00 | 12.00 | 28.82 | 33.00 | (1.12) |
| (b) Loktak Hydro Electric Project, Manipur. | 75.00 | 20.00 | 20.00 | 27.17 | 35.00 | |
| (c) Doyang Hydro Electric Project, Nagaland. | 75.00 | 12.00 | 20.00 | 5.21 | 23.00 | |
| * (d) Kopili Hydro Electric Project. | - | - | - | - | 14.00 | |
| 3. Propagation of Tissue Culture Technique for Multiplication of various species. | 100.00 | 4.01 | 25.00 | 10.00 | 10.00 | |
| (a) North Eastern Hill University. | | | | | | |
| (b) Gauhati University. | | | | | | |
| 4. Subtropical Botanical Garden of Plant Resources, Nagaland. | 175.00 | 2.00 | 10.00 | 28.00 | 40.00 | |
| 5. Development of Minor Forest Products including Medicinal Plants. | 140.00 | 23.00 | 25.00 | 20.42 | 33.69 | |
| (a) Arunachal Pradesh | | 2.00 | 3.00 | 1.49 | 8.00 | |
| (b) Assam | | 5.00 | 4.00 | 3.93 | 5.50 | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------------|--------|---|--------------|--------------|--------------|--------------|
| (c) Manipur | | | 8.00 | 3.00 | 0.74 | 6.50 |
| (d) Meghalaya | | | - | 4.00 | 3.00 | 1.13 |
| (e) Mizoram. | | | 4.00 | 4.00 | 4.00 | 6.00 |
| (f) Nagaland | | | - | 4.00 | 4.00 | 1.21 |
| (g) Tripura | | | 4.00 | 3.00 | 3.26 | 5.35 |
| 6. Logging Improvement. | 100.00 | | - | <u>25.00</u> | <u>32.70</u> | <u>26.90</u> |
| (a) Arunachal Pradesh | | | | 4.00 | 3.00 | 7.00 |
| (b) Assam | | | | 4.00 | 5.50 | 2.20 |
| (c) Manipur | | | | 3.00 | 8.55 | 1.55 |
| (d) Mizoram | | | | 4.00 | 4.00 | 4.00 |
| (e) Nagaland | | | | 4.00 | 8.65 | 6.55 |
| (f) Tripura | | | | 3.00 | 3.00 | 5.60 |
| (g) Meghalaya | | | | 3.00 | - | - |
| 7. Tree Improvement Schemes | 80.00 | | <u>13.00</u> | <u>20.00</u> | <u>14.95</u> | <u>18.48</u> |
| (a) Arunachal Pradesh | | | 3.00 | 2.00 | 0.20 | 1.50 |
| (b) Assam | | | 3.50 | 3.00 | 2.00 | 4.00 |
| (c) Manipur | | | 3.50 | 3.00 | 3.00 | 3.65 |
| (d) Meghalaya | | | 3.00 | 3.00 | 2.40 | 1.50 |
| (e) Mizoram | | | - | 3.00 | 3.00 | 3.50 |
| (f) Nagaland | | | - | 3.00 | 1.35 | 1.33 |
| (g) Tripura | | | - | 3.00 | 3.00 | 3.00 |
| TOTAL : | | | | 207.00 | 167.27 | 234.07 |

(1.13)

 1) 2) 3) 4) 5) 6) 7)

E. ANIMAL HUSBANDRY

| | | | | | |
|---|-------|-------|-------|-------|-------|
| 1. Regional Temperate Fodder Seed Production-cum-Demonstration Farm, Arunachal Pradesh. | 15.00 | 8.63 | 10.00 | 10.00 | 7.00 |
| 2. Regional Broiler Chick Production-cum-Demonstration Farm, Gauhati. | 46.68 | 14.53 | 15.00 | 14.68 | 10.00 |
| 3. Regional Feed Testing Laboratory, Khanapara, Gauhati. | 42.57 | 4.78 | 23.00 | 23.00 | 4.60 |
| 4. Regional Integrated Farming System Project under A.A.U. | 4.00 | 2.15 | 1.50 | 0.40 | 0.40 |
| 5. Regional Cross-Breed Cattle Farm, Thenzawl, Mizoram. | 40.00 | 8.98 | 8.00 | 8.52 | 6.00 |
| 6. Regional Goat Breeding Farm, Tripura. | 29.33 | 6.82 | 12.00 | 12.00 | 10.00 |
| 7. Regional Pig Breeding Farm, Nalkata, Tripura. | 34.11 | 5.99 | 10.00 | 8.54 | 10.00 |
| 8. Regional Mithun Breeding Farm, Arunachal Pradesh. | 25.00 | 2.00 | 4.00 | 2.00 | 13.00 |
| 9. Regional Goat Breeding Farm, Arunachal Pradesh. | 25.00 | 2.00 | 4.00 | 2.00 | 12.00 |
| 10. Regional Fodder Seed Farm, Assam. | 45.00 | 8.85 | 20.00 | 19.35 | 12.00 |
| 11. Regional Frozen Semen Project, Assam. | 35.00 | 18.78 | 20.00 | 25.00 | 2.70 |
| 12. Regional Buffalo Breeding Farm, Assam. | - | 9.90 | 15.00 | 15.68 | 41.60 |
| 13. Mechanisation of Institute of Veterinary Biologicals, Khanapara, Assam. | - | 2.50 | 28.00 | 27.86 | 11.00 |
| 14. Regional AI Training-cum-Cryogenic Laboratory in Assam Agricultural University. | 20.00 | 2.40 | 8.00 | 7.00 | 4.25 |
| 15. Regional Buffalo Breeding Farm, Manipur. | 49.20 | 9.90 | 15.00 | 21.00 | 20.25 |
| 16. Regional Pony Development Project, Manipur. | 60.00 | 11.85 | 14.00 | 30.00 | 25.00 |

(1.14)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------|--|-------|-------|--------|--------|--------|
| 17. | Regional Composite Livestock Farm Tamenglong, Manipur. | 35.00 | 4.85 | 4.00 | 18.00 | 46.40 |
| 18. | Regional Pigery Farm, Meghalaya. | 40.00 | 18.24 | 18.00 | 27.00 | 7.00 |
| 19. | Regional Fodder Seed Farm, Thenzawl, Mizoram. | 25.00 | 8.59 | 2.00 | 7.00 | 5.00 |
| 20. | Regional Broiler Chicks Farm, Mizoram. | 50.00 | 8.00 | 15.00 | 18.78 | 14.50 |
| 21. | Regional Cross-Breed Cattle Farm, Nagaland. | 75.00 | 19.45 | 20.00 | 20.00 | 30.50 |
| 22. | Regional Exotic Pig Breeding Centre, Nagaland. | 65.00 | 18.85 | 20.00 | 22.85 | 20.00 |
| 23. | Regional Broiler Chicks Production-cum- Demonstration Sub-Centre at Kohima. | 40.00 | 7.85 | 14.00 | 14.00 | 13.00 |
| 24. | Regional Veterinary Biological Centre, Tripura. | 85.80 | 0.10 | 19.00 | 18.90 | 35.00 |
| 25. | Regional Centre for Investigation of Common Diseases of Ducks, Tripura. | 25.00 | 0.11 | 9.00 | 8.89 | 6.00 |
| 26. | Regional Pig breeding Centre, Manipur. | - | - | 10.00 | 11.70 | 29.00 |
| 27. | Regional Pork Processing Centre, Nagaland. | - | - | 15.00 | - | 55.00 |
| 28. | Regional Rabbit Production Centre, Nagaland. | - | - | 11.00 | 19.00 | 25.00 |
| * 29. | Broiler Rearing Centre, Arunachal Pradesh. | - | - | - | - | 5.00 |
| TOTAL ANIMAL HUSBANDRY | | | | 364.50 | 413.15 | 451.12 |

(1.15)

F. FISHERIES

| | | | | | | |
|----|---|-------|---------------------|--------------|-----------|---------------|
| 1. | Reclamation of Beel Fishery Arunachal Pradesh and Meghalaya. | 66.00 | A.P. - Meg. 4.00 | 2.00 2.00 | - 2.99 | 10.00 3.50 |
| 2. | Regional Fish Seed Farm, Meghalaya. | 18.00 | - | 3.00 | 3.00 | 15.00 |

| 1) | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|-------|------|----------------|----------------|----------------|
| 3. Regional Fish Seed Farm, Mizoram. | | 20.00 | 2.00 | 3.00 | 8.91 | 5.00 |
| 4. Regional Carp Fish Breeding & Culture Farm, Nagaland. | | 50.00 | 8.00 | 7.00 | 17.66 | 14.00 |
| 5. Regional Air Breathing Fish Seed Farm, Tripura. | | 48.97 | 5.00 | 7.00 | 7.00 | 16.00 |
| 6. Fresh Water Carp Seed Farm in Loktak Lake, Manipur. | | 25.00 | 5.00 | 2.00 | 2.88 | 8.00 |
| 7. Regional Pengba Fish Seed Farm, Manipur. | | 25.00 | 4.00 | 4.00 | 6.43 | 10.00 |
| 8. Survey of Derilect Fisheries, Arunachal Pradesh. | | 0.95 | 1.00 | - | - | - |
| TOTAL : FISHERIES | | | | 30.00 | 48.87 | 81.50 |
| I. TOTAL : AGRICULTURE & ALLIED PROGRAMME | | | | 1232.50 | 1083.04 | 1634.34 |

II. WATER AND POWER DEVELOPMENT:

| | | | | | | |
|--|----------|---------|---------|----------------|----------------|----------------|
| A. GENERATION | | | | <u>4971.00</u> | <u>3950.00</u> | <u>5001.00</u> |
| 1. Kopili Hydel Project. | 3100.00 | 2500.00 | 1150.00 | 2500.00 | 1 | 600.00 |
| 2. Garo Hills Thermal Project. | 3000.00 | - | 1.00 | - | - | 100.00 |
| 3. Doyang Hydel Project in Nagaland. | 10000.00 | 400.00 | 1600.00 | 500.00 | 2 | 2000.00 |
| 4. Ranganadi Hydro Electric Project. | 5000.00 | 550.00 | 2000.00 | 850.00 | 3 | 2000.00 |
| 5. Gas Turbine, Tripura. | - | 50.00 | 220.00 | 100.00 | - | 256.00 |
| * 6. Micro Hydel Project, Mizoram. | - | - | - | - | - | 25.00 |
| * 7. Other New Generation Project, in NER. | - | - | - | - | - | 20.00 |
| B. TRANSMISSION | | | | <u>1126.00</u> | <u>382.00</u> | <u>1580.00</u> |
| 8. Kopili Transmission | 10.00 | - | 1.00 | 1.00 | - | - |

(1.16)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------------------------|---|---------|--------|---------------|---------------|---------------|
| 9. | Additional Transmission Line including construction of 132 KV - Lunomual - Zembankline. | 882.00 | 400.00 | 200.00 | 200.00 | 175.00 |
| 10. | Transmission System associated with Doyang by NEFPCO. | 4000.00 | 250.00 | 762.00 | 110.00 | 1000.00 |
| 11. | 132 KV Transmission Gohpur-Itanagar. | - | 100.00 | 138.00 | 46.00 | 100.00 |
| 12. | Ranganadi Transmission Project. | 500.00 | - | 25.00 | 25.00 | 125.00 |
| 13. | Transmission System in Meghalaya. | 1.00 | - | - | - | 50.00 |
| *14. | Transmission System in Mizoram & Manipur. | - | - | - | - | 100.00 |
| *15. | Estt. of RLDC & SLDCs in NER | - | - | - | - | 30.00 |
| N.B. 1. LIC Loan Rs. 1450 lakhs. | | | | | | |
| 2. LIC Loan Rs. 500 lakhs. | | | | | | |
| 3. LIC Loan Rs. 550 lakhs. | | | | | | |
| C. SURVEY & INVESTIGATION | | | | 229.00 | 156.23 | 152.05 |
| 16. | Loktak down stream & Tuivai Hydel Project, Manipur. | 15.17 | 15.00 | 1.00 | 15.40 | 1.00 |
| 17. | Tuivai in Mizoram. | 211.12 | 79.74 | 25.00 | 25.00 | 5.00 |
| 18. | (a) Ranganadi Stage-II | | | | | |
| | (b) Damwe | 63.85 | 42.50 | 25.00 | 25.00 | 1.00 |
| | (c) Papu | | | | | |
| 19. | (a) Barak | | | | | |
| | (b) Irang | 198.86 | 80.00 | 60.00 | 60.00 | 27.00 |
| 20. | Kynshi Basin in Meghalaya. | 86.18 | 1.00 | 35.00 | 4.83 | 20.00 |
| 21. | Serlui-B & Tuivai in Mizoram. | 58.28 | 25.12 | 1.00 | 1.00 | - |
| 22. | Dikrong in Arunachal Pradesh. | 39.54 | 15.00 | 5.00 | 10.00 | 15.00 |
| 23. | Residual Investigation, Kameng. | 4.00 | - | 1.00 | 1.00 | 1.00 |
| 24. | High Dam Tipaimukh. | 6.00 | - | 1.00 | 1.00 | 1.00 |

(1.17)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|--------|---------------|---|--------------|--------------|--------------|---------------|
| 25. Investigation of Hydel Project including Mini/Micro Hydel Project. | | | | <u>25.00</u> | <u>75.00</u> | <u>13.00</u> | <u>81.05</u> |
| (a) Popompuma Investigation. | | | | 10.00 | 35.00 | - | 1.00 |
| (b) 8 sites in Nagaland | | | | 5.00 | 8.00 | 3.00 | 9.05 |
| (c) Continuation of Collection of Hydro-logical data in Kameng H.E. Project. | | | | 10.00 | 10.00 | 10.00 | 1.00 |
| (d) Mizoram. | | | | - | - | - | 25.00 |
| (e) Meghalaya. | | | | - | - | - | 15.00 |
| (f) Manipur. | | | | - | 15.00 | - | 15.00 |
| (g) Arunachal Pradesh. | | | | - | 7.00 | - | 15.00 |
| D. <u>RENEWABLE RESOURCES OF ENERGY</u> | | <u>200.00</u> | | <u>48.90</u> | <u>65.00</u> | <u>40.00</u> | <u>71.00</u> |
| E. <u>WATER DEVELOPMENT</u> | | | | <u>20.00</u> | <u>63.00</u> | <u>28.00</u> | <u>222.00</u> |
| 1. Micro Hydel Irrigation in Mizoram. | 21.45 | | | 10.00 | 10.00 | - | - |
| 2. i) Jiri Medium Irrigation Project in Manipur. | | | | 5.00 | 4.00 | 18.00 | 5.00 |
| ii) Diphu Down Stream Irrigation Project, Nagaland. | 218.39 | | | 5.00 | 10.00 | - | - |
| iii) Tirep Medium Irrigation in Arunachal Pradesh. | | | | - | 3.00 | - | 10.00 |
| 3. Lohgai Investigation, Tripura. | 40.00 | | | - | 10.00 | 10.00 | 25.00 |
| 4. Air Borne Survey on Barak river system by NRSA. | 5.33 | | | - | 5.00 | - | - |
| 5. Institute of Water Management & command Area Development, Assam. | 131.28 | | | - | 15.00 | - | 75.00 |
| 6. Tsurang Investigation, Nagaland. | 5.00 | | | - | 3.00 | - | 2.00 |

(1.18)
 (investigation)
 100.00 (Imp. of
 Project)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|-------|------|-----------|---------|---------|---|
| 7. Sedimentation Survey of Umium Reservoir, Meghalaya. | 11.00 | 4.00 | 3.00 | - | 5.00 | |
| TOTAL : WATER AND POWER DEVELOPMENT | | | £ 6454.00 | 4556.23 | 7026.05 | |

III. INDUSTRIES AND MINERALS:

A. Detailed Minerals Investigation & Proving.

| | | | | | | |
|--|-------|-------|-------|-------|----------|--------|
| 1. For clearing pending Liabilities of Siju Borjan, Delhi-Joypore, Bokajan, Namchik, Nampuk, Lumshnong, Makum Exploration. | - | - | 1.00 | 15.00 | 1.00 | |
| 2. Langrin Coal Exploration, Meghalaya. | 50.00 | 29.08 | 16.00 | 16.00 | 5.00 | |
| 3. Coal Exploration, Jairampur Coal field, Arunachal Pradesh. | 40.00 | - | 5.00 | - | dropped. | |
| 4. Exploration of Western extension block of Namchik Nampuk Coalfield, Arunachal Pradesh. | 35.00 | - | 10.00 | 35.00 | 7.00 | (1.19) |
| 5. Coal Exploration Dilli Sector of Dilli-Joypore Coalfield, Assam. | 35.00 | - | 5.00 | 12.00 | 16.00 | |
| <u>Limestone (New schemes)</u> | | | | | | |
| 6. New Umrangshu, Assam. | 25.00 | - | 3.00 | 7.00 | 11.00 | |
| 7. Nimmi, Nagaland. | 24.00 | - | 5.00 | 10.00 | 14.00 | |
| 8. Detailed Investigation of high grade lime stone in Lumshnong North Block, Jaintia Hills, Meghalaya. | 16.00 | - | 2.00 | 7.50 | 4.50 | |
| 9. Exploration of Ground Water, Mizoram. | - | 8.00 | 8.00 | 19.46 | 11.00 | |

£ - Rs.1500 lakhs have been surrendered for (a) Draught relief (Rs.10 crores) and (b) Jogighopa Bridge (Rs.5 crores).

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
|---|---|---|---|---|---|---|

B. LARGE & MEDIUM INDUSTRIES

| | | | | | |
|--|--------|-------|-------|-------|-------|
| 10. Mini-cement Plant at Hundung, Manipur (50 tpd) including agency payment to M/s NEITCO. | 40.80 | 40.00 | 8.00 | 55.00 | 5.00 |
| 11. Mini Cement Plant, Umrangshu, Assam (200 tpd). | 164.45 | - | 1.00 | - | - |
| 12. Mini Cement Plant, Wazeho, Nagaland (50 tpd). | 21.50 | 70.00 | 50.00 | 60.00 | 5.00 |
| 13. Paper grade Lime Plant at Lumshnong, Meghalaya. | 10.00 | - | 1.00 | - | 50.00 |
| 14. Paper-grade Lime Plant (200 tpd), Umrangshu, Assam. | 1.00 | - | 1.00 | 1.00 | 6.00 |

C. DETAIL ED RAW MATERIAL INVESTIGATION FOR SPECIFIC PROJECTS (FEASIBILITY STUDIES).

| | | | | | |
|--|-------|---|------|---|-------|
| 15. Glass & Sand beneficiation studies in Meghalaya & Tripura. | 15.00 | - | 1.00 | - | 8.00 |
| 16. Sillimanite & Kyanite beneficiation test Meghalaya and Assam. | 8.00 | - | 1.00 | - | 10.00 |
| 17. Benefication test on Garnet & other minor abrasive minerals. | 24.00 | - | 1.00 | - | 2.00 |
| 18. Feasibility and detailed studies for one million tonne cement plant. | 30.00 | - | - | - | 5.00 |
| 19. Feasibility studies for Chemical grade limestone. | 5.00 | - | 1.00 | - | 2.00 |

(1.20)

D. R&D PROJECT FOR INDUSTRIAL UTILISATION OF REGIONAL RAW MATERIALS:

| | | | | | |
|---|-------|---|------|------|------|
| 20. Low Temperature Carbonisation of N.E. Coal. | 10.00 | - | 2.00 | 8.00 | 1.00 |
|---|-------|---|------|------|------|

| 1. | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------------------|---|--------|---|--------|-------|---------|
| 21. | Development of Fluidised bed technology of N.E. Coal. | 10.00 | - | 2.00 | 0.65 | 1.00 |
| 22. | Desulphurisation of flue Gas generated in the Beehive coke oven. | 5.00 | - | 1.00 | 4.00 | 1.00 |
| 23. | Determination of Physical, Chemical characteristics of the N.E. Tertiary Coal N.E. Region. | 30.00 | - | 5.00 | 15.51 | 14.00 |
| 24. | Setting up of Chemical & Petrological Laboratory at Dimapur, Nagaland. | 33.00 | - | 10.00 | 5.00 | 7.50 |
| 25. | Pilot Plant /scale beneficiation test. | 25.00 | - | - | - | - |
| E. PILOT INDUSTRIAL PROJECT | | | | | | |
| 26.a) | Clinker grinding units in Mizoram & Tripura | - | - | 150.00 | 1.00 | 500.00 |
| b) | Expansion of Bokajan Cement Plant. | - | - | 291.00 | 5.00 | 1000.00 |
| 27. | Breeze Coke Plant (for 30,000 tonnes) to meet requirement of VSK Cement & Lime Plant. | 166.00 | - | 3.00 | - | 10.00 |
| 28. | Salt Iodisation Plant at Byrnihat, Lilabari, Kumarghat. | 24.00 | - | 1.00 | - | - |
| *29. | Development of Decorative Stone, serpentinites and semiprecious stone containing Idocrase, Manipur. | - | - | - | - | 10.00 |
| *30. | Pozzolana Plant, Manipur. | - | - | - | - | 5.00 |
| *31. | Semi-Mechanised Brick Plant, Mizoram. | - | - | - | - | 5.00 |
| *32. | Tezu Cement Plant, Arunachal Pradesh. | - | - | - | - | 2.00 |
| *33. | Estt. of Regional Industrial Infrastructural Dev. Corporation. | - | - | - | - | 2.00 |
| *34. | Marketing support to NEHDC Ltd. | - | - | - | - | 10.00 |

(1.21)

1 | 2 | 3 | 4 | 5 | 6 | 7

F. SERICULTURE

| | | | | | |
|--|-------|------|------|------|------|
| 35. Establishment of Mulberry Nursery-cum-Chowki Reering Centre, Tripura. | 9.00 | 4.80 | 1.00 | 1.38 | - |
| 36. Establishment of Muga Plant & Oak Plant Nursery, Arunachal Pradesh. | 10.50 | 1.00 | 1.00 | 1.00 | 2.00 |
| 37. Establishment of Mulberry Nursery-cum-Chowki rearing Centre, Arunachal Pradesh. | 2.50 | 1.00 | 1.00 | 1.00 | - |
| 38. Establishment of Reeling Unit, Assam. | 8.00 | 2.60 | 4.00 | 7.00 | 5.00 |
| 39. Scheme for Modernisation of Mulberry Silk Reeling Unit, Meghalaya. | 8.00 | 3.00 | 3.00 | 6.00 | 3.80 |
| 40. Establishment of Silk Reeling Spinning Weaving Training-cum-production centre at Kolasib, Mizoram. | 15.00 | 2.00 | 4.70 | 4.07 | 5.50 |
| 41. Establishment of Integrated Reeling and Twisting Unit, Nagaland. | 8.00 | 5.20 | 1.00 | 5.80 | 5.00 |
| 42. Silk Reeling Unit, Tripura. | 8.00 | 2.25 | 1.30 | 1.30 | 5.00 |
| 43. Silk Weaving Unit, Manipur. | 8.00 | 2.00 | 2.00 | 5.00 | 2.50 |
| 44. Silk Reeling Unit, Arunachal Pradesh. | 5.00 | - | 1.00 | - | 3.00 |

TOTAL : INDUSTRIES & MINERALS

662.00

318.67

1762.80

(1.22)

1) 2 3 4 5 6 7

IV. TRANSPORT & COMMUNICATION:

| | | | | | |
|---|----------|---------|---------------------------------|---------|---------------------------------------|
| 1. Ropeways. | 1.00 | - | 10.00 | - | 10.00 |
| 2. Improvement of Inland Water Transport Construction of Floating Jetties. | 410.00 | 126.00 | 100.00 | 50.00 | 124.00 |
| 3. Mechanical Cargo Handling Plant. | 253.00 | 40.00 | 150.00 | 125.00 | 200.00 |
| 4. <u>Roads -</u> | | | | | |
| i) <u>Inter-State Roads.</u> | 15996.00 | 3321.00 | 3980.00 +196.00 (for new) | 4678.00 | 6605.00 +190.00 (for new roads) |
| (a) Arunachal Pradesh. | | 535.00 | 605.00 | 740.00 | 1022.00 |
| (b) Assam. | | 750.00 | 850.00 | 850.00 | 1096.00 |
| (c) Manipur. | | 330.00 | 400.00 | 375.00 | 550.00 |
| (d) Meghalaya. | | 549.00 | 706.00 | 684.00 | 1052.00 |
| (e) Mizoram. | | 416.00 | 405.00 | 655.00 | 1145.00 |
| (f) Nagaland. | | 526.00 | 640.00 | 794.00 | 970.00 |
| (g) Tripura. | | 460.00 | 570.00 | 580.00 | 950.00 |
| ii) <u>Roads of Economic Importance Executed through BRDB.</u> | | 3328.00 | 2500.00 | 3445.00 | 4580.00 |
| 5. Bridge across Brahmaputra, Tezpur, Assam. | 160.00 | 451.00 | 10.00 | 10.00 | - |
| *6. Survey of Bridge over Brahmaputra, near Dibrugarh. | - | - | - | - | 4.00 |
| *7. Setting up Inland Transport Corporation. | - | - | - | - | 2.00 |
| TOTAL : TRANSPORT & COMMUNICATIONS | | | 6946.00 | 6308.00 | 11,715.00 |

(1.23)

V MANPOWER DEVELOPMENT

| | | | | | |
|---|---------|-----------------|--------------|--------------|--------------|
| 1. Fellowship & Academic Programme. | 230.00 | <u>48.49</u> | <u>52.00</u> | <u>33.06</u> | <u>46.00</u> |
| (a) Arunachal Pradesh. | | | 7.00 | 3.88 | 7.00 |
| (b) Assam | | | 8.00 | 5.00 | 5.00 |
| (c) Manipur | | | 8.00 | 8.00 | 8.00 |
| (d) Meghalaya | | | 8.00 | 1.00 | 6.00 |
| (e) Mizoram. | | | 7.00 | 3.18 | 6.00 |
| (f) Nagaland | | | 7.00 | 7.00 | 7.00 |
| (g) Tripura. | | | 7.00 | 5.00 | 7.00 |
| 2. Linemen's Training Programme. | 25.00 | 4.00 (Assam) | 4.50 | 4.50 | 5.00 |
| | | 4.50 (Megh.) | 4.50 | 5.00 | 5.00 |
| 3. Miscellaneous Training Programme. | 132.00 | 21.74 | 35.00 | 25.00 | 35.00 |
| 4. N.E. Regional Institute of Science & Technology. | 1500.00 | 600.00 | 500.00 | 100.00 | 500.00 |
| 5. Extension of Assam survey School. | 7.00 | 8.50 | 1.00 | 1.00 | 6.00 |
| 6. Improvement of Science & Mathematics Education in Hill/Tribal Areas. | 25.00 | 7.52 | 10.00 | - | - |
| 7. Financial Assistance to Assam Rifles Public School for improvement in the Standard of Science & Mathematics Education. | 25.77 | 6.90 | 7.00 | 7.00 | 7.00 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------|--|--------|--------|--------|--------|--------|
| 8. | Establishment of Regional Fishery Institute. | 54.41 | 5.00 | 10.00 | 18.00 | 13.60 |
| 9. | Regional Mining School in Nagland. | 10.00 | - | 3.00 | 3.00 | 50.00 |
| 10. | Regional Students' Hostel (Hostel for Researchers). | 55.00 | - | 1.00 | 1.00 | 1.00 |
| 11. | N.E. Judicial Officers Training Institute, Gauhati. | 20.00 | 3.70 | 5.00 | 4.00 | 4.00 |
| 12. | Regional Medical College, Imphal. | 700.00 | 190.00 | 150.00 | 150.00 | 190.00 |
| 13. | North East Police Academy, Umsaw, Shillong. | 347.39 | 144.92 | 128.00 | 64.00 | 200.00 |
| 14. | Regional Dental Wing, GMC. | 40.00 | 10.00 | 15.00 | 25.88 | - |
| 15. | Graduate Regional Nursing College, Gauhati. | 60.00 | 5.00 | 20.00 | 20.00 | 60.00 |
| 16. | Expansion of Regional Pharmacy Institute, Agartala. | 30.00 | 3.00 | 7.00 | 7.00 | 15.00 |
| 17. | Improvement of ITI, Aizawl. | 15.00 | 5.00 | 15.00 | 15.00 | 5.00 |
| 18. | Linemen Training Centre, Mizoram. | 1.00 | 1.00 | 1.00 | 1.00 | - |
| 19. | Regional ITI for Women, Tinsukia. | 10.00 | 8.00 | 10.00 | 10.00 | 33.00 |
| 20. | Modernisation of ITI, Imphal. | 20.00 | 10.00 | 10.00 | 8.65 | 1.00 |
| 21. | Regional Centre for Training of Trainers, Rani, Assam. | - | 20.00 | 22.00 | 35.00 | 15.00 |
| *22. | Construction of Training shed in Goalpara Sainik School, Assam. | - | - | - | - | 6.06 |
| *23. | Estt. of Regional Survey Training School, Tripura. | - | - | - | - | 5.00 |
| *24. | Financial Assistance to NEHU for Improvement of Science & Maths Education in Hill/Tribal Areas, NER. | - | - | - | - | 2.00 |

(1.25)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---------|--------|---------|
| *25. Construction of Hostel Accommodation the Banasthali Vidyapith, Rajasthan for the students of NER. | - | - | - | - | - | 5.00 |
| *26. Construction of Hostel at Delhi for the students of NER. | - | - | - | - | - | 5.00 |
| *27. Setting up of an Institute of Cost & works Accountancy. | - | - | - | - | - | 10.00 |
| *28. Entrepreneurship Development Institute for NER. | - | - | - | - | - | 1.00 |
| *29. Construction of Building for Regional Cooperative Training College, Assam. | - | - | - | - | - | 5.00 |
| *30. Introduction of Computer Education. | - | - | - | - | - | 10.00 |
| TOTAL : MANPOWER DEVELOPMENT | | | | 1011.00 | 537.09 | 1240.66 |

V. SOCIAL AND COMMUNITY SERVICES:

(1.26)

1. Artificial Limb Fitting Centres

| | | | | | |
|---|-------|-------|------|-------|-------|
| (a) Shillong | | 0.96 | 2.00 | 8.00 | 5.00 |
| (b) Imphal | 20.42 | 8.84 | 8.00 | 4.16 | 11.20 |
| 2. D&T Group of Vaccines, Pasteur Institute, Shillong. | 50.00 | 28.00 | - | 30.00 | - |
| 3. Food & Drug Laboratory, Tripura. | 20.00 | 2.00 | 5.00 | 5.00 | 12.00 |
| 4. Food & Drug Laboratory, Gauhati. | 18.00 | 2.00 | 5.00 | 17.65 | 6.00 |
| 5. Orthopaedic & Traumatology Centre, Shillong. | 10.00 | - | 3.00 | - | 8.50 |
| 6. Artificial Limb Fitting- cum- Rehabilitation Centre, Nagaland. | 11.50 | 2.00 | 3.50 | 5.00 | 8.30 |
| 7. Food & Drug Laboratory, Shillong. | 15.00 | 2.00 | 5.00 | 3.00 | 20.00 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|--------------|--------------|---------------|
| 8. Regional Blood Bank, Manipalaya. | - | - | - | 10.00 | 13.00 | 4.50 |
| 9. Establishment of Radiation Medicine Unit, Agartala. | - | - | - | 5.00 | - | 5.00 |
| 10. Speech Therapy Unit, G.B. Hospital, Agartala. | - | - | - | 3.00 | - | 5.00 |
| 11. Upgradation & Expansion of Rehabilitation Centre at G.B. Hospital, Agartala. | - | - | - | 6.00 | - | 6.00 |
| 12. Forensic Science Laboratory, Gauhati. | - | - | - | 2.00 | - | 30.00 |
| *13. Upgradation of Dr.B.Baruah Cancer Institute, Gauhati. | - | - | - | - | - | 10.00 |
| TOTAL : SOCIAL & COMMUNITY SERVICES | | | | 57.50 | 85.81 | 131.50 |

VII. GENERAL SERVICES

| | | | | | |
|---|-------|------|-------|------|-------|
| 1. Regional Information & Documentation Centre. | 50.00 | 9.13 | 10.00 | 8.00 | 10.00 |
| 2. <u>Natural Hazards Risks Evaluation & Reduction Programme.</u> | | | | | |
| i) Earthquake Risk Evaluation Cell. | 40.00 | 5.74 | 8.00 | 8.00 | 7.20 |
| ii) Earthquake Risk Evaluation in NER - Establishment and Operation of Net-work of short period Seismic Station in NER. | 40.00 | | 7.00 | 7.00 | 30.00 |
| 3. <u>R&D Projects.</u> | | | | | |
| i) Repetitive Geodatic Surveys for monitoring land deformation precursor of earthquake. | 4.00 | - | 1.00 | 1.00 | 5.00 |

(1.27)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------------------------|---|--------|-------|-------------------|-----------------|-----------------|
| ii) | Radon Emission Studies for Identifying Earthquake Precursors. | 10.00 | -- | 1.00 | 1.00 | 4.00 |
| iii) | Insitu Stress Measurements. | 5.00 | - | - | - | 5.00 |
| 4. SCIENCE & TECHNOLOGY | | | | | | |
| i) | Regional S & T Council. | 5.00 | - | 1.00 | 1.00 | 1.00 |
| ii) | Other Programmes. | 5.00 | 0.30 | 3.00 | 1.00 | 3.00 |
| iii) | Science Museum/Science Centre. | 131.00 | 20.60 | 25.00 | 20.65 | 25.00 |
| 5. | Regional Centre for Resources Evaluation: Documentation & Information System. | 45.00 | 1.84 | 3.00 | 1.00 | 50.00 |
| 6. | Documentation of Traditional Culture of the Tribal People. | 15.00 | - | 1.00 | 2.50 | 8.00 |
| 7. | Chairman's Survey and Consultancy. | 250.00 | 26.72 | 50.00 | 38.00 | 80.00 |
| 8. | Youth Activities. | 5.00 | - | 2.00 | 0.50 | 10.00 |
| 9. | Housing for NEC Staff. | 72.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 10. | Environmental Studies. | 15.00 | 0.07 | 5.00 | 1.00 | 1.00 |
| *11. | Estt. of Regional Film Studio-cum-Production centre, Jyoti Chitaban, Gauhati. | - | - | - | - | 10.00 |
| *12. | Integrated Multichannel Police -Tele-Communications for NER. | - | - | - | - | 5.00 |
| TOTAL : GENERAL SERVICES | | | | 137.00 | 110.65 | 244.20 |
| GRAND TOTAL : | | | | ₹ 16500.00 | 14999.49 | 23754.55 |

(1.28)

* - New proposals.

£ - Rs.15 crores have been surrendered for (a) Draught relief : (Rs.10 crores) and (b) Jogighopa bridge (Rs.5 crores)

slb/-
23.10.87.

CHAPTER - 2

AGRICULTURE AND ALLIED SECTORS

A. AGRICULTURE AND SOIL CONSERVATION

2.01 Agriculture is the mainstay of the people of North Eastern Region. More than 60% of the total population of the region practise farming in some form or the other. Even though farming is the main occupation of such large number of the people, the region is deficit in respect of most items of food which have to be brought from other parts of the country. This is mainly due to low level of productivity per unit of cropped area. The form of agriculture practised is mostly traditional. Use of high yielding varieties of seeds, chemical fertilizers, plant protection chemicals, modern implements are yet to pick up in a significant manner though green revolution technology has spread to some parts of Manipur and Tripura. Availability of these critical inputs on time and in adequate quantities is rather uncertain, due to the weakness in the delivery system of inputs and farm credit. As a result, crop production programme suffers adversely and depends on vagaries of nature. Low crop intensity also contributes to the overall low productivity which is partly due to inadequate development of irrigation. Average size of operational holding in the region is also quite small which ranges from 0.5 to 2.00 hect. which is not conducive to adoption of modern agricultural technology. Over and above these factors recurring floods ravage the plains of Assam, Tripura and valley of Manipur almost annually limiting the annual yield and adding an element of uncertainty to agriculture reducing thereby the scope of investment in land. In spite of these peculiar problems mentioned above, the potential for developing agriculture in the whole region is very vast. Recognising this fact the Working Group on Development of North Eastern Region during the Seventh Five Year Plan set up by the Planning Commission, recommended that the main thrust should be on increasing the yield rate by intensified agriculture. The problem of raising the production level as well as the productivity rate is multifaceted and would, therefore, call for introduction of location specific technology. Adequate supply of farm inputs, improvement of the cropping pattern, effective research extension services, availability of farm credit etc. Contrary to the general belief technological packages for upgrading agriculture in varied land situation in NE had been developed by the ICAR and should form the basis for crop husbandry programmes.

2.02 Jhum cultivation which is practised in the hills of this region has produced devastating effect in the region. Its controls measures and setting of Jhumias in permanent cultivation is of paramount importance for raising income of Jhumias and preserving the environment. Schemes to settle Jhumias are being taken up for implementation under the state/NEC Plan.

2.03 Against this background, NEC Plan in agricultural sector was formulated to remove some of these basic constraints on higher production. Accordingly, supply of production of quality seeds through various Foundation Seed Farms, healthy and reliable planting materials for horticultural crops through a number of progeny orchards-cum-nurseries and garden schemes located in different States of the North Eastern Region, production of planting materials on high value spices and nuts were taken up under the NEC Plan. Cultivation of crops of high nutritional and economic value like mushroom and vegetables is also given importance under the programme. Toraise production of pulses and oil seeds which is an important component in the new 20-Point Economic Programme has been given priority and several pulse seed schemes have been included. Watershed Management Projects with primary objective of settling the Jhumias have been taken up in region to test the technology and to establish the Jhumias in settled agriculture.

2.04 In order to raise crop intensity and to increase productivity, supply of quality seeds to various crops is a prime requisite besides supply of low cost fertilizers, irrigation water and other facilities. Towards this end, a number of foundation seed farms for field crops and a breeder seed farm as mushroom and other important seeds etc. have been taken up including schemes for testing quality control of inputs. Regional Centres for production of Bio-Fertilizers and Input Testing Laboratories are being set up in the region. Dry land farming practices as prevalent in the hills of NER are proposed to be upgraded and hence Pilot Projects on Water Harvesting and Dryland Agriculture are also taken up under NEC. Mushroom production is an important aspect of agriculture in this region. Hence, schemes for training and production, development and spawn production of mushroom to benefit the region were included. Agriculture being essentially a State subject, NEC schemes are designed to supplement the efforts of States in trying to meet the needs for higher production in critical areas of seeds, bio-fertilizers, introduction of new crops and technology, planting materials for horti-

cultural crops, fruit processing. NERAMAC has been set up by NEC to initiate processing and marketing of horticultural and other agricultural produce. The details of various schemes are as follows :

A. SOIL CONSERVATION AND AGRICULTURE

1. Pilot project on Watershed Management.

2.05 With a view to setting Jhumia families on permanent agriculture by weaning them away from jhum (shifting) cultivation, 13 (thirteen) Watershed Management Projects were approved during 6th Plan period with an outlay of Rs. 450.00 lakhs. Out of these thirteen projects, 9 nine projects one each in Arunachal Pradesh (Popum Poma), Assam (Hiri Hiri), Manipur (Luwangleima), Meghalaya (Umtongphar), Mizoram (Teirei) two each in Nagaland (Shinga-Tsuang and Dikhu) and Tripura (Maharani Cherra and Rangacherra) have been sanctioned. Due to recent decision of the Govt. of India that the programmes on control of shifting cultivation would be taken up and coordinated by Ministry of Agriculture, Govt. of India under a Central Sector Scheme providing 100% grant to the States, no further watershed management projects will be taken up under NEC Plan.

The Project-wise details are given below :-

ARUNACHAL PRADESH :

(i) Popum Poma (Phase-II)

2.06 The project, comprising 4000 hecets. to benefit 400 jhumia families was sanctioned during 1981-82 at a total cost of Rs. 104.00 lakhs out of which Rs. 49.00 lakhs was NEC's share. The implementation of the scheme was started during 1981-82 and by the end of Sixth Plan, the benefits of the scheme could be extended to only 35 families at a total cost of Rs. 21.85 lakhs. The scheme was allowed to continue in the Seventh Plan restricting the benefits to only 60 families. The revised scheme Popum Poma (Phase-II) at an estimated cost of Rs. 15.43 lakhs was sanctioned in last part of 1986-87 where in NEC's share is Rs. 7.99 lakhs. Since the scheme was sanctioned late only 1 km of formation cutting for irrigation channel could be completed in 1986-87. Other development works are being continued in 1987-88. During 1986-87 an amount of Rs. 3.00 lakhs was released and during 1987-88 an expenditure of Rs. 3.75 lakhs is expected. For completion of the project an amount of Rs. 1.25 lakhs is proposed for 1988-89.

ASSAM :(ii) Hiri Hiri - Barpanjan

2.07 The project report, comprising 2300 hectares and to benefit 324 jhumia families has been prepared at a total cost of Rs. 100.19 lakhs, of which NEC's share is Rs. 40.08 lakhs. The scheme has been sanctioned in 1986-87. The project covers an area of 2,300 hecets. comprising 324 households with 2020 population. During 1986-87 major portion pertaining to irrigation works completed. About 8 hecets. of area were brought under Rabi cultivation and about 68 hecets. of area was brought under Kharif cultivation, besides 6 hecets. of area brought under horticultural demonstration programme. Minor construction works and Phase-I of office-cum-residential buildings were also completed. During 1987-88-89 all developmental works pertaining to soil & water conservation, Irrigation, Agriculture and allied activities were completed. During 1986-87 an amount of Rs. 15.00 lakhs was spent and the anticipated expenditure for 1987-88 is Rs. 10.70 lakhs. An outlay of Rs. 26.00 lakhs is proposed for 1988-89.

MANIPUR :(iii) Luwangleima.

2.08 The project covers 2830 hectares and will benefit 1035 families, including 167 tribal families staying at hill side in Watershed Management Project. The project has been sanctioned at an estimated cost of Rs. 151.80 lakhs. Identification of the beneficiary families, creation of infrastructure for the execution of the project are in progress. An amount of Rs. 5.00 lakhs was released in 1986-87 and anticipated expenditure for 1987-88 is Rs. 5.00 lakhs against the approved outlay of Rs. 10.00 lakhs. Rs. 19.00 lakhs are proposed for 1988-89 outlay.

MEGHALAYA :(iv) Umtongphar.

2.09 The project report comprising 4500 hectares and to benefit 669 jhumia families, has been sanctioned at a total cost of Rs. 134.91 lakhs, in 1986-87. Due to non-finalisation of the funding pattern no work on the project could be taken up during 1986-87. The funding pattern has since been settled and the work relating to creation of infrastructure and identification of beneficiary families has since been taken up. Anticipated expenditure during 1986-87 is Rs. 10.00 lakhs against the approved provision of Rs. 25.00 lakhs. An amount of Rs. 25.00 lakhs is proposed as outlay for 1988-89, for completing major portion of development works.

MIZORAM :(v) Teirei.

2.10 The project covers an area of 5676 hectares near Darluk village in Aizawl District and was sanctioned during 1985-86, to extend the benefit to 374 Mizo and Reang families at a total cost of Rs. 169.365 lakhs. Till June, 1987 35% of developmental works have been completed. Nursery to raise 70,000 seedlings for horticultural plantation has also been established. All developmental works are expected to be completed by March, 1989. During 1985-87 Rs. 30.00 lakhs were spent and anticipated expenditure for 1987-88 is Rs. 15.00 lakhs against the approved provision of Rs. 20.00 lakhs. An outlay of Rs. 25.00 lakhs is proposed for 1988-89.

NEGALAND :(vi) Shinga-Tsusang.

2.11 The project with an area of 4000 hectares envisages to benefit 300 families staying in 3 villages and was sanctioned during 1982-83 at a total cost of Rs. 57.23 lakhs, of which Rs. 34.23 lakhs is NEC's share. The NEC's assistance for the project was meant for creation of infrastructural facilities such as bench terracing, development of pastures, grassland, horticultural plantations supply of animals and agricultural inputs etc. The scheme has been completed during 1987-88.

(vii) Dikhu.

2.12 The project covers 3500 hectares and will extend the benefits to 310 families residing in 3 villages of Watershed area. The project has been sanctioned at an estimated cost of Rs. 107.58 lakhs of which NEC's share is Rs. 43.03 lakhs. Basic development works and identification of beneficiary families have already been taken up. Current year's outlay of Rs. 15.00 lakhs will be utilised fully and Rs. 10.00 lakhs are proposed for 1988-89 outlay so as to complete the ^{major} development works pertaining to soil conservation and other agricultural and allied activities.

TRIPURA :(viii) Maharanicherra.

2.13 The project covers an area of 4820 hectares and was sanctioned during 1983-84 to extend the benefits to 2273 families at a cost of Rs. 121.52 lakhs, out of which NEC's share is Rs. 48.98 lakhs. The NEC's share in the project was for creation of infrastructural facilities for the project pertaining to soil conservation,

lift-irrigation, agricultural and allied activities in cultivation, horticulture, rubber plantation, social forestry, animal husbandry and fishery. The project is expected to be completed by the end of the current financial year.

(ix) Rangacherra.

2.14 The project comprising an area of 2200 hectares to benefit 694 families, was sanctioned during 1983-84 at a total cost of Rs.103.032 lakhs of which Rs. 47.265 lakhs is NEC's share. Due to remoteness of the terrain and other administrative difficulties, the basic infrastructural works relating to soil conservation, minor-irrigation etc could not be progressed as expected. As such other programmes in agriculture, horticulture, animal husbandry, plantations and fisheries suffered set backs. State Govt. has since taken the adequate action to remove the bottlenecks for implementation of the project. The project is now expected to be completed by the end of 1988-89. The expenditure on these two projects in 1985-87 was Rs. 50.00 lakhs. The current year's outlay of Rs. 16.00 lakhs will be utilised fully and Rs. 7.00 lakhs are proposed for Rangacherra project for 1988-89.

2. Strengthening of Survey, Investigation and Planning Cells in Constituent Units.

2.15 The survey, Investigation and Planning Cells established for Watershed Management Project in constituent units during 6th Plan have now been normalised. During 7th Plan these cells have been considered for strengthening, by addition of two more staff, qualified/trained in Remote Sensing, with provision to purchase essential equipments etc, meant for Remote Sensing. Approved outlay for 7th Plan for this scheme is Rs. 50.00 lakhs. No expenditure was incurred during 1985-86 due to non-receipt of clearance of Govt. of India. The scheme has now been sanctioned at an estimated cost of Rs.6.25 lakhs for each of the NER States. This scheme is basically meant for purchase of equipments and getting the staff trained at recognised institutions. The expenditure for 1986-87 was Rs. 5.85 lakhs. Anticipated expenditure for 1987-88 is Rs. 14.87 lakhs against the approved outlay of Rs. 12.00 lakhs. An outlay of Rs. 12.65 lakhs is proposed for 1988-89.

3. Project preparation and Monitoring Cell, N.F.C.

2.16 This is a continuing scheme. An amount of Rs. 20.00 lakhs is the approved outlay for 7th Plan. The cell assisted the constituent units in taking up surveys and preparation of project reports for

Watershed Management Projects. This is a staff scheme in NEC and upto March 1987 Rs. 10.00 lakhs have been spent. Anticipated expenditure for 1987-88 is Rs. 4.00 lakhs against the approved provision of Rs. 5.00 lakhs. An outlay of Rs. 4.00 lakhs is proposed for 1988-89.

4. Regional Soil Conservation Training Centre, Meghalaya.

2.17 With a view to enlarging the scope and facilities for training of Soil Conservation staff of NE Region, the scheme was originally sanctioned during 1981-82 at an estimated cost of Rs. 40.00 lakhs. Due to certain problems particularly about availability of land for expansion of the training centre, the Govt. of Meghalaya could not make much progress during the Sixth Plan. The scheme was revised in 1986-87 at an estimated cost of Rs. 79.05 lakhs. Infrastructural works such as construction of class room, residential quarters, hostel for trainers, procurement of training materials are nearly complete. First batch of training already started from 1986-87. During 1985-87 an expenditure of Rs. 19.53 lakhs has been incurred in addition to the expenditure of Rs. 29.05 lakhs in Sixth Plan. Seventh Plan outlay for the scheme is Rs. 50 lakhs. Anticipated expenditure during 1987-88 is Rs. 9.65 lakhs against the approved provision of Rs. 10.00 lakhs. An outlay of Rs. 15.00 lakhs is proposed for 1988-89.

5. Survey of Catchment Areas of Hydel Projects Kameng, Ranganadi etc in Arunachal Pradesh.

2.18 Survey for catchment area of Kameng Hydro Electric Project is not being taken up in 7th Plan. Survey and investigation of Catchment Area of Ranganadi in Arunachal Pradesh is being carried out by Survey and Investigation Cell of the Govt. of Arunachal Pradesh. The scheme for Ranganadi catchment area has been sanctioned at an estimated cost of Rs. 10.18 lakhs. Approved outlay for the scheme for 7th Plan is Rs. 25.00 lakhs. An amount of Rs. 2.95 lakhs was released during 1986-87. Survey works are in progress and it is expected that the work will be completed by 1988-89. Current year's outlay of Rs. 2.00 lakhs were be utilised and an amount of Rs. 5.00 lakhs is proposed for 1988-89 outlay.

AGRICULTURE :

6. Foundation Seed Farm for Major Field Crops, Manipur.

2.19 The scheme has been sanctioned during May 1987 at an estimated cost of Rs. 39.89 lakhs as against the Seventh Plan approved outlay of Rs. 46.15 lakhs. The farm having an area of 100 ha is

located at Kharungpat in Thaubal District of Manipur. Land for the farm has been allotted and acquired. Demarcation of farm area and layout of land are in progress. Construction programmes including functional and non-functional buildings, erection of fencing, construction of bunds, etc of the farm area are being taken up. The farm envisages production of foundation seeds of major field crops like paddy, maize pulses, oil seeds, etc to meet the requirements of such seeds for the State of Manipur and Nagaland and also other neighbouring States of the region. The outlay for the current year, 1987-88 for the scheme is Rs. 10.00 lakhs and will be utilised fully. The proposed outlay for the next year is Rs. 12.00 lakhs.

7. Regional Centre for Production of Bio-fertilizer in Assam Agricultural University :

2.20 The scheme was sanctioned in July 1982 with an estimated outlay of Rs. 14.93 lakhs for production of Bio-Fertilizers is being continued during 7th Plan. Upto June, '87, 2.50 lakhs packets of Bio-Fertilizers have been produced and supplied to various states of the region. Demonstration and other related works are also being continued. The 7th Plan approved outlay is Rs. 5.00 lakhs. Rs. 3.50 lakhs has been spent during 1985-87 besides an expenditure of Rs. 9.62 lakhs in Sixth Plan. Anticipated expenditure for 1987-88 is Rs. 1.50 lakhs and an outlay of Rs. 0.30 lakhs proposed for 1988-89 for completion of the scheme.

8. Joint Input Testing Laboratory, Tripura.

2.21 The scheme has been sanctioned at an estimated cost of Rs.29.35 lakhs in the last part of 1986-87. The scheme is designed to ensure supply of quality agricultural inputs like seeds, etc. and to stop adulteration in fertilizers and plant protection chemicals. When fully established it will have capacity to test and analyse 6000 seed samples, 1200 fertilizer samples and 1200 plant protection chemical samples per year. The outlay for 7th Plan is Rs. 29.35 lakhs. Location of the site for the laboratory has already been identified and construction of laboratory building has been taken up with State PWD and order for supply of laboratory equipments has been placed. An amount of Rs. 5.00 lakhs was released during 1986-87 and anticipated expenditure for 1987-88 is Rs. 3.01 lakhs against the provision of

Rs. 8.00 lakhs. For completing constructions and for purchase of equipments an outlay of Rs. 12.00 lakhs is proposed for 1988-89.

9. Regional Sub-Centre for Training-cum-Production of Mushroom, Mizoram.

2.22 The scheme with an estimated cost of Rs. 15.00 lakhs has been sanctioned in 1985-86. The scheme envisages to impart training to rural and urban people interested in growing of mushroom on scientific lines, survey of locally available mushrooms to explore possibilities of improving their method of cultivation along with taking up of cultivation of Oyster mushroom, while Button Mushroom and Paddy Straw Mushroom as well as production and supply of mushroom spawns and prepared manures to mushroom growers of Mizoram and neighbouring States like Tripura, Assam (Cachar District) etc.

2.23 Training of farmers in the cultivation and production techniques of mushroom preparation and supply of mushroom sprouting to the growers have already been started. About 1000 persons have been trained so far and also about 950 bottles of spawns prepared and about 620 bottles distributed. The centre also produced 31 Kg. of mushroom during 1986-87. Approved outlay for the scheme in 7th Plan is Rs. 15.00 lakhs. An amount of Rs. 12.00 lakhs has been spent during 1985-87. The approved outlay for 1987-88 was Rs. 5.00 lakhs where as the anticipated expenditure is Rs. 5.77 lakhs. An amount of Rs. 1.50 lakhs has been proposed for 1988-89.

10. Regional Farm for Production of Pulses and oil seeds, Manipur.

2.24 This is the only scheme under NFC sponsored schemes under agriculture having some linkage with 20-Point Economic Programme of the country. The scheme aims at establishing a farm of about 40 ha. for production of improved and high yielding quality seeds for oil-seeds and pulses such as mustard, linseed soyabeans, murg, pea, arhar, cow pea, both during Kharif and Rabi Season for supply to farmers of that State and neighbouring States like Nagaland and Mizoram. The 7th Plan outlay of the scheme is Rs. 54.40 lakhs. The scheme at an estimated cost of Rs. 53.83 lakhs has been sanctioned in 1986-87.

The land for the farm has been acquired at Ganrajal in Senapati District of the State of Manipur. Land development works have been started and sowing of oilseeds in about 10 hectares of land has already been completed. By internal adjustment, two officers have also been posted at the farm site, although the post meant for the scheme are yet to be created by the State Govt. An amount of Rs. 6.00 lakhs was released in 1986-87 and anticipated expenditure for 1987-88 is Rs.10.48 lakhs against the approved outlay of Rs. 8.00 lakhs. An outlay of Rs. 18.00 lakhs is proposed for 1988-89.

11. Mushroom Development Centre, Arunachal Pradesh.

2.25 The scheme sanctioned during 1986-87 at an estimated cost of Rs. 13.25 lakhs aims at cultivation of mushroom on scientific lines, its demonstration, imparting training to interested growers and production and supply of spawns and prepared compost etc. Approved outlay for 7th Plan is Rs. 14.50 lakhs. The farm site has been identified at Itanagar. Construction programme for mushroom laboratory and other functional buildings has been taken up by the State PWD. Rs. 1.16 lakhs were spent during 1986-87 and anticipated expenditure during 1987-88 is Rs. 5.50 lakhs against the provision of Rs. 5.00 lakhs. An outlay of Rs. 6.00 lakhs is proposed for 1988-89.

12. Regional Bio-Fertilizer Production Centre, Tripura.

2.26 The scheme at an estimated cost of Rs. 24.90 lakhs has been sanctioned in January '87. The farm will be located in the existing Agricultural Research Complex at Arundhutinagar. The scheme envisages production of 40,000 bio-fertilizer packets of 200 gms. each in the 1st year of its implementation and to increase the production to 1,25,000 packets by the end of 7th Plan for supply to the farmers of Tripura, Mizoram, Assam (Cachar District), etc. Approved 7th Plan outlay for the scheme is Rs. 24.90 lakhs. Preliminary works for establishment of Rhizobium Culture Laboratory and purchase of equipments have been taken up. During 1987-88, 40,000 bio-fertilizer packets will be produced and about 50,000 packets in 1988-89. Rs. 2.00 lakhs were released during 1986-87. Outlay of Rs. 4.00 lakhs for 1987-88 will be utilised and an outlay of Rs. 11.00 lakhs is proposed for 1988-89.

13. Regional Breeder Seed Farm, Tripura.

2.27 The scheme aims at establishment of the farm at an area of 10 hectares initially with necessary infrastructures for production of breeders seeds like paddy, wheat, jute and mesta, kharif and rabi pulses and oilseeds, maize and sugarcane. The farm is located near existing foundation seed farm at Jirania. Approved 7th Plan outlay of the scheme is Rs. 29.00 lakhs. The scheme has been sanctioned in June 1987 at an estimated cost of Rs. 23.64 lakhs. During 1987-88 it is estimated that the farm will produce breeder seeds for sugarcane (100 Qtl.), wheat (10 Qtl.), paddy (5 Qtl.), Sesamum (4 Qtl.), ground nut (2 Qtl.), cowpea (1 Qtl.), jute, mesta, black gram, etc. The current year's outlay of Rs. 10.00 lakhs will be utilised. The production programme will be continued in 1988-89 and an outlay of Rs. 9.00 lakhs is proposed for the same.

14. Regional Mushroom Spawn Production Centre, Tripura.

2.28 This scheme is proposed to be located at State Agriculture Research-cum-Demonstration Farm at Arundhutinagar, Tripura. The scheme aims at production of one lakh bottles/packets of mushroom spawn for supply of such spawns to interested mushroom growers of Tripura and neighbouring States of the region at no loss no profit basis. The centre would also maintain pure cultures of all kinds of adopted mushrooms for the region. Seventh Plan approved outlay is Rs. 15.10 lakhs. The scheme at an estimated cost of Rs. 12.75 lakhs has been sanctioned in 1986-87. Preliminary works for the establishment of laboratory procurement of equipment and accessories have been taken up and it is expected that 50,000 mushroom spawn packets will be produced in 1987-88 and about 55,000 in 1988-89. During 1986-87 an amount of Rs. 3.00 lakhs was released and the outlay of Rs. 2.00 lakhs for 1987-88 will be fully utilised. An amount of Rs. 5.00 lakhs is proposed for 1988-89.

15. Pilot Project and Dryland Agriculture and Water harvesting, Nagaland.

2.29 The scheme sanctioned during 1986-87 at an estimated cost of Rs. 26.75 lakhs envisages taking up of dryland agriculture on terraced, contour bunded fields by conserving water and soil moisture for raising crops with available rain water in combination with suitable cropping patterns. Approved outlay for the scheme for 7th Plan is Rs. 44.69 lakhs. Already 25 ha. of land has been developed/bunded, about 7500 *Albizia* seedlings to rejuvenate, jhumland have been planted, nearly 22,000 seedlings have been raised for further plantation. Construction of waterharvesting structures for providing supplementary irrigation to the crops in developed/terraced land are also being taken up. During 1986-87 an amount of Rs. 10.00 lakhs was released and the approved outlay of Rs. 10.00 lakhs will be utilised. For completing the project an outlay of Rs. 6.75 lakhs (being the balance cost) is proposed for 1988-89.

16. Regional Cotton Seed Multiplication and Development Centre, Tripura.

2.30 The scheme sanctioned during 1986-87 at an estimated cost of Rs. 48.58 lakhs aims at augmenting production of cotton seed in Tripura, supply of improved strains of cotton seeds to farmers of the State and other neighbouring States of the region and to select, purify and suitabilise improved strains through survey, collection, evaluation, isolation and finally seed bulking. The centre will also evolve improved production technology and to render financial, technological and input assistance to the tribal farmers, particularly Jhumias. Approved outlay for 7th Plan is Rs. 54.28 lakhs. During 1986-87 items like sprayers, fertilizers etc. for demonstration programme have been purchased. Supply order for Laboratory equipments, chemicals has also been placed. During 1987-88, it is proposed to have production of 20 Qtls. of Pedigree seeds, demonstration plots in 50 ha. of land, spraying of chemicals and nutrients in 310 ha. of land and distribution of plant protection equipments and chemicals. During 1986-87, Rs. 5.00 lakhs were released and anticipated expenditure in 1987-88 is Rs. 14.42 lakhs against the approved provision of Rs. 15.00 lakhs. An outlay of Rs. 20.00 lakhs is proposed for 1988-89.

17. Establishment of Regional Seed Certification
AND Distribution Agency.

2.31 A Seed Certification and distributor programme guarantees the supply of genetically pure planting materials and also acts as an effective source to transfer the results of the research to the farmers. It gives a pedigree record of crop variety and make available source of genetically pure seeds and propagate materials of general distribution. The Seed Act 1965 (54 of 66) passed by the parliament emphasis establishment of independent Certification Agency in the States. Section 8 of the Seeds Act provides establishment of certification agency. The main crop of the region is paddy, generally intensified in the valleys, Maize, Pulses, Oilseeds etc. are also grown both in the Hills and Plains. Due to lack of Seed Certification and distribution Agency production of the region cannot be marketed for seed ~~purpose~~ propose.

2.32. Keeping this in view a new scheme was included in the NECA Annual Plan 1987-88. NEC had earlier requested NSC to conduct a feasibility study for setting up such an agency. NSC has since submitted the study report and recommended setting up of such an agency in the NER. A detailed scheme for setting up the agency is being worked out by the NSC. The current year's approved outlay of Rs. 5.00 lakhs may not be utilised. Rs. 10.00 lakhs are proposed for 1988-89.

2.33 The schemewise detailed expenditure outlay and proposed outlay is given in the annexed statement.

DRAFT ANNUAL PLAN 1988-89STATEMENT

(Ref. Para 2.33)

SOIL CONSERVATION AND AGRICULTURE

(Rs. in lakhs)

| Sl. No. | Name of the scheme | 7th Plan approved outlay | Actual Expenditure | | 1987-88 | | Proposed Outlay 1988-89 |
|---------|--------------------|--------------------------|--------------------|---------|-----------------|-------------------|-------------------------|
| | | | 1985-86 | 1986-87 | Approved outlay | Anticipated Expd. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

SOIL CONSERVATION AND AGRICULTURE

| | | | | | | |
|---|--------|-------|-------|--------|-------|--------|
| 1. Watershed Management Programme. | 456.50 | 60.00 | 91.68 | 116.00 | 75.45 | 113.25 |
| 2. Survey and Investigation Cells in Constituent Units. | 50.00 | - | 5.95 | 12.00 | 14.75 | 12.65 |
| 3. Project preparation and Monitoring Cell. | 20.00 | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 |
| 4. Regional Soil Conservating Training Centre, Meghalaya. | 50.00 | 9.53 | 10.00 | 10.00 | 9.65 | 15.00 |
| 5. Survey of Catchment Area Kameng, Kanganadi, Arunachal Pradesh. | 25.00 | - | 2.95 | 2.00 | 2.00 | 5.00 |
| 6. Foundation Seed Farm for Major Field Crops, Manipur. | 46.15 | - | - | 10.00 | 10.00 | 12.00 |
| 7. Regional Centre for Production of Bio-Fertilizers in AAU. | 5.00 | 1.00 | 2.50 | 2.00 | 1.50 | 0.30 |
| 8. Joint Input Testing Laboratory, Tripura. | 29.35 | - | 5.00 | 8.00 | 3.01 | 12.00 |

(2.14)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|-------|-------|-------|--------|--------|--------|---|
| 9. Regional Sub-Centre for Training-cum-Production of Mushroom in Mizoram. | 15.00 | 10.00 | 7.00 | 5.00 | 5.77 | 1.50 | |
| 10. Regional Farm for Production of Pulses & Oil Seeds, Manipur. | 54.40 | - | 6.00 | 8.00 | 10.48 | 18.00 | |
| 11. Mushroom Development Centre, Arunachal Pradesh. | 14.50 | - | 1.16 | 5.00 | 5.50 | 6.00 | |
| 12. Regional Bio-Fertilizer Production Centre, Tripura. | 24.90 | - | 2.00 | 4.00 | 4.00 | 11.00 | |
| 13. Regional Breeder Seed Farm, Tripura. | 29.00 | - | - | 10.00 | 10.00 | 9.00 | |
| 14. Regional Mushroom Spawn Production Centre, Tripura. | 15.00 | - | 3.00 | 2.00 | 2.00 | 5.00 | |
| 15. Pilot Project on Dryland Agriculture and Water Harvesting, Nagaleng. | 43.60 | - | 10.00 | 10.00 | 10.00 | 6.75 | |
| 16. Regional Cotton Seed Multiplication & Development Centre, Tripura. | 54.28 | - | 5.00 | 15.00 | 14.42 | 20.00 | |
| 17. Estt. of Regional Seed Certification Agency. | - | - | - | 5.00 | - | 10.00 | |
| SOIL CONSERVATION & AGRICULTURE | | | | 229.00 | 182.65 | 261.45 | |

B. HORTICULTURE

2.34 Because of its extensive hilly terrain, widespread rainfall, cooler sub-tropical climatic condition, NEER has an ideal environment for horticulture. A proper development of horticulture in the region would therefore, ensure better nutrition and reduction in the demand for traditional food, protection and planting of trees, profitable use of land use etc.

2.35 A diversification of existing horticulture sector by introduction of newer varieties of horticultural crops, orchards, several seed farms to produce quality seeds for vegetables, tuber crops and potato, temperate crops of nuts and almonds etc have been taken up under NEC Plan. Fruits being highly perishable have a short self life and hence a scheme to preserve fruits and their marketing is also needed. Schemes under NEERAMAC are designed to provide processing and marketing facilities for fruit and other agricultural produce. Healthy and reliable planting materials for economic development, production of planting materials of spices and nuts which have high value low volume and non-perishable nature is given under this sector.

2.36 There is a great potential for production of spices, betel-nut, betel-leaf, cardamom, saffron, improved varieties of banana and other citrus fruits in the region which are being spread under NEC Plan. The details of various schemes in this sector are as follows :

1. Regional Vegetable Seed Farm, Tripura :

2.37 The scheme was originally sanctioned in November '80 with an estimated cost of Rs 19.70 lakhs. The scheme had to be revised due to (a) non-completion of balance works of the 6th Plan (b) increase in cost of construction, expansion of the area of the farm, revision of pay scales of the employees and additional running and maintenance expenditure of the farm etc. The revised scheme was sanctioned in December, 1986 at an estimated cost of Rs 44.95 lakhs. The left over infrastructure facilities such as fencing, internal farm roads,

seed stores and processing units etc. have been completed by March, 1987. The farm has an area of 24 hectares and vegetable seeds of bhindi, bottle gourd, cow-pea, sweet potato, radish, spinach, tomato, pea, carrot, brinjal, onions etc are being produced in the farm. About 16,100 KG of different seeds have so far been produced. It is proposed to bring 21 hectares of land under cultivation by March, 1988. Approved outlay for the scheme in the 7th Plan is Rs 24.05 lakhs. An expenditure of Rs 5.00 lakhs has been incurred upto March, 1987. An anticipated expenditure during 1987-88 is Rs 3.62 lakhs and an outlay of Rs 5.00 lakhs is proposed for 1988-89.

2. Regional Orchard-cum-Nursery for Citrus, Meghalaya:

2.38 The Orchard-cum-Nursery for Citrus was established during 6th Plan at Mynkre in an area of 10 (ten) ha. However, development of land, fencing and creation of other infra-structures could not be completed in the 6th Plan and the scheme had to be continued during 7th Plan with an approved outlay of Rs 5.21 lakhs. Construction of office building and fencing have been completed. Construction of other functional buildings and staff quarters are in progress. An expenditure of Rs 6.21 lakhs has been incurred on the scheme till March, 1987. An anticipated expenditure during 1987-88 is Rs 3.00 lakhs against the approved outlay of Rs 5.00 lakhs. An outlay of Rs 3.50 lakhs is proposed for 1988-89.

3. Regional Coconut Seed Garden, Tripura :

2.39 The scheme started from the year 1982-83 at Jirinia in an area of about 51 hectares of land and growing of coconut varieties like West Coast Tall, Chowhat Dwarf Orange and Malayan Dwarf Yellow in about 34 hectares. Development of land and plantation in the remaining areas, construction programmes for pot house, garage-cum-implement shed, fencing, electrical installations are yet to be completed. Approved 7th Plan outlay for the scheme is Rs 42.37 lakhs. The scheme has been revised to cost Rs 57.97 lakhs. Out of 51.00 hectare of land to be developed/planted, an area of 42.62 hectares

has already been developed and planted under different types and varieties of coconut like west-coast tall, malayan dwarf yellow, chowghat dwarf orange etc. An expenditure of Rs 20.00 lakhs has been made on the scheme till March, 1987. An anticipated expenditure in 1987-88 is Rs 8.00 lakhs and the similar amount is proposed for 1988-89 as an outlay.

4. Regional Seed Garden for Spices and Betel Leaf, Tripura :

2.40 Due to non-finalisation of site and certain other technical problems, the scheme could not be implemented during 6th Plan and it has been continued during 7th Plan. The scheme has been sanctioned during last part of 1986-87 at an estimated cost of Rs 51.46 lakhs. Approved 7th Plan outlay for the scheme is also Rs 51.46 lakhs. The farm is being set up in an area of about 50 hectares. The necessary land has been acquired and is being developed. Necessary infrastructure facilities are being created. During 1986-87 an amount of Rs 5.00 lakhs has been released for the scheme. An anticipated expenditure during 1987-88 is Rs 11.20 lakhs against the approved outlay of Rs 15.00 lakhs. An outlay of Rs 22.00 lakhs is proposed for 1988-89 so as to complete the basic development works pertaining to the scheme.

5. Development of Temperate Nut and Almond Crops, Arunachal Pradesh :

2.41 The scheme aims at supplying of planting materials of nuts like walnut, chestnut, pea nut, almond etc to the farmers for raising community plantation in abandoned jhum lands to rehabilitate such land. The scheme which could not be taken up during 6th Plan due to certain technical and other related problems has been taken up during 7th Plan with an approved outlay of Rs 32.45 lakhs. The scheme has been sanctioned in April, 1987 at an estimated cost of Rs 22.394 lakhs. Under the scheme, it is proposed to introduce compact area plantation on different nuts and almond crops in Tawang, Bondila and Zero areas. The size of the

area to be covered may vary from 6 hectare to 50 hectare per unit depending upon availability of land and other resources. The scheme is being taken up for field implementation from the winter of the current year in the selected areas of the State. The anticipated expenditure during 1987-88 is Rs 9.80 lakhs and an outlay of Rs 12.00 lakhs is proposed for 1988-89.

6. Temperate Fruit and Nut Nursery, Arunachal Pradesh:

2.42 To meet requirement of quality and reliable temperate fruit planting materials for Arunachal Pradesh and other constituent States of the region, a nursery is being established in Arunachal Pradesh from the 2nd year of 7th Five Year Plan period. The scheme at an estimated cost of Rs 38.60 lakhs has been sanctioned during 1986-87. Under the scheme, it is envisaged to convert 50 ha. of land of the existing horticultural farm at Shergaon, West Kameng District. About more than 5000 numbers of apple plants of improved varieties which have come to fruit-bearing stage in the existing farm will be utilised as mother stock for fruit plants. The planting materials for nuts crop will be procured from Himachal Pradesh, Jammu and Kashmir and Utter Pradesh. Action for creation of infrastructure and development works has already been initiated. During 1986-87 an amount of Rs 0.20 lakhs has been released for the scheme. Anticipated expenditure for the scheme during 1987-88 is Rs 10.00 lakhs and an outlay of Rs 12.00 lakhs is proposed for 1988-89.

7. Survey of Area and Production of Horticultural Crops in NE Region :

2.43 This survey scheme intended to be a quite exhaustive one and expected to give a complete picture of area under horticultural crops and production from village level to State level was started during 1982-83. The survey work is in the advanced stage of completion except the State of Assam and Meghalaya where it is expected to be over during 1988-89. Approved outlay for 1987-88 for the scheme is Rs 8.00 lakhs (Assam - Rs 3.00 lakhs, Meghalaya - Rs 3.00 lakhs and Nagaland - Rs 2.00 lakhs). Anticipated expenditure assessed in 1987-88

is also Rs 8.00 lakhs (Assam - Rs 3.00 lakhs and Meghalaya - Rs 5.00 lakhs). An amount of Rs 8.00 lakhs (Assam - Rs 4.00 lakhs and Meghalaya - Rs 4.00 lakhs) is proposed for 1988-89.

8. North Eastern Regional Agricultural Marketing Corporation (NERAMAC) :

2.44 With a view to providing regular and systematic marketing arrangements for agro-horticultural produces of NE Region, so that farmers and growers may get remunerative price of their produces, this Corporation was established during the year 1982 with an authorised capital of Rs 500.00 lakhs only for which NEC is committed to subscribe the entire authorised share capital in the form of equity and loan on the ratio of 1 : 1. The Corporation has initiated some positive actions for marketing of agro-horticultural produces of this region particularly ginger from Mizoram. During last 2 or 3 years it has arranged export of canned fruits, mainly pine-apple outside the country.

2.45 The Corporation is setting up one Fruit Juice Concentrate Plant mainly of pine-apple and orange in Tripura at an estimated cost of about Rs 200.00 lakhs for which Government of India have accorded necessary approval. The plant is nearing completion. The Corporation proposes to set up a number of Zonal Centres and also extend its activities to all parts of the region.

2.46 Total outlay for 7th Plan is Rs 325.00 lakhs. Rs 300.00 lakhs were released to the Corporation during 1985-87. Approved outlay for 1987-88 is Rs 100.00 lakhs where as anticipated expenditure is Rs 25.00 lakhs. Rs 100.00 lakhs are proposed for the year 1988-89 as an outlay.

9. Foundation Seed Farm for Potato, Manipur :

2.47 It is planned to establish a Foundation Seed Farm for Potato in an area of 40 hectares of land contiguous to the existing Potato Farm at Mao in Manipur. Land is already available. Physical programme consists of land development including terrace making, internal road, godown construction etc and drying shed, purchase of machinery etc.

Foundation seed potato I & II from breeder seeds would be produced from this farm to meet requirement of such seeds for Manipur and neighbouring State like Nagaland. The scheme has been sanctioned at an estimated cost of Rs 30.16 lakhs during 1986-87. Approved outlay for 7th Plan is Rs 28.15 lakhs. Land for the proposed farm has been acquired and development of farm area for undertaking cropping during the coming sowing season is in progress. Rs 10.00 lakhs were released to the State Government for initiating developmental works during 1986-87. The approved outlay of Rs 5.00 lakhs for 1987-88 will be fully utilised. An outlay of Rs 10.00 lakhs is proposed for 1988-89.

10. Foundation Seed Farm for Potato, Meghalaya :

2.48 The scheme envisages establishment of Seed Farm for production of foundation seed potato in about 100 ha. of land at Laitkor in Meghalaya to meet requirement of such seeds for the State of Meghalaya, Assam. The scheme consists of acquiring of land, development of the farm including construction of terraces, buildings, purchase of machineries etc. Approved 7th Plan outlay is Rs 50.00 lakhs. Implementation of the scheme has been deferred due to non-settlement of the question of payment of land acquisition cost for the scheme. The Government of India has since agreed to the inclusion in the scheme the cost of land and therefore, the scheme is being finalised and would be taken up from 1988-89. An outlay of Rs 10.00 lakhs is proposed for 1988-89.

11. Foundation Seed Farm for Potato, Mizoram :

2.49 The scheme was sanctioned during the year 1986-87 at an estimated cost of Rs 40.05 lakhs as against approved outlay of Rs 40.10 lakhs. The scheme envisages to establish the Foundation Seed Potato Farm at Chalfilh in Mizoram in an area of 100 hectares of land. However, the site being not found suitable by the Scientists of Central Potato Research Station, Upper Shillong who visited the site, a new site is being selected for the scheme. Rs 1.00 lakh were

spent during 1986-87. As against the approved outlay of Rs 5.00 lakhs for the scheme for the year 1987-88, anticipated expenditure of Rs 0.80 lakh has been kept and the proposed outlay for the year 1988-89 is Rs 1.00 lakh.

12. Establishment of Seed Farm for Production of Certified Seeds of Potato, Tripura :

2.50 With a view to producing disease free and healthy seed potatoes to meet requirements of such seeds in NE Region the scheme envisages establishment of a farm in an area of 110 ha. of land out of which 100 ha. of land would be brought under cultivation. In order to make the soil free of soil borne diseases, two-year crop rotation would be practised and in a particular year only about 50 ha. of land would be cultivated under potato. Outlay for 7th Plan for the scheme is Rs 65.00 lakhs. Scheme at an estimated cost of Rs 61.00 lakhs has been sanctioned at the end of 1986-87. The farm site has been selected at Randayalbari for the establishment of the farm and work pertaining to creation of infrastructure and development has already been taken up and will be completed during 1988-89. / Anticipated expenditure for 1987-88 is Rs 12.00 lakhs as against the approved outlay of Rs 15.00 lakhs. An outlay of Rs 27.00 lakhs is proposed for 1988-89.

13. Regional Tuber Crops Farm, Tripura :

2.51 With a view to produce quality planting materials of various tuber crops for meeting requirements of Tripura and other States of the Region, the farm in an area of about 50 ha. at Sarasema in Tripura is being set up in the 7th Plan. About 45 hectares of land will be brought under various crops like sweet potato, tapioca, colocasia, diascoreas, amorphaphallus etc for production of quality planting materials. For this, seed materials would originally be procured from Central Tuber Crops Research Stations. The scheme at an estimated cost of Rs 37.25 lakhs has been sanctioned at the end of 1986-87. Approved outlay for 7th Plan is Rs 38.00 lakhs. Although the scheme was sanctioned late in 1987-88, the State Government has taken up steps for

/ Rs.3.00 lakhs were released to the State Govt. during 1986-87.

initiating developmental works and for this, an amount of Rs 3.00 lakhs was released to the State. Various construction works pertaining to functional buildings, and other infrastructural works are being carried out during 1987-88 and will be completed in 1988-89. Anticipated expenditure assessed during 1987-88 is Rs 14.60 lakhs as against the approved outlay of Rs 17.00 lakhs. An outlay of Rs 17.00 lakhs is proposed for 1988-89.

14. Regional Vegetable Seed Farm, Arunachal Pradesh:

2.52 Although there is high potential for production of vegetables in NE Region, due to non-availability of quality and suitable varieties of such seeds, the production programme is greatly hampered. To meet requirements of such seeds, a vegetable Seed Farm is being established in Arunachal Pradesh at an estimated cost of Rs 20.52 lakhs. 7th Plan approved outlay for the scheme is Rs 26.00 lakhs. The scheme was sanctioned at the end of 1986-87. The proposed farm at Salabari in Arunachal Pradesh will have an area of about 20 ha. of land. The site for the farm has been identified and selected for the establishment of the farm. Programme for construction of buildings, irrigation channels and other infrastructure are in progress. The anticipated expenditure during 1987-88 is Rs 9.00 lakhs and an outlay of Rs 11.52 lakhs is proposed for 1988-89.

15. Regional Vegetable Seed Farm, Manipur :

2.53 States of Manipur, Nagaland and Mizoram etc of NE Region have tremendous potentialities for growing both temperate and sub-tropical types of vegetables. But non-availability of quality and location specific varieties of seeds is a big constraint in the production programme. In order to meet such requirement of vegetable seeds for Manipur and neighbouring States of Nagaland and Mizoram, one vegetable seed farm of about 40 ha. of land is being established at an estimated cost of Rs 30.12 lakhs in Manipur. The 7th Plan approved outlay for the scheme is Rs 27.12 lakhs. The scheme has been sanctioned in 1986-87. The required land

for the farm at Liyai in Senapati District in Manipur has been acquired. 5 Ha. of land has already been developed. Terracing of 0.7 Km of internal farm road (jeepable) has also been completed. Other works including fencing, construction of buildings, irrigation channels etc are also in progress. Rs 12.00 lakhs were released to the State during 1986-87 for the scheme. An anticipated expenditure on the scheme during 1987-88 is assessed at Rs 9.00 lakhs. An outlay of Rs 8.00 lakhs is proposed for 1988-89 for the scheme for completing the major portion of the scheme.

16. Establishment of Clonal Seed Garden for Banana, Tripura :

2.54 The scheme envisages establishment of one seed garden at an estimated cost of Rs 40.84 lakhs for banana in an area of 60 ha. of land for production of quality planting materials of banana to meet requirements of such planting materials of the region. Out of 60 ha. of farm land, 40 hectare would be under plantation of mother plants of major varieties like Malbhog, Champa, local types of Garo Hills, Cherrapunji banana and dwarf and tall Cavendish types. Approved outlay for 7th Plan for the scheme is Rs 60.00 lakhs. The scheme was sanctioned at the fag end of the financial year 1986-87 and not much work could be done during that year. However, land has been acquired and developmental works initiated. Creation of infrastructure such as building construction etc is in progress and it is expected that major portion of such works would be over during 1988-89. An amount of Rs 2.00 lakhs was released to the State Government during 1986-87 and anticipated expenditure for 1987-88 is assessed at Rs 23.00 lakhs against the approved outlay of Rs 25.00 lakhs. An outlay of Rs 15.00 lakhs is proposed for 1988-89.

17. Rejuvenation of Old Orange Orchards in Tripura:

2.55 Mandarin Orange orchards which are declining in the State of Tripura and attributed mainly to the neglect of the orchard management, requires rejuvenation by providing

assistance in the form of inputs like fertilizers, plant protection chemicals and also giving demonstration and guidance on scientific orchard managements and maintenance. The project is being implemented in the hill ranges of Jampui, Sakhan and Longtharai in North Tripura District and cover old and declining orchard area of about 200 ha. The scheme at an estimated cost of Rs 18.12 lakhs has been sanctioned during 1986-87. Approved outlay for 7th Plan for this scheme is Rs 20.00 lakhs. Of the total project area of 200 hectares, 100 hectares are located in Jampui hills, 50 ha. in Sakhang and 50 ha. at Longtharai ranges. Identification of beneficiary farmers/orchardists is in progress. During 1986-87 an amount of Rs 2.00 lakhs was released to the State Government. An anticipated expenditure for 1987-88 is assessed at Rs 4.00 lakhs as against the approved outlay of Rs 5.00 lakhs. Rs 5.00 lakhs is proposed for 1988-89.

18. Establishment of Citrus Demonstration Centre, Mizoram :

2.56 Citrus is one of the most important fruit crops of Mizoram. But there too, due to Citrus decline, production is decreasing year after year. With a view to demonstrate scientific orchard management and maintenance and also to produce and supply quality types of Citrus Plants, the scheme envisages establishment of a Citrus Demonstration and Development Centre in Mizoram. The plants so produced in that Centre would be supplied to other neighbouring States also. The scheme with an estimated cost of Rs 15.68 lakhs has been sanctioned in Feb'87. Approved outlay for the 7th Plan is Rs 20.35 lakhs and an amount of Rs 2.00 lakhs was released in 1986-87. Land comprising about 11 ha. for establishment of the orchard/centre has already been acquired. Layout and planning of the Centre are in progress. Raising of nursery materials has also been started. During 1988-89 all functional buildings and infrastructural facilities are expected to be completed. During 1986-87 an amount of Rs 2.00 lakhs was released. The approved outlay of Rs 5.00 lakhs for the current year will be utilised and an amount of Rs 4.50 lakhs is proposed for 1988-89 as an outlay.

19. Establishment of Large Cardamom Nursery, Mizoram

2.57 Although there is great potential for growing large cardamom in Mizoram and other States of NE Region, which would help in elevating economic status of Tribal small and marginal farmers, non-availability of healthy, disease free quality planting material is the most important drawback in its development programmes. In order to tide over this situation, a nursery of large cardamom in an area of about 10 ha. of land is being established at an estimated cost of Rs 26.60 lakhs in Mizoram to meet requirements of Mizoram and other States of this region. Approved outlay for 7th Plan for the scheme is Rs 28.18 lakhs. The scheme has been sanctioned in 1986-87. The required land of 10 hectare for the nursery has already been acquired and raising of nurseries with large cardamom has also been started having procured the seeds from Cardamom Board of India. Construction of functional buildings and non-residential quarters are in progress. 75 nos. of pandel-sheds, 1 shelter hut, 1 SCD quarter already constructed besides installation of pump machine. An amount of Rs 2.00 lakhs was spent on the scheme during 1986-87 and anticipated expenditure for 1986-87 is Rs 13.64 lakhs. An outlay of Rs 7.13 lakhs is proposed for 1988-89 for completing the infrastructure.

20. Promotion of Floriculture: Establishment of Floriculture Seed Garden, Tripura :

2.58 The scheme sanctioned during February, 1987 at an estimated cost of Rs 13.38 lakhs aims at establishing a floriculture seed garden of about 5 hectares in Tripura from the year 1986-87 with a view to propagating and multiplying various flowering and ornamental plants, shrubs, creepers, annuals etc for ultimate supply to interested floriculturist in Tripura and other States of NE Region for gainful occupation. Of the 5 ha. of land, about 2 ha. will be put under permanent/perennial flowering or ornamental

trees and shrubs, that will serve as mother plants for propagation. Another about 2 ha. of land would be under nursery whereas remaining 1 ha. of land would be used for glass house, green house, pot house, small office-cum-store house, quarters, roads etc. Approved outlay for the scheme for 7th Plan is Rs 22.00 lakhs. The required land for the establishment of the garden has identified and selected. Creation of infrastructure and developmental works have been taken up and it is expected that these will be completed during 1988-89. During 1986-87 an amount of Rs lakhs was spent on the scheme and anticipated expenditure in 1987-88 is Rs 5.66 lakhs against the approved provision of Rs 5.00 lakhs. An outlay of Rs 5.00 lakhs is proposed for 1988-89.

21. Introduction of Saffron, Arunachal Pradesh:

2.59 Saffron is a new crop that has potentialities for growing in Arunachal Pradesh. Because of its high value, low volume and non-perishable nature and also of its having export prospects, it was proposed to establish one Centre for production of saffron in Arunachal Pradesh during 7th Plan on pilot basis. The scheme has been sanctioned for Rs 8.24 lakhs during 1986-87. Approved outlay for the scheme for 7th Plan is Rs 11.00 lakhs. The project is being implemented in Tawang area of Arunachal Pradesh and the land suitable for the scheme has already been identified and selected. Trial plantations of the saffron has also been conducted and results are encouraging. Land development works are in progress besides creation of other infrastructure. An amount of Rs 0.20 lakhs was spent during 1986-87 and an anticipated expenditure for 1987-88 is Rs 3.00 lakhs. An outlay of Rs 5.00 lakhs is proposed for 1988-89 which will be mainly utilised for construction works, land development, procurement of planting materials and other inputs.

2.60 The plan allocation in respect of schemes mentioned above is given in the annexed statement.

DRAFT ANNUAL PLAN 1988-89

(Ref. Para 2.60)

HORTICULTURE

(Rs in lakhs)

| Sl. No. | Name of the Schemes | Approved 7th Plan Outlay | Actual expenditure | | 1987-88 | | Proposed Outlay 1988-89 |
|---------|--|--------------------------|--------------------|---------|---------------|------------------|-------------------------|
| | | | 1985-86 | 1986-87 | Appvd. outlay | Anticipated Exp. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | Regional Vegetable Seed Farm, Maicherra in Tripura. | 23.05 | - | 5.00 | 5.00 | 3.62 | 5.00 |
| 2. | Regional Orchard-cum-Nursery for Citrus, Mynkre, Meghalaya. | 5.21 | 3.21 | 3.00 | 4.00 | 3.00 | 3.50 |
| 3. | Regional Coconut Seed Garden, Trinura | 42.37 | 14.00 | 6.00 | 8.00 | 8.00 | 8.00 |
| 4. | Regional Seed Garden for Spices & Betel leaf, Tripura. | 51.46 | - | 5.00 | 15.00 | 11.20 | 22.00 |
| 5. | Development of Temperate Nut & Almond Crops, Arunachal Pradesh. | 32.45 | - | - | 10.00 | 9.80 | 12.00 |
| 6. | Temperate Fruit & Nut Nursery Arunachal Pradesh. | 26.09 | - | 0.20 | 10.00 | 10.00 | 12.00 |
| 7. | Scheme for Survey of Area & Production of Horticultural Crops. | 10.00 | 5.50 | 9.40 | 8.00 | 8.00 | 8.00 |
| 8. | NERAMAC, GUWAHATI | 325.00 | 100.00 | 200.00 | 100.00 | 25.00 | 100.00 |
| 9. | Foundation Seed Farm for Potato, Manipur. | 28.15 | - | 10.00 | 5.00 | 5.00 | 10.00 |
| 10. | Foundation Seed Farm for Potato, Meghalaya. | 50.00 | - | - | - | - | 10.00 |
| 11. | Foundation Seed Farm for Potato, Mizoram. | 40.00 | - | 1.00 | 5.00 | 0.08 | 1.00 |
| 12. | Establishment of a Seed Farm for production of Certified Seeds of Potato, Tripura. | 65.00 | - | 3.00 | 15.00 | 12.00 | 27.00 |

(2.28)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|-------|---|-------|--------|--------|--------|---|
| 13. Regional Tuber Crops Farm, Tripura. | 38.00 | - | 3.00 | 17.00 | 14.60 | 17.00 | |
| 14. Regional Vegetable Seed Farm, Arunachal Pradesh. | 26.00 | - | 0.24 | 10.00 | 9.00 | 11.52 | |
| 15. Regional Vegetable Seed Farm, Manipur. | 27.12 | - | 12.00 | 9.00 | 9.00 | 8.00 | |
| 16. Scheme for establishment of a Clonal Seed garden for Banana, Tripura. | 60.00 | - | 2.00 | 25.00 | 23.00 | 15.00 | |
| 17. Scheme for Rejuvenation of old Orange Orchards, Tripura. | 20.00 | - | 2.00 | 5.00 | 4.00 | 5.00 | |
| 18. Estt. of Citrus Demonstration & Development Centre, Mizoram. | 20.35 | - | 3.00 | 5.00 | 5.00 | 4.50 | |
| 19. Estt. of Large Cardamom Nursery, Mizoram. | 28.18 | - | 2.00 | 6.00 | 13.64 | 7.13 | |
| 20. Promotion of Floriculture Seed Garden, Tripura. | 22.00 | - | 1.00 | 6.00 | 5.66 | 5.00 | |
| 21. Introduction of Saffron, Arunachal Pradesh. | 11.00 | - | 0.20 | 3.00 | 3.00 | 5.00 | |
| | | | | 271.00 | 182.60 | 304.65 | |

(2.29)

C. PLANTATION

2.61 Apart from tea which has been growing in NE for a long time, a number of other plantation crops like Rubber, Coffee etc. have great scope in NE. The NEC 6th Plan included a number of schemes, which are of pilot nature, aimed at promoting such plantation crops as have potential for growth in the region. These included Coffee, Tea and Rubber. The primary objective of these pilot schemes was to demonstrate improved methods of cultivation of these crops so that the State Govts administration could replicate the same in respective area for spread of such crops, which has largely succeeded. It is strongly felt that revamping of agriculture sector in NER would depend on diversification and in this, the plantation sector can play a key role. It is, therefore, necessary that a long-term development plan for such economical crops is drawn up by Govt of India and Commodity Boards. The details of the schemes being implemented in NEC 7th Plan in this sector are as follows :

1. Detailed Insitu Survey of Land Suitable for Coffee in the NE Region :

2.62 The scheme was sanctioned in March, 1981 at an estimated cost of Rs. 21.20 lakhs and it was expected to be completed within four years. Under the scheme, 44,000 ha. were proposed to be surveyed. However, actual implementation of the scheme was delayed by about two years due to unavoidable technical difficulties. An outlay of Rs. 10.00 lakhs has been approved in the 7th Plan. By June 1987, a total area of 27750 ha. of land has been surveyed and an amount of Rs. 18.56 lakhs has been spent upto March 1987. The scheme has been revised in August 1987 for an estimated cost of Rs. 29.02 lakhs. Anticipated expenditure for 1987-88 is Rs. 3.50 lakhs and an outlay of Rs. 3.55 lakhs is proposed for 1988-89.

2. Factory for Small Farmers' Tea Estate :

2.63 The scheme was sanctioned in September 1981 with an estimated cost of Rs. 120.00 lakhs. Preparation of detailed project report and other preliminaries have delayed commencement of the scheme which meanwhile, had to be revised. The total

amount of Rs. 80.50 lakhs was released for the scheme upto the end of 6th Plan. During the Seventh Plan, an approved outlay of Rs. 204.00 lakhs was provided for the scheme. The scheme has been revised and approved at an estimated cost of Rs. 263.00 lakhs. A sum of Rs. 165.50 lakhs has been made available to the State Government till March 1987. The State Govt has made an agreement with M/S Britania Engineering Products and Services Ltd., a West Bengal Govt undertaking for implementation of the project on a turn key basis and it is proposed to complete the project within 20 months. An anticipated expenditure during 1987-88 is assessed at Rs. 20.00 lakhs and an outlay of Rs. 83.00 lakhs is proposed for 1983-89.

3. Rubber Processing Factory, Tripura :

2.64 . . . The establishment of a rubber processing factory at Tripura has been sanctioned in 1986-87 at an estimated cost of Rs. 137.00 lakhs. The main cost components are civil work - operational buildings (Rs. 48.50 lakhs), plant and machinery (Rs. 31.10 lakhs), supporting services (Rs. 20.80 lakhs), equipment facilities (Rs. 11.10 lakhs), residential construction (20.00 lakhs), contingency and others (Rs. 5.50 lakhs). The approved outlay for the scheme in the 7th Plan is also Rs. 137.00 lakhs. The implementing agency i.e. Tripura Forest Development and Plantation Corporation Ltd. has got the detailed project report prepared through the Deptt. of Rubber Processing, Rubber Board. According to the project report it is indicated that the first Estate will be on the ground in 1987-88 and the factory can process upto 3000 Kgs. DRC (Dry Rubber Content) of field latex/dry. By 1989-90 the factory will be expanded to process upto 6000 Kg. DRC of latex/dry. During 1986-87 an amount of Rs. 50.00 lakhs was made available to the State Govt for purchase of equipments and construction works. Anticipated expenditure for 1987-88 is Rs. 35.00 lakhs and an outlay of Rs. 85.00 lakhs is proposed for 1983-89.

4. Raising of Dioscorea Floribunda Plantation and Processing for manufacture of Diosgenin/16-DPA, Tripura :

2.65 The scheme is included in the NEC approved 7th Plan with an outlay of Rs. 151.00 lakhs for the whole plan period. The implementing agency i.e. Tripura Forest Development & Plantation Corporation Ltd. has prepared the Techno-Economic Feasibility report in two parts i.e. Cultivation of dioscorea floribunda and extraction of diosgenin. The scheme has since been sanctioned at an estimated cost of Rs. 142.90 lakhs. During 1986-87 an amount of Rs. 20.00 lakhs was spent on the scheme and an anticipated expenditure for 1987-88 is Rs. 30.00 lakhs. The money has been utilised for development of land including construction of road, purchase of vehicles, office equipments, survey equipments, pumpsets, procurement of plant protection chemicals etc. An amount of Rs. 60.00 lakhs is proposed for 1988-89.

5. Establishment of Rubber Demonstration-cum-Training Centre :

2.66 Commercial cultivation of rubber though started in all the North Eastern States coming under the North Eastern Council (NEC) during the Vth and VIth Five Year Plan periods has not made the desired progress in view of the fact that the farmers are not familiar with the crop and there are at present no effective set up for popularising rubber cultivation and for transferring the technology of rubber cultivation among the farmers. For this purpose, small demonstration-cum-training centres in 15 selected districts covering all the North Eastern States, are proposed to be established under the present scheme. These district centres will also serve as demonstration and practical training centres for the local planting community and the extension services required by the farmers will also be provided from this base. The land required for the establishment of the centres would be provided by the respective State Govts and the NEC will consider providing all the required assistances in this regard.

2.67 The details of the scheme are being finalised in consultation with the Rubber Board. Implementation of the scheme has been deferred for 1988-89 and Rs. 50.00 lakhs have been proposed for the year 1988-89 as an outlay.

6. Establishment of Rubber Nursery in Assam, Nagaland and Tripura :

2.68 Rubber plantation development was taken up in NE Region under NEC programme. Encouraged by satisfactory progress of Rubber plantation, it is proposed to take up rubber nursery schemes in Assam, Nagaland and also Tripura which was not covered when the proposal was approved for 1986-87.

2.69 The Assam Plantation Crops Development Corporation has submitted a scheme for setting up 3 Rubber Nurseries in Assam with an estimated cost of Rs. 22.80 lakhs which is being finalised. Nagaland and Tripura have not yet submitted the detailed schemes.

2.70 The approved outlay for the scheme for the year 1987-88 is Rs. 5.00 lakhs and is not going to be utilised as implementation of these projects has been deferred to 1988-89. An outlay of Rs. 20.00 lakhs (Assam : Rs. 15.00 lakhs, Nagaland : Rs. 2.30 lakhs, Tripura : Rs. 2.70 lakhs) is proposed for 1988-89.

2.71 The Plan allocation for the schemes mentioned above are given in the annexed statement.

DRAFT ANNUAL PLAN 1988-89

Statement

PLANTATION

(Rs. in lakhs)
(Ref para 2.71)

| Name of the Schemes | Approved 7th Plan Outlay | Actual expenditure | | 1987-88 | | Proposed outlay 1988-89 |
|--|--------------------------------|--------------------|---------|--------------------|-----------------------------------|-------------------------------|
| | | 1985-86 | 1986-87 | Approved outlay | Anticipa- ted Ex- penditure | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. Detailed Insitu Survey of land suitable for Coffee in the NE Region. | 10.00 | 3.16 | 4.00 | 6.00 | 3.50 | 3.55 |
| 2. Factory for small Farmers Tea Estate, Tripura. | 204.00 | 30.00 | 55.00 | 20.00 | 20.00 | 83.00 |
| 3. Rubber Processing Factory, Tripura. | 137.00 | - | 50.00 | 50.00 | 35.00 | 85.00 |
| 4. Raising of Dioscorea Floribunda Plantation and Processing for manufacture of Diosgenin/16-DPA, Tripura. | 151.00 | - | 20.00 | 40.00 | 30.00 | 60.00 |
| 5. Establishment of Rubber Demonstration-cum-Training Centre. | - | - | - | 10.00 | - | 50.00 |
| 6. Establishment of Rubber Nursery in Assam, Nagaland and Tripura. | - | - | - | 5.00 | - | 20.00 |
| T O T A L : | | | | 131.00 | 88.50 | 301.55 |

D. FORESTS AND PLANT RESOURCES.

2.72 Forests are important natural resources, particularly for the hilly areas in the North-Eastern region comprising the catchments of the mighty Brahmaputra and its tributaries. The age-old practice of shifting cultivation has done considerable damage to the forest areas due to repeated burning of standing trees. Hence, the emphasis during the Seventh Five-Year Plan has been on afforestation of the denuded hill slopes, specially in the catchment areas of hydro-electric projects in order to reduce soil erosion and prolong the life of the reservoirs. In addition to the afforestation schemes, certain new schemes have been taken up during the seventh plan period. They are : adoption of tissue culture techniques for rapid multiplication of selected clonal stocks of forest tree species, establishment of a Sub-tropical Botanical garden in Nagaland, development of minor forest products and medicinal plants, tree improvement and logging improvement. The scheme on Survey of forest resources was approved to be financed by the NEC during the Seventh Plan, but subsequently it was decided that the Forest Survey of India would conduct the survey with its own funds. Details of the schemes are given below :

1. Afforestation of new catchment areas.

(a) Umiam Hydro electric Project in Meghalaya.

2.73 The objective of the scheme was to afforest 2000 ha. out of the 30,000 ha. (approx.) of the total catchment - during the 7th plan period. The approved outlay for the scheme in the Seventh Plan is Rs. 75.00 lakhs and is also the estimated cost of the approved scheme. An amount of Rs. 12.00 lakhs was made available in 1986-87. Against the target of 569 ha. for 1986-87, advance work was completed over 719 ha. and the same area is being planted up in 1987-88. Considering the large area of the catchment to be covered, the State Govt. was requested to revise the scheme to cover a larger area during the 7th Plan period within the constraints of the infrastructure available. Accordingly the State Govt. has revised the scheme to cover 3149 ha. of the catchment during the 7th Plan period at a total cost of Rs. 100.00 lakhs - in the remaining period of the 7th Plan, i.e., 1987-88 to 1989-90. The scheme will benefit the States of Meghalaya and Assam by reducing soil erosion, prolonging

the life of the reservoir and improving the environment in general. The revised estimate for 87-88 has been kept at Rs. 28.82 lakhs against the approved outlay of Rs. 12.00 lakhs in order to cover the increased target area as per the revised scheme. Advance work for plantation over 1000 ha. will be done in 87-88 and the same area will be planted up in 88-89. The proposed outlay for 1988-89 is Rs. 33.00 lakhs.

(b) Loktak Hydro-electric project in Manipur.

2.74 Under this scheme the objective is to plant up 2500 ha. of the catchment area of 100 sq.kms. (approx.) during the 7th Plan period at a total cost of Rs. 97.25 lakhs. The approved outlay of the scheme is Rs. 75.00 lakhs. The aim is to reduce siltation in the lake, to prolong the life of the reservoir. The additional fund required will be met from the overall plan allocation of the NEC. During the 6th five year plan an area of 1100 ha. of the catchment has been afforested. In 1987-88, 900 ha. is expected to be brought under tree cover. The approved outlay for 1987-88 is Rs. 20.00 lakhs. Considering the total cost of the scheme and the physical progress achieved so far, it is proposed to keep the revised estimate for 1987-88 at Rs. 27.17 lakhs. By keeping this increased outlay it will not be necessary to spill over the scheme to the 8th Plan. The proposed outlay for 1988-89 is Rs. 35.00 lakhs. 900 ha. more of the catchment area will be planted up in 88-89.

(c) Doyang Hydro-electric project in Nagaland.

2.75 This scheme has an approved outlay of Rs. 75.00 lakhs for the 7th plan period. The approved outlay for 1986-87 was Rs. 12.00 lakhs. The full amount was released by the NEC, but it could not be spent by the State Govt. as land for afforestation could not be identified. The approved outlay for 1987-88 is Rs. 20.00 lakhs. Considering the constraint of availability of land for afforestation the net revised estimate for 87-88 has been scaled down to Rs. 5.21 lakhs in consultation with the implementing department of the State Govt. The proposed outlay for 1988-89 is Rs. 23.00 lakhs. A total area of 1600 ha. out of the catchment is proposed to be covered during the 7th plan period. 350 ha. is expected to be planted up in 87-88, and 500 ha. in 88-89.

(d) Kopili Hydro-electric project in Meghalaya.

2.76 The scheme on afforestation of catchment/command areas of kopili Hydro-electric Project under NEC programme was sanctioned during the sixth five year plan, in December, '83 at an estimated

cost of Rs. 49.52 lakhs. The scheme was implemented in 1983-84 and 1984-85. Out of the total catchment area of about 28,000 ha., 700 ha. were planted up during 83-84 and 84-85. Advance work for raising plantation over 625 ha. was also done in 84-85. With the completion of the sixth five year plan, the State Govt. took over the scheme on its own and created plantation over the 625 ha. in 85-86 for which preparatory (advance) work had been completed in 84-85 with NEC funds. With the infrastructure created during the Sixth Plan, the State Govt. continued plantations in the Catchment areas but due to resource constraints the achievements were not upto expectations. In the 27th Meeting of the NEC held at Imphal on 29.7.87, the Finance Minister of Meghalaya, representing the Chief Minister of the State suggested that NEC should take up afforestation of additional areas of the catchment during the seventh plan as well. Consequently, a scheme has been received from the Govt. of Meghalaya for taking up 2400 ha. of the catchment area during the remaining period of the 7th Five Year Plan at a total cost of Rs. 63.88 lakhs. Considering the large area of the total catchment (28,000 ha.) and the slow progress achieved so far, it is now proposed to take up the additional afforestation work which will be beneficial for the longer life of the hydro-electric project. Both Meghalaya and Assam will benefit from this scheme, as the river passes through the two States and the command area lies in both the States. Keeping this in view it is proposed to include the scheme as a new scheme in NEC 1988-89 Annual Plan. An outlay of Rs. 14.00 lakhs has been proposed for 1988-89 in which advance work for raising 800 ha. of plantation will be done. Thereby, the infra-structure already created can be put to better utilisation.

2. Scheme on Tissue culture for rapid multiplication of selected clonal stock of forest species.

2.77 Tissue culture is one of the latest bio-technologies which can revolutionise production of bio-mass qualitatively and quantitatively. So far, tissue culture as a technique has not made much headway in forestry though it has proved its worth in agriculture & horticulture. It helps in identifying promising clones and propagating the selected clone by vegetative means, thereby minimising the risks of genetic variation which is unavoidable in case of natural regeneration through seeds.

2.78 The seventh plan provision under this scheme is Rs. 1.00 crore after having agreed by the Planning Commission the merger of the scheme - Social & Agro Forestry to this. It has been decided that tissue culture work in respect of forest tree species will be confined to basic research on methodology alone to be conducted by Universities and Research Organisations during the 7th Five Year Plan. Practical application in the field can be taken up during the 8th Plan depending upon the success achieved in the basic research. So far schemes from Gauhati University and the North Eastern Hill University have been sanctioned for Rs. 8.31 lakhs and Rs. 11.37 lakhs respectively. A proposal from Toklai Research Institute is under examination. The approved outlay for 1987-88 is Rs. 25.00 lakhs. But considering the progress of the schemes, the revised estimate for 1987-88 has been kept at Rs. 10.00 lakhs only. Culture of meristematic tissue of Teak in aseptic medium has been started in the Gauhati University during 87-88. Selection of proper time for preparing culture and the proper meristematic tissue for the purpose for different forest tree species has been started in the North Eastern Hill University. The work will have to be continued during 1988-89 for which an outlay of Rs. 10.00 lakhs is proposed.

3. Sub-tropical Botanical Garden in Nagaland.

2.79 The scheme for establishment of a Botanical Garden at Puliebeze in Nagaland has been sanctioned in February '87 at an estimated cost of Rs. 135.23 lakhs. The seventh plan approved outlay for this scheme is Rs. 175.00 lakhs. In 1986-87 Rs. 2.00 lakhs were made available to the State Govt. due to problems concerning the site of the project. The State Govt. is expected to take up the work in full swing so as to complete the scheme in the remaining period of the 7th Plan. With this objective, the revised estimate for 1987-88 has been kept at Rs. 28.00 lakhs and the outlay for 1988-89 is proposed to be Rs. 40.00 lakhs.

4. Development of minor forest products including medicinal plants.

2.80 The North Eastern region is rich in its flora. The forests in this region produce not only valuable timber but a large variety of herbs and shrubs, grasses, climbers, canes,

bamboos and non-timber tree species of immense economic and ecological value. The destructive practice of shifting cultivation followed by the tribals in this region has threatened many a valuable species towards extinction. In order to conserve and grow some of the more important minor forest products including medicinal plants, a scheme has been taken up during the 7th Plan with a total approved outlay of Rs. 140.00 lakhs. All the seven constituent states of NE region are implementing the scheme. The approved outlay for 1986-87 was Rs. 30.00 lakhs, but due to delay in getting sanctions only Rs. 13.10 lakhs could be utilised by the States. The sanctioned schemes are : Rs. 4.97 lakhs for Meghalaya, Rs. 5.21 lakhs for Nagaland, Rs. 20.00 lakhs for Assam, Rs. 18.24 lakhs for Mizoram, Rs. 20.00 lakhs for Tripura, Rs. 21.00 lakhs for Manipur and Rs. 17.64 lakhs for Arunachal Pradesh. During 1986-87, 140 ha. of plantation of various minor forest products, e.g. Cane, Dalchini, thatch, myrabolans, Dioscorea, Mentha, Agarwood, Cardamom, Rauwolfia, Lemon grass, Smilax etc. were raised. It is estimated that 312 ha. more of such plantations will be raised during 1987-88 for which a revised estimate of Rs. 20.42 lakhs has been kept against the approved outlay of Rs. 25.00 lakhs. The proposed outlay for 1988-89 is Rs. 30.00 lakhs. 320 ha. is expected to be brought under different minor forest products and medicinal plants during 1988-89.

5. Logging Improvement.

2.81 It is already well known that the forest area is getting reduced to meet the demands of other developmental processes and that of the growing population. Therefore every possible step must be taken to reduce wastage of wood. Conventional methods of logging cause a lot of wastage of valuable wood. Improvement in logging by way of using improved tools and equipment can reduce wastage considerably. With this objective, a scheme for logging improvement has been taken up during the Seventh Plan with an approved outlay of Rs. 100.00 lakhs. During 86-87 there was an approved outlay of Rs. 25.00 lakhs, but it could not be utilised due to delay in getting the technical clearance. Schemes from six States have been sanctioned during 87-88. They are : Rs. 10.10 lakhs for Assam, Rs. 10.04 lakhs for Arunachal Pradesh, Rs. 10.45 lakhs for Manipur, Rs. 11.92 lakhs for Mizoram, Rs. 15.55 lakhs for Nagaland, and Rs. 10.76 lakhs for Tripura. As most of the equipment

needed for the implementation of the scheme, e.g., tractor with winch, trucks, improved saws etc. will have to be procured in the first year of the scheme, the revised outlay for 1987-88 is kept at Rs. 32.70 lakhs against the approved outlay of Rs. 25.00 lakhs. The outlay for 1988-89 is Rs. 20.00 lakhs.

6. Tree Improvement Schemes for selected forest species.

2.82 Massive afforestation schemes have been launched all over the country under the new 20-point programme. The North Eastern region is also keeping pace with the national programme. For raising large plantations, good **quality** seeds become a limiting factor. In order to produce sufficient quantity of seeds of proven quality it is essential to identify healthy tree-stands of important species, conduct provenance trials for selecting the better ones, and establish "seed orchards" to produce large quantities of seeds of good quality. During the 7th Plan period there is an approved outlay of Rs. 80.00 lakhs for this purpose. The following schemes have sanctioned : Rs. 13.14 lakhs for Assam, Rs. 7.85 lakhs for Arunachal Pradesh, Rs. 15.25 lakhs for Manipur, Rs. 5.90 lakhs for Meghalaya, Rs. 8.23 lakhs for Nagaland, Rs. 7.44 lakhs for Tripura and Rs. 10.00 lakhs for Mizoram. A total of 17.5 ha. of seed stands and 295 plus trees of important species like Teak, Semul, Bonsum (*Phoebe goalparensis*) and Champa have been identified. Seed orchards of 17.5 ha. are being raised during 1987-88. For this purpose, the revised outlay is being estimated at Rs. 14.95 lakhs as against the approved outlay of Rs. 20.00 lakhs. The proposed outlay for 88-89 is also Rs. 20.00 lakhs.

2.83 The plan allocations for all the above mentioned schemes are summarised in the statement annexed.

DRAFT ANNUAL PLAN 1988-89
FOREST AND PLANT RESOURCES

Statement
(Ref. Para : 2.83)
(Rs. in lakhs)

| Sl. No. | Name of the Scheme | 7th Plan Approved outlay | Anticipated 1985-86 | Expenditure 1986-87 | 1987 - 88 Approved outlay | Anticipated Expenditure | Proposed outlay for 1988-89 |
|---------|---|--------------------------|---------------------|---------------------|---------------------------|-------------------------|-----------------------------|
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
| 1. | Afforestation of New Catchment Area. | | | | | | |
| | (a) Umiam Hydro Electric Project, Meghalaya. | 75.00 | - | 12.00 | 12.00 | 28.82 | 33.00 |
| | (b) Loktak Hydro Electric Project, Manipur. | 75.00 | - | 20.00 | 20.00 | 27.17 | 35.00 |
| | (c) Doyang Hydro Electric Project, Nagaland. | 75.00 | - | 12.00 | 20.00 | 5.21 | 23.00 |
| | * (d) Kopili Hydro Electric Project, Meghalaya. (New proposal) | - | - | - | - | - | 14.00 |
| 2. | Tissue Culture Technique for the purpose of rapid Multiplication of selected colonel stock of forest species. | 100.00 | - | 4.01 | 25.00 | 10.00 | 10.00 |
| 3. | Sub-Tropical Botanical Garden of Plant Resources, Centre, Nagaland. | 175.00 | - | 2.00 | 10.00 | 28.00 | 40.00 |
| 4. | Development of Minor Forest Products including Medicinal Plants. | 140.00 | - | 23.00 | 25.00 | 20.42 | 33.69 |
| 5. | Logging Improvement. | 100.00 | - | - | 25.00 | 32.70 | 26.90 |
| 6. | Tree improvement scheme (Assam, Arunachal Pradesh, Manipur, Meghalaya, & Nagaland.) | 80.00 | - | 13.00 | 20.00 | 14.95 | 18.48 |
| TOTAL : | | | | | 207.00 | 167.27 | 234.07 |
| | * New proposal | | | | | | |

E. ANIMAL HUSBANDRY

2.84. Livestock Development Programmes in the North Eastern Region are of considerable importance to support economic activities for helping livestock keepers, who generally belong to weaker sections of the society, to cross the poverty line. The traditional dependence of rural tribal population on livestock for appreciable part of their livelihood; consuming habits of the people, who are in general non-vegetarian; absence of taboo for consuming beef, pork and chicken meat etc. ; absence of sentiments regarding slaughter, which helps in elimination of below standard stock, and readiness to adopt improved livestock breeding and management practices are the specialities which have endowed the region with tremendous potential for rapid improvement in livestock production. The local breeds of livestock existing in the North Eastern Region are generally low-yielding and uneconomical. However, there is immense potential and possibility for improving livestock production in the Region. This could be done by improving the low-yielding and uneconomical local breeds by scientific methods of breeding, multiplication of improved varieties of livestock, providing health cover to animals and increasing fodder production by making available necessary quantities of seeds of improved fodder grasses for growing in various areas of the Region etc.

2.85. The North Eastern Council has taken up a number of need-based schemes for improving livestock production in the North Eastern Region. Some of these schemes were being implemented since the 6th Five Year Plan period. Presently there are 28 schemes approved for implementation during the 7th Five Year Plan period.

Details of various schemes for the year 1988-89 are given as under :

1. Regional Temperate Fodder Seed Production-cum-Demonstration Farm, Arunachal Pradesh.

2.86. There is a great need for increasing production of quality fodder for livestock in the North Eastern Region in view of the fact that various States of the Region are taking up large livestock development programmes. A scheme for establishing a Regional Temperate Fodder Seed Production-cum-Demonstration Farm in Arunachal Pradesh was taken up in the 6th Five Year Plan and was sanctioned in 1980-81. The scheme has a main farm located at Chandur, three sub-centres at Warjung, Thrillum and Tawang and Deputy Director's Head-Quarters at Dirang. The scheme aims at production of temperate fodder seeds to meet the requirements of such seeds for Arunachal Pradesh and other States of North Eastern Region and also to demonstrate cultivation of temperate fodders on scientific lines, so that fodder requirements during lean periods may be met. During the 6th Plan the main farm as well as sub-centres could not be fully developed. An expenditure of Rs.15.20 lakhs was incurred upto the end of 6th Plan period. As such, the scheme was allowed to continue during the 7th Five Year Plan period with an approved outlay of Rs.15.00 lakhs. The scheme was revised and sanctioned in 1986-87 for a total estimated cost of Rs.59.67 lakhs, the estimated cost for the 7th plan period being Rs.44.47 lakhs. During the year 1985-87 there was an expenditure of Rs.19.60 lakhs. Action was taken for developing various infrastructure for implementation of the scheme. At the main farm at Chandur, 140 acres of land were acquired and cultivation of fodder started in 45 acres. At sub-centres at Warjung and Tawang, 5 acres of land each were developed and brought under fodder cultivation. At Thrillum, 2.5 hec. of land were acquired for fodder cultivation. At Deputy Director's Head-Quarters at Dirang, 4 acres of land were acquired and developed for fodder cultivation. Fencing and construction of farm roads were largely completed at the sub-centres. All staff have been appointed. 90% of equipment, one jeep and mini truck have been purchased. Work on fencing,

construction of some residential and functional buildings, land development, water supply and electricity etc. would be partly completed in 1987-88 and partly in 1988-89. The approved outlay for 1987-88 is Rs.10.00 lakhs and will be utilised. For the year 1988-89 an outlay of Rs.7.00 lakhs is proposed.

2. Regional Broiler Chick Production-cum-Demonstration Farm, Assam, Gauhati.

2.87. The scheme for establishing Regional Broiler Chick Production-cum-Demonstration Farm at Gauhati in Assam was sanctioned during the 6th Five Year Plan. Due to various constraints the scheme could not be implemented fully in the 6th Plan period. An expenditure of Rs.31.16 lakhs was incurred upto the end of the 6th Plan period. In order to complete the implementation of the scheme it was allowed to continue during the 7th Plan period. The scheme has been sanctioned for establishing a Broiler Chick Production-cum-Demonstration Farm with 1440 parent stock (1200 females and 240 males) in order to produce 1.2 lakhs broiler chicks per year for distribution to various constituent States of the Region. The scheme also aims at training up farmers and unemployed Youth in the practices of broiler production. The approved outlay for the scheme for the 7th Five Year Plan period is Rs.46.68 lakhs. The scheme has been revised and was sanctioned in 1986-87 at an estimated cost of Rs.83.70 lakhs of which the 7th Plan liability is Rs.52.54 lakhs). During the year 1985-87 an expenditure of Rs.28.19 lakhs was incurred. Action was taken to develop various infrastructure necessary for implementation of the scheme programme. All construction works have been completed including construction of boundary wall, internal roads and drainage, poultry houses, building for incubators and eggs store, administrative-cum-instructions building, godown for feed and residential buildings. Various equipments procured included incubators, hatching machine, battery brooders, generators, deep freezer, one jeep and some furniture etc. Action on implementation of the various phases of the technical programme will continue during 1987-88 and 1988-89. Approved outlay for 1987-88 is Rs.15.00 lakhs against which revised estimate of expenditure is Rs.14.68 lakhs. For the year 1988-89 an outlay of Rs.10.00 lakhs is proposed.

3. Regional Feed Testing Laboratory,
Khanapara, Assam.

2.88. The scheme was originally sanctioned in 1978-79 and continued during the 6th Plan period. An amount of Rs.19.76 lakhs had been incurred upto the end of the 6th Plan period. The scheme had been sanctioned with the objective of establishing a Regional Feed Testing Laboratory for carrying out qualitative/quantitative chemical analysis of feed and fodder samples, as well as microbiological tests for livestock feed samples. Due to non-availability of land and other difficulties the scheme could not be completely implemented during the 6th Plan period. It was therefore, allowed to continue during the 7th Plan period with an approved outlay of Rs.42.57 lakhs. The scheme was revised and was sanctioned in 1986-87 for implementation during the 7th Five Year Plan period at an estimated cost of Rs.52.32 lakhs (the 7th Plan liability being Rs.32.56 lakhs). During the year 1985-87 there was an expenditure of Rs.13.78 lakhs. As regards the creation of infrastructure in the past years, improvement of 5 acres of land had been completed, a number of construction works had been completed such as office-cum-laboratory building, trainees' hostel, garrage, 70% of residential buildings and part of electrification, fencing and farm roads. One vehicle, typewriter, part of laboratory equipment and part of furniture were also procured. Remaining construction works would be completed during 1987-88. Part of equipment will be procured during 1988-89. There is an approved outlay of Rs.23.00 lakhs for the year 1987-88 and the same will be utilised. An outlay of Rs.4.60 lakhs is proposed for the year 1988-89.

4. Regional Integrated Farming Systems Project,
Assam Agricultural University, Khanapara,
Assam.

2.89. The scheme aims at demonstrating integrated approach to animal husbandry and pisciculture by utilising waste of cattle, pigs, poultry birds and ducks. It also envisages imparting training to farmers on this integrated farming technology. The scheme had been sanctioned towards the end of 6th Plan period and,

as such, practically no action could be taken for implementing the scheme programme during the 6th Plan period. Therefore, the scheme was allowed to continue during the 7th Plan period with an approved outlay of Rs.4.00 lakhs. The scheme was revised and was sanctioned in 1986-87 at an estimated cost of Rs.4.62 lakhs. An expenditure of Rs.2.70 lakhs was incurred during 1985-87. All construction works have been completed. 124 farmers were trained during the past two years. During the year 1987-88 and 1988-89 action will continue for implementation of various phases of the technical programme. There is an approved outlay of Rs.1.50 lakhs for the year 1987-88 while an expenditure of Rs.0.40 lakhs is anticipated. An outlay of Rs.0.40 lakhs is proposed for the year 1988-89.

5. Regional Cross-bred Cattle Breeding Farm, Thenzawl, Mizoram.

2.90. The scheme aims at developing cross-bred cattle suitable for meat production/dual purpose cattle for the State of Mizoram and other adjoining areas of North Eastern Region. The scheme was originally sanctioned towards the end of the year 1983-84 but could not be fully implemented during the 6th Plan period. An expenditure of Rs.20.79 lakhs was incurred by the end of the 6th Plan period. The scheme was allowed to continue during the 7th Plan period with an approved outlay of Rs.40.00 lakhs. The revised scheme was sanctioned in 1986-87 for implementation during the 7th Plan period at an estimated cost of Rs.63.31 lakhs, the 7th Plan liability being Rs.42.52 lakhs. During the year 1985-87 an expenditure of Rs.13.98 lakhs was incurred. The land development has been completed. Most of the construction works including animal sheds, residential buildings have been nearly completed. Various items have been procured including two riding horses, two large animal crates, one refrigerator and furniture etc. Construction of remaining buildings will be completed in 1987-88. The other construction works including water supply, internal approach road and culverts and electrification, purchase of livestock and fencing material and part of equipment and furniture will be completed

partly in 1987-88 and partly in 1988-89. There is an approved outlay of Rs.8.00 lakhs for the year 1987-88, while an expenditure of Rs.8.52 lakhs is anticipated. An outlay of Rs.6.00 lakhs is proposed for the year 1988-89.

6. Regional Goat Breeding Farm, Tripura.

2.91. The scheme was originally sanctioned during the year 1980-81 for implementation during the 6th Five Year Plan period. During the 6th Plan period necessary developmental works and creation of infrastructure facilities could not be completed. The design of goat houses was also proposed to be modified, to make it a permanent feature. The technical programme was also proposed to be modified. An expenditure of Rs.53.67 lakhs was incurred upto the end of the 6th Plan period. The scheme was allowed to continue during the 7th Plan period with an approved outlay of Rs.29.33 lakhs. The revised scheme was sanctioned during 1986-87 for implementation during the 7th Plan period at an estimated cost of Rs.93.16 lakhs, the Seventh Plan liability being Rs.39.49 lakhs. The main objective of the scheme is to produce cross-bred goats by crossing Black Bengal to Barberi for supplying appropriate germ-plasm to the farmers and Govt. agencies for improving indigenous goat stock in Tripura and other adjoining areas in the North Eastern Region. There was an expenditure of Rs.7.76 lakhs during the year 1985-87. As regards development of infrastructure, 480 hec. of acquired land were developed, 43515 plantations had been made, 312 hec. of land had been put under pasture development and 200 hec. under fodder cultivation. The construction works which were completed include 0.5 Km fencing, 30 Km farm roads, 7 Nos of Earthen Reservoir, part of water supply work, about 50% of functional buildings and residential buildings. The items procured included one truck, one trekker, 3 power tillers, furniture, 429 animals, seeds and fertilisers, concentrate feed etc. 17 staff members against 37 sanctioned posts were in position. Procurement of livestock and equipment etc. will be largely completed in 1987-88. The remaining construction works will be completed in 1988-89. There is an approved outlay of Rs.12.00 lakhs for the year 1987-88 and the same will be utilised. An outlay of Rs.10.00 lakhs is proposed for the year 1988-89.

7. Regional Pig Breeding Farm, Nalkata, Tripura.

2.92. The scheme was taken up from the year 1983-84 but could not be completed during the 6th Plan period. During the 6th Plan period an expenditure of Rs.9.64 lakhs was incurred. The scheme was allowed for continuance during the 7th Plan period with an approved outlay of Rs.34.11 lakhs. The revised scheme was sanctioned during the year 1986-87 for implementation during the 7th Plan period at an estimated cost of Rs.42.03 lakhs (the 7th Plan liability on the scheme being Rs.32.39 lakhs). The objective of the scheme is to produce exotic germ-plasm of Hampshire breed of pigs as well as cross-breds for supplying to the farmers and Govt. agencies for various piggery development programmes in Tripura and other adjoining areas of North Eastern Region. During the year 1985-87, an expenditure of Rs.15.99 lakhs was incurred. During the past years land development has nearly been completed and construction of buildings including boar shed, sow shed, weaner shed and feed go-down were completed upto roof level. Action had been initiated for filling up of the sanctioned posts. During the year 1987-88 and 1988-89 construction works will be largely completed and procurement of equipments will be completed during 1987-88. There is an approved outlay of Rs.10.00 lakhs for the year 1987-88 against which the anticipated expenditure is Rs.8.54 lakhs. An outlay of Rs.10.00 lakhs is proposed for the year 1988-89.

8. Regional Mithun Breeding Farm, Arunachal Pradesh.

2.93. Mithun (*Bos-Frontalis*) is very important meat animal of Arunachal Pradesh, Nagaland and Manipur. Mithun population in the North Eastern Region has been estimated at around 1.20 lakhs out of which around 85,000 are found in Arunachal Pradesh alone. Mithun is a domestic animal, but traditionally is reared in semi-ranch conditions. It is also used in cross-breeding with cattle. The scheme envisages a programme for pure-breeding of Mithuns for improvement of their stock and for supplying the improved germ-plasm to deserving farmers and govt. agencies of Arunachal Pradesh and other adjoining areas of N.E. Region for improving their local stocks and for multiplication. The

approved outlay for the 7th Plan period is Rs.25.00 lakhs. The scheme was sanctioned towards the end of the year 1986-87 at an estimated cost of Rs.40.00 lakhs. During 1986-87 an amount of Rs.2.00 lakhs was released. Action for creating infrastructure has been initiated. Approved outlay for the year 1987-88 is Rs.4.00 lakhs, against which an expenditure of Rs.2.00 lakhs is anticipated during the year. For the year 1988-89 an outlay of Rs.13.00 lakhs is proposed. Infrastructural facilities in terms of land development, construction of functional and residential buildings, farm roads, fencing, water supply, electrification, procurement of equipment and furniture and appointment of staff will be created partly in 1987-88 and partly in 1988-89. Livestock will be procured during 1988-89.

9. Regional Goat Breeding Farm, Arunachal Pradesh.

2.94. Arunachal Pradesh has vast tracts of grassland which offer a great potentiality for rearing goats. People of Arunachal Pradesh like other States of N.E. Region in general are meat-eaters. Improving goat production is, therefore, important for meeting the increasing demands for meat. In view of this, the scheme for establishing a Regional Goat Breeding Farm in Arunachal Pradesh was included in 7th Plan/approved with outlay of Rs.25.00 lakhs. The scheme envisages improving the indigenous germ-plasm of Assam Hill goats and also produce cross-bred goats by crossing with Berberi with the ultimate objective of supplying suitable goat germ-plasm for improving goat stock in Arunachal Pradesh and neighbouring States of Assam and Nagaland etc. The scheme was sanctioned towards the end of 1986-87 at an estimated cost of Rs.35.99 lakhs. During 1986-87 an amount of Rs.2.00 lakhs was released. Action for creating infrastructure has been initiated. Approved outlay for the year 1987-88 is Rs.4.00 lakhs against which an expenditure of Rs.2.00 lakhs is anticipated. For the year 1988-89 an outlay of Rs.12.00 lakhs is proposed. The proposed funds will be utilised for creating infrastructural facilities partly in 1987-88 and partly in 1988-89 in terms of construction of functional and residential buildings, land development,

farm roads, fencing, water supply, electricity, procurement of equipment, furniture, appointment of staff, and procurement of livestock, etc. and for other miscellaneous expenditure.

10. Regional Fodder Seed Production Farm, Assam.

2.95. For success of any cattle development programme the availability of adequate quantity of fodder of good quality is extremely important. For this purpose, it is necessary that adequate quantity of seeds of good quality fodder crops is made available to the farmers for growing the required fodder. In order to produce and supply fodder seeds to meet the requirement of plain areas of North Eastern Region, a scheme for establishing a Regional Fodder Seed Production Farm at Matia, District Goalpara in Assam during the 7th Five Year Plan has been taken up with an approved outlay of Rs.45.00 lakhs for the 7th Plan period. The scheme was sanctioned in 1986-87 at an estimated cost of Rs.44.87 lakhs. An amount of Rs.8.85 lakhs was released during the year 1986-87 for initiating creation of infrastructural facilities. The infrastructure created included land reclamation, earth filling, construction of office building, three residential buildings, ring well, road culvert, procurement of tractor, power tiller, Agricultural implements, and furniture. Anticipated expenditure for 1987-88 is Rs.19.35 lakhs against outlay of Rs.20.00 lakhs. An outlay of Rs.12.00 lakhs is proposed for the year 1988-89. During the year 1987-88 the other construction works will be completed. Remaining equipment and furniture and other materials will be procured partly in 1987-88 and partly in 1988-89 besides meeting other expenditure on staff and recurring contingencies.

11. Regional Frozen Semen Project, Assam (Silchar and Jorhat).

2.96. In the cattle development programmes the frozen semen technology has been a land-mark. Frozen semen can be stored for a very long time without losing potency or quality and can be transported to long distances without any adverse effects. Facilities for making the frozen semen available in

abundant quantities, as and when required, need be created in the North Eastern Region. For this purpose, it is essential to expand the existing facilities of Frozen Semen Centre at Jorhat and Silchar in the State of Assam. With a view to expand the said Frozen Semen Centres this scheme was taken up in the 7th Plan with an approved outlay of Rs.35.00 lakhs. The scheme was sanctioned during 1986-87 at an estimated cost of Rs.44.31 lakhs for implementation during the 7th Plan period. During 1986-87 an amount of Rs.18.78 lakhs was released and utilised for construction of building for Liquid Nitrogen Plant and water chiller and procurement of Liquid Nitrogen Plant of ten litre capacity and water chiller etc. for Jorhat Centre. Liquid Nitrogen Plant for Silchar Centre was earlier proposed to be procured and installed in 1988-89. Due to heavy demand of frozen semen from various States neighbouring Silchar (Mizoram and Tripura) it is proposed to complete this target in 1987-88 itself. The revised estimate of expenditure for 1987-88 is therefore, assessed at Rs.25.00 lakhs. An outlay of only Rs.2.70 lakhs has been proposed for 1988-89 for completing the scheme.

12. Regional Buffalo Breeding Farm,
Barhamour, Assam.

2.97. Buffalo is an important animal for milk production as well as draught purposes in Assam and other States of the North Eastern Region. Assam has a rather good indigenous breed of buffalo which can be improved by cross-breeding with improved breeds of buffalo found in other parts of the country. With a view to improve the production of buffalo in Assam as well in other States of the N.E. Region the scheme for establishing a Regional Buffalo Breeding Farm in Assam in the 7th Plan was sanctioned in 1986-87 at an estimated cost of Rs.82.18 lakhs. The scheme envisages to build up pure-bred herd of 200 buffaloes of Murrah and Surti breeds and 50 local buffaloes to produce pure-bred and graded stocks for supplying improved buffalo germ-plasm to farmers of Assam and adjoining areas for improving their buffalo stocks. During 1986-87 an amount of Rs.7.96 lakhs was released. Repairs and renovation of existing buildings was partly completed. There is an approved outlay of Rs.15.00 lakhs for the year 1987-88, while

the anticipated expenditure is Rs.15.68 lakhs. An outlay of Rs.41.60 lakhs is proposed for the year 1988-89. During 1987-88 part of the repair and renovation work of existing building, construction of buffalo and calf sheds part procurement of equipment and livestock and part of electricity and water supply facilities etc. would be completed. During 1988-89 most of the remaining functional and most of the residential buildings would be constructed and part of the equipment, implements and livestock would be procured.

13. Mechanisation of Institute of Veterinary Biologicals, Khanapara, Assam.

2.98. The Institute of Veterinary Biologicals at Khanapara in the State of Assam, established during the 6th Five Year Plan under the NEC Programme needs to be strengthened and developed into a modern Veterinary Biologicals Production Institute, so that sufficient quantities of quality vaccines and other biologicals can be produced for meeting the demands from the State of Assam and other constituent States of the North Eastern Region. The scheme is virtually a scheme for modernisation of mechanisation of the Institute of Veterinary Biologicals to ensure self-sufficiency in manufacture of required quantities of veterinary biologicals. It is envisaged to install required number of high efficiency, preferably imported, modern equipments and instruments to bring mechanisation of production with assured sanitation and optimum conditions. The scheme was sanctioned during 1986-87 at an estimated cost of Rs.44.85 lakhs for the 7th Plan period. During 1986-87 an amount of Rs.2.50 lakhs was released. A deep tube-well with overhead tank and pump sets and water distribution line were constructed. There is an approved outlay of Rs.28.00 lakhs for 1987-88 against which anticipated expenditure is Rs.27.86 lakhs. An outlay of Rs.11.00 lakhs is proposed for the year 1988-89 for procurement of various equipment, instruments, vehicle etc.

14. Regional A.I. Training Centre-cum-Cryogenic Laboratory, Assam Agricultural University, Assam.

2.99 In view of the large livestock development programme being taken up by various States of the North Eastern Region, the technique of artificial insemination has attained a great importance as a scientific method of animal breeding. An important bottleneck experienced in carrying out artificial insemination programme in the N.E. Region is the lack of sufficient number of skilled personnel. Thus there is a great need for imparting practical training on scientific lines in Artificial Insemination and its allied aspects to the Veterinarians and other extension workers engaged in A.I. work under various cattle development programmes. In view of this, the scheme for establishing A.I. training centre-cum-cryogenic laboratory at the Assam Agricultural University, Khanapara was included in the 7th Plan with an approved outlay of Rs.20.00 lakhs. The scheme was sanctioned in 1986-87 at an estimated cost of Rs.19.05 lakhs. During the year 1986-87 an amount of Rs.2.40 lakhs was released for initiating action for creation of infrastructure facilities. Renovation of existing laboratory for establishment of cryogenic laboratory was partly completed. There is an approved outlay of Rs.8.00 lakhs for the year 1987-88 against which the revised is Rs.7.00 lakhs. For the year 1988-89 an outlay of Rs.4.25 lakhs is proposed. Construction works will be completed in 1987-88. Besides incurring expenditure on staff and other recurring contingencies, the cryogenic and A.I. equipment and other materials will be procured partly in 1987-88 and partly in 1988-89.

15. Regional Buffalo Breeding Farm, Wabgai Tera Urak, Manipur.

2.100 In tribal areas of Manipur as well as other parts of the North Eastern Region Buffalo is an important draught animal. The local buffalo of Manipur is a sturdy animal with qualities of resistance to several common diseases. There is great need to develop suitable breed of buffalo for draught as well as milk purposes in Manipur and other areas of N.E. Region. With this in view the scheme for establishing Regional Buffalo Breeding Farm at Wabgai Tera Urak in Manipur during the 7th Plan period was included with an outlay of Rs.49.20 lakhs. The scheme envisages establishing a breeding herd of Murrah buffaloes and 60 Manipuri buffaloes and to produce purebreds & crossbreds for studying their performance and supplying appropriate

buffalo germplasm to farmers of Manipur and other States of N.E. Region for improving the local buffalo stocks. The scheme was sanctioned in 1986-87 at an estimated cost of Rs.61.36 lakhs. During the year 1986-87 an amount of Rs.9.90 lakhs was released for construction works including construction of buffalo shed, calving shed, feed go-down, bull shed, office building, overhead tank and ground tank, approach road, fencing and residential quarters. There is an approved outlay of Rs.15.00 lakhs for the year 1987-88 against which an amount of Rs. Rs.21.00 lakhs is anticipated as expenditure for 1987-88 for completing part of construction works and procurement of equipment etc. For the year 1988-89 an outlay of Rs.20.25 lakhs is proposed to meet expenditure on part of construction works, procurement of equipment, livestock etc. besides staff and other recurring contingencies.

16. Regional Pony Development Project, Manipur.

2.101 Ponies are animals of immense importance for transporting various materials between different places in the hilly terrain of North Eastern Region. The pony of Manipur is famous for its sturdiness and because of being easy to maintain. Unfortunately, this breed of Manipuri Pony is slowly becoming extinct. With a view to conserve the germplasm of Manipuri Pony and for producing good quality ponies for supplying to the tribals, military and para-military forces etc. for use in transport in interior hilly areas a scheme was taken up for establishing Regional Pony Development Project at Lamphelpat in Manipur with a 7th Plan approved outlay of Rs.60.00 lakhs. The scheme was sanctioned in 1986-87 at an estimated cost of Rs.71.83 lakhs to establish a pony breeding farm with a foundation stock of 100 brood mares and 10 stallions. During 1986-87 an amount of Rs.11.85 lakhs was released towards construction of shed for 50 mares, shed for 10 stallions, approach road, fencing, overhead tank and ground tank, go-down, office building and some residential buildings. For the year 1987-88 there is an approved outlay of Rs.14.00 lakhs against which an amount of Rs.30.00 lakhs is assessed as the anticipated expenditure. For the year 1988-89 an outlay of Rs.25.00 lakhs is proposed for developing infrastructure.

17. Regional Composite Livestock Farm,
NONE, Tamenglong District, Manipur.

2.102 For the tribal people in the interior areas of Manipur and other States of North Eastern Region animal husbandry is an important economic activity. However, tribal people involved in animal husbandry activities need training on modern scientific lines for improving their livestock. There is also need for supplying adequate number of good quality livestock to tribal families under various development programmes. In view of this, a Regional Composite Livestock Farm at NONE in Tamenglong District of Manipur is being established during the 7th Plan period. The farm will be established to produce good quality cattle, poultry, ducks and pigs for supply to the farmers. The farm would also serve as a demonstration centre and for imparting training to the tribal farmers in livestock and poultry rearing on modern scientific lines. While the 7th Plan approved outlay is Rs.35.00 lakhs, the scheme was sanctioned during 1986-87 at an estimated cost of Rs.42.55 lakhs. During 1986-87 an amount of Rs.4.85 lakhs was released towards cost of construction of cow sheds, bull shed, poultry layer shed, office-cum-hatchery, go-down, approach road, water tank and one residential quarter. There is an approved outlay of Rs.4.00 lakhs for the year 1987-88, while the provisions in the sanctioned scheme are for an amount of Rs.30.70 lakhs. However, only an amount of Rs.18.00 lakhs is kept as anticipated expenditure for the year 1987-88. An outlay of Rs.16.40 lakhs is proposed for the year 1988-89. Part of construction works including functional and residential buildings, procurement of equipment, furniture and livestock etc. will be completed partly in 1987-88 and partly in 1988-89.

18. Regional Pig Breeding Farm, Kyrdemkulai,
Meghalaya.

2.103 In the North Eastern Region there is a considerable scope for development of Animal Husbandry with special reference to pig production. In general, black coloured pigs are preferred. The indigenous pigs are less productive and there is great need for supply of improved pigs of black variety to the farmers for breeding purpose to improve their indigenous stock for improving pigs production. In view of this, a Regional Pig Breeding Farm is being established at Kyrdemkulai in Meghalaya in the 7th Plan period with approved outlay of Rs.40.00 lakhs. The scheme was

sanctioned during 1986-87 at an estimated cost of Rs.51.23 lakhs. It is envisaged to establish a 60 sow-unit breeding herd of Hampshire breed of pigs and to produce pure-bred Hampshire pigs for supply to the farmers for upgrading their indigenous stock and also to various agencies for establishing multiplication centre for this breed of pigs. During the year 1986-87 an amount of Rs.18.24 lakhs was released and utilised towards Master Plan Survey, land development, construction of 4 pig sties, approach road etc. There is an approved outlay of Rs.18.00 lakhs for the year 1987-88, while the anticipated expenditure is Rs.27.00 lakhs with a view to complete the construction of office buildings, fencing, godown, garrage, laboratory building, water supply, electricity and most of residential buildings, procurement of vehicles, part of laboratory equipment, furniture and livestock for timely implementation of technical programme. For the year 1988-89 an outlay of Rs.7.00 lakhs is proposed to complete construction of remaining residential building and procurement of part of equipment and furniture etc.

19. Regional Fodder Seed Production-cum-Demonstration Farm, Thenzawl, Mizoram.

2.104 Requirement of feed and fodder for livestock is increasing appreciably in the North Eastern Region, because of various livestock development programmes being taken up and cross-bred animals being introduced in the various states of the Region. The livestock feed of good quality, with its high cost, is becoming out of reach for the poor tribal farmers. It is, therefore, necessary to develop fodder grasses and trees for meeting appreciable percentage of nutritional requirements of livestock. In view of this, Regional Fodder Seed Production-cum-Demonstration Farm is being established at Thenzawl in Mizoram during the 7th Five Year Plan. The objective of the scheme is to produce quality seeds of different varieties of fodder crops suitable for agroclimatic conditions of Mizoram and other areas of N.E. Region like Manipur and North Cachar Hill District of Assam. Seeds of various suitable fodder crops, seedlings and cuttings will be supplied to farmers to improve their fodder production. The approved 7th Plan outlay for the scheme was Rs.25.00 lakhs. The scheme was sanctioned towards the end of 1986-87 at an estimated cost of Rs.27.00 lakhs. During the year 1986-87 an amount of Rs.8.59 lakhs was released for development of infrastructure including construction of rat-proof

seed storage go-down, garrages for tractor and power tiller, office store room, 5 units of residential quarters, and procurement of tractor, power tiller, tools and implements and for part of land development. There is an approved outlay of Rs.2.00 lakhs for the year 1987-88, while the provisions in the sanctioned scheme are for Rs.8.97 lakhs. However, an amount of Rs.7.00 lakhs is assessed as the anticipated expenditure for the year 1987-88 for construction of some functional and residential buildings, part of land development, water supply and electrification and part of fencing, and procurement of equipment. For the year 1988-89 an outlay of Rs.5.00 lakhs is proposed.

20. Regional Broiler Chick Production-cum-Demonstration Farm, Tanhrill, Mizoram.

2.105 In order to meet the ever increasing demand for chicken meat in Mizoram and other adjoining areas of the North Eastern Region, the scheme for establishing a Regional Broiler Chick Production-cum-Demonstration Farm at Tanhrill in Mizoram was included in the NEC 7th Plan with an outlay of Rs.50.00 lakhs. It is envisaged to maintain 1250 females and 250 males of parental breeding stock for production of broiler chicks. It is envisaged to produce about 6 lakhs eggs and to hatch out 4 lakhs of chicks during the 7th Plan period. Besides supplying the day old chicks to farmers in Mizoram and other areas of the N.E. Region it is also envisaged to demonstrate the modern broiler chick production practices to the interested farmers and enthusiastic unemployed persons. The scheme was sanctioned towards the end of the year 1986-87 for implementation during the 7th Plan period at an estimated cost of Rs.50.42 lakhs. During the year 1986-87 an amount of Rs.8.00 lakhs was released towards development of infrastructure including construction of office-cum-store, brooder house feed go-down and one unit of residential quarter, part of electrification, depositing the cost towards purchase of parental stock and part procurement of fencing material. Approved outlay for the year 1987-88 is Rs.15.00 lakhs, while there is a provision of Rs.22.86 lakhs in the sanctioned scheme for the year. However, an amount of Rs.18.78 lakhs is assessed as anticipated expenditure for the year 1987-88 for construction of some functional and residential buildings, electrification, water supply,

procurement of vehicle and part of equipment. For the year 1988-89 an outlay of Rs.14.50 lakhs is proposed for construction of remaining functional and residential buildings, procurement of part of equipment and developing part of electrification and water supply facilities, besides meeting recurring expenditure.

21. Regional Cross-bred Cattle Farm,
Baghty, Nagaland.

2.176 The objective of the scheme is to establish a Regional Cross-Bred Cattle Farm at Baghty in Nagaland for evolving a suitable beef breed of cattle by crossing indigenous cows to well established exotic breeds like Red Dane and Angus/Hereford/Short-Horn. Various types of cross-breds will be produced and their performance studied. Bulls of the best performing cross-bred type(s) will be supplied to the farmers and other agencies of Nagaland and other States of N.E. Region for upgrading their local cattle stocks and for improving beef production under various development programmes. The approved 7th Plan outlay for the scheme is Rs.75.00 lakhs. The scheme was sanctioned towards the end of 1986-87 at an estimated cost of Rs.87.10 lakhs. During the year 1986-87 an amount of Rs.19.45 lakhs was released. Construction materials for construction of animal sheds, office-cum-dispensary, go-down, and part of residential quarters, fencing and water supply etc. were procured and collected. The approved outlay of Rs.20.00 lakhs for the year 1987-88, will be utilised. An outlay of Rs.30.50 lakhs is proposed for the year 1988-89. Construction of remaining functional and residential buildings, approach and internal roads, water supply and electrification, fencing and procurement of livestock and frozen semen of exotic bulls, and appointment of staff would be taken up partly in 1987-88 and partly in 1988-89.

22. Regional Exotic Pig Breeding Farm,
Medziphema, Nagaland.

2.107 In the North Eastern Region, in general, pork is the most popular meat amongst the tribals. The tribals and other people from weaker sections of the society are traditionally involved in pig rearing. There is/wide gap between demand and availability of pork for human consumption in this region. This is because of poor management practices and non-availability of

Improved varieties of pigs. There is a great need for increasing and improving pig production in the region by cross-breeding of indigenous pigs with the improved exotic breeds. In view of this, a Regional Exotic Pig Breeding Farm is being established at Medziphema in Nagaland. The objective of the scheme is to establish a farm with 150 breeding sow-unit and followers of Large White Yorkshire and Saddle Back/Hempshire breeds and to produce pure breeds and cross-breeds among them. Improved germplasm of appropriate pure-bred and cross-bred pigs will be supplied to farmers and other agencies in Nagaland and other States of the N.E. Region for use in upgrading the local pigs for improving pig production. The approved Seventh Plan outlay for the scheme is Rs.65.00 lakhs and the scheme with this cost was sanctioned towards the end of 1986-87. An amount of Rs.18.85 lakhs was released during the year 1986-87. Construction materials for renovation of existing buildings, construction of boar house, weaner house, isolation shed office building, part of residential building and water supply and fencing were procured and collected. There is an approved outlay of Rs.20.00 lakhs for the year 1987-88, whereas, the anticipated expenditure on the scheme is Rs.22.85 lakhs for the year. An outlay of Rs.20.00 lakhs is proposed for the year 1988-89 for completing the construction works, procurement of livestock, equipment and appointment of staff, besides other recurring contingencies.

23. Expansion of Regional Broiler Chick Production-cum-Demonstration Sub-Centre, Kohima, Nagaland.

2.108 There is an increasing demand for chicken meat in Nagaland and other States of the North Eastern Region. In order to meet this increasing demand for chicken meat a Regional Broiler Chick Production-cum-Demonstration Sub-Centre at Kohima in Nagaland is being established during the Seventh Five Year Plan. The Farm at the Sub-Centre will maintain 1200 nos. of parent stock of broiler (1000 females and 200 male) throughout the year to produce 5.40 lakh eggs and to hatch 3.86 chicks during the Seventh Plan Period. Day-old chicks will be supplied to farmers and other agencies in Nagaland and other States of the N.E. Region for broiler production. The farm will also provide opportunities of demonstrating broiler chick production practices to interested

farmers and unemployed youths. The approved Seventh Plan outlay for the scheme is Rs.40.00 lakhs. The scheme was sanctioned towards the end of 1986-87 at an estimated cost of Rs.39.61 lakhs. During the year 1986-87 an amount of Rs.7.85 lakhs was released. Construction materials for construction of poultry sheds, go-down, fencing and some residential buildings were procured/collected. Approved outlay of Rs.14.00 lakhs for 1987-88 will be utilised. An outlay of Rs.13.00 lakhs is proposed for the year 1988-89. Construction of remaining functional and residential buildings and fencing will be partly completed in 1987-88 and partly in 1988-89. Procurement of machinery and equipment, foundation stock of birds will be partly completed in 1987-88 and partly in 1988-89, besides incurring expenditure for staff and other recurring contingencies.

24. Regional Veterinary Biologicals Production Centre, Tripura.

2.109 There is a wide gap between requirements and availability of various animal vaccines and veterinary biologicals for providing timely and adequate health cover to livestock in the North Eastern Region. The Institute of Veterinary Biologicals at Gauhati in Assam is not in a position to meet all the requirements for various vaccines and veterinary biologicals for the whole of North Eastern Region. Apart from transport problem, supply of vaccines from outside the Region is very irregular, meagre and uncertain. In order to meet the requirement of various vaccines for different diseases and other biologicals, a Regional Veterinary Biologicals Production Centre is being established in Tripura in the 7th Five Year Plan. The approved outlay for the 7th Plan period is Rs.85.80 lakhs. The scheme was sanctioned towards the end of 1986-87 at an estimated cost of Rs.88.30 lakhs for implementation during the 7th Plan period. Only a token amount of Rs.0.10 lakhs was released during 1986-87. There is an approved outlay of Rs.19.00 lakhs for the year 1987-88 and in anticipated expenditure for ~~the~~ 1987-88 is assessed at Rs.18.90 lakhs against a provision of Rs.43.08 lakhs for the year 1988-89 in the sanctioned scheme an outlay of Rs.35.00 lakhs is proposed for the year. Construction of various functional and residential buildings, procurement of machinery, equipment, instruments and other materials, appointment of

of staff etc. will be taken up partly in 1987-88 and partly in 1988-89.

25. Regional Centre for Investigation of Diseases of Ducks, Agartala, Tripura.

2.110 Duck rearing is becoming popular among the tribals as well as non tribals in the North Eastern Region. No systematic survey and investigations have been conducted about various diseases and health problems in ducks which could confront in successful duck farming. With a view to take up survey and investigation of common diseases afflicting ducks in North Eastern Region a Regional Centre for this purpose is being established in the 7th Plan period at Agartala in Tripura. The approved 7th plan outlay for the scheme is Rs.25.00 lakhs. The scheme was sanctioned towards the end of 1986-87 at an estimated cost of Rs.20.17 lakhs. During the year 1986-87 a token amount of Rs.0.11 lakhs only was released. The revised estimate of expenditure for 1987-88 is Rs.8.89 lakhs. An outlay of Rs.6.00 lakhs is proposed for the year 1988-89. Construction of various functional and residential buildings, procurement of equipment, machinery, instruments and other materials and appointment of staff etc. will be taken up partly in 1987-88 and partly in 1988-89

26. Regional Pig Breeding Centre, Tamenglong, Manipur.

2.111 Pig rearing is one of the most important animal husbandry activities of the tribals and people of weaker sections of the community in various states of the North Eastern Region in general and Tamenglong District of Manipur in particular. There is great need for supply of improved pigs of exotic breeds or suitable cross-bred pigs to these people for improving their local stocks. In view of this, a Regional Pig Breeding Centre is being established in the 7th Plan period in Tamenglong District of Manipur. The objective of the scheme is to produce pure-bred stock of exotic breeds of pigs (Large White Yorkshire and Hampshire) and their cross-breds for meeting the requirements of the farmers in the State of Manipur and other States of the North Eastern Region. Besides supplying improved germplasm of pigs for various piggery development programmes the farm will also provide opportunities for demonstration to the interested farmers and unemployed youth in respect of improved practices

for pig production and also extension services to the local tribals of Kamenglong District with regard to guidance on adopting improved management practices for profitable pig production under local conditions. The scheme has been sanctioned in 1987-88 for at estimated cost of Rs.44.97 lakhs. Approved outlay for the year 1987-88 is Rs.10.00 lakhs whereas the estimated expenditure for the year is Rs.11.70 lakhs. An outlay of Rs.29.00 lakhs is proposed for the year 1988-89. Action on construction of various functional and residential buildings, procurement of equipment, machinery, instruments and other materials and appointment of staff etc. will be taken up partly in 1987-88 and partly in 1988-89

27. Regional Rabbit Breeding Centre, Nagaland.

2.112 There is great need for improving meat production for meeting the increasing demand for the same in the North Eastern Region. Rabbit meat is very delicious and is liked by people in general but is not available abundantly in the N.E. Region. The rabbit being prolific breeder will not only help in boosting up the meat production but also help in meeting the demand of rabbits for research purposes at various biological centres in N.E. Region, which are facing shortage of rabbits. In view of this a Regional Rabbit Breeding Centre is being established in the 7th Plan at Jhamapani in Nagaland. It is envisaged to set up the centre with a herd size of 400 breedable rabbits of suitable meat type breed (Sovley Chinchilla/New Zealand White) and to produce on an average 8500 rabbits annually from 1989-90 onwards for supply to the rabbit farmers/private and govt. agencies for multiplication purpose and also to biological production centres for research purposes in the various N.E. constituent states. The scheme was sanctioned during 1987-88 at an estimated cost of Rs. 49.95 lakhs. Approved outlay for the year 1989-88 is Rs. 11.00 lakhs, whereas the estimated expenditure is assessed at Rs. 19.00 lakhs. For the year 1988-89 an outlay of Rs. 25.00 lakhs is proposed. Construction of functional and residential buildings, security fencing, approach-cum-internal roads will be partly completed in 1987-88 and partly in 1988-89. Machinery and equipment (partly) and vehicle will be procured in: 1988-89 and 1989-90

28. Regional Pork Processing Centres, Nagaland.

2-113 Pig is one of the most important domestic species of livestock in the North Eastern Region. Pork consumption is very popular in the N.E. Region, the pork being one of the main items of food for most of the people, who have little or no religious or other taboos. Pig rearing is a means of some livelihood for the people involved in enterprise. Although pig rearing and pork production is the traditional occupation of the tribals and other weaker section of the community in North Eastern Region,

there is no organised system which will help them in getting satisfactory returns from this enterprise.. Pigs are mostly disposed of either by selling them as live animals or by selling fresh pig meat after slaughter. In the latter case, the pig keepers are compelled to dispose of the fresh pork within a price which may be offered to them or at routine market price. Alternative way to dispose of pig meat is to process it for preparing various kinds of pork products, which can be preserved and sold at higher rates. Different kinds of pork products find a very good consumer market among the elite of the society. Such pork products can also find attractive markets in hotels and important cities like Calcutta etc., and if transported to such places, can fetch very attractive returns. This in turn would fetch better income to the pig keepers who may sell their animals to the organisation involved in preparation and marketing of various kinds of pork products. However, for this purpose existence of a suitable pork processing centre would be necessary. Therefore, a Regional Pork Processing Centre in Nagaland during the 7th Five Year Plan is being established.. The objective of a Regional Pork Processing Centre is to purchase pigs of slaughter age from the pig keepers in Nagaland and adjoining areas of the constituent of the N.E. Region at reasonable prices and process the pork from them for preparing various kinds of pork products, and to sell/ supply such pork products to interested individuals/Agencies in Nagaland and other States of N.E. Region on reasonable prices. This will also provide incentive to the pig keepers in the state of Nagaland and other adjoining areas by creating attractive market for selling the animals to be purchased for used at the Pork Processing Centre. Project Report relevant to the Scheme is under preparation by the North Eastern Industrial and Technical Consultancy Organisation (NEITCO), Ltd., Guwahati. Approved outlay for 1987-88 is Rs. 15.00 lakhs, which is not going to be utilised

DRAFT ANNUAL PLAN 1988-89
ANIMAL HUSBANDRY

Statement

(Ref Para 2.115)

(Rs. in lakhs)

| Name of scheme | 7th Plan Approved outlay | Actual Expendr. | | 1987-88 | | Proposed outlay 1988-89 |
|--|--------------------------------|-----------------|---------|--------------------|-------------------------|-------------------------------|
| | | 1985-86 | 1986-87 | Approved outlay | Anticipated Expendr. | |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. |
| 10. Regional Fodder Seed Farm, Assam. | 45.00 | - | 6.85 | 20.00 | 19.35 | 12.00 |
| 11. Regional Frozen Semen Project, Assam. | 35.00 | - | 18.78 | 20.00 | 25.00 | 2.70 |
| 12. Regional Buffalo Breeding Farm, Assam. | - | - | 7.96 | 15.00 | 15.68 | 41.60 |
| 13. Mechanisation of Institute of Vety. Biological, Assam. | - | - | 2.50 | 26.00 | 27.86 | 11.00 |
| 14. Regional A.I. Training-cum-Cryogenic Laboratory in AAU, Assam. | 20.00 | - | 2.42 | 8.00 | 7.00 | 4.25 |
| 15. Regional Buffalo Breeding Farm, Manipur. | 49.20 | - | 9.90 | 15.00 | 21.00 | 20.25 |
| 16. Regional Pony Development Project, Manipur. | 16.00 | - | 11.85 | 14.00 | 10.00 | 25.00 |
| 17. Regional Composite Livestock Farm, Tamenglong. | 35.00 | - | 4.85 | 4.00 | 18.00 | 16.40 |
| 18. Regional Pigger Farm, Kyrdemkulai, Meghalaya. | 40.00 | - | 18.24 | 18.00 | 27.00 | 7.00 |
| 19. Regional Fodder Seed Farm, Thenzawl, Mizoram. | 25.00 | - | 8.59 | 2.00 | 7.00 | 5.00 |

2.67

DRAFT ANNUAL PLAN 1988-89
ANIMAL HUSBANDRY

Statement

(Ref Para 2.115)

| Name of Scheme | 7th Plan Approved outlay | Actual Expend. | | (Rs. in lakhs) | | Proposed outlay 1988-89 |
|--|--------------------------------|----------------|---------|-------------------------------|-------------------------|-------------------------------|
| | | 1985-86 | 1986-87 | 1987-88 Approved outlay | Anticipa- ted expdr. | |
| I- | 2- | 3- | 4- | 5- | 6- | 7- |
| 20. Regional Broiler Chicks Farm, Mizoram. | 50.00 | - | 8.00 | 15.00 | 18.78 | 14.50 |
| 21. Regional Cross Bred Cattle Farm, Nagaland. | 75.00 | - | 19.45 | 20.00 | 20.00 | 30.50 |
| 22. Regional Exotic Pig Breeding Farm, Nagaland. | 65.00 | - | 18.85 | 20.00 | 22.85 | 20.00 |
| 23. Regional Broiler Chicks Pro- duction-Cum-Demonstration- Sub-Centre at Kohima, Nagaland | 40.00 | - | 7.85 | 14.00 | 14.00 | 13.00 ^{2.68} |
| 24. Regional Veterinary Biologi- cals Centre, Tripura. | 85.80 | - | 0.10 | 19.00 | 18.90 | 35.00 |
| 25. Regional Centre for Investiga- tion of Common Diseases of Ducks Tripura. | 25.00 | - | 0.11 | 9.00 | 8.89 | 6.00 |
| 26. Regional Pig Breeding Centre, Manipur. | - | - | - | 10.00 | 11.70 | 29.00 |
| 27. Regional Rabbit Production Centre, Nagaland. | - | - | - | 11.00 | 19.00 | 25.00 |
| 28. Regional Pork Processing Centre Nagaland. | - | - | - | 15.00 | - | 55.00 |
| *29. Broiler Chick Production-Cum-Demon- stration Farm, Arunachal Pra- desh. | - | - | - | - | - | 5.00 |
| * New proposals | | | | 364.50 | 413.15 | 451.12 |

F. FISHERIES

2.116 There is a wide gap between demand and supply of fish in North Eastern Region which is evident from the fact that as against estimated annual requirement of about 1.40 lakhs tonnes of fish, estimated regional production is only about 63,500 tonnes. However, there is a big potential for increasing fish production in the region, particularly in Assam, Manipur and Tripura where there are large areas under lakes and beels. These water areas can be developed and brought under scientific pisciculture.

2.117 Realising that supply of suitable and quick/high yielding fish seed is one of the important inputs for fish production programme, a number of new schemes/projects were included in the 7th Plan of NEC for implementation of different parts of this region for production of various species and varieties of fish seeds. Programmes for development of beels and for taking up scientific fish culture which would also serve as a demonstration farm were also included. The awareness of and technical competence of fisherman also need to be developed, besides exploration of new areas for fish production. Thus in order to exploit fish culture potential and to train manpower, Regional Fisheries Training Institute is also being set up under the NEC programme under Manpower Development.

Schemewise details in fisheries sector are furnished in the following paragraphs.

1. Reclamation of Beel Fisheries, Arunachal Pradesh/Meghalaya.

2.118 The scheme is proposed to be taken up as a pilot project and aims at demonstrating as to how beel fishery can be taken up on scientific lines for maximisation of the fish production from beels. This will also serve as a demonstration in Arunachal Pradesh and Meghalaya as well as in neighbouring states on the development of beel fisheries on scientific basis. The approved outlay for the scheme in the 7th Plan is Rs. 66 lakhs. The scheme for Meghalaya has been sanctioned at an estimated cost of Rs. 16 lakhs in February 1987. Necessary land for the scheme has been acquired and necessary tools and machines purchased/are being purchased. In the year 1988-89 construction of

functional buildings is to be taken up. During 1986-87 an amount of Rs. 4 lakhs was spent on the scheme. Anticipated expenditure for 1987-88 is Rs. 2.99 lakhs against the approved outlay of Rs. 2.00 lakhs. An outlay of Rs. 3.50 lakhs is proposed for 1988-89.

2.119 So far as scheme for Arunachal Pradesh is concerned, it is being finalised on the basis of the report of the survey of derelict fishery conducted in Arunachal Pradesh under NEC Plan during 1986-87. The implementation of the scheme in Meghalaya has been deferred for 1988-89 and an amount of Rs. 10 lakhs is proposed as an outlay for 1988-89 for taking up infrastructural works.

2. Regional Fish Seed Farm, Meghalaya.

2.120 The scheme seeks to establish a Fish farm for production of varieties fish seeds that would be suitable for culture in the hill states of Meghalaya, Nagaland and part of Assam. Under the scheme farm at Jange in Garo Hills is being set up at an estimated cost of Rs. 20 lakhs. Approved 7th Plan outlay for the scheme is Rs. 18 lakhs. The scheme has been approved in April, 1987 and basic infrastructural development works have been taken up. In the year 1988-89 construction programme is proposed to be completed. The outlay of Rs. 3.00 lakhs will be utilised in 1987-88 and an outlay of Rs. 15.00 lakhs is proposed for 1988-89.

3. Regional Fish Seed Farm, Mizoram.

2.121 The scheme envisages production of about 15 million fish seeds of Indian Major Carps and Common Carps on its completion for distribution to fish rearers of Mizoram and neighbouring States of the region. Approved financial provision for the scheme for 7th Plan is Rs. 20 lakhs. The scheme at an estimated cost of Rs. 19.00 lakhs has been sanctioned in 1986-87. The farm is being set up at Tawipui near Lunglei. The State Govt has acquired the land and the same has been developed. Infrastructural development works such as functional buildings, ponds etc. are in progress and major parts of the works are expected to be completed in 1987-88 and hence the anticipated expenditure for 1987-88 is Rs. 8.91 lakhs against the approved outlay of Rs. 3.00 lakhs. For 1988-89 an outlay of Rs. 5.00 lakhs is proposed.

4. Regional Carp Fish Breeding and Culture Farm, Nagaland.

2.122 Carp fish can adapt to various types of climatic conditions and environment. Because of its adaptability and its high productivity, sturdiness and resistance to diseases etc. culture of this fish is quite popular in NE Region. This variety is found in abundance in its natural habitat in foothills of Nagaland and other neighbouring States of the region. The present scheme aims at establishing a Carp fish Seed Farm in Nagaland to supply fish seeds to the private fish rearers in Nagaland and other neighbouring States of the region. On completion of the scheme, it is estimated to produce 83 million fry annually. Approved outlay for the scheme in 7th five year Plan is Rs. 50 lakhs. The scheme at an estimated cost of Rs. 40.10 lakhs has been sanctioned during 1986-87 and major part of the land development has been completed including jungle clearance etc and Construction works pertaining to six ponds, 5 Nos of staff quarters were taken up. During 1987-88, the on-going works and construction of 27 Nos of ponds, one channel, three staff quarters will be completed. In 1986-87 an amount of Rs. 8.00 lakhs was spent on the scheme. In the financial year 1987-88 the revised estimate is Rs. 17.66 lakhs as against approved outlay of Rs. 7 lakhs due to advanced stage of construction programme. For the year 1988-89, an outlay of Rs. 14.00 lakhs is proposed.

5. Regional Air Breathing Fish Seed Farm, Tripura.

2.123 The scheme envisages establishment of one Air Breathing Fish Farm at Jati Bari in South Tripura District. Farm will produce about 10 million fish fingerlings per year when it is fully developed. The fish fingerlings so produced will be made available to fish rearers of Tripura and neighbouring States of the region. Financial provision for this scheme is Rs. 48.97 lakhs for the 7th Plan. The scheme at estimated cost of Rs. 34.43 lakhs has been sanctioned. But to late sanctioning of the scheme not much work could be done during the year 1986-87. The basic infrastructural development works pertaining to the scheme have therefore been initiated during the financial year 1987-88. The construction works on various functional buildings and other ancillaries has been taken up with State PWD in the phased manner so that the same could be completed by the end of the financial year 1988-89.

During the year 1986-87 an amount of Rs. 5 lakhs was spent on the scheme for land development etc. The approved outlay of Rs. 7 lakhs for the current year 1987-88 is expected to be utilised fully. Considering the progress of physical works for the year 1988-89 an outlay of Rs. 16 lakhs is proposed.

6. Fresh Water Carpseed Farm Lingengpat, Manipur.

2.124 Loktak Lake is the biggest single inland water area in North Eastern Region with vast scope for development of various types of fish cultures. The present scheme stipulated establishment of Fresh Water Carpseed Farm, Lingengpat on the periphery of Loktak lake to produce carp seeds for distribution to private rearers in Manipur and other neighbouring States of this region. The farm will have an area of 20 (twenty) hectares and when fully developed would produce 14 million carp seeds at the end of 7th Plan period. Approved outlay for Seventh Plan is Rs. 25 lakhs. The scheme at an estimated cost of Rs. 22.28 lakhs was sanctioned in the later part of the financial year 1986-87 and therefore, only preparatory works could be initiated. Because of the very nature of the site the scheme is to be implemented in three parts for hatchery complex at Lamphalpat, Nursery at Waithou and Stocking at Lingengpat. Development works on all the three sites has been taken up by State PWD and it is expected that major construction components of the scheme would be over by 1988-89. The expenditure of Rs. 5 lakhs was incurred in 1986-87 and the revised estimate for the year 1987-88 is Rs. 2.88 lakhs as against approved outlay of Rs. 2 lakhs. Considering the progress of the scheme an outlay of Rs. 8 lakhs is proposed for the year 1988-89.

7. Regional Pengba Fish Seed Farm, Manipur.

2.125 Pengba which is one of the testiest varieties of Fish and is indigenous to Manipur. Due to various land reclamation and other related programmes, the natural habitate of this rare variety are being disturbed and the fish is on the verge of extinction. The present scheme aims at establishment of a Pengba Fish Seed Farm at Haotak Pat in Bishnupur District to preserve this specy of fish, production of Pengba fish seeds for distribution of fish rearers of Manipur and neighbouring States of the region to extend culture and availability of this fish in other parts of the NE Region.

Approved outlay for 7th Plan for the scheme is Rs. 25.00 lakhs. The scheme at an estimated cost of Rs. 24.753 lakhs has been sanctioned in the later part of 1986-87 and an expenditure of Rs. 4 lakhs was incurred on basic infrastructural development. The construction works pertaining to ringbund ponds and other functional buildings such as office and staff quarters have been taken up with State PWD. Considering the progress of construction programme, the revised estimated for the year 1986-87 is Rs. 6.43 lakhs as against the approved outlay of Rs. 4 lakhs. Since all the development works are required to be completed by the year 1988-89 an outlay of Rs. 10 lakhs is proposed for the year.

2.126 . The financial details for the scheme mentioned above are indicated in the Annexured statement.

DRAFT ANNUAL PLAN 1988-89

FISHERIES

Statement
(Ref. Para : 2.126)
(Rs. in lakhs)

| Sl No. | Name of the Scheme | Seventh Plan Appvd. outlay | Actual Expenditure | | 1987 - 88 | | Proposed outlay 1988-89 |
|----------------|---|----------------------------|--------------------|---------------------|-----------------|-------------------------|-------------------------|
| | | | 1985-86 | 1986-87 | Approved outlay | Anticipated Expenditure | |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
| 1. | Reclamation of Beel Fishery Arunachal Pradesh & Meghalaya. | 66.00 | - | A.P. - Meg. 4.00 | 2.00 2.00 | - 2.99 | 10.00 3.50 |
| 2. | Regional Fish Seed Farm, Meghalaya. | 18.00 | - | - | 3.00 | 3.00 | 15.00 |
| 3. | Regional Fish Seed Farm, Mizoram. | 20.00 | - | 2.00 | 3.00 | 8.91 | 5.00 |
| 4. | Regional Carpfish breeding and culture farm, Nagaland. | 50.00 | - | 8.00 | 7.00 | 17.66 | 14.00 |
| 5. | Regional Air Breathing Fish Seed Farm, Tripura. | 48.97 | - | 5.00 | 7.00 | 7.00 | 16.00 |
| 6. | Fresh Water Carp Seed Farm in Lingengpat, Manipur. | 25.00 | - | 5.00 | 2.00 | 2.88 | 8.00 |
| 7. | Regional Pengba Fish Seed Farm, Manipur. | 25.00 | - | 4.00 | 4.00 | 6.43 | 10.00 |
| 8. | Survey of Derilect Fisheries, Arunachal Pradesh. | 8.95 | - | 1.00 | - | - | - |
| TOTAL : | | | | 29.00 | 30.00 | 48.87 | 81.50 |

WATER AND POWER DEVELOPMENT

I. POWER DEVELOPMENT

A. GENERATION

1) Kopili Hydrel Project :

3.01 The Kopili Hydrel Project envisages construction of two Power Houses viz. Khandong Power House (2x25 MW) and Kopili Power House (2x50 MW). The project is being implemented by NEEPCO since 1976. The latest approved estimated cost of the project is Rs. 212 crores. The first unit of Kopili Power House was made ready for commissioning in October, 1986. During commissioning test of the tunnel, a mishap occurred in the Umrong HP tunnel on 22nd September, 1986. After the mishap the entire tunnel was inspected by experts from CWC, GSI, CSMRS etc. to suggest rectification/remedial measures to be adopted for restoration of the tunnel system. During early October, 1986 Kopili Power House got flooded and the water level rose upto EL 270.80 M. This flooding has necessitated dismantling, clearing, re-conditioning replacement and erection of various assemblies, auxiliaries and turbine generating equipment. For protection of the Kopili Power House against flood water, some additional protective measures are also necessary. To cover the cost of rectification/remedial measures in the project tunnel system (both Khandong and Umrong tunnel) on the basis of recommendation of the Experts and also to cover the cost of restoration of Kopili Power House, NEEPCO has framed an estimate amounting to about Rs. 20 Crores. The estimate is under examination in CEA and CWC.

Upto March 1987 an amount of Rs. 200.49 crores has been made available to NEEPCO which includes LIC loan of Rs. 53.65 crores.

3.02 An outlay of Rs. 1150 lakhs have been approved in the Annual Plan 1987-88 which includes an amount of Rs. 400 lakhs to be raised as LIC loan. In view of the additional expenditure involved in rectification/remedial works in the project an expenditure of Rs. 2500 lakhs is anticipated for 1987-88. An outlay of Rs. 600 lakhs is proposed for 1988-89.

A brief resume of the progress on some of the important items of works upto August, 1987 is given below :

i) Civil Works :

3.03 Works pertaining to Khandong and Umrong Dams have been completed. Some works pertaining to dykes will be completed by April, 1988. All other works pertaining power houses has also been completed. Remedial works in respect of Umrong tunnel and Khandong tunnel are in progress. In Umrong tunnel 155 steel liners have already been erected and remaining 85 will be erected by October, 1987. In Khandong tunnel 130 steel liners are to be erected by November, 1987. All these works are expected to be completed in all respects by December, 1987.

ii) Electrical Works :

3.04 The first Unit of Khandong Power House started generating power from 8th March, 1984 and the second Unit from 4th May, 1984. The total energy generated by the two Units of Khandong Power House upto August, 1987 is about 427 MU. However, when the Khandong Units started generation, certain works particularly relating to Khandong dam and dykes remained to be completed upto the approved project parameters. Except some residual works most of the left over works have since been completed and the position has been indicated in the under 'Civil Works' alongwith the progress in rectification/remedial measures in the tunnel system.

3.05 The restoration works in the Kopili Power House are in progress and as per the indication given by NEEPCO, the first 50 MW Unit of Kopili Power House could be expected to be commissioned in January, 1988 and Second Unit in March, 1988. The Khandong Power Station which was shut down during February, 1987 primarily for strengthening of the tunnel is expected to be re-commissioned in November, 1987.

2) Garo Hills Thermal Project :

3.06 This project envisages thermal power station of 4x30 MW capacity. The first phase of 2x30 MW has been approved by the Govt. of India in March, 1981 at an estimated cost of Rs. 4320 lakhs. A sum of Rs. 83 lakhs has been released so far for widening of curves and strengthening of bridges on road to the project site by BRTF. The original cost of the project has gone up from Rs. 4320 lakhs to Rs. 11500 lakhs

as per the latest revision of the project cost carried out by CEA. Planning Commission have set up an Working Group under the Chairmanship of Secretary, NEC to study various issues connected with this project. Terms of reference of the Group are to examine interalia the aspect of coal availability on long-term basis, cost of generation, evacuation of power, executing agency of the project and any other related matters. No expenditure has been incurred on the project during 1985-87. In the above back drop, pending final investment decision by Government of India an amount of Rs. 100 lakhs is proposed in Annual Plan 1988-89 as an outlay.

3) Doyang Hydel Project :

3.07 The Doyang Hydel Project (3x35 MW) was sanctioned by the Government of India during March, 1985 at an estimated cost of Rs. 128.61 crores with the stipulation that the project will be executed and managed by NEEPCO. An amount of Rs. 1225 lakhs has so far released to NEEPCO upto March, 1987 towards expenditure of the project. The approved outlay for the project in 1987-88 Plan is Rs. 1600 lakhs, of which Rs. 1100 lakhs is to be raised as LIC loan. Against the approved outlay of Rs. 1600 lakhs during 1987-88, an expenditure of Rs. 500 lakhs is anticipated towards implementation of the project. An amount of Rs. 2000 lakhs is proposed for 1988-89 Plan.

3.08 Though sanction for the project was available in March, 1985, this project could not make much headway so far because of various ground level problems. Corporation is gradually building up infrastructure for the project and have obtained about 600 acres of land for carrying out main activities. The Government of Nagaland is taking steps to make available required land to the Corporation for the project. Certain important technical issues which came to surface necessitated a fresh appraisal of the project parameters. At one stage the NEEPCO informed that the project parameters had been revised and finalised keeping the installation same and accordingly the Corporation framed and submitted an estimate of Rs. 16900 lakhs to the

Govt. of India. It was informed. It was informed subsequently by the Department of Power, Government of India that these estimated costs are likely to go up further in view of certain technical requirements and the cost at 1987 price level was likely to be over Rs. 200 crores and a view on the further course of action on the project will be taken after conclusion of studies on certain alternative project proposals. The alternative now suggested by NEEPCO after detailed study in consultation with CEA envisages an installation of 3x25 MW. NEEPCO has informed that the estimated cost of the project will be approximately Rs. 160 crores for which an estimate is being submitted by them to CEA and infrastructural works are being continued.

4) Ranganadi Hydel Project :

3.09 The project will be on Ranganadi river and will be located in the Lower Subansiri District of Arunachal Pradesh. The Government of India communicated its approval in April, 1987 to the execution of the project by NEEPCO at an estimated cost of Rs. 31278 lakhs. Pending issue of Administrative Approval, Government of India had allowed towards end of 1986-87 a release of an amount of Rs. 550 lakhs to the Corporation.

3.10 The Corporation is taking steps to create necessary infrastructure for the project and have entrusted certain project road works to BRDB. There is an approved provision of Rs. 2000 lakhs in Annual Plan 1987-88 for the project against which an expenditure of Rs. 850 lakhs is expected to be incurred during the year including Rs. 550 lakhs as LIC loan. An amount of Rs. 2000 lakhs is proposed in Annual Plan 1988-89 for this project for taking up other infrastructural works.

5) Gas Based Thermal Station at Baramura (1x5 MW) in Tripura :

3.11 The Government of India sanctioned installation of Third 5 MW Unit at Baramura Thermal Power Station at an estimated cost of Rs. 526 lakhs during March, 1987 under NEC Programme. The Power Department, Government of Tripura who is executing the project has started taking preliminary action and building up of necessary infrastructure for the

project implementation. Action has been initiated towards procurement of turbine generating equipment for the project. An amount of Rs. 50 lakhs was released to the Government of Tripura during 1986-87. There is an approved outlay of Rs. 220 lakhs in Annual Plan, 1987-88 against this the anticipated expenditure is Rs. 100.00 lakhs. An amount of Rs. 256 lakhs is proposed in Annual Plan 1988-89.

6) Micro Hydel Projects in Mizoram :

3.12 In the 27th NEC Meeting held on 29th July, 1987, suggestion was made for NEC funding of two Micro Hydel projects in Mizoram viz. Tuisumpui (450 KW) and Tuipui (500 KW) in Mizoram at an estimated cost of Rs. 240.50 lakhs. These projects have already been approved by Planning Commission but Mizoram Government could not start work since there was no fund available under the State budget during 1987-88. These projects are being projected in NEC Plan 1988-89 as they rightly deserve NEC support so that their implementation is not delayed. Planning Commission may also consider provision of funds for these projects in NEC Plan till their completion or alternatively provide adequate funds in the State Plan. An amount of Rs. 25 lakhs is proposed for these projects in 1988-89 NEC Plan.

7) Other New Generation Schemes :

3.13 Government of India has already been approached for allowing implementation of Serlui-B Hydel Project in Mizoram (estimated cost Rs. 29.26 crores) and Khowai Hydel Project in Tripura (estimated cost Rs. 25.85 crores) from out of NEC Plan. In the 27th NEC Meeting held at Imphal on 29th July, 1987 suggestions were made for implementation of a 75 MW Gas Turbine Station at Rokhia in Tripura (estimated cost Rs. 67.47 crores), 15 MW Lakimro Hydel Project in Nagaland (estimated cost Rs. 19.41 crores) to be financed out of NEC Plan. Pending appraisal of the project reports in CEA and CWC and necessary decision about execution of the projects token provision of Rs. 20 lakhs for all the above 4 projects are proposed in NEC Annual Plan 1988-89.

8) TRANSMISSION

8) Kopili Transmission Line Project :

3.14 This project was included in the Sixth Plan for evacuation of power from Kopili Hydel Project. This Transmission Project consists of construction of a 220 KV Double

Circuit line from Kopili to Samaguri, one 132 KV Single Circuit line from Khandong to Khliehriat and a 132 KV Single Circuit line connecting Khandong and Kopili Power Houses and extension of Sub-stations at Samaguri and Khliehriat. The 220 KV Double Circuit line to Samaguri have been completed - one Circuit has been charged at 132 KV and some residual works at terminal end of the other 132 KV Circuit remains to be completed. The 132 KV line from Khandong to Khliehriat has been completed and charged at rated voltage. The total expenditure incurred for the project upto 1986-87 is Rs. 710.99 lakhs. There is an approved provision of Rs. 1 lakh in Annual Plan 1987-88 and this will be utilised for clearance of liabilities, if any. No outlay is proposed for the project during 1988-89.

9) (a) Additional Transmission Lines Project :

3.15 The Additional Transmission Lines Project has been taken up for supply of power from Kopili Hydel Project to a part of Assam, Manipur, Tripura and Mizoram. It envisages laying of a 132 KV Single Circuit line from (a) Khandong to Haflong, (b) Haflong to Jiribum, (c) Jiribum to Aizawl and (d) Aizawl to Kumarghat including loop in and loop out of existing 132 KV line from Agartala to Kumarghat. The scheme also envisages construction of Sub-stations/Switching Stations at Haflong, Jiribum, Aizawl and Kumarghat. Except a 36 Km stretch in the Jiribum - Aizawl section of the line, all other works covered by the project report have been practically completed. Khandong - Haflong Section of the line and Kumarghat - Aizawl Section of this transmission line have been charged at 33 KV for supply of power to Haflong and Mizoram respectively. Jiribum - Kumarghat line was earlier scheduled for completion in April/May, 1987 but owing to some local problems the target could not be attained and the line is now expected to be ready by December, 1987 according to NEEPCO.

3.16 The latest approved cost of the project is Rs. 2812 lakhs (Second Revision). According to NEEPCO, the project report will need further revision for which an estimate is under preparation.

(b) Construction of 132 KV Luangmual - Zemabawk Line :

3.17 This line was not originally included in Annual Plan 1987-88. Earlier the idea was that the expenditure towards construction of this line which was not provided for in the Additional Transmission Lines Project report may be met from the provision of NEEPCO's approved Transmission Line Project cost estimate and this item would be included in the Additional Transmission Line Project report at the time of revision of the same. However, a separate estimate was submitted by NEEPCO which was approved in the Council Secretariat after obtaining necessary comments/clearance/approval of CEA and Planning Commission. An amount of Rs. 73.95 lakhs representing the entire estimated cost has been released to the Corporation in 1987-88 keeping in view that expenditure could be met from the approved provision of Additional Transmission Lines Project for 1987-88.

3.18 An amount of Rs. 2800 lakhs has been released to NEEPCO upto 1986-87. The approved outlay of Rs. 200 lakhs in Annual Plan 1987-88 will be utilised. A provision of Rs. 175 lakhs is proposed for Annual Plan 1988-89 based on preliminary assessment.

10) Doyang Transmission Line Project :

3.19 The project report for Doyang Transmission Line Project has been approved by the Government of India in March, 1985 at an estimated cost of Rs. 4087 lakhs. This Transmission System which is being implemented by NEEPCO envisages evacuation of power from Doyang Hydel Project. Besides this, the transmission system will also enable flow of power from Kopili and Loktak Hydel Projects. An amount of Rs. 700 lakhs has been released to NEEPCO upto 1986-87. There is an approved provision of Rs. 762 lakhs in Annual Plan 1987-88, against which an expenditure of Rs. 110 lakhs is anticipated during the year. An amount of Rs. 1000 lakhs is proposed in Annual Plan 1988-89.

3.20 Survey works for the transmission lines covered by the project report have been completed. The land for the Sub-stations envisaged in the project report have been acquired and levelled. Tenders for various works/supply have been received and these are in the process of finalisation with a view to issuing work/supply orders.

11) Ranganadi Transmission Line Project :

3.21 The project report for Ranganadi Transmission Line Project was approved by the Government of India at an estimated cost of Rs. 4734 lakhs during April, 1987. There is an approved provision of Rs. 25 lakhs for the project in Annual Plan, 1987-88. This amount is likely to be fully utilised during the year. The Survey works for the 400 (Double Circuit) KV line between Ranganadi and Balipara is in progress. An amount of Rs. 125 lakhs has been proposed for 1988-89 for commencement of construction works.

12) 132 KV Gohpur - Itanagar Line :

3.22 The project envisages construction of a 132 KV line from Gohpur Substation (Assam) to Itanagar (Arunachal Pradesh) and Establishment of a 132 KV Substation at Itanagar. On review of various related issues the work has been entrusted to NEEPCO during February, 1987. The sanctioned estimated cost of the project is Rs. 239.22 lakhs. An amount of Rs. 100 lakhs has been released to NEEPCO upto 1986-87. An expenditure of Rs. 46 lakhs is anticipated during 1987-88 against the approved outlay of Rs. 138 lakhs. An amount of Rs. 100 lakhs is proposed in 1988-89 Annual Plan. The NEEPCO has undertaken the survey works of the line and also taking steps for acquisition of land for Substation at Itanagar. Action towards procurement of materials and erection work of the line been initiated. Field works are expected to commence during this working season. The project is expected to be completed by 1988-89.

13) Transmission System in Meghalaya :

3.23 Meghalaya has come forward with a proposal for funding certain transmission lines and renovation/augmentation of some Substations and extension of Power Station Switchyard. Planning Commission has been requested to agree to allow funding of some transmission works from out of NEC Plan. The main Transmission Lines are Second 132 KV Single Circuit Sumer - Shillong line, Second 132 KV Single Circuit Shillong - Khliehriat line, 132 KV inter-connecting line between Umium Stage-III and Stage-IV Power Stations and renovation /

augmentation of Shillong - Khliehriat Substation, extension of Sumer Switchyard etc. The total estimated cost of the works is about Rs. 430 lakhs. An outlay of Rs. 50 lakhs is proposed for 1988-89 Annual Plan. In the Seventh Plan of NEC there is a token provision of Rs. 1.00 lakh for Transmission schemes in Meghalaya.

14) Transmission Lines in Mizoram & Manipur :

3.24 The Mizoram Government has approached NEC for financing certain transmission lines and Substations within Mizoram to be funded out of NEC Plan. Accordingly Planning Commission has been requested to allow funding of two 132 KV transmission lines and a Substation in Mizoram from NEC Plan. Transmission lines/Substations have already found place in Mizoram Govt's project report which has been approved by CEA and Planning Commission and State Government has requested NEC finance for some important lines/substations due to paucity of fund in the State resources. The lines proposed to be financed are 132 KV Zamabawk - Khawazal line and 132 KV Zamabawk - W. Phaileng line and a Substation at W. Phaileng. The total estimated cost for the works is Rs. 879.40 lakhs.

3.25 Manipur Government has also requested NEC to fund construction of certain transmission lines within the State for local distribution of power. Considering the importance of these lines an outlay of Rs. 100 lakhs (Rs. 50 lakhs for Mizoram and Rs. 50 lakhs for Manipur) is proposed for 1988-89.

15) Establishment of Regional Load Despatch Centre (RIDC) and State Load Despatch Centres (SIDCs) in the N.E. Region :

3.26 Based on the deliberations in the North Eastern Regional Electricity Board (NEREB)'s meeting held at Guwahati on September, 1986, the funding of Regional Load Despatch Centre at Shillong (Estimated cost : 29.02 crores) and three Load Despatch Centres at Meghalaya, Assam and Tripura (Estimated cost : Rs. 26.27 crores) was proposed in NEC draft Annual Plan proposal 1986-87. The Working Group, however, did not recommend inclusion of the scheme

for Establishment of RLDC and SLDCs in the North Eastern Region in NEC Plan. Thereafter the question of establishment of RLDC was taken up with the Department of Power, Govt. of India and Establishment of SLDCs with the concerned State Governments. The Department of Power, Govt. of India advised that while RLDC could be funded in the Central Sector SLDCs will have to be funded in the State Plan. In the case the State Governments do not come forward to fund the SLDCs it was suggested by the Department of Power that establishment of SLDC may be funded by the N.E.C. The State Governments have reiterated the view taken in the NEREB meeting of September, 1986 about funding of SLDCs in NEC Plan. Planning Commission have therefore, been requested to allow funding of SLDCs in the Region to be met out of NEC Plan fund. RLDC however will need funding under Central Sector as already indicated by the Department of Power, Govt. of India. An amount of Rs. 30 lakhs is proposed in Annual Plan, 1988-89 to make a beginning towards establishment of three SLDCs in the North Eastern Region in Assam, Meghalaya and Tripura

C. SURVEY AND INVESTIGATION

16) Investigation of Loktak Downstream and Tuivai Hydel Projects in Manipur :

3.27 The Government of Manipur is getting the Loktak Downstream and Tuivai Hydel Projects investigated through Power Department, Government of Manipur since Fifth Plan period. The revised sanctioned cost estimate for investigation of Loktak Downstream project is Rs. 146.83 lakhs (gross) and that of Tuivai is Rs. 138.40 lakhs (gross). The expenditure incurred for the two schemes upto March, 1987 is Rs. 262.67 lakhs. There is an approved provision of Rs. 1 lakh in Annual Plan 1987-88, against which an expenditure of Rs. 15.40 lakhs is anticipated. The field investigation works of Tuivai Hydel Project have been completed and that of Loktak Downstream is nearing completion though however hydrological observation for these two schemes are being continued. The project reports based on investigations are expected sometime by March, 1988. An outlay of Rs. 1.00 lakh is proposed for these schemes in 1988-89.

17) Investigation of Tuivai Hydel Project in Mizoram :

3.28 The approved estimated cost of this investigation scheme is Rs. 356.26 lakhs. The Central Water Commission is investigating the scheme. The expenditure incurred towards investigation of the scheme upto March, 1987 is Rs. 309.73 lakhs. The approved outlay for the scheme in 1987-88 is Rs. 25 lakhs and this provision is likely to be fully utilised. An outlay of Rs. 5.00 lakhs is proposed in Annual Plan 1988-89. The field investigation works are practically complete except some residual works and the project report for the scheme is expected within the current financial year.

18) Investigation of Barak Stage-I and Irang Hydel Project in Manipur :

3.29 The approved estimated cost of investigation scheme of Barak Stage-I is Rs. 101.59 lakhs and that of Irang Hydel Project is Rs. 132.27 lakhs. The Power Department, Government of Manipur is investigating agency for these two schemes. The expenditure incurred by the implementing agency for these schemes upto March, 1987 is Rs. 161.00 lakhs. There is an approved provision of Rs. 60 lakhs in Annual Plan 1987-88 and the amount is likely to be fully utilised during the year. An amount of Rs. 27.00 lakhs is proposed for Annual Plan 1988-89. As regards progress of investigation of Irang Hydel Project, Topographical Survey by Survey of India of dam site and reservoir area has been completed. However, some topographical survey is still to be carried out. Hydrological observation for last three seasons completed and will be continued. Drilling works have been started and is likely to be completed by December, 1988. Meteorological observation is being continued. A number of quarters have been constructed and substantial work has been done in jungle clearance and construction of approach road and these activities are continuing. As regards investigation of Barak Hydel Project topographical survey has been completed. For drilling activities, Geologists have already visited the site and selected the final dam site and power house site. Hydrological data is being collected since 1985 and activities are being continued. Construction of number of temporary hutments have been completed and work is continuing.

Considerable work has been done in clearing of jungle and construction of approach road and activities are being continued. Preliminary investigation for construction material survey commenced from December, 1985. The field works are expected to be completed by 1988-89 in respect of both the investigation schemes.

19) Investigation of Ranganadi, Damwe and Papu Hydel Projects in Arunachal Pradesh :

3.30 The North Eastern Electric Power Corporation Limited (NEEPCO) is the investigating agency for these hydel projects. The latest approved estimated cost for investigation projects of Ranganadi, Damwe and Papu in Arunachal Pradesh are Rs. 283.53 lakhs, Rs. 211.30 lakhs and Rs. 57.94 lakhs respectively. The project report for Stage-II of Ranganadi Hydel Project, the field works of which have been completed, is expected to be ready by March, 1988. Investigation works for Damwe Hydel Project have been completed except a few drilling at dam site. Hydrological observations are being continued. As per the indications available, the Stage-II of Ranganadi Hydel Project would be in a position to augment the firm power of Stage-I from 65 MW to 100 MW with additional installed capacity of 100 MW at Stage-II project. Installed capacity of Damwe Hydel Project is likely to be of the order of 1000 MW. The investigation works of Papu Hydel Project continues to remain suspended due to local problems. The expenditure incurred towards these investigation schemes upto March, 1987 is Rs. 495.68 lakhs. Approved outlay of Rs. 25 lakhs for 1987-88 is likely to be utilised fully. An outlay of Rs. 1.00 lakh is proposed for Annual Plan 1988-89.

20) Preliminary investigation of Kynshi Hydel Project in Meghalaya :

3.31 The approved estimated cost of preliminary investigation of Kynshi Hydel Project is Rs. 96.18 lakhs. The expenditure for the investigation scheme upto March, 1987 is Rs. 28.12 lakhs. Against an approved outlay of Rs. 35.00 lakhs for 1987-88 an expenditure of Rs. 4.83 lakhs is anticipated. An amount of Rs. 20.00 lakhs is proposed in the Annual Plan, 1988-89. The field investigation works continues to remain suspended for quite some time and Meghalaya authorities are hopeful that investigation works could be resumed.

21) Investigation of Serlui-B and Tuirial Hydel Projects in Mizoram :

3.32 The approved estimated cost of investigation scheme of Serlui-B and Tuirial Hydel Projects in Mizoram is Rs. 78.20 lakhs (gross). The Government of Mizoram entrusted the investigation of the same to Central Water Commission. The expenditure of the project upto March, 1987 is Rs. 72.15 lakhs. There is an approved provision of Rs. 1.00 lakh in 1987-88 Annual Plan and this provision is likely to be fully utilised. No outlay is proposed for Annual Plan 1988-89. The project report of Serlui-B is ready which envisages an installation of 105 MW at Rs. 29.20 crores. The project report of Tuirial is expected within this year.

22) Investigation of Dikrong Hydel Project in Arunachal Pradesh :

3.33 The approved estimated cost for investigation of Dikrong Hydel Project is Rs. 54.54 lakhs (gross) and the North Eastern Electric Power Corporation Limited (NEEPCO) is the implementing agency. The expenditure incurred for the project upto 1986-87 is Rs. 45.00 lakhs. Against the approved outlay of Rs. 5.00 lakhs in 1987-88 Plan an expenditure of Rs. 10.00 lakhs is anticipated. An outlay of Rs. 15.00 lakhs is proposed in Annual Plan, 1988-89. The field investigation works are in progress and broadly 50% of the field works have been completed. The project report is expected to be ready by March, 1989. A preliminary assessment suggests an expected installed capacity of about 100 MW for the Project.

23) Residual Investigation of Kameing Hydel Project :

3.34 The Central Water Commission has completed the investigation works of this project have been submitted the project report which envisages generation of 600 MW at an estimated cost of Rs. 586.00 crores. The Central Water Commission has submitted a final settlement of account which indicates a cost of Rs. 144.93 lakhs (gross) and Rs. 131.00 lakhs (net) for the investigation scheme. There is a provision of Rs. 1.00 lakh during 1987-88 for meeting residual expenditure on the scheme and the same will be utilised. Further provision of Rs. 1.00 lakh is proposed for 1988-89 for clearance of liabilities.

24) Residual Investigation of Tipaimukh High Dam Project :

3.35 The project is located at the tri-junction of Assam, Manipur and Mizoram. The Central Water Commission has completed the investigation works and have submitted the project report for setting up of a hydel generation capacity of 1500 MW at an estimated cost of Rs. 1078 crores. The original estimate of the investigation scheme was revised from Rs. 233.00 lakhs to Rs. 341.43 lakhs (gross). The Central Water Commission has submitted the final settlement of account which shows a gross expenditure of Rs. 358.65 lakhs and net expenditure of Rs. 271.07 lakhs for the investigation scheme. There is an approved outlay of Rs. 1.00 lakh in 1987-88 to meet the residual liabilities. A provision of Rs. 1.00 lakh is proposed for 1988-89 for clearance of liability.

25) Other Micro Hydel Investigations :a) Continuation of Hydrological Observation for Kameng Hydel Project :

3.36 The approved estimated cost of the scheme for construction and carrying out hydrological observation upto end of Seventh Plan is Rs. 26.50 lakhs. An expenditure of Rs. 10.00 lakhs have been incurred upto March, 1987. Against an approved outlay of Rs. 10.00 lakhs for 1987-88 an expenditure of Rs. 10.00 lakhs is anticipated. An amount of Rs. 1.00 lakh is proposed in Annual Plan, 1988-89.

b) Investigation of 8 Micro-hydel sites in Nagaland :

3.37 The scheme was sanctioned at an estimated cost of Rs. 17.05 lakhs during March, 1987. The Power Department, Govt. of Nagaland is the investigating agency. An amount of Rs. 5.00 lakhs have been released for the scheme upto March, 1987. Against the provision of Rs. 8.00 lakhs made for the scheme in 1987-88 Plan an anticipated expenditure is Rs. 3.00 lakhs. An outlay of Rs. 9.05 lakhs is proposed in 1988-89 Annual Plan. The Nagaland Government has requested for change of five investigation sites in the approved scheme. Request has been made to Nagaland Govt. to revise the scheme accordingly for arranging necessary approval.

c) Investigation of Papumpoma Hydel Project in Arunachal Pradesh :

3.38 The scheme was approved during March, 1987 at an estimated cost of Rs. 155.51 lakhs and NEEPCO was to implement the project after obtaining necessary environmental clearance etc. On a further review it was felt that more stress should be laid on Corporation's other schemes and works for this investigation scheme may not be taken up for the present. The provision of Rs. 35 lakhs made in Annual Plan, 1987-88, therefore will not be utilised. A token outlay of Rs. 1.00 lakh is proposed for 1988-89 in case it is decided to go for the investigation work during 1988-89.

d) Investigation of a few Micro-hydel sites in Arunachal Pradesh :

3.39 The scheme submitted by Arunachal Pradesh for investigation of five Micro-hydel was examined and certain informations are awaiting for arranging approval of the scheme. Against a provision of Rs. 7.00 lakhs made during 1987-88 Plan, no expenditure is anticipated considering that the schemes are yet to be finalised. An outlay of Rs. 15.00 lakhs is proposed in Annual Plan 1988-89.

e) Investigation of few Micro-hydel sites in Manipur :

3.40 Pending completion of two major hydel investigation schemes being carried out by Manipur Power Department out of four schemes under NEC Programme, it was felt that investigation schemes of a few micro-hydel sites proposed by Government of Manipur may be taken up at a later date. The scheme is yet to be sanctioned. Provision of Rs. 15.00 lakhs made for the scheme in Annual Plan 1987-88 will therefore not be utilised. An outlay of Rs. 15.00 lakhs is proposed in Annual Plan, 1988-89.

f) Investigation of a few mini/micro-hydel sites in Meghalaya :

3.41 The Government of Meghalaya has suggested taking up investigation of few micro-hydel sites in Meghalaya and informed that scheme report in this behalf would be submitted shortly. An amount of Rs. 15.00 lakhs is proposed for the scheme in Annual Plan, 1988-89.

g) Investigation of a few mini/micro hydel sites in Mizoram :

3.42 The Govt. of Mizoram have proposed investigation of 4 Micro-hydel cum-irrigation projects at an estimated cost of Rs. 72.44 lakhs through CWC. The estimate has been technically cleared by the Ministry of Water Resources, Govt. of India and the scheme is now being processed for sanction. The implementation of the project will be started by the CWC from 1988-89. An outlay of Rs. 25.00 lakhs is proposed for 1988-89.

II.

RENEWABLE RESOURCES OF ENERGY AND
INTEGRATED RURAL ENERGY PROGRAMME

3.43 In recent years Government has given special emphasis on implementation of programmes related to development of New and Renewable Resources of Energy and Integrated Rural Energy Programmes. In the 7th Plan Document it has been stated that rural areas suffer from poor availability of commercial energy sources as also insufficiency in the use of non-commercial energy sources and in order to correct this micro level decentralised energy planning is necessary. The energy for the villages has been included in the New 20-Point Programme announced in August '86 and it was stated that alternate sources of energy particularly Biogas and integrated area specific programme are to be promoted to meet the energy needs of the rural population. A programme to promote use of Renewable Resources of Energy was taken up under the NEC Plan 1982-83. The programme has visible impact atleast in some of the NE States like Tripura and Mizoram and has helped in creating a general awareness about usefulness of new and renewable resources like Biogas, Solar and Wind Energy. The Planning Commission has recommended that NEC should play a much bigger role in the area of New and Renewable Energy developed during the 7th Plan period. The Integrated Rural Energy Planning (IREP) Programme is a new programme developed by the Planning Commission through which area based integrated rural energy plans and projects are to be prepared and implemented for providing the optimum mix of all types of energy sources such as conventional as well as non-conventional for meeting the different energy needs of the rural areas. The Planning Commission has recommended that NEC should play a major role in implementation of IREP Programme in the NE region by (i) supplementing of efforts of various implementing agencies for energy survey in the block, (ii) putting up few IREP projects for demonstration purposes and (iii) arranging workshops and training courses for staff appointed at the rural Energy Planning cells at the State and Block Level.

3.44 Upto August '87, 72 schemes for use of Renewable Energy Resources have been sanctioned so far. 227 Biogas Plants, 52 Solar Pumps, 10 Solar Hot Water Systems, 21 Wind Devices, 3 Micro Hydel Projects, 2 Hydrams and 7 Gasifier Systems have been sanctioned under NEC Renewable Energy Programme. Also NEC has supported schemes for setting up 8 Rural Energy Centres in constituent States. A Research Scheme on production of biogas from Water Hyacinth has been sanctioned for RRL, Jorhat. Tripura has procured the first Battery Operated Vehicle in NE Region under a demonstrational project with NEC support.

3.45 The first Integrated Rural Energy Planning Programme implementation project at Tuipang CD Block in Mizoram has been sanctioned during 1987-88 as NEC scheme.

3.46 Approved 6th Plan Outlay for the above mentioned programme was Rs. 77.00 lakhs and expenditure during the 6th Plan Period had been Rs. 51.17 lakhs. Approved outlay for the 7th Plan is Rs. 200.00 lakhs. During the year 1986-87 the actual expenditure was Rs. 48.90 lakhs. Approved outlay for 1987-88 is Rs. 65.00 lakhs against which an anticipated expenditure is of the order of Rs. 40.00 lakhs. For the year 1988-89 Rs. 71.00 lakhs is proposed for the following programmes :

1. New & Renewable Resources of Energy

| | |
|--|----------------|
| (i) Establishment, Consultancy and Staff Support | Rs 5.00 lakhs |
| (ii) Training of Technical Personnel | Rs 1.00 lakh |
| (iii) Research & Development | Rs 5.00 lakhs |
| (iv) Micro Hydel Scheme | Rs 13.00 lakhs |
| (v) Pilot/Demonstrational Schemes | Rs 20.00 lakhs |
| (vi) Development of manufacturing activities for Renewable Resources of Energy Equipment/Devices | Rs 1.00 lakh |
| | Rs 45.00 lakhs |

2. Minimum Domestic Cooking Energy Need Programme

3.47 Six Programmes started during the year 1986-87 are to be continued during 1988-89. An outlay of Rs 6.00 lakhs is proposed for this programme during 1988-89.

3. Integrated Rural Energy
Planning Programme

3.48 This important programme has been started during 1987-88 and is to be continued during 1988-89. An outlay of Rs. 20.00 lakhs has been proposed for this programme during 1988-89.

III.

W A T E R D E V E L O P M E N TINTRODUCTION

3.49 One of the primary utilisation of development of water resources is Irrigation which is the most important single input for increasing a stabilised agricultural production. The North Eastern Region being fundamentally agrarian in character, the provision of Irrigation coverage to the cropped area is a prime necessity. The total cropped area in the North Eastern Region is about 35 lakhs hecets. Out of which the irrigation coverage so far provided is only about 6 lakhs hecets. The actual utilisation is even less than this. If the target of providing full irrigation coverage to the entire cropped area in the country by the turn of the century is to be achieved, we have to go a long way as far as development is concerned in the NE Region. During the 6th Plan the NEC started the survey and investigation of a few irrigation projects that will cover/benefit : . more than one constituent units for preparation of project reports. These were initially funded under the NEC Plan head, Chairman Survey and based upon the preliminary reports available. few of these projects are now taken up for detailed investigation so that the detailed project reports can be submitted to the Planning Commission for clearance for implementation.

Brief write-ups of different projects are given below :

3.50 1. Micro Hydel cum Irrigation Scheme in Mizoram : The CWC at the request of the Mizoram State Govt. undertook survey and investigation of a few Micro Hydel cum Irrigation Projects to study the possibility of meeting the energy requirements of rural areas in Mizoram especially for irrigation purposes. 28 schemes were totally identified for investigations and the NEC agreed to fund the few schemes under this programme. The 7th outlay was Rs. 21.45 lakhs; during

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1985-87 Rs. 20.00 lakhs have been spent and the scheme has since been completed and the CWC has submitted 4 numbers project reports to the State Govt. No outlay is therefore proposed for 1988-89.

3.51 2. Irrigation Projects : 3 Medium Irrigation Projects (i) Diphu Downstream Irrigation Projects in Nagaland, (ii) Jiri Medium Irrigation Project in Manipur and (iii) Tirap Medium Irrigation Project in Assam. These projects were investigated and preliminary project reports prepared, the investigations were funded under the head Chairman's Survey. In the 7th Plan there is an approved outlay of Rs. 218.39 lakhs for construction of these 3 projects.

3.52 (i) The interim report on the Jiri indicated the suitability of the project and accordingly the estimate for detailed investigations amounting to Rs. 35.00 lakhs was sanctioned during February, 1987. An amount of Rs. 5.00 lakhs was released during 1986-87 and for the current year the anticipated expenditure is Rs. 18.00 lakhs for clearing the pending liability since the investigation works have been completed. The Govt of Manipur has also prepared the project report with estimates and 6 copies of the same have been sent to CWC for their clearance for taking up the project. For the year 1988-89 an outlay of Rs. 5.00 lakhs is proposed for continuation of the division for collection of hydrolic data and for furnishing materials to CWC/CEA as and when required for clearance of the project.

3.53 Assuming that the project will be cleared for implementation, a token provision of Rs. 100.00 lakhs for the next year is proposed.

3.54 (ii) As far as Diphu Irrigation Scheme is concerned the preliminary investigation and inspection of the site show that this project will not be possible due to the unsuitability of the site for construction of a barrage and also some agricultural land upstream will be getting

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submerged. Accordingly, the State Govt has been requested to suggest suitable alternative site. Their decision is yet awaited. Hence for the current year no expenditure is anticipated. Provision for 1988-89 is also not being made.

3.55 (iii) The preliminary investigation for Tirap Project have shown the possibility of a medium sized Irrigation Project to benefit both Arunachal Pradesh and Assam. The State Govt were requested to submit the detailed estimates for investigation which is yet to be received. The Current year's approved outlay of Rs. 10.00 lakhs will not be utilised as the implementation of the scheme has been deferred for 1988-89 and an outlay of Rs. 10.00 lakhs is proposed for the same.

3.56 3. Longai Investigation, Tripura : This is a flood control project for the district of Cachar and the dam is proposed to be built near the Tripura-Cachar border which is expected to be a multi-purpose scheme. The 7th Plan has an approved outlay of Rs. 40.00 lakhs for this investigation. The scheme has been sanctioned at an estimated cost of Rs. 40.71 lakhs during 1987-88 and is being implemented by CWC. The current year's provision of Rs. 10.00 lakhs will be utilised fully. For the year 1987-88 an outlay of Rs 25.00 lakhs is proposed.

3.57 4. Airborne Survey on Barak River System by NRSA : With a view to preparing a comprehensive Master Plan for the river system of the Barak River and its tributaries, a proposal for Airborne survey of the river basi with the help of the NRSA (National Remote Sensing Agency) was mooted. A provision of Rs. 5.33 lakhs was made in the 7th Plan of the NEC. It has now been decided that since the preparation of a Master Plan for the Brahmaputra and Barak basins is one of the main functions of the Brahmaputra Board it is not necessary for the NEC to arrange to procure these airborne survey maps etc. Since the Brahmaputra Board itself can directly arrange to get the maps from the NRSA as per their

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requirements. The Brahmaputra Board and the NRSA have been intimated accordingly and hence the scheme has been dropped from the NEC Plan.

5. North Eastern Regional Institute for Water and Land Management

3.58 (NERIWALM) : The scheme envisages establishment of a research institute for water management, command area development, land usage etc on the pattern of other WALMIs established in the other parts of the country. In addition to this, studies pertaining to flood control and other aspects of water management also are proposed to be carried out in the Institute. The approved outlay for the scheme under the 7th Plan is Rs. 131.28 lakhs. The site for the proposed Institute has been selected on the north bank of the Bhomuraguri road bridge near Tezpur. The project report for the scheme is being finalised for sanction. However, no expenditure is anticipated during the year 1987-88. For the year 1988-89 an outlay of Rs. 75.00 lakhs is proposed for the payment to NF Railway for acquiring built in infrastructure for the Institute.

3.59 6. Tsurang Irrigation Project in Nagaland : Tsurang : The Tsurang Irrigation Project in Nagaland had been proposed by the State Govt for investigation. A approved outlay of Rs. 5.00 lakhs was also provided in the 7th Plan. After the inspection of the site when the project seemed to be feasible, the State Govt had been advised to prepare the detailed estimate for detailed investigations for the preparation of a project report. The current year outlay of Rs. 3.00 lakhs is expected to be utilised. An outlay of Rs. 2.00 lakhs is proposed for 1988-89.

3.60 7. Sedimentation Survey of Umiam Reservoir in Meghalaya : A number of hydel power projects are in operation in the NE region and number of other hydel projects are coming up. One of the problems associated with the reservoir in hydel stations is loss of effective storage capacity due

to silting so that appropriate remedial measures against excessive silting could be taken to avoid loss of storage capacity and consequent reduction in life of the reservoir. A scheme for the study of sedimentation in Umium Reservoir using latest technology was drawn up at an estimated cost of Rs. 12.00 lakhs and was sanctioned in 1985-86.

3.61 The scheme could not make much headway on account of technical difficulties concerning finalisation of equipment specifications. The State Govt has now given the indication that they are soon to finalise the necessary specifications and place order for procurement of special equipments such as Rubber Boats, Gaging Pollars, Sounding Rods etc. Since the procurement is likely to be delayed no expenditure is anticipated on the scheme in 1987-88. A provision of Rs. 5.00 lakhs is made for 1988-89.

3.62 The schemewise detailed expenditure, outlay and proposed outlay is given in the annexed statement.

**

DRAFT ANNUAL PLAN 1988-89

STATEMENT

(Reference para No. 3.61)

WATER AND POWER DEVELOPMENT

(Rs. in lakhs)

| Name of the scheme | 7th Plan Approved Outlay | Actual Expenditure | | 1987-88 | | Proposed outlay 1988-89 |
|---|--------------------------------|--------------------|----------------|-------------------------|----------------------------|-------------------------------|
| | | 1985-86 | 1986-87 | Appro- ved outlay | Antici- pated expdr. | |
| | 2 | 3 | 4 | 5 | 6 | 7 |
| I. POWER DEVELOPMENT : | | <u>3819.89</u> | <u>4606.52</u> | <u>6329.00</u> | <u>4488.23</u> | <u>6733.05</u> |
| A. GENERATION | | <u>2525.00</u> | <u>3500.00</u> | <u>4971.00</u> | <u>3950.00</u> | <u>5001.00</u> |
| 1. Kopili Hydro Electric Project | 3100.00 | 2100.00 | 2500.00 | 1150.00 | 2500.00** | 600.00 |
| 2. Garo Hills Thermal Project | 3000.00 | - | - | 1.00 | - | 1.00 |
| 3. Doyang Hydro HE Project | 10000.00 | 425.00 | 400.00 | 1600.00 | 500.00 | 2000.00 |
| 4. Ranganadi HE Project | 5000.00 | - | 550.00 | 2000.00 | 850.00 | 2000.00 |
| 5. Gas Turbine in Tripura | - | - | 50.00 | 220.00 | 100.00 | 256.00 |
| *6. Micro Hydel Project in Mizoram | - | - | - | - | - | 25.00 |
| *7. Other new generation schemes | - | - | - | - | - | 20.00 |
| B. TRANSMISSION | | <u>1059.00</u> | <u>750.00</u> | <u>1126.00</u> | <u>382.00</u> | <u>1580.00</u> |
| 8. Kopili Transmission Project | 10.00 | 9.00 | - | 1.00 | 1.00 | - |
| 9. Additional Transmission Line Project including construction of 132KV Luangmual - Zemabawk Line | 882.00 | 600.00 | 400.00 | 200.00 | 200.00 | 175.00 |
| 10. Doyang Transmission Line Project | 4000.00 | 450.00 | 250.00 | 762.00 | 110.00 | 1000.00 |

3.25

contd...

| | | | | | | | |
|------|---|--------|---------------|---------------|---------------|---------------|---------------|
| 11. | Ranganadi Transmission Line Project | 500.00 | - | - | 25.00 | 25.00 | 125.00 |
| 12. | 132 KV Gohpur-Itanagar line Project | - | - | 100.00 | 138.00 | 46.00 | 100.00 |
| 13. | Transmission System in Meghalaya | 100.00 | - | - | - | - | 50.00 |
| *14. | Transmission Lines in Mizoram and Manipur | - | - | - | - | - | 100.00 |
| *15. | Estt. of RLDC & SLDC in NER | - | - | - | - | - | 30.00 |
| | <u>C. SURVEY AND INVESTIGATION</u> | | <u>235.00</u> | <u>287.62</u> | <u>229.00</u> | <u>156.23</u> | <u>152.05</u> |
| 16. | Loktak Downstream & Tuivai Hydol Investigation | 15.17 | 8.42 | 15.00 | 1.00 | 15.40 | 1.00 |
| 17. | Tuivai Hydol Investigation in Mizoram | 211.12 | 73.38 | 79.74 | 25.00 | 25.00 | 5.00 |
| 18. | Barak & Irang Hydol In Manipur | 198.86 | 46.00 | 80.00 | 60.00 | 60.00 | 27.00 |
| 19. | Ranganadi, Damwe and Papu in Arunachal Pradesh | 63.85 | 22.19 | 42.50 | 25.00 | 25.00 | 1.00 |
| 20. | Kynshi Basin in Meghalaya | 86.18 | 25.00 | 1.00 | 35.00 | 4.83 | 20.00 |
| 21. | Serlui-B & Tuirail in Mizoram | 58.28 | 37.00 | 25.12 | 1.00 | 1.00 | - |
| 22. | Dikrong Hydol in A. Pradesh | 39.54 | 20.00 | 15.00 | 5.00 | 10.00 | 15.00 |
| 23. | Residual Investigation of Kameng | 4.00 | - | - | 1.00 | 1.00 | 1.00 |
| 24. | Tipamukh High Dam Investigation | 6.00 | - | - | 1.00 | 1.00 | 1.00 |
| 25. | Other Investigation | - | - | 25.00 | 75.00 | 13.00 | 81.05 |
| a) | Continuation of Hydrological observation for Kameng Hydol Project | - | - | 10.00 | 10.00 | 10.00 | 1.00 |

3.26

Contd...

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---------------|--------------|--------------|--------------|--------------|---------------|--------|
| b) Investigation of 8 Micro Hydel sites in Nagaland | - | - | - | 5.00 | 8.00 | 3.00 | 9.05 |
| c) Investigation of Popumpoma Hydel Project in A. Pradesh | - | - | - | 10.00 | 35.00 | - | 1.00 |
| d) Investigation of few Micro Hydel sites in A. Pradesh | - | - | - | - | 7.00 | - | 15.00 |
| e) Investigation of few Micro Hydel sites in Manipur | - | - | - | - | 15.00 | - | 15.00 |
| f) Investigation of few Micro Hydel sites in Meghalaya | - | - | - | - | - | - | 15.00 |
| g) Investigation of few mini/ micro hydel sites in Mizoram | - | - | - | - | - | - | 25.00 |
| II. <u>RENEWABLE RESOURCES OF ENERGY</u> <u>Integrated Rural Energy</u> <u>Programme etc.</u> | <u>200.00</u> | <u>28.50</u> | <u>48.90</u> | <u>65.00</u> | <u>40.00</u> | <u>71.00</u> | |
| III. <u>WATER DEVELOPMENT</u> : | <u>421.45</u> | <u>10.00</u> | <u>20.00</u> | <u>63.00</u> | <u>28.00</u> | <u>222.00</u> | |
| 1. Micro Hydel Irrigation, Mizoram | 21.45 | 10.00 | 10.00 | 10.00 | - | - | |
| 2. <u>Irrigation Project</u> : | | | | | | | |
| i) Diphu Downstream Irrigation - Nagaland | | | | 5.00 | 10.00 | - | - |
| ii) Jiri Medium Irrigation Project-Manipur | 218.39 | - | | 5.00 | 4.00 | 18.00 | 105.00 |
| iii) Tirap Medium Irrigation Project. A. Pradesh | | | | | 3.00 | - | 10.00 |

3.27

Contd...

| | | | | | | |
|---|--------|----------------|----------------|-------------------|----------------|----------------|
| 3. Longai Irrigation-Tripura | 40.00 | - | - | 10.00 | 10.00 | 25.00 |
| 4. Air Borne Survey on Barak river system by NRSA | 5.33 | - | - | 5.00 | - | - |
| 5. NE Region Institute of Water and Land Management | 131.28 | - | - | 15.00 | - | 75.00 |
| 6. Wsurang Irrigation Investigation - Nagaland | 5.00 | - | - | 3.00 | - | 2.00 |
| 7. Sedimentation Survey of Umiam Reservoir, Meghalaya | 11.00 | 3.40 | 4.00 | 3.00 | - | 5.00 |
| GRAND TOTAL | | 3858.39 | 1606.52 | \$ 6454.00 | 4556.23 | 7026.05 |

3.28

** Includes Rs. 14.50 crores as LIC loan

& Includes Rs. 5.00 crores as LIC loan

∟ Includes Rs. 5.50 crores as LIC Loan

* New Proposals

\$ Rs. 15.00 lakhs have been surrendered for ***

a) Drought relief (Rs.10 00 lakhs)&

b) Jogighopa bridge (s.5 00 lakhs)

CHAPTER -4INDUSTRIES AND MINING

4.01 The geological resources of the NE Region cover a large variety of minerals, of which the most important are petroleum, limestone and coal which can be the base for the establishment of big industries, this calls for large investment and high level technology. In the NE Region only the Government organisations and Public Undertakings can at the present stage provide the necessary finance and expertise. In addition to these minerals, there are reports of small occurrences of ceramic material clay, glass-sands, abrasive material, fertiliser rocks and refractory minerals which require limited capital and the adoption of known technology. Such industries easily be taken up by the local residents to meet the needs of the increasing demands of pottery, glass, abrasive papers and other material required for day to day purpose. The finance required for taking up such industry are not very large and with a little support, both financial and technical, small scale units can be established. In addition, there are industries which require a higher capital than the common ones mentioned above as in the manufacture of industrial abrasives and polished tools. The Government Undertakings can easily take up work in this field. The industry relating to metalliferous deposits such as chromite, magnetite, clay and other base metal minerals requires positive identification and establishment of reserves and would also come under large scale capital intensive industry.

4.02 The main objective of NEC programmes for the development of industries and minerals has been (i) acceleration of regional resource assessment, (ii) initiation of programmes for precise estimation and proving of mineral resources to facilitate their exploitation, (iii) techno-economic feasibility study for taking up viable projects, (iv) R&D efforts for industrial utilisation of local resources and (v) setting up of large and medium industries.

4.73 The details of the schemes under this sector are given in the succeeding paragraphs:

A. Detailed minerals investigation & proving:-

4.04 The following schemes under the detailed minerals investigation and proving have been completed.

- i) Siju Lime & Coal Exploration, Meghalaya.
- ii) Borjan Coal Exploration, Nagaland (first phase).
- iii) Dilli Joypore Coalfield, Assam. ***
- iv) Bokajan Lime Stone.
- v) Namchik Nampuk Coalfield, Arunachal Pradesh.
- vi) Makum Coal Field in Assam.
- vii) Lime stone exploration in Lumshnong, Meghalaya.

Investigation reports in respect of schemes at Sl.No.(1) to (v) have been received. One part of the report in case of investigation listed at (vi) above and the full report for the study at Sl.No.(vii) are yet to be received. The necessary follow-up action on the reports is being taken. To clear pending liabilities, an anticipated expenditure in 1987-88 is Rs.15.00 lakhs and an amount of Rs.1 lakh is proposed for 1988-89 for the same purpose.

2. Langrin Coal Exploration in Meghalaya:-

4.05 A scheme for exploration of coal in Nonghyllum block in West Khasi Hills District, Meghalaya was entrusted to MECL in July, '86 at an estimated cost of Rs.38.44 lakhs. The scheme envisaged a total drilling of 2000 m, geological mapping of 4 sq.km. and necessary geophysical logging and sampling. However, since the reserve of coal over 3.5 sq.km. area is suggested by GSI was found to be adequate for planning a viable mine, MECL continued the exploration over an area of 8 sq.km. Till July, '87 MECL completed a total drilling 2484.7 m. over an area of 8 sq.km. geological mapping of 1.95 sq.km. and 3.3 sq.km. in contouring.

4.06 In Feb., 87 MECL also submitted a proposal for additional drilling of 500 m i.e. beyond 2500 m. of drilling as per contractual agreement to complete the investigation at an additional cost of Rs. 9.276 lakhs. The additional drilling programme is due to increase in the exploration area by 4.5 sq.m. and would lead to understanding of the structural disposition of the coal seams and to delineate the workable limits from mining point of view. Revised scheme for 3000 m of drilling & geological mapping of 8 sq.km. has been approved.

4.07 The approved Seventh Plan outlay for the scheme is Rs. 50.00 lakhs. During 1985-87 an expenditure of Rs. 29.08 has been incurred. The current years outlay of Rs. 16.00 lakhs will be fully utilised. The scheme is expected to be completed by March, 1988. For clearing the liability an outlay of Rs. 5.00 lakhs is proposed for 1988-89.

3. GOAL Exploration in Jairampur Coal Field, Arunachal Pradesh:

4.08 The approved plan outlay for this subject is Rs. 40 lakhs. MECL was approached to submit the proposal. Since the available data is not sufficient for undertaking detailed exploration in Jairampur Area, MECL proposed exploration in Eastern part of Namchik Nampuk Coal Field in place of this scheme. Accordingly, MECL submitted the scheme in April, 1987 and subsequently certain technical clarifications were sought from MECL. The matter was reviewed in August, 1987 with all concerned and it was resolved that the scheme may be kept in abeyance till sufficient data is available from GSI to justify undertaking exploration in Eastern part of Namchik Nampuk Coal Field which is adjacent to Jairampur Coal Field. Thus no expenditure is anticipated in 1987-88 and also no outlay is proposed for 1988-89.

4. EXPLORATION of Western Extension Block of Namchik Nampuk Coal Field, Arunachal Pradesh:-

4.09 The approved outlay of the scheme under 7th Plan is Rs. 35 lakhs. MECL submitted a proposal in Feb., 1986 which was modified several times to restrict the amount of drilling within 2000 mts. as envisaged during preparation of 7th plan.

However, MECL continued exploration in this area as an extension of the 6th plan scheme based on the decision taken in a review meeting held in August, 1985. Till June, 1987 MECL carried out 2393.15 mtrs. of drilling against the proposal for 2000 mts. of drilling. In order to regularise the work already carried out under this scheme, the matter reviewed in August with all concerned and it was decided to stop further drilling and MECL has been asked to submit the report by Jan., 1988. Subsequently, revised scheme was drawn up for 2400 mts. of drilling at an estimated cost of Rs.42 lakhs. The Seventh Plan approved outlay is Rs.35 lakhs. During 1987-88 an amount of Rs.35 lakhs is required to be paid to MECL against the approved outlay of Rs.10 lakhs as per revision of the scheme and an amount of Rs.7 lakhs is prepared for 1988-89 for clearing any liabilities of the project.

5. Coal exploration in Dilli-Jaypur Coal Field, Assam:-

4.10 The 7th Plan outlay for this scheme is Rs.35 lakhs and DGM Assam was identified as the implementing agency. The administrative approval to this scheme at an estimated cost of Rs.35.00 lakhs was issued in August, 1987. The scheme envisaged total drilling of 3150 mts. in 14 boreholes. The target of drilling in 1987-88 is 1000 mts. in 5 boreholes alongwith trenching of 400 m³ and geological mapping of 0.80 sq.km. The target for the year 1988-89 has been fixed at 1200 mts. of drilling in 6 boreholes, 0.85 sq.km. of geological mapping and 400 m³ of trenching. The anticipated expenditure for 1987-88 is estimated at Rs.12 lakhs against the approved outlay of Rs.5 lakhs. An amount of Rs.16 lakhs is proposed for 1988-89.

6. Detailed Exploration of Cement Grade Lime Stone in New Umrangshu Area, North Cachar Hills, Assam:-

4.11 The 7th Plan approved outlay for the scheme is Rs.25 lakhs. The Administrative approval for the scheme was issued in Aug., 87 at an estimated cost of Rs.25 lakhs. The scheme envisages total drilling of 3400 mts. in 61 boreholes and topographic survey of 8.0 sq.km. alongwith necessary core logging pitting and mapping for 1987-88 and 1988-89 have been fixed at 500 and 1450 mts. of drilling, 1.0 and 3.5 sq.km. of large scale mapping and 150 and 215 m³ of pitting trenching respectively.

Anticipated expenditure for 1987-88 is Rs.7.00 lakhs against the approved outlay of Rs.3.00 lakhs. An outlay of Rs.11.00 lakhs is proposed for 1988-89.

7. Detailed Exploration of Nimi Lime Stone Deposit, Buensang District, Nagaland:-

4.12 The 7th plan approved outlay for this project is Rs.24 lakhs. A comprehensive scheme was prepared for 1300 mts. of drilling in 8 boreholes in Kheti block of Nimi Limestone Belt with a financial involvement of Rs.24 lakhs. The scheme was approved in July, 1987. The scheme is expected to be completed by March '89. For meeting the requirements of equipments etc. An anticipated expenditure for 1987-88 is Rs.10 lakhs against an approved outlay of Rs.5.00 lakhs. Outlay for 1988-89 is Rs.14.00 lakhs.

8. Detailed investigation of High Grade Limestone in Lumshnong, North Block, Jaintia Hills, Meghalaya:-

4.13 The 7th plan approved outlay for this scheme is Rs16 lakhs. The comprehensive scheme for total drilling of 1200 mts. and geological mapping of 1.50 sq.km. was drawn up and approved at an estimated cost of Rs. 16.00 lakhs in Sep '87. Target for 1987-88 has been placed at 300 mts. of drilling and 1.5 sq.km. of geological mapping alongwith 100 Nos. each core and out crop sampling. In 1988-89, the programme of work includes 450 mts. of drilling, 100 nos. out crop sampling and 250 nos. core sampling. Anticipated expenditure for 1987-88 has been assessed at Rs.7.50 lakhs against an approved outlay of Rs.2.00 lakhs and an outlay of Rs.4.50 lakhs has been proposed for 1988-89.

9. Exploration of Ground Water in Mizoram:-

4.14 The scheme for exploration of Ground Water in Mizoram being implemented by the State Govt. was sanctioned for Rs.44.56 lakhs during March, 1987. The scheme envisages the procurement of drilling equipment, setting up the drilling crew and take up exploration of Ground Water to establish the feasibility of Ground Water utilisation in Mizoram. The work is proposed to be completed during the 7th Plan period and the maintenance etc. will later

devolve on the State Government. Anticipated expenditure for 1987-88 is Rs.19.46 lakhs which is required for purchase of machinery & equipments against the approved outlay of Rs.8.00 lakhs. For the year 1988-89 an allocation of Rs.11.00 lakhs is proposed.

B. LARGE & MEDIUM INDUSTRIES:

10. Wazeho Mini Cement Plant (50 TPD), Nagaland:-

4.15 The project was approved in July, 1982 with a capital outlay of Rs.140 lakhs. It is being executed by NEIFCO on a turn key basis. The project was revised to Rs.227.32 lakhs in March, 1987. The increase in cost was due to high cost of materials and labour of time over run not attributable to NEIFCO. To expedite the progress of the work, a joint visit of NEIFCO, NEC and NSMDC was made in July, '87 and the time schedule for completion of the project was redrawn. Nagaland State Minerals Development Corpn. who is expected to take over the plant after commissioning pointed out some deficiencies and NEIFCO was requested to look into the matter. The matter of supplying heavy cement for construction work was also taken up by NEC with the Development Commissioner, Cement Industries. The plant is expected to be commissioned by May, 1988. Till March '87 an expenditure of Rs.205.50 lakhs has been incurred. Revised estimate of expenditure for 1987-88 is Rs.60.00 lakhs against the provision of Rs.50.00 lakhs. For meeting the pending liability an outlay of Rs.500 lakhs is proposed for 1988-89.

11. Hundung Mini Cement Plant (50 TPD), Manipur:-

4.16 The project was approved in 1982 with an approved outlay of Rs.175 lakhs. This project is also being executed by NEIFCO on turn key basis. The project cost was revised in Dec., 1986 to Rs.206.34 lakhs. To expedite the progress, a joint visit of NEIFCO, NEC and State Directorate of Industries was made in May '87. Secretary, NEC reviewed the progress in a meeting held on 10th Sep. '87 with participation from the representatives of State

Govt. officials, NEIICO and the Machinery Manufactures. The date for commissioning of the plant was fixed on 31st Oct., 87. Till March 1987 an expenditure of Rs.198.67 lakhs was incurred. Anticipated expenditure for 1987-88 is Rs.55.00 lakhs. An amount of Rs.5.00 lakhs is proposed for 1988-89 for clearance of liabilities.

12. Umrangshu Mini Cement Plant (200 TPD), Assam:-

4.17 The project was sanctioned in Feb., 82 with an estimated cost of Rs.797.18 lakhs and an amount of Rs.114 lakhs and Rs.35 lakhs was released to CCI and AIDC respectively. CCI incurred an expenditure of Rs.1 lakhs on account of detailed Engineering and System Design charges.

4.18 The project could not be implemented due to non-availability of environmental clearance and dereservation of forest area in the plant site and delay in transfer of land by the State Govt. In Feb., 86 CCI estimated the revised cost to be Rs.40.39 crores as per October, 1985 price index. The State Govt. commissioned a feasibility study of setting up of large scale cement plant based on this limestone deposit. In view of above, it is proposed to drop the project.

13. Paper Grade Lime Plant (200 TPD) at Umrangshu Area, North Cachar Hills District, Assam:-

4.19 The scheme was approved in June, 1983 with estimated cost of Rs.573.84 lakhs. Due to reservation for manufacture of lime under small scale sector, except for captive consumption the Industrial Licences could not be obtained by the AIDC. Accordingly, HPC was approached to set up the plant for the captive consumption.

4.20 In the light of recent re-notification regarding manufacture of lime through SSI sector, the State Govt. was requested to submit the proposal for the project. AIDC however has submitted a proposal for commissioning a study for preparation

of the detailed mining plan for supplying limestone to the plant. AIDC also proposed to entrust the study to CCI. The study will be funded by the NEC under the head "Chairman's survey". An expenditure of Rs.1.00 lakh is anticipated on the project in the current year. For 1988-89 an outlay of Rs.6.00 lakhs is proposed.

14. Paper Grade Lime Plant (200 TPD) at Lumshnong Jaintia Hills, Meghalaya:-

4.21 The scheme was approved in 1983-84 with a capital outlay of Rs.480.30 lakhs and MIDC was identified as the implementing agency. After withdrawal of the restriction for manufacture of lime under SSI Sector, MIDC applied for industrial licences/letter of intend. MIDC also requested NEIFCO to modify the detailed project report submitted by NEIFCO recently. No expenditure is anticipated in 1987-88 and Rs.50.00 lakhs is proposed as the outlay for 1988-89.

C. DETAILED RAW MATERIAL INVESTIGATION (FEASIBILITY STUDIES):

NEW SCHEMES:

15. Beneficiation and Utilisation studies of Glass, Sand and Clays in Meghalaya and Tripura:-

4.22 The State Govts., State Industrial Development Corps., NEIFCO were requested to submit the proposal. The above organisations and the State Directorates of Geology and Mining were requested to furnish the list of inventories. Govt. of Tripura provided with the list of raw-materials inventory and showed interest for exploration of glass sand.

4.23 The proposal of NEIFCO for undertaking pre-investment feasibility studies at an estimated cost of Rs.0.70 lakhs is under consideration of NEC. MIDC has also submitted a proposal for undertaking beneficiation and utilisation studies of one clay deposit at Darugiri in East Garo Hills. The proposals are being considered for approval, but its implementation deferred for 1988-89. Seventh Plan approved outlay for the scheme is Rs.15.00 lakhs. Outlay for 1988-89 is proposed as Rs.8.00 lakhs.

16. Beneficiation & Utilisation test of Sillimanite and Kaynite from Assam and Meghalaya-

4.24 The CGCRI has submitted a proposal at an estimated cost of Rs.5 lakhs which envisages the development of high alumina refractories from fine grained beneficiated sillimanite. At the instance of CGCRI, Calcutta, IBM, Nagpur also agreed to take up beneficiation studies. The NEC is also trying to identify an agency who will co-ordinate all the activities including collection of samples. MIDC and Bharat Refractories Ltd., Nongstoin and IBM, Regional Office at Calcutta have been approached for collection of representative samples and to act as the coordinating agency. Further the NEIFCO has also submitted a proposal for taking up pre-investment feasibility study which is under examination for possible sanction. Implementation of the scheme has been deferred for 1988-89. Seventh Plan outlay for the scheme is Rs.8.00 lakhs. An outlay of Rs.10.00 lakhs is proposed for 1988-89.

17. Beneficiation test on Garnet and other Minor Abrasive Minerals:-

4.25 Garnet, quartz and some of the other common minerals which occur in the rock formations in almost all the units of the NE Region, can be used as raw material for the manufacture of minor abrasive paper commonly used for polishing of wood. This can be put under cottage industries and the other necessary raw material such as thick paper and organic bonding materials can easily be obtained from the natural vegetation of the region.

4.26 Detailed studies of the occurrences of such suitable geologic material have not been carried and it would be necessary to obtain some data on them and also arrange for the required tests. Total outlay approved is Rs.24.00 lakhs for 7th plan. The proposal submitted by NEIFCO is under consideration of the NEC. Proposals have also been requested from State Governments. The implementation of the scheme has been deferred for 1988-89 and an outlay of Rs.2.00 lakhs is proposed for 1988-89.

13. Feasibility and Detailed Studies for
1 Million Tonne Cement Plant:-

4.27 The scheme envisaged for commissioning feasibility studies for setting up two cement plants in Assam and Meghalaya. The Govt. of Assam was approached to submit a proposal for undertaking feasibility study for one million tonne cement plant at Umrangshu, North Cachar Hills District, Assam. It was, however, learnt that Assam Industrial Development Corpn. already conducted the techno-economic feasibility report for a large capacity cement plant with clinkerisation unit at New Umrangshu and grinding unit at Lanka, Assam through M/s, Development Consultants Pvt.Ltd., Calcutta and the report was submitted in June, 1987.

4.28 MIDC also approached NEC for conducting Industrial Potential Survey and preparation of pre-investment report for 1800 TPD Jaintia Hills Cement Project. MIDC is presently negotiating with CCI for taking up the study. Seventh Plan outlay for the scheme is Rs.30 lakhs. There was no outlay for 1987-88. However, an outlay of Rs.5.00 lakhs is proposed for 1988-89.

19. Feasibility Studies for Chemical Grade Limestone:-

4.29 The Govt. of Assam, Meghalaya and Nagaland were requested to submit the proposal indicating the suitable deposit and agency through which the feasibility study could be taken up. The Directorate of Geology and Mining, Nagaland submitted a proposal for undertaking feasibility studies of the chemical grade limestone available in Nimi Belt through M/s. Development Consultants, Calcutta at an estimated cost of around Rs.2.00 lakhs. The proposal is being cleared for approval, however, its implementation has been deferred for 1988-89 and an amount of Rs.2.00 lakhs is proposed for 1988-89.

D. R&D PROJECTS FOR INDUSTRIAL UTILISATION
OF REGIONAL RAW MATERIALS:-

20. Low Temperature Carbonisation of Coal:-

4.30 The scheme in consultation with CSIR and Deptt. of Coal, Govt. of India has been finalised and approved at an estimated cost of Rs.17.51 lakhs in August, 1987. The scheme

is being implemented by RRL, Jorhat. The share of NEC funding to the scheme works out to be Rs.8.30 lakhs against the total cost of Rs.17.51 lakhs. During 1987-88, RRL, Jorhat proposed to undertake Carbonisation studies on 3 coals sample from Makum Coalfields, Assam and one from Laitryngew mines, Meghalaya in a 2 kg batch bench scale unit after varying temperature of carbonisation from 600° to 750°. Anticipated expenditure for 1987-88 is Rs.8.00 lakhs against the approved outlay of Rs.2.00 lakhs. A provision of Rs.1.00 lakh is proposed for 1988-89. The 7th Plan approved outlay for the scheme is Rs.10.00 lakhs.

21. Development of Fluidised Bed Technology using high sulphur NER Coal:-

4.31. RRL, Jorhat submitted the scheme in March, '86 and was administratively approved in August '87, NEC'S share of expenditure was worked out to Rs.10.95 lakhs out of the total approved cost of Rs.19.20 lakhs. The scheme is being implemented with the involvement of BHEL after complying with the observations/suggestions of CSRI and Department of Coal by RRL, Jorhat. In 1987-88, RRL, Jorhat is expected to take up modification & starisation of design aspects distributor plate & feeding system of FBC boiler unit. The programme of work for 1988-89 includes optimisation of operating parameter for combustion of Baragdal coal, Cherrapunjee Limestone. Anticipated expenditure for 1987-88 is Rs.65 lakhs against the approved outlay of Rs.2.00 lakhs. An outlay of Rs.1.00 lakh is proposed for 1988-89. Seventh Plan approved outlay for the scheme is Rs.10.00 lakhs.

22. Desulphurisation of Flue Gas Generated in the Beehive Coke Oven:-

4.32. The proposal submitted by RRL, Jorhat was forwarded to the Department of Coal after preliminary scrutiny in March, 87. The Ministry conveyed the observations of CSRI which includes preparation state of art report before taking up the R&D work.

The proposal was modified in the light of the guidelines of the CSIR and was administratively approved in Sep., '87. The NEC's share of expenditure works out to Rs.4.75 lakhs out of the total approved cost of Rs.6.48 lakhs. As per programme of work, 1987-88 the RRL, Jorhat is expected to carry out literature survey and prepare the state of art report. The programme for 1988-89 includes lab/scale design of scrubber and trial in Beehive oven for flue gas absorption. Anticipated expenditure for 1987-88 is Rs.4.00 lakhs against the provision of Rs.1.00 lakh. An outlay of Rs.1.00 lakh is proposed for 1988-89. Seventh Plan outlay for the scheme is Rs.5.00 lakhs.

23. Determination of Physical and Chemical characteristics of Coal of N.E. Region:-

4.33 The scheme envisages preparation of a compendium on characteristics of NER coals at regular interval for all the coals from the available data. The approved 7th plan outlay is Rs.30 lakhs. CMPDIL, Ranchi submitted a proposal at an estimated cost of Rs.37 lakhs in Aug., '86 which was revised in April, '87 after discussing the modus operandi for collection of available data. The administrative approval was issued in August, '87 at an estimated cost of Rs.35 lakhs. It is proposed to bring out the report in 2 volumes containing the informations on Eocene coals of Garo Hills, Khasi Hills, Jaintia Hills and Mikir Hills in Volume I and oligocene coal of the coalfields of Nagaland, Upper Assam and Arunachal Pradesh apart from the incorporating available details regarding Gondwana coals on outer Himalayas in Arunachal Pradesh. The volume I is expected to be ready for printing in about 18th months (i.e. by March 1989) and the volume II will take another year i.e. 1990. Expenditure during 1986-87 is assured at Rs.15.51 lakhs against the outlay of Rs.5.00 lakhs. Rs.14.00 lakhs are proposed as the outlay for 1988-89.

24. Setting up of chemical and petrological laboratory at Dimapur:-

4.34 The approved 7th plan outlay for the scheme is Rs.33 lakhs. After discussion with the DGM, Nagaland and GSI. It was considered to restrict the scheme for setting up of an advanced petrological ~~in~~ laboratory at an estimated cost of Rs.12.50 lakhs. The purchase of sophisticated equipments requiring Rs.29.50 lakhs as proposed by DGM, Nagaland may be considered, if necessary, after the operational aspect for running this equipments is settled. The administrative approval was issued on 26th Aug.'87. The programme for 1988-89 includes procurement of polishing microscope grinding polishing and rock cutting machines etc. Anticipated expenditure for 1986-87 is Rs.5.00 lakhs against the outlay of Rs.10.00 lakhs. An outlay of Rs.7.50 lakhs is proposed for 1988-89.

25. Pilot Plant Scale beneficiation tests:-

4.35 The scheme will be taken up after completing the study on detailed raw-materials investigation as highlighted under sub section-C above.

26. Cement Clinker Grinding units in Mizoram and Tripura expansion of Bokajan Cement Plant:-

4.36 The constant shortage of cement resulting both from allotment, distribution and transport uncertainties had prompted initially the Government of Mizoram to think in terms of establishing a cement clinker grinding unit in Mizoram. The obvious advantages are that the clinker can be transported in bulk and does not require the intensive care required for packing and transporting. In addition obtaining transport for bulk movement is easier than for small packages. Considering this in wider perspective, the Planning Commission agreed for a supplementary scheme for setting up of a Clinker Grinding Unit in Mizoram during 1986-87 and made a provision of Rs.5.00 lakhs. The issue was further reviewed in NEC as well as in Planning Commission during the Annual Plan discussion 1987-88 and it was agreed that similar unit may also be set up in Tripura for which CCI had already been commissioned for preparation of detailed feasibility report.

4.37 The CCI has since submitted the report including that of expansion of existing Bokajan Cement Plant, for supply of clinker to these grinding units. The Comprehensive proposal costing about Rs.31.22 crores is pending with Govt. of India for cabinet approval. The financing pattern of the project as agreed to by CCI is in the ratio 1:1 equity and loan from financial institution (IDBI). The CCI has also applied for the letter of intent in May, 1987 and necessary environmental clearance required for the projects is also being obtained.

4.38 1987-88 approved outlay for the projects is Rs.441.00 lakhs (Rs.150.00 lakhs for grinding units and Rs.291.00 lakhs for Bokajan expansion). Keeping in view the delay in cabinet approval to the project an anticipated expenditure for the project has been scaled down to Rs.6.00 lakhs (Rs.1.00 lakh for grinding units and Rs.5.00 lakhs for Bokajan). An outlay of Rs.15.00 crores (Rs.5.00 crores for grinding units and Rs.10.00 crores for Bokajan) is proposed for 1988-89.

27. COKE BREEZES PLANT '33,000 TONNES CAPACITY'
TO MEET THE REQUIREMENTS OF VSK CEMENT AND
LIME PLANTS: ¾

4.39 Mini cement plants which are based on VSK technology and lime plants which are entirely based on the VSK technology require coke breezes or lump coal with very low sulphur content. It has been found that the coke breezes supply which is expected from outside the NE Region is uncertain because of difficulties of rail transport. In view of the uncertainties regarding such transport and the inability of the NE Coalfields to provide HP lump coal, it is proposed to set up a coke breeze plant at one of the coalfields in NE Region. The R&D project carried out by RRL, Jorhat at the behest of NEC, has shown that the conversion of NE Coal can be carried out in a beehive coke plant. This was demonstrated on a very small scale, but by appropriate devices it can be increased to an industrial plant, of capacity of 100 TPD. The large scale mining and other

facilities available show that Margherita coalfields can be selected for establishing the plant, and that coal can be obtained from the same coalfield. An assessment of the requirements of the NE Region made by M/s. NEIFCO, Gauhati has shown that around 2.00 lakhs tonnes per annum would be required by 1987-88 by the different industrial and non-industrial consumers of this region.

4.40 For establishing a 100 tonnes capacity of coke breeze plant, M/s. NEIFCO, Gauhati has estimated the cost as Rs.138.00 lakhs. It is proposed to start the project from 1988-89 and an amount of Rs.10.00 lakhs is proposed for 1988-89. Seventh Plant outlay for the plant is Rs.166.00 lakhs.

28. SALT IODISATION PLANT AT BYRNIHAT,
LILABARI AND KUMARGHAT.

4.41 The Seventh plan approved outlay for the scheme is Rs.24.00 lakhs. At the time of preparation of the proposal in consultation with the Salt Commissioner of India, it was revealed that the product has been thrown open to the private sector and therefore, the scheme may be reviewed. The proposal has since been reviewed and it has been decided to drop the scheme from NEC Plan..

29. DEVELOPMENT OF DECORATIVE STONES - SERPENTINITES
AND SEMI PRECIOUS STONES CONTAINED IDOCRASE:

4.42 The scheme is proposed to be taken up at the instance of the Govt. of Manipur. MECL has submitted a proposal for exploration and the financial input which has not yet been submitted, is being worked out by MECL. Proposed outlay for 1988-89 is Rs.10.00 lakhs.

30. TECHNO ECONOMIC FEASIBILITY STUDY FOR SETTING
UP A LIME PUZZOLONA PLANT - IN MANIPUR:

4.43 The NER as a whole suffers from chronic cement shortages thwarting of development activities. Although the Mini cement plant being set up under NEC plan will be in operation soon,

yet considering the availability of the required raw materials, Puzzolona being the substitute for cement is proposed to be produced in Manipur to augment the availability of construction materials. The Govt. of Manipur has come with a proposal to set up a Puzzolona Plant in Manipur and taking necessary action for techno-economic feasibility study. It is therefore, proposed to include the proposal in NEC plan 1988-89 and a token provision of Rs.5.00 lakhs is requested.

31. SETTING UP OF A BRICK PLANT IN MIZORAM:

4.44 Red building bricks are in great demand in Mizoram owing to fast developmental activities in the State. At present they are being brought from outside the state, raising thereby the cost of constructions. There is potential for producing red bricks in the State and, therefore, the Govt. of Mizoram has come with a proposal to set up a brick plant in Mizoram and taking necessary action for conducting techno-economic feasibility study. It is, therefore, proposed to include the proposal in NEC Plan for 1988-89 and a token provision of Rs.5.00 lakhs is requested.

32. FEZU CEMENT PLANT:

4.45 The Mini Cement plant at Fezu in Arunachal Pradesh was set up under NEC 6th Plan at a cost of Rs.94.60 lakhs. The plant has been in operation for some time. It has been recently observed that for better running of the project, certain rectifications and additional facilities are required. To meet the cost of these, an outlay of Rs.2.00 lakhs is proposed for 1988-89.

33. ESTABLISHMENT OF A REGIONAL INDUSTRIAL INFRASTRUCTURAL DEVELOPMENT CORPORATION IN THE NORTH EASTERN REGION :

4.46 A special group was constituted in 1980 by the Committee of Ministers for Economic Development of North eEastern Region to go into the problems of individual industrial units in this region. This group interalia, suggested the setting up of an

institution at the regional level to effect co-ordinated and timely supply of essential industrial inputs which was identified as one of the major constraints on industrial development of North Eastern Region under Chairmanship of Union Minister of Labour and the Sub Group set up under it has also identified essential input supply as a major constraint and made similar suggestions. It is, therefore, suggested that a token provision of Rs.2.00 lakhs may be made in 1988-89 Annual Plan of NEC for the establishment of a Regional Industrial Infrastructural Development Corporation which would during the initial stages deal with procurement and distribution of essential inputs only.

34. MARKETING SUPPORT TO NORTH EASTERN HANDLOOM AND HANDICRAFTS DEVELOPMENT CORPORATION LTD. (NEHDC):

4.47 The North Eastern Handicrafts and Handloom Development Corporation was set up in March, 1977 for development and promoting handicrafts and handlooms in the region by way of providing raw materials, technical knowhow and design development and marketing facilities. The entire paid up capital of Rs.2.00 crore. was provided by the NEC during 1976-80. In the 25th Council Meeting held on July 29, 1986 the performance of the Corporation was reviewed and it was felt to activate the Corporation more effectively. The matter was taken up further with the concerned Ministry of Govt. of India and it was found that the Corporation is short of adequate capital to extend its marketing support to the growing agencies in the field in general and Manipur Development Society in particular. Considering the importance of the problem, it is proposed to provide one time financial assistance to the NEHDC in 1988-89 to the tune of Rs.10.00 lakhs.

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E. SERICULTURE

35. Establishment of Mulberry Nursery-cum-Chowki Reering Centres - Tripura.

4.48. The shortage of quality reeling cocoons results in huge shortage of Mulberry Silk in the N.E.Region necessitating import of silk from Karnataka. It is estimated that in Assam alone 25000 kg of mulberry silk is being imported. It has therefore become necessary to improve upon the rearing techniques to produce good quality reeling cocoons. It was with this purpose in view that during the 6th Plan period mulberry nursery cum rearers with chowki reared worms of improved silk worm varieties to boost up the production of reeling cocoons which would ultimately result in increased silk production. During the 6th Plan 3 such centres were established at Bagafa, Udaipur and Kaliashahar in Tripura, at an estimated cost of Rs.24.15 lakhs.

4.49. Till now under these centres 445 rearers have been organised about 4 lakhs rooted cuttings have been distributed and 100 hect. of land has been brought under mulberry cultivation. It is expected to distribute about 15,000 chowki reared dfls to the rearers. The project however, has spilled over to the 7th Five year Plan on account of incompleteness of 3 rearing houses. The construction work is expected to be completed by the end of 87-88 when the scheme will be normalised and no funds will be required. An expenditure of Rs. 18.72 lakhs was made up to the end of 6th Plan and during the years 1985-86-86-87 an amount of Rs. 9.30 lakhs was spent totaling to Rs.28.02 lakhs. During the year 1987-88 a provision of Rs.1.00 lakh was made but the same has now been revised to 1.38 lakhs. It is expected that the scheme will come to a conclusion during 87-88 and as such no funds are proposed for the year 1988-89.

36. Establishment of Muga Plant and Oak Plant Nursery in Arunachal Pradesh:

4.50. Arunachal Pradesh has the potential for the development of Muga and Oak activities and during the Sixth Plan. This scheme was sanctioned for Rs. 12.88 lakhs. The project could not

be completed during the Sixth Plan and has been extended during the Seventh Plan with an approved outlay of Rs. 10.50 lakhs. During 1985-87, Rs. 1.27 lakhs were spent. Approved outlay for the year 1987-88 is Rs. 1.00 lakh and the physical programme of work under the scheme was to develop 20 hectares of land, construction of staff quarters, purchase of seeds and agriculture equipment etc. These targets have not yet been completed and work will continue till 1988-89. Rs. 2.00 lakhs is the revised outlay for the year 1987-88 and Rs. 2.00 lakhs are proposed for 1988-89.

37. Establishment of Mulberry Nursery-cum-Chowki Rearing Centre-Arunachal Pradesh.

4.51. Mulberry sericultural activities are new development in Arunachal Pradesh and there is very good scope for its development in the State. One scheme for the establishment of mulberry nursery cum chowki rearing centre was sanctioned during the 6th Plan period at an estimated cost of Rs.8.05 lakhs till the end of the 6th Plan period an amount of Rs.5.05 lakhs were spent. The scheme was allowed to continue in the 7th Plan with an outlay of Rs. 2.50 lakhs. During the years 1985-87, an expenditure of Rs. 2.95 lakh was made. During the year 1987-88 outlay of Rs. 1.00 lakh has been kept, to complete the establishment of this centre. No outlay is therefore proposed for 1988-89.

38. Establishment of a composite silk reeling and twisting Unit at Gaurisagar in Assam.

4.52. Assam enjoys a unique distinction in having all the four types of silk namely mulberry, eri, muga and tasar. The climatic conditions are very suitable for the growth of the silk worms as well as the food plants due to which it occupies a prominent position as a producer of silk in the North Eastern Region. The reeling of mulberry cocoons in this region is being practiced on bhowries and domestic charkhas,

which practice is most primitive resulting in low production and inferior quality of silk necessitating purchase of huge quality of silk from outside Assam. To improve the quality of reeled silk the Government of Assam proposed to establish reeling units with modern reeling machines.

4.53. The Seventh Plan approved outlay for the scheme is Rs. 8.00 lakhs. The scheme was sanctioned at an estimated cost of Rs. 20.635 lakhs during the last quarter of 1986-87 and funds to the tune of Rs.2.60 lakhs released. For the year 1987-88 a provision of Rs.7.00 has been made against the approved outlay of Rs.1.00 lakh for purchase of machinery and construction work. For the year 1988-89 the proposed outlay is Rs.5.00 lakhs which would be required to complete the erection of the machinery and establishment of the unit which will go in production from the same year.

39. Scheme for the modernisation of Silk Reeling and Twisting Unit in the State of Meghalaya.

4.54. The State of Meghalaya produces good quality of Bivoltine cocoons but suffers from the lack of modern improved reeling machinery for production of good quality of reeled silk. The present reeling unit in Meghalaya is very old and obsolete, resulting in low production. It was therefore, found necessary to replace the existing* machinery in the reeling unit of the state with upto date modern machinery. The State of Meghalaya therefore, drew a scheme for the modernisation of the existing silk reeling unit to step up its production from 0.5 tonne to 1.5 tonne of good quality raw silk annually. The scheme was sanctioned during the last quarter of 1986-87 with an estimated cost of Rs.18.05 lakhs. The approved 7th Plan outlay for this scheme is Rs.8.00 lakhs only. During the year 1986-87 Rs.3.00 lakhs were released. Since the estimates etc. for the buildings have been drawn out and the work entrusted to Public Works Department's besides purchase of machinery, the anticipated requirement of funds for 1987-88 is Rs.6.00 lakhs as against an outlay of Rs.3.00 lakhs. The proposed outlay for the year

(4.21)

1988-89 is Rs. 3.80 lakhs, which will enable to complete the construction and erection of machinery to enable the unit to start production.

40. Establishment of silk reeling, spinning, weaving, Training -cum- production Centre in the State of Mizoram.

4.55. The purpose for the establishment of above unit in Mizoram was to provide all the facilities like reeling, spinning, weaving etc. under one roof for different types of cocoons produced in the state and to trained private entrepreneurs to produce raw silk and silk fabric. The estimated cost of the approved project is Rs. 13.34 lakhs, where as the approved 7th Plan outlay for the scheme is Rs. 15.00 lakhs. During the year 1986-87 an amount of Rs. 2.00 lakhs was released for construction of one spinning house and one cooking house. During the year 1987-88 against the approved outlay of Rs. 4.70 lakhs anticipated expenditure is Rs. 4.07 lakhs for construction of building and purchase of machinery. For the year 1988-89 the proposed outlay for the scheme is Rs. 5.50 lakhs for completing the construction works and erection of the machinery etc, to start production activity.

41. Establishment of Integrated Reeling and Twisting Unit in The State of Nagaland.

4.56. Nagaland possesses an excellent thermo hygrographic and soil structure for the alround development of sericulture for the improvement of rural economy and provide employment in the rural areas. The state of Nagaland is therefore giving greater emphasis on the development of mulberry silk in the state and wants to raise the mulberry silk by the end of VIIth Plan period against the quantity of 3 tonnes produced during 1985-86.

4.57 Presently the entire silk is being produced by cottage basins and charkhas which produce low quality silk having low market value. The Govt. of Nagaland therefore proposed to intensify the activity by installing modern reeling and twisting

machinery for the production of quality silk. A scheme was therefore formulated for the establishment of an integrated reeling and twisting unit at an estimated cost of Rs. 28.58 lakhs which was sanctioned during the last quarter of 1986-87. The approved outlay for the Seventh Plan is Rs.8.00 lakhs only. During the year 1986-87 an amount of Rs.5.20 lakhs was released. The anticipated expenditure for the year 1987-88 is estimated at Rs.10.00 lakhs against the approved outlay of Rs.1.00 lakh. This amount will be utilized in the purchase of machinery and construction of buildings for which tenders have already been invited and estimates prepared. For the year 1988-89 the proposed outlay is Rs.5.00 lakhs which will also be utilised for the completion of construction work and purchase and installation of machinery to start the production in the unit.

42. Silk Reeling Unit: The State of Tripura.

4.58. The State of Tripura holds a good future in the development of mulberry silk. The climatic factors make it very congenial place for the luxuriant growth of mulberry which is very much essential for the growth of sericulture. By the end of VIIth Plan period the state is expected to produce about 90 metric tonnes of cocoons, and with this increase in cocoon production it will be possible to produce 9 metric tonnes of reel silk. Keeping this in view, establishment of a reeling unit was considered essential for the development of sericultural activities in the villages. A scheme for the establishment of a reeling unit was sanctioned during the last part of 1986-87 at an estimated cost of Rs.12.43 lakhs. The 7th Plan approved outlay for this scheme is Rs.8.00 lakhs. During the year 1986-87 Rs.2.25 lakhs were released for initiation of the works. The approved outlay of Rs. 1.30 lakhs for 1987-88 will be utilised fully for construction works and purchase of machinery. For the year 1988-89 the proposed outlay is Rs.5.00 lakhs required for installation of the machinery, construction of residential building and for starting the production in unit.

43. Tasar Silk Reeling Unit in the State of Manipur.

4.59. The State Govt of Manipur with the increase production of tasar and mulberry silk has been concerned about its utilisation within the state for the production of silk fabric. With the rich tradition of handloom weaving in the state, Govt proposed for setting up the silk weaving unit to produce silk fabric of different design and blends. Keeping in view the above objectives a scheme at an estimated cost of Rs. 12.494 lakhs was sanctioned during the last quarter of 1986-87. The 7th Plan outlay for the scheme is Rs.8.00 lakhs. An amount of Rs.2.00 lakhs was released in the year 1986-87 and which was fully utilized. The anticipated expenditure for the year 1987-88 is Rs.5.00 lakhs against the approved outlay of Rs.2.00 lakhs and will be utilized for construction of building and purchase of looms etc. The proposed outlay for the year 1988-89 is Rs.2.5 lakhs for enabling the unit to start production by the end of 1988-89.

44. Establishment of Mulberry Silk Reeling Unit in Arunachal Pradesh.

4.60. The State Govt. proposed two reeling units one in Siang and other in Tirap Dist. for which the approved outlay for the 7th Plan is Rs.5.00 lakhs. The scheme was to be taken up from the financial year 1987-88 and accordingly an outlay of Rs.1.00 lakh was approved. But the State Govt submitted the scheme only recently and is being examined in the light of availability and production of cocoons in the state. No expenditure is anticipated in 1987-88. An outlay of Rs. 3.00 lakhs is proposed for the scheme in 1988-89 subject to viability and sanction of the project.

4.61. The Planning Commission also made available Rs.60.00 lakhs for the development of sericulture in N.F. Region during the year 1987-88 on the recommendation of the Planning Commission, a study on 'preparation of feasibility report for development of sericulture in N.E.Region at an estimated

(4.24)

cost of Rs. 5.00 lakhs has been entrusted to the Agricultural Finance Corporation. Post evaluation studies of some of the normalised schemes in Sericulture under NEC Plans have also been entrusted to NESIET, Gauhati. Reports of these studies are expected to be available soon and necessary follow up action would be under taken.

4.62. The total requirement of the funds for the year 1987-88 on Sericulture schemes has been assessed at Rs.32.59 lakhs against the approved provision of Rs. 17.00 lakhs. Thus the additional amount of Rs. 15.59 lakhs will also be met from the lump-sum provision of Rs.60.00 lakhs.

4.63. The scheme-wise Plan Allocations for the above mentioned schemes are annexed in the statement.

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DRAFT ANNUAL PLAN 1988-89

Statement

INDUSTRIES & MINIRALS

(Ref. para 4.03)
(Rs. in lakhs)

| Name of the Schemes | Approved 7th Plan Outlay | Actual expenditure | | 1987 - 88 | | Proposed Outlay for 1988-89 |
|--|--------------------------------|--------------------|---------|--------------------|----------------------------|-----------------------------------|
| | | 1985-86 | 1986-87 | Approved Outlay | Anticipated Expenditure | |
| 1. | 2 | 3 | 4 | 5 | 6 | 7 |
| <u>Detailed Minerals Investigation and Proving:</u> | | | | | | |
| To clear Pending liabilities for: | | | | | | |
| 1) Siju Lime & Coal Exploration, Meghalaya | 20.00 | 21.02 | | } 1.00 | 15.00 | 1.00 |
| 2) Borjan Coal Exploration, Nagaland | 5.78 | 1.46 | | | | |
| 3) Bokajan Lime Stone | - | 0.62 | | | | |
| 4) Namchik-Nampuk Coalfield, Arunachal Pradesh | 10.00 | 7.59 | | | | |
| 5) Dilli-Joyppore Coalfield, Assam | 2.45 | 6.61 | | | | |
| 6) Makum Coalfield Ledo-Borgolai, Assam | 29.98 | 21.43 | 3.66 | | | |
| 7) Lumshnong, Meghalaya | 6.00 | 4.50 | | | | |
| 2. Langrin Coal Exploration, Meghalaya | 50.00 | - | 29.08 | 16.00 | 16.00 | 5.00 |
| 3. Coal Exploration Jairampur Coalfield, Arunachal Pradesh. | 40.00 | - | - | 5.00 | - | - |
| 4. Exploration of Western Extension block of Namchik, Nampuk Coalfield, Arunachal Pradesh. | 35.00 | - | - | 10.00 | 35.00 | 7.00 |
| 5. Coal Exploration in Dilli Sector of Dilli-Joyppore Coalfield, Assam | 35.00 | - | - | 5.00 | 12.00 | 16.00 |
| 6. Detailed exploration of Cement grade Limestone, New Umrangshu, Assam. | 25.00 | - | - | 3.00 | 7.00 | 11.00 |

(4.25)

| | 1. | 2 | 3 | 4 | 5 | 6 | 7 |
|---|--------|-------|-------|---------------|---------------|-------|-------|
| 7. Detailed Exploration of Nimi Limestone Deposit Nagaland. | 24.00 | - | - | - | 5.00 | 10.00 | 14.00 |
| 8. Detailed investigation of high grade limestone in Lumshnong North Block, Jaintia Hills, Meghalaya. | 16.00 | - | - | - | 2.00 | 7.50 | 4.50 |
| 9. Exploration of Ground Water, Mizoram | | | | 8.00 | 8.00 | 19.46 | 11.00 |
| B. Large & Medium Industries: | | | | <u>110.00</u> | <u>530.00</u> | | |
| 10. Mini-Cement Plant at ^{Wazeho,} Nagaland (50 tpd) including Agency payment to M/s. NEITCO | 21.50 | 5.08 | 70.00 | 50.00 | 60.00 | 5.00 | |
| 11. Mini-Cement Plant at Hundung Manipur (50 tpd) including Agency payment to M/s NEITCO | 40.80 | 10.96 | 40.00 | 8.00 | 55.00 | 5.00 | |
| 12. Mini-Cement Plant Umrangshu, Assam (200 tpd). | 164.45 | - | - | 1.00 | - | - | |
| 13. Papergrade Lime Plant at Umrangshu, Assam (200 tpd) | 1.00 | | | 1.00 | 1.00 | 6.00 | |
| 14. Papergrade Lime Plant at Lumshnong, Meghalaya | 10.00 | - | - | 1.00 | - | 50.00 | |
| C. Detailed Raw Material Investigation for specific projects (Feasibility Studies) | | | | | | | |
| 15. Benefication and utilisation studies of Glass and sand clay in Meghalaya and Tripura. | 15.00 | | | 1.00 | - | 8.00 | |
| 16. Sillimanite & Kyanite benefication test, Meghalaya and Assam. | 8.00 | | | 1.00 | - | 10.00 | |
| 17. Benefication test on Garnet & other minor abrasive Minerals. | 24.00 | | | 1.00 | - | 2.00 | |
| 18. Feasibility & detailed studies for one million tonne cement plant. | 30.00 | | | | | 5.00 | |
| 19. Feasibility studies for Chemical Grade limestone | 5.00 | | | 1.00 | - | 2.00 | |

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D. R&D Projects for Industrial Utilisation of Regional Raw Materials:

| | | | | | |
|--|-------|--|-------|-------|-------|
| 20. Low Temperature Carbonisation of NE Coal | 10.00 | | 2.00 | 8.00 | 1.00 |
| 21. Fluidised bed technology using high sulphur, NER Coal | 10.00 | | 2.00 | 9.65 | 1.00 |
| 22. Development of Desulphurisation of Flue gas generated in the Beehive Coke-oven | 5.00 | | 1.00 | 4.00 | 1.00 |
| 23. Determination of physical, Chemical characteristics of Coal - NE Region. | 30.00 | | 5.00 | 15.51 | 14.00 |
| 24. Setting up of Chemical & Petrological Laboratory at Dimapur, Nagaland. | 33.00 | | 10.00 | 5.00 | 7.50 |
| 25. Pilot Plant/Scale beneficiation tests | 25.00 | | - | - | - |

E. Pilot Industrial Project:

| | | | | | |
|--|--------|--------|------|------|---------|
| 26. a) Clinker Grinding plants, Mizoram & Tripura | | 150.00 | | 1.00 | 500.00 |
| b) Expansion of Bokajan Cement Plant | | 291.00 | | 5.00 | 1000.00 |
| 27. Breeze Coke Plant (for 30,000 tonnes) to meet requirement of VSK cement and lime plant. | 166.00 | | 3.00 | - | 10.00 |
| 28. Salt Iodisation Plants, at Byrnihat, Lilabari, Kumarghat. | 24.00 | | 1.00 | - | - |
| 29. Development of Decorative stones-Serpentinities and semi-precious stones containing Idocrase | | | | | 10.00 |
| 30. Techno-Economic Feasibility Study for setting up of a lime Pozzolona Plant, Manipur. | | | | | 5.00 |
| 31. Setting up of brick Plant, Mizoram | | | | | 5.00 |
| 32. Tezu Cement Plant | | | | | 2.00 |
| 33. Establishment of Regional Industrial Infrastructural Development Corporation | | | | | 2.00 |

(4.27)

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|---|--------------|-------------|--------------|----|----------------|---------------|----------------|
| *34. Marketing Support to NEHDC | | | | | | | 10.00 |
| E. <u>SERICULTURE</u> | <u>82.00</u> | <u>6.72</u> | <u>23.85</u> | | <u>77.00**</u> | <u>32.55</u> | <u>31.80</u> |
| 35. Establishment of Mulberry Nursery-Cum-Chowki Rearing Centre, Tripura. | 9.00 | 4.50 | 4.80 | | 1.00 | 1.38 | - |
| 36. Establishment of Muga Plant and Oak Plant Nursery, Arunachal Pradesh. | 10.50 | 0.27 | 1.00 | | 1.00 | 1.00 | 2.00 |
| 37. Establishment of Mulberry-cum-Chowki Rearing Centre, Arunachal Pradesh. | 2.50 | 1.95 | 1.00 | | 1.00 | 1.00 | - |
| 38. Estt. of Composite Silk Reeling Unit, Assam | 8.00 | - | 2.60 | | 1.00 | 7.00 | 5.00 |
| 39. Scheme for Modernisation of Mulberry Silk Reeling Unit, Meghalaya. | 8.00 | - | 3.00 | | 3.00 | 6.00 | 3.80 |
| 40. Estt. of Silk Reeling Spinning, Weaving Training-cum Production Centre at Kolasib, Mizoram. | 15.00 | - | 2.00 | | 4.70 | 4.07 | 5.50 |
| 41. Estt. of Integrated Reeling and Twisting Unit, Nagaland. | 8.00 | - | 5.20 | | 1.00 | 5.80 | 5.00 |
| 42. Silk Teeling Unit, Tripura | 8.00 | - | 2.25 | | 1.30 | 1.30 | 5.00 |
| 43. Silk Weaving Unit, Manipur | 8.00 | - | 2.00 | | 2.00 | 5.00 | 2.50 |
| 44. Estt. of Mulberry Silk Reeling Unit(one) Arunachal | 5.00 | - | - | | 1.00 | - | 3.00 |
| TOTAL | | | | | <u>662.00</u> | <u>318.67</u> | <u>1762.80</u> |

** Included Rs. 60 lakhs for the development of Sericulture in NE Region.

*New proposals

(4.28)

CHAPTER - 5

TRANSPORT AND COMMUNICATION

5.01 The North Eastern Region comprising the seven States with an area of 2,55,000 sq.km. is geographically isolated and is connected to the rest of the country through a narrow corridor of about 50 km. width. The entire area except the Brahmaputra Valley is hilly and mountaineous with a difficult terrain. It is also economically undeveloped as compared to the rest of the country. Even for the internal movement of goods and passenger traffic the States have to predominantly depend on the road transport and the States are not connected with the proper railway system mainly because of the difficult terrain. During the floods many parts of the area are resorted to the air dropping for the food supply. The infrastructure facilities like transport, communication and power which are essential for all developmental activities are lacking; which has created a feeling of isolation.

5.02 The North Eastern Council as such has given a high priority to the Transport and Communication sector right from the inception. During the Fifth and Sixth Plans of the N.E.C., this sector has remained to be the major priority sector of the NEC Plan. There is a wide gap in the all India averages and the averages of N.E. Region in various modes of transport. All the means of transport, therefore, need development on large scale; being the basic infrastructure for all other developmental activities like industry, agriculture, mining, etc, which all depend on the condition of the means of transport.

Fifth Plan of the N.E.C.

5.03 During the Fifth Plan period 20 road schemes of improvement and new construction covering a total length of about 1472 km. were taken up under the NEC Plan in the region. The expenditure on these road schemes upto March '80 was Rs.3,418 lakhs and expenditure of Rs.2073 lakhs are incurred/being incurred during Seventh Plan period upto 1987-88.

5.04 In addition to the development of the road, survey on the eight new railway lines costing approximately Rs.50.00 lakhs and 10 ropeways were also taken in hand under NEC Plan as detailed below :-

Railway Lines:

1. Pancharatnaghat/Jogighopa to Darangiri (BG)
2. Guwahati to Byrnihat (BG)
3. Rangapara/Balipara to Bhalukpong (BG)
4. Guwahati to Dudhnai (BG)
5. Lalaghat/Lalabazar to Sairang (BG)
6. Tipling to Itanagar (MG)
7. Murkongselek to Passighat (MG)
8. Amguri to Tuli (MG)

Ropeways:

1. Garampani-Lanka (Assam)
2. Ishamati-Byrnihat (Meghalaya)
3. Tiding-Namchik (Arunachal Pradesh)
4. Mao-Kangpokpi-Ukhrul (Manipur)
5. Jiribam-Oinamlong-Barak river (Manipur)
6. Haflong-Tamenglong-Kangchup (Manipur)
7. Bagmara-Siju-Dudhnai (Meghalaya)
8. Lumshnong-Badarpur (Meghalaya)
9. Aizawl-Sairang (Mizoram)
10. Naginimara-Borjan (Nagaland)

5.05 The expenditure upto March '80 on the sector as a whole as such was Rs.3878.59 lakhs.

Sixth Plan of the N.E.C.

5.06 The activities of the sector gained momentum in the Sixth Plan period and diversified in various other spheres of the transport and communications with an outlay of Rs.155 crores against which expenditure of Rs.185.27 crores was incurred.

5.07 Railways: Based on the surveys undertaken during Fifth Plan, the actual execution of 6 of these railway lines was started under the Railway Plan, which are in different stages of progress. In addition to this, the surveys on six more railway lines in the region were also undertaken at an estimated cost of Rs.84.77 lakhs as under :-

1. Chaparmukh-Dibrugarh (350 Km.)
2. Dimapur-Chumukdima (20 Km.)
3. Lekhapani-Kharsang (26 Km.)
4. Lalaghat-Vairengte (20.3 Km.)
5. Kumarghat-Agartala (120 Km.)
6. Jiribam-Makru (18 Km.)

5.08 A total amount of Rs.75.00 lakhs was provided in the Sixth Plan for the above surveys out of which the expenditure upto March '85 was Rs.82.82 lakhs. During 1985-86 funds of Rs. 2.68 lakhs were released. Thus total expenditure upto March '86 was Rs. 85.50 lakhs. The surveys on all these lines have been completed.

5.09 Ropeways : In the hilly areas of the region, it could be economical to transport goods and materials by ropeways. In the Fifth Five Year Plan, the NEC had undertaken the surveys on the 10 ropeways but it was

observed that a ropeway would be economically viable only if there is a concentrated project oriented traffic and is not suitable for the general transport.

5.10 During the Sixth Five Year Plan, the survey on two additional ropeways, namely, Lumshnong-Badarpur for the paper grade lime plant and Siju-Dudhnai for the Cement plant in the Garo Hills were undertaken. It was proposed to take up execution of one of the ropeways and as such a provision of Rs. 265.00 lakhs was made in the Sixth Five Year Plan of the Council. However, this did not materialise. Planning Commission had constituted an Expert Committee to examine feasibility report of Siju-Dudhnai ropeway prepared by M/s Jessop & Co. Recommendation of the Committee was received during May '86 and the Committee recommended ropeway for a length of 12.16 Km. from Siju to Patharigithim only in Phase-I for serving the Cement plant to be established by Govt. of Meghalaya at Siju. Preparation of DPR for the project can be taken up on ascertaining the status of the proposed cement plant and phasing of expenditure thereof for which Govt. of Meghalaya has been addressed. An outlay of Rs. 10.00 lakhs was provided for in the plan of 1987-88 which could not be utilised due to non-receipt of details indicated above from State Government.

5.11 Inland Water Transport: The region has considerable potential for inland water transport with large length of navigable waterways. The river Brahmaputra flows for a length of about 720 Km. in this region and provides the best waterway. The second main waterway consists of river Barak and through these two rivers the region is connected to Calcutta through Bangladesh. This being the cheapest mode of transport has got lot of potential for the development.

5.12 During the Sixth Plan, the scheme for night navigation on Brahmaputra river (with 50% finance from NEC and 50% from Assam IWT), the construction of 6 nos. of floating jetties at various ghats and mechanical cargo handling facilities at Pandu were undertaken. The work for the night navigation facilities for the reaches Jogighopa to Tezpur has been completed. Out of the 6 floating jetties one was procured from the NF Railway and the construction of 2 more jetties of 500 tonne capacity each have been sanctioned for Rs. 126.00 lakhs and funds released to Govt. of Assam. These have been completed. The remaining 3 jetties have been taken up for construction during March '87, sanction for which has been issued for Rs. 189.00 lakhs. These are expected to be completed by July '89. In the Seventh Plan of NEC a provision of Rs. 400.00 lakhs has been made for IWT schemes, including 3 floating jetties, night navigational facilities on river Brahmaputra for reaches Dhubri to Jogighopa and Tezpur to Noonmati and for improvement of infrastructure facilities for Badarpurghat and Dhubri. The work of mechanical cargo handling plant at Pandu has also been started in the last year of the Sixth Plan by CIWTC. The revised cost of Phase-I of the scheme is Rs. 656.00 lakhs for which administrative approval has been issued during January '87.

5.13 Roads: In addition to the road programmes taken in hand during Fifth Plan, further road lengths of 1820 Km. of the inter-state road were sanctioned during Sixth Plan which are in various stages of the construction. In addition to these inter-state roads another category of road pertaining to the economic importance was also taken up during Sixth Plan and about 2580 Km. have been sanctioned against this category. This road of economic importance is generally being executed by the Border

Roads Organisation in all the States except in Assam. In Mizoram, apart from roads of economic importance being constructed by BRO, one road scheme is also being executed by Mizoram P.W.D.

5.14 During the Sixth Plan period, the outlay on the roads was for Rs. 109.00 crores against which expenditure of Rs. 102.71 crores has been incurred.

5.15 Bridge over Brahmaputra : There was only one bridge across river Brahmaputra over the entire stretch of 720 Km. of the river i.e. road-cum-rail bridge at Saraighat near Guwahati. During the annual plan of 1978-79 a road bridge at Bhomoraguri near Tezpur was undertaken under NEC Plan. At the start of the Sixth Plan only a small work could be done. The construction work on this bridge, however, gained momentum during the Sixth Five Year Plan. The project has been completed on 31-3-87 at a cost of Rs. 89.14 crores for which administrative approval has been issued by Ministry of Home Affairs during October, 1986.

5.16 During the Sixth Plan, the survey for another bridge at Bogibill near Dibrugarh was undertaken by the NEC at a cost of Rs. 65.00 lakhs which was to be financed partly by NEC and partly by NF Railway on 50:50 basis. There was a provision of Rs.48.00 lakhs in the Sixth Plan for this work. However, funds released upto March '85 is Rs. 32.50 lakhs. The preliminary report Phase-I furnished by M/s RITES has been examined by Railway Board and detailed investigation (Phase-II) is being carried out by M/s RITES for a rail-cum-road bridge which is likely to cost Rs.242.49 crores.

5.17 Regional Transport Survey: A regional transport survey was conducted by NCAER in 1976-77 and the total traffic projection of the region mode-wise, railway line-wise, road-wise, within the region and out of the region were given for 1978-79, 1983-84 and 1988-89. It was, however, seen that the traffic projections have not been materialised realistically. During the Sixth Plan, therefore, M/s RITES were commissioned for the Regional Transport Survey at a cost of Rs.9.00 lakhs. The expenditure upto March '85 was Rs. 8.00 lakhs. This report has been received during September '86 and sent to all concerned for comments. Certain additions/alterations in the report have been suggested to M/s RITES. Meanwhile, Rs. 0.75 lakhs have been released to M/s RITES during March '87.

Outlay for Annual Plan 1988-89:

5.18 The total outlay for various schemes of Transport and Communications sector proposed in the Annual Plan for 1988-89 works^{out} to Rs.117.15 crores. Annexure 5.1 refers. Details of various schemes are shown below :-

5.19 Roads and Bridges: The work on the road schemes taken up during the Fifth Plan remains still to be completed particularly in respect of pavement and bridges on some roads which spilled over to the Seventh Plan. In addition, the schemes taken up during the Sixth Plan also spilled over to the Seventh Plan as many of these were sanctioned only in the last two years of the plan. As such there will be a considerable spillover of the on-going scheme sanctioned during Fifth and Sixth Plans. The total spillover for these schemes had been worked out as Rs.379.00 crores during November '84. The re-assessed cost of spillover works is likely to be about Rs. 456.00 crores.

It has been emphasised that special efforts have to be made to complete these on-going road schemes during the Seventh Plan period. It was necessary for the State PWDS and the Border Roads Organisation to strengthen their set up in order to utilise enhanced outlays and complete the on-going schemes as early as possible. During 1985-86, Rs.38.92 crores were utilised for execution of these roads and during 1986-87 an expenditure of Rs.68.94 crores were utilised, including Rs.9.00 crores advances paid to BRO for procurement of equipment. During 1987-88, an outlay of Rs.66.76 crores were approved against which expenditure of Rs. 81.33 crores is likely to be incurred. In the proposed plan for 1988-89, an outlay of Rs.111.85 crores has been proposed for on-going schemes. In addition, Rs.1.90 crores has been proposed for new road schemes. Thus the total outlay for roads and bridges for 1988-89 is Rs. 113.75 crores.

5.20 In terms of physical progress, out of total length of 5872 Kms. roads taken up during Fifth and Sixth Plan, 2586 Kms, roads have been completed upto March '85. During the two years of Seventh Plan period i.e. 1985-86 and 1986-87, 898 Kms. roads have been completed. Another 545 Km. roads are expected to be completed during 1987-88. Thus at the end of 1987-88, a total length of 1843 Km. would remain to be completed. Out of this, it is expected to complete about 600 Kms. road during 1988-89 and 625 Kms. during 1989-90. Thus at the end of Seventh Plan period approximately 618 Kms. of the roads taken up during Fifth and Sixth Plans period would be spilling over to Seventh Plan.

5.21 Bridge over Brahmaputra: The work on the bridge over Brahmaputra has been completed on 31-3-87 against revised target date of 31st July '87 at a

revised sanctioned cost of Rs. 89.14 crores (gross). Funds to the level of Rs. 89.04 crores have been released upto 1986-87. An outlay of Rs. 0.10 crores has been provided in the Annual Plan of 1987-88 for liquidation of liabilities.

5.22 Ropeways: In the Sixth Five Year Plan, there was an outlay of Rs.265.00 lakhs for Siju-Dudhnai in Garo hills ropeway but the work could not be taken up due to non-sanctioned of the Cement plant in Garo hills, to which this ropeway project is linked. Provision of Rs.10.00 lakhs had been kept in the Annual Plan for 1987-88, but this could not be utilised for preparation of DPR as the status report and phasing of expenditure of Cement plant to be set up by the State Govt. (which the proposed ropeway is to serve) has not yet been received. A provision of Rs.10 lakhs has been made in 1988-89 plan for preparation of DPR.

5.23 Inland Water Transport: Out of construction of three floating jetties approved in the Sixth Plan, one has already been requisitioned from NF Railway and work on balance two jetties have also been completed by Govt. of Assam. Construction of 3 nos. more floating jetties at a sanctioned cost of Rs. 189.00 lakhs have been taken up by Govt. of Assam during March '87 and funds of Rs.75.00 lakhs have been released during 1986-87 for this work. An outlay of Rs.100.00 lakhs had been provided for this in the plan of 1987-88 against which expenditure of Rs.50.00 lakhs is likely to be incurred during 1987-88. During 1988-89, provision of Rs. 64.00 lakhs has been made for completion of these jetties.

5.24 During Seventh Plan period, Rs. 400.00 lakhs had been approved for IWT schemes. Out of this, works for 3 nos. floating jetties were taken up as mentioned above costing Rs. 189.00 lakhs. It is proposed to take up the works of improvement in cargo handling facilities at Badarpur by M/s CIWTC for which a provision has been made in 1988-89 plan for Rs. 30.00 lakhs. Similarly, IWT Directorate, Govt. of Assam, has indicated a proposal for provision of Ferry Vessels over river Brahmaputra for IWT link between Assam-Arunachal Pradesh. A provision of Rs. 30.00 lakhs during 1988-89 plan has been made for this.

5.25 Mechanical Cargo Handling Plant:

For the work of mechanical cargo handling plant at Pandu, a provision of Rs. 150.00 lakhs had been kept in the Annual Plan for 1987-88 against which expenditure of Rs. 125.00 lakhs is likely to be incurred. An outlay of Rs. 200.00 lakhs has been proposed for 1988-89. The scheme is likely to be completed during 1989-90.

5.26 The scheme-wise plan allocations for the above mentioned schemes are annexed in the statement.

DRAFT ANNUAL PLAN 1988 - 89

TRANSPORT AND COMMUNICATION

Ref. para.5.26

| Name of the Scheme | Seventh Plan Approved Outlay | Expenditure | | 1987 - 88 | | Proposed Outlay for 1988-89 |
|--|------------------------------|-------------|-----------|--------------------|-------------------------|-----------------------------|
| | | 1985 - 86 | 1986 - 87 | Approved Outlay | Anticipated expenditure | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. Railway Survey | 16.00 | 2.68 | - | - | - | - |
| 2. Ropeways | 1.00 | - | - | 10.00 | - | 10.00 |
| 3. Improvement of Inland Water Transport constn. of floating jetties | 410.00 | 10.00 | 126.00 | 100.00 | 50.00 | 124.00 |
| 4. Mechanical cargo handling Plant, Pandu, Assam | 253.00 | 50.00 | 40.00 | 150.00 | 125.00 | 200.00 |
| 5. Road & Bridges incl. survey | | | | | | |
| (A) <u>Implemented by State P.W.D.</u> | | 2107.67 | 3566.00 | 3980.00 +196.00 | 4678.00 | 6605.00 + 190.00 |
| (B) <u>Roads of Economic Importance implemented by B.R.D.B.</u> | | 1185.00 | 3328.00 | 2500.00 | 3445.00 | 4580.00 |
| 6. Kaliabhomora bridge | 160.00 | 210.00 | 451.00 | 10.00 | 10.00 | - |
| *7. Survey of bridge over Brahmaputra near Dibrugarh. | - | - | - | - | - | 4.00 |
| *8. Setting up of Inland Transport Corporation. | - | - | - | - | - | 2.00 |
| Total | | | | 6946.00 | 8308.00 | 117,15.00 |

* New Proposals.

TRANSPORT & COMMUNICATION
NAME OF THE SCHEME

(Rs. in lakhs) STATE : ARUNACHAL PRADESH

| | OUTLAY FOR 1987-88 | REVISED OUTLAY 1987-88 | PROPOSED OUTLAY FOR 1988-89 | REMARKS |
|---|-----------------------|---------------------------|--------------------------------|---------|
| 1 | 2 | 3 | 4 | 5 |
| <u>FIFTH PLAN</u> | | | | |
| 1. Margherita-Deomali | - | - | - | |
| 2. Orang-Mazbat-Rupa | 213 | 260 | 290 | |
| 3. Banderdewa-Itanagar road | - | - | - | |
| | <u>213</u> | <u>260</u> | <u>290</u> | |
| <u>SIXTH PLAN</u> | | | | |
| 4. Pakke-Seijosa-Itakhola | 120 | 120 | 250 | |
| 5. Gohpur-Itanagar road | 70 | 150 | 200 | |
| 6. Daporijo(Paka)-N.T. Road | 100 | 110 | 200 | |
| 7. Longding-Binalpur | 75 | 90 | 55 | |
| 8. Tezu-Sadiya Road | NIL | 8 | - | |
| 9. Survey & Investigation | 2 | 2 | 2 | |
| | <u>367</u> | <u>480</u> | <u>707</u> | |
| Grand Total (5th & 6th) | 580 | 740 | 997 | |
| <u>New Schemes</u> | 25 | - | 25 | |
| Grand Total : (5th ,6th & New Schemes) | <u>605</u> | <u>740</u> | <u>1022</u> | |

TRANSPORT & COMMUNICATION

STATE - ASSAM

| Name of the Scheme | Outlay for 1987-88 | Revised Outlay 1987-88 | Proposed Outlay 1988-89 | Remarks |
|---|-----------------------|---------------------------|----------------------------|---------|
| 1 | 2 | 3 | 4 | 5 |
| <u>CONTINUING SCHEMES/SPILLOVER FROM VTH PLAN</u> | | | | |
| 1. Jowai-Khanduli-Baithalansu | 3 | 3 | - | |
| 2. Damra NH.37 | - | - | - | |
| 3. Paikan-Bajendoba | - | - | - | |
| 4. Aghi-Mendipara (25) | - | - | - | |
| 5. Mankachar-Garobadha | - | - | - | |
| 6. Orang-Mazbat-Rupa | 20 | 20 | 50 | |
| 7. Saikhowaghat-Sadiya-Chepakhowa | - | - | - | |
| 8. Margherita-Deomali | 20 | - | 50 | |
| 9. Road between Lekhapani-Tirap | - | - | - | |
| 10. Sonari-Namtola-Mon | - | - | - | |
| 11. Simulguri-Naginimora | 5 | 5 | - | |
| 12. Amguri-Mokukchung | - | - | - | |
| 13. Golaghat-Merapani-Wokha | - | - | - | |
| 14. Kawmpuo-Bairabi-Charmura | 40 | 40 | 40 | |
| <u>SIXTH PLAN</u> | 88 | 68 | 140 | |
| 15. Pavement of road Khanduli-Baithalansu | - | 20 | - | |
| 16. Pavement of Orang-Mazbat-Rupa | 15 | 25 | 5 | |
| 17. Dhupdhara-Adokgiri | - | - | - | |
| 18. Mairang-Ranigodown-Azra road | 40 | 45 | 25 | |
| 19. Mawshynrut-Hahim-Singra | 30 | 30 | 40 | |
| 20. Darangiri-Kharkutta | - | - | - | |

contd..

| 1 | 2 | 3 | 4 | 5 |
|--|------------|------------|------------|---|
| 21. Krishnai-Mendhipathar | - | 7 | - | |
| 22. Gohpur-Itanagar | - | 2 | - | |
| 23. Daporijo-NT Road | 25 | 25 | 40 | |
| 24. Lekhapani-Jayramour | 10 | NIL | 20 | |
| 25. Anguri-Jhanji road | - | - | - | |
| 26. Kohima-Leike | 20 | 20 | 50 | |
| 27. Baithalangsu-Kamur-Raha | 40 | 20 | 120 | |
| 28. Longding-Bimalpur | 28 | 20 | 20 | |
| 29. Nidanpur-Fakirganj | 7 | 12 | 8 | |
| 30. Link road from Damra Mendipathar from Dainadubi. | - | - | - | |
| 31. Link road to feeder road to Tipong | 30 | 10 | 20 | |
| 32. Mahur-Laisang road | 30 | 38 | 70 | |
| 33. Dkhia-Moulsei-Haflong | 15 | 30 | 45 | |
| 34. Rongsai-Borohira-Bajendoba | 5 | 5 | NIL | |
| 35. Hailakandi-Gharmura | 30 | 40 | 50 | |
| 36. Lowarpo-Kahnmun | 50 | 50 | 50 | |
| 37. Tezu-Sadiya-Road | 60 | 80 | 60 | |
| 38. Pakke-Seijosa-Itakhola | 30 | 18 | NIL | |
| 39. Tamenglong-Leike road | 5 | - | - | |
| 40. Survey Investigation of road & bridges | 10 | 2 | 3 | |
| | <u>480</u> | <u>499</u> | <u>626</u> | |

| | 1 | 2 | 3 | 4 | 5 |
|---|---|------------|------------|------------|---|
| <u>ROADS OF ECONOMIC IMPORTANCE</u> | | | | | |
| 41. Laisang-Rajabazar | | 20 | 30 | 40 | |
| 42. Improvement of Japrajan-Upper Deopani | | 15 | 5 | 20 | |
| 43. Naharkatia-Tinali-Ragarjh-Moran | | 10 | - | 25 | |
| 44. Longhit-Bazar-Singason-Birbung | | 45 | 45 | 60 | |
| 45. Bokajan-Hidipi | | 12 | 8 | NIL | |
| 46. Dehangi-Thuruk-Harangjao | | 65 | 65 | 55 | |
| 47. Dalmora-Tarapung | | 30 | 30 | 30 | |
| 48. Lahowal-Dulajan-Bordubi-Minsukia | | 45 | 70 | 80 | |
| 49. Mankachar-Purkasia | | 30 | 30 | 20 | |
| | | <u>272</u> | <u>283</u> | <u>300</u> | |
| Total VTH Plan | | 88 | 68 | 140 | |
| Total VITH Plan | | 480 | 499 | 626 | |
| Total of Economic Importance Roads | | <u>272</u> | <u>283</u> | <u>300</u> | |
| | | 840 | 850 | 1066 | |
| NEW ROAD SCHEME : | | - | - | 30 | |
| | | - | - | 1096 | |

BALANCE OF WORK SANCTION AVAILABLE, OUTLAY REVISED
OUTLAY AND PROPOSED OUTLAY FOR 1988-89

| <u>TRANSPORT & COMMUNICATION</u> | | STATE : MANIPUR | | | |
|--------------------------------------|---|-------------------|-----------------------------|------------------------------|---------|
| SL NO | NAME OF THE SCHEME | OUTLAY 1987-88 | REVISED OUT- LAY 1987-88 | PROPOSED OUT- LAY 1988-89 | REMARKS |
| 1 | 2 | 3 | 4 | 5 | 6 |
| <u>VTH PLAN SCHEME</u> | | | | | |
| 1. | Road Tamenglong-Khongsong-& Jiribam Tipaimukh(145Km) | 70 | 70 | 80 | |
| <u>WITH PLAN SCHEME</u> | | | | | |
| 2. | Pavement of road Tamenglong-Khongsong & Jiribam- ipaimukh (145Km) | 100 | 130 | 150 | |
| 3. | Road Tamenglong-Tausem-Haflong(91 Km) | 120 | 155 | 180 | |
| 4. | Road Khazawl-Sinzawl (51Km) | 60 | 77 | 100 | |
| 5. | Road Tadobi-Pfutsero (7.5Km) | - | 3 | NIL | |
| | | <hr/> 350 | <hr/> 435 | <hr/> 510 | |
| 6. | NEW SCHEMES | - | - | 40 | |
| | | <hr/> - | <hr/> 375 | <hr/> 550 | |

REVIEW OF ROAD SCHEMES - MEGHALAYA
(FINANCIAL - POSITION)

| SL NO | NAME OF THE ROAD | APPROVED OUT-LAY 1987-88 | PROPOSED REVISED OUTLAY 1987-88 | PROPOSED OUT-LAY 1988-89 | REMARKS |
|----------------------|---------------------------------|--------------------------|---------------------------------|--------------------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <u>(A) V TH PLAN</u> | | | | | |
| 1. | Jowai-Khanduli Baithalangu road | 50 | | 50 | |
| 2. | Agia-Mendhipara-Tura | 100 | | 220 | |
| 3. | Mankachar-Garobadha | 78 | | 120 | |
| 4. | Nongstoin-Rongjeng | 50 | | 80 | |
| 5. | Cherra-Shillong road | 30 | | 25 | |
| | | <u>508</u> | | <u>495</u> | |
| <u>(B) VITH PLAN</u> | | | | | |
| 6. | Mairang-Ranigodown-Azra | 150 | | 200 | |
| 7. | Mawshynrut-Hahim-Singra road | 57 | | 75 | |
| 8. | Nidanpur-Fakirganj | 4 | | - | |
| 9. | Dkhiah-Moulsei-Haflong | 80 | | 200 | |
| 10. | Rongsei-Borjhora-Bajendoba | 50 | | 50 | |
| 11. | Survey | 2 | | 2 | |
| | | <u>343</u> | | <u>527</u> | |
| NEW SCHEMES : | | <u>55</u> | | <u>30</u> | |
| GRAND TOTAL : | | <u>706</u> | <u>684</u> | <u>1052</u> | |

SANCTION AVAILABLE, OUTLAY/REVISED OUTLAY
FOR 1987-88 AND OUTLAY FOR 1988-89

STATE : MIZORAM

| SLY NOY I | NAME OF THE SCHEME | OUTLAY 1987-88 | | REVISED OUTLAY | | PROPOSED OUTLAY | | REMARKS |
|-------------------------------------|---------------------------------------|----------------|---|--------------------|---|-----------------|---|---------|
| | | 3 | 4 | 5 | 6 | 6 | 6 | |
| <u>VTH PLAN SCHEME:</u> | | | | | | | | |
| 1. | awnpui-Bhairabi-Gharmura | 40 | | | | 200 | | |
| 2. | Tamenglong-Aizawl | 24 | | | | 20 | | |
| 3. | Aizawl-Vangmun-Kumarghat | 40 | | | | 150 | | |
| 4. | Phuldingsi-Tuipui ^{ari} | | | (executed by BRDB) | | - | | |
| | | <u>104</u> | | | | <u>300</u> | | |
| <u>VITH PLAN SCHEME</u> | | | | | | | | |
| 5. | Khazawl- ^s inzawl-Thanolon | 75 | | | | 220 | | |
| 6. | Damcherra-Khedacherra-Tuilutkawn | 90 | | | | 220 | | |
| 7. | Lowarpo- ^K ahnmun | 1 | | | | - | | |
| | | <u>166</u> | | | | <u>440</u> | | |
| <u>Roads of Economic Importance</u> | | | | | | | | |
| 8. | Bunghmun-Phairang | 110 | | | | 250 | | |
| 9. | NEW SCHEME | 25 | | | | 25 | | |
| | | <u>405</u> | | <u>655</u> | | <u>1145</u> | | |

ROAD SCHEMES IN NAGALAND

(Rs. in lakhs)

| Sl No | Name of the Road | Approved Outlay 1987-88 | Revised Outlay 1987-88 | Proposed Outlay 1988-89 | Remarks |
|-------|---------------------------------------|-------------------------|------------------------|-------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| (A) | <u>FIFTH PLAN</u> | | | | |
| 1. | Sonari-Namtila-Mon road | | | | } Completed |
| 2. | Amguri-Mokukchung road | | | | |
| 3. | Golaghat-Merapani-Wokha road | | | | |
| (B) | <u>SIXTH PLAN</u> | | | | |
| 4. | Kohima-Leike road | 365 | 495 | 620 | |
| 5. | Tadobi-Pfutsero-Bible hill road | 200 | 250 | 360 | |
| 6. | Approach road to Agriculture College. | 15 | 15 | 19 | |
| 7. | Bridge over Diphupani | 30 | 30 | 40 | |
| 8. | Surveys | - | 4 | 1 | |
| | <u>NEW SCHEMES</u> | 30 | - | 30 | |
| | | 640 | 794 | 970 | |

SANCTION AVAILABLE OUTLAY, REVISED OUTLAY
FOR 1987-88 AND OUTLAY FOR 1988 - 89

STATE : TRIPURA

| Sl. No. | Name of the Scheme | Outlay 1987-88 | Revised Outlay 1987-88 | Proposed Outlay 1988-89 | Remarks |
|--------------------------|---|----------------|------------------------|-------------------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| <u>FIFTH PLAN SCHEME</u> | | | | | |
| 1. | Aizawl-Vangmun-Kumarghat | 50 | 50 | 60 | |
| 2. | Road Tilthai-Damcherra-Tuipuibari (105 Km.) | 50 | 60 | 60 | |
| <u>SIXTH PLAN SCHEME</u> | | | | | |
| 3. | Road Damcherra-Khedacherra-Tuilut-kawn (25 Km.) | 50 | 60 | 70 | |
| 4. | Road Pachertal-Chebri (87.40 Km.) | 150 | 160 | 210 | |
| | | 300 | 330 | 400 | |
| 5. | Manu-Govindabari-Phuldungsi | 200 | 150 | 400 | |
| 6. | Dangabari to junction Manu-Govindabari | 70 | 100 | 150 | |
| | | 570 | 580 | 950 | |
| <u>NEW SCHEME</u> | | | | | |
| | (Not yet projected to IMG). | - | - | 10 | |
| | | 570 | 580 | 960 | |

ROADS OF ECONOMIC IMPORTANCE UNDER CONSTRUCTION BY BRDB
APPROVED OUTLAY AND REVISED OUTLAY DURING
1987-88 & PROPOSED OUTLAY 1988-89

| Sl No | Name of Roads | Outlay 1987-88 | Revised Outlay 1987-88 | Proposed Outlay 1988-89 | Remarks |
|---------------------------|------------------------------|-------------------|------------------------------|-------------------------------|---------|
| <u>(A) PROJECT VARTAK</u> | | | | | |
| 1. | Ditte-Dime-Riga-Migging | 400.00 | 400.00 | 450.00 | |
| 2. | Kaying-Tato | 200.00 | 200.00 | 250.00 | |
| 3. | Seppa-Segali-Yazuli | 370.00 | 470.00 | 400.00 | |
| 4. | Taliha-Nacho | 200.00 | 100.00 | 150.00 | |
| 5. | Kamchai-Menabum-Deban | 60.00 | 170.00 | 150.00 | |
| Total: | | 1230.00 | 1340.00 | 1400.00 | |
| <u>(B) PROJECT SEWAK:</u> | | | | | |
| 1. | Ukhrul-Sansak | - | - | - | |
| 2. | Sansak-Tengnopal | 100.00 | 200.00 | 400.00 | |
| 3. | Singhat-(Thinghat)-Sinzawl. | 100.00 | 100.00 | 250.00 | |
| 4. | Chumukdima-Tuli-Tizit | 120.00 | 250.00 | 500.00 | |
| 5. | Akhego-Washello-Purpokhungri | 200.00 | 370.00 | 400.00 | |
| 6. | Pungro-Moya-Nimmi | 50.00 | 100.00 | 200.00 | |
| 7. | Merangkong-Tamlu-Zero point | 70.00 | 100.00 | 15.00 | |
| 8. | Chingtang-Saddle-Konya | 10.00 | 20.00 | - | |
| Total: | | 650.00 | 1140.00 | 1765.00 | |

| Sl No | Name of Roads | Outlay 1987- 88 | Revised Outlay 1987-88 | Proposed Outlay 1988-89 | Remarks |
|-------|---|-----------------|------------------------|-------------------------|---------|
| (C) | <u>PROJECT DANTAK</u> | | | | |
| 1. | Mankachar-Purkasia | 150.00 | 405.00 | 550.00 | |
| (D) | <u>PROJECT PUSHPAK</u> | | | | |
| 1. | Thenzawl-Bunghmun | 100.00 | 100.00 | 115.00 | |
| 2. | Nalkawn-Chamdur | 75.00 | 85.00 | 130.00 | |
| 3. | Kawkulh-Mimbung | 100.00 | 100.00 | 150.00 | |
| 4. | Champai-North-Vanlaiphai | 90.00 | 110.00 | 260.00 | |
| 5. | Manu-Kanchanpur | 20.00 | - | 10.00 | |
| 6. | Khamtingbari on NH.44 South of Teliamura | 85.00 | 165.00 | 200.00 | |
| | Total: | 470.00 | 560.00 | 865.00 | |
| | Grand Total: (Roads of Economic Importance) | 2500.00 | 3445.00 | 4580.00 | |

STATEWISE ROADS TAKEN UP DURING V & VI
PLAN, COMPLETED UPTO MARCH '85 AND
SPILOVER TO VII PLAN.

| SLY NO | S T A T E | TOTAL | COMPLETED UPTO 3/85 | SPILOVER TO VII PLAN |
|---|-------------------|-------|------------------------|-------------------------|
| 1 | 2 | 3 | 4 | 5 6 6 |
| <u>INTERSTATE ROADS :</u> | | | | |
| 1. | Assam | 636 | 380 | 256 |
| 2. | Arunachal Pradesh | 457 | 248 | 209 |
| 3. | Manipur | 304 | 237 | 67 |
| 4. | Meghalaya | 571 | 357 | 214 |
| 5. | Nagaland | 475 | 363 | 112 |
| 6. | Mizoram | 377 | 200 | 117 |
| 7. | Tripura | 472 | 246 | 226 |
| T O T A L : | | 3292 | 2031 | 1261 |
| <u>ROADS OF ECONOMIC IMPORTANCE IN P.W.D.</u> | | | | |
| 1. | Assam | 374 | 46 | 328 |
| 2. | Mizoram | 71 | - | 71 |
| T O T A L : | | 445 | 46 | 399 |
| B.R.O. TOTAL : | | 2135 | 509 | 1626 |
| GRAND TOTAL : | | 5872 | 2586 | 3286 |

ACHIEVEMENT DURING 1985 to 1987,
 ANTICIPATED ACHIEVEMENT DURING
 1987-88 AND TARGET FOR 1988-89
 FOR CONTINUING ROAD SCHEMES.

(Rs in lakhs)

| SL NO | S T A T E | ACHIEVED DURING 1985-86 & 1986-87 | ANTICIPATED ACHIEVEMENT 1987 - 88 | TARGET FOR 1988-89 | REMARKS |
|--|-------------------|-----------------------------------|-----------------------------------|--------------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| A. INTER STATE ROADS : | | | | | |
| 1. | Assam | 91 | 47 | 48 | |
| 2. | Arunachal Pradesh | 74 | 40 | 40 | |
| 3. | Manipur | 42 | 10 | 10 | |
| 4. | Meghalaya | 65 | 35 | 47 | |
| 5. | Nagaland | 29 | 36 | 38 | |
| 6. | Mizoram | 63 | 30 | 40 | |
| 7. | Tripura | 85 | 45 | 39 | |
| T O T A L : | | 449 | 243 | 262 | |
| B. ROADS OF ECONOMIC IMPORTANCE : | | | | | |
| 1. P.W.L.'s | | | | | |
| | (a) Assam | 76 | 40 | 45 | |
| | (b) Mizoram | 19 | 15 | 20 | |
| | | 95 | 55 | 65 | |
| 2. B.R.D.B. | | | | | |
| | | 354 | 247 | 273 | |
| GRAND TOTAL : | | 898 | 545 | 600 | |

CHAPTER - 6

MANPOWER DEVELOPMENT SECTOR

6.01 Manpower is not only the most important and abundantly available resource in our Country as well as in the North Eastern Region for development, but it is the objective of all development programme. Manpower also is the key economic resource and on its development and motivation rests the utilisation of physical resources of the region. The position of skilled and semi-skilled manpower in the N.E. Region has been grossly inadequate in many fields due to historical, geographical and socio-economic reasons. The NEC therefore, made an appraisal of the availability and demand of technical manpower for a period upto 1989 with the assistance of the Institute of Applied Manpower Research, New Delhi in 1978. Based on this assessment and some other proposals of the Expert Committee (constituted by the NEC) the NEC has taken steps, as an additional input to the States' efforts, for manpower development within the region for the speedy development in four different ways viz., (a) Fellowship and academic programmes in various courses in Agriculture and Allied subjects upto Ph.D level, granting of stipend in specialised Engineering, MBA and Hotel Management courses, (b) Human Resources Development through specialised inservice courses, (c) Expansion, strengthening/Modernisation of technical Institute already in existence in the Region and (d) Setting up of new Institutions in the Region.

(1) Fellowship & Academic programme

6.02 The Fellowship & Academic programmes are designed to sponsor deserving candidates selected by the constituent States for Post-Graduate and Ph.D programmes and Under-Graduate, Agriculture and Allied subjects. In addition, inservice personnel of the constituent units are being deputed for attending various short duration specialised courses under the programme of Human Resources Development so that these personnel may be deployed suitably for implementation of various specialised programmes of the States. Upto the academic session 1986-87, 1944 candidates have been sponsored for Under-Graduate,

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Post-Graduate and Ph.D studies and more than 1000 Government officers have taken advantage of the short duration specialised courses. During 1987-88, 159 Under-Graduate seats have been allotted by ICAR. Having due regard to the importance and the need of this programme, the scheme has been continued in the Seventh Plan with an approved provision of Rs. 230 lakhs. An amount of Rs.93.28 lakhs has been spent on this programme during 1985-87. Anticipated expenditure for 1987-88 is Rs.33.06 lakhs. An amount of Rs.46.00 lakhs is proposed for 1988-89.

(2) Linemen Training Programme :

6.03 Considering the need of the Region, an amount of Rs. 16.00 lakhs was provided during the Sixth Plan for financing two Linemen Training Centres one each at Barapani and Jorhat having 30 and 35 seats respectively for the purpose of training the untrained inservice Linemen of the States including NEEPCO and Sikkim. Upto 1986-87, Jorhat Centre has trained 805 Linemen while Barapani Centre has trained 853 Linemen. It is expected that there will be 4 courses in each centre during 1987-88. The Scheme has been approved in the Seventh Plan with an outlay of Rs. 25.00 lakhs and subsequently revised to Rs. 42.50 lakhs (Barapani Rs.22.50 lakhs + Jorhat Rs.20.00 lakhs). During 1985-87 Rs.16.06 lakhs were spent on the scheme. Anticipated expenditure for 1987-88 is assessed at Rs.9.50 lakhs (Assam Rs. 4.50 lakhs, Meghalaya Rs.5.00 lakhs). The MSEB has submitted a revised scheme for enhancing the outlay for the 7th Plan from Rs. 22.50 lakhs to Rs.24.44 lakhs which is under examination. The proposed enhancement is due to expenditure under consumable items etc. and pay & allowances of head of the staff at the revised rates. For 1988-89 an outlay of Rs.10.00 lakhs is proposed. (Rs.5.00 lakhs is suggested for Barapani Centre and Rs.5.00 lakhs for Jorhat Centre).

(3) Miscellaneous Training Programme :

6.04 Under this scheme a large number of short training courses like Executive and Management Development Programmes are arranged to upgrade the professional competence of the officers of the middle and higher levels with modern tools of management in the various fields of development with the involvement of specialised agencies like NISIET, NIRD, NEITCO, NEIBM etc. During the 7th Plan, 8 courses were conducted in 1985-86 and 11 courses in 1986-87. During the current year there is likely to be 28 programmes including 19 courses under ISTM.

6.05 The students belonging to the North Eastern Region are also granted stipend and bookgrants for pursuing studies in specialised Engineering, Hotel Management, MBA Courses. During 1985-86 and 1986-87, 85 students and 153 students respectively were awarded stipend, Entrepreneurial Development Training under S&I sector is also arranged under this programme. An amount of Rs. 132.00 lakhs has been provided in the Seventh Plan and during 1985-87 the expenditure on these programme was Rs.36.24 lakhs. Revised estimates of expenditure for 1986-87 is Rs.25.00 lakhs against the approved outlay of Rs.35.00 lakhs. An amount of Rs. 35.00 lakhs is proposed for 1988-89.

(4) North Eastern Regional Institute of Science and Technology, Itanagar.

6.06 The Govt of India, Ministry of Education vide letter No. F.25-1/81-D5 dated 12.9.85 have approved the establishment of North Eastern Regional Institute of Science and Technology at a total cost of Rs. 30.35 Crores (Non-Recurring) plus an amount of Rs.2.00 Crores per annum as Recurring expenditure for meeting the cost of teaching staff and other Recurring items of expenditure including maintenance, travelling and other allowances. An amount of Rs. 1500 Lakhs has been provided in

Seventh Plan. The Institute has started the first certificate course (Base Module) from 1986-87. The result for the entrance for the certificate course 1987-88 has already been announced in September, 1987. Construction of campus, and other buildings are at various stages. Till March, 1987 an amount of Rs.16.24 Crores has been made available for the Institute. Due to some operational problems, it has not possible to utilise the approved outlay of Rs. 5.00 Crores for the year 1987-88. The anticipated expenditure for 1987-88 is assessed at Rs. 1.00 Crore. The problem concerning the Institute are being constantly reviewed and it is expected that the developmental activities of the Institute will pick up, an outlay of Rs. 5.00 Crores is proposed for 1988-89.

(5) Extension of Assam Survey School :

6.07 The Scheme with an estimated cost of Rs.15.50 lakhs has been approved in February 1987. The main objective of the Institute is to impart training in the field of survey and settlement. The cost components of the scheme mainly consist of (a) construction of necessary buildings (Assam type : 10,000 sq.ft) (b) purchase of necessary equipments (c) recurring expenses. During the year although the scheme was sanctioned late, construction programme has been taken up with the State PWD. In 1986-87 an amount of Rs. 8.50 lakhs was made available to the State Govt for taking up preparatory works. The requirement of funds for 1987-88 has been assessed at Rs.1.00lakh only. Keeping in view the completion of the major part of the project an amount of Rs. 6.00 lakhs is proposed for 1988-89.

(6) Improvement of Science & Mathematics Education in Hill/Tribal Areas:

6.08 The Scheme approved during the Sixth Plan has been allowed to be continued in the Seventh Plan with Rs.25.00 lakhs subject to the review of the scheme. As some States have shown little interest, the scheme has been reviewed in the NEC in consultation with representatives of the NER States and it has

been decided that the scheme may be dropped. However, the training of teachers which has been the main component of the scheme may continue to find support from NEC under its miscellaneous training programmes. Thus no expenditure is anticipated in the year 1987-88 on the scheme.

(7) Financial assistance to the Assam Rifles Public School for improvement in the standard of Science and Mathematics Education:

6.09 Under the Sixth Plan a scheme for admission of 14 students from the Hill Areas of the region has been included. Accordingly, 14 students, were admitted in the Assam Rifles Public School as a measure for improving the standard of Science & Mathematics. Although the scheme as such was discontinued from 1984-85, NEC will have to bear the liability of providing fund for the students already admitted till all of them pass out class XII. The total committed expenditure is Rs. 25.77 lakhs and the same amount was approved in 7th Plan. An amount of Rs. 12.32 lakhs was spent during 1985-87. For 1987-88 the approved outlay of Rs. 7.00 lakhs will be utilised. An amount of Rs. 7.00 lakhs is proposed for 1988-89.

(8) Fisheries Training Institute at Amranga, Assam :

6.10. The scheme envisages to train in-service candidates from department of Fisheries of constituent units of the region as opportunities for training at Central Institute of Fisheries Education (CIFE) and other centres of Fisheries education for this region are felt insufficient to meet full requirements. During Seventh Plan an outlay of Rs. 54.41 lakhs has been provided for the scheme. The scheme with an estimated cost of Rs. 45.27 lakhs has been sanctioned in 1986-87. The construction viz: Administrative building, Residential units and Hostel are in progress. 50% of the equipments etc have been procured. Training programme has already been started from June, 1987 in the existing infrastructure. During 1986-87 an amount of Rs. 5.00 lakhs was spent and anticipated expenditure for 1987-88 is Rs. 18.00 lakhs against the approved outlay of Rs. 10.00 lakhs. An outlay of Rs. 13.60 lakhs is proposed for 1988-89.

(9) Regional Mining School, Nagaland :

6.11. The NER has considerable mineral resources and the same is being exploited for commercial use. Considering enhanced mineral activities in the region, shortage of technical manpower has been felt considerably. There is no mining institute in the whole of NER which award Degree or Diploma. The nearest Institutes are located in the States of Bihar, West Bengal and Orissa. The required manpower for the mineral industries of this region is at present met from the Institutes located in the above States. An exercise undertaken to project the requirement of Diploma holders for the mining activities at present as well as for the future indicates that about 200 Diploma holders will be required upto the year 1989. The demand thus works out to about 30 Diploma per year at present which is likely to increase specially in the field of mining machinery and mine surveying when more projects are taken up for mining of coal and other minerals in the NER. The requirement is also likely to go up with an increasing quarry operation as more and more Cement plants are being set up in the region. Keeping this consideration in view, it was decided to set up a Regional Mining School at Dimapur. The scheme has since been approved under the NEC plan at an estimated cost of Rs. 299.86 lakhs towards non-recurring expenditure and Rs. 23.09 lakhs towards recurring expenditure per annum. The institute will start 3-years diploma level course with an annual intake of 30 each in the disciplines of (1) Mining (2) Mining & Surveying and (3) Mining Machinery. The school also envisages imparting training to skilled workers like blasters, shot firers, sirdars, timber-men, machinery operators etc. The Institute will also conduct in-service training/coaching. The Institute will function under an autonomous society to be set up under society registration Act. While the management of the Institute will vest with the duly constituted management committee being represented from various State Govts.

For working out the item-wise and year-wise physical programme of works in connection with the setting up of the Institute, detailed project report is being prepared through Indian Bureau of Mines. The approved outlay of Rs. 3.00 lakhs for the year 1987-88 will be fully utilised and an amount of Rs.50.00 lakhs is proposed as an outlay for the year 1988-89.

(10) Regional Students Hostel (Hostel for Researchers):

6.12. An amount of Rs. 55.00 lakhs was provided in the Seventh Plan for construction of Regional Students' Hostel (Hostel for Researchers). Under the original scheme there was a provision of Rs. 120.00 lakhs for construction of four hostels; 2 at Shillong and one each at Kohima and Aizawl. The progress of the scheme has been found to be very unsatisfactory. Pending review of the scheme, an outlay of Rs. 1.00 lakh has been kept for 1987-88 which is not likely to be utilised. No release of funds was however, made during 1985-86 and 1986-87. Pending review of the scheme, a token provision of Rs.1.00 lakh may be made for 1988-89.

(11) Regional Medical College, Imphal :

6.13 The College was established in the year 1972 as a joint venture of Central Government and 4 North Eastern States and 2 Union Territories. At the establishment of North Eastern Council, the college has been one of the projects of the NEC. Initially, the College was managed by the Government of Manipur. But with the formation of the North Eastern Regional Medical College Society and Management of the College at the Hospital attached to it was taken over by the Society with effect from 1.8.1976. For meeting the capital expenditure of the College and the hospital, the revised project was approved in June, 1986 at an estimated cost of Rs.1902.00 lakhs.

6.14 The intake capacity of the College initially was limited to 50 students per year, the same has since been raised to 75 from the year 1979. The hospital attached to the College has a sanctioned bed strength of 552. The Seventh Plan approved outlay for the scheme is Rs. 700.00 lakhs.

6.15 Till March, 1987 a total amount of Rs. 1559.42 lakhs was released by NEC to the Institution. The number of students enrolled since inception of the college upto 1986-87 were 980 and the Regional Medical College has produced about 520 medical graduates so far. Construction of various buildings is at various stages of completion.

6.16. The outlay of Rs. 150 lakhs for the current year will be utilised and an outlay of Rs. 190.00 lakhs is proposed for 1988-89.

(12) North Eastern Judicial Officers Training Institute, Gauhati :

6.17. A regular institute for training of judicial officers was established at Gauhati in 1981-82 with active collaboration and assistance from the Gauhati High Court. The Institute runs two courses viz: Foundation Course for training Grade-III officers of State/UT judicial services and a similar Refresher course for Grade-II judicial officers. Till the end of Sixth Five Year Plan, the Institute has trained 110 officers in the Foundation Course and 39 officers in Refresher Course. A quick assessment at the end of Sixth Plan revealed that still 436 officers were to be trained under Foundation Course and 157 officers under Refresher Course. With a view to cover the backlog, the Institute was allowed to operate during the Seventh Five Year Plan. The Seventh Plan approved outlay for the scheme is Rs. 20.00 lakhs. During the first two years of the Seventh Plan 145 judicial officers have been trained and an amount of Rs. 5.98 lakhs spent. Anticipated expenditure for 1987-88 is Rs. 4.00 lakhs and about 100 officers are expected to be trained. An amount of Rs. 4.00 lakhs is proposed for 1988-89.

(13) North Eastern Police Academy :

6.18 The academy was set up under NEC programme to meet the training of police officers of the State police department of NER and started functioning since July, 1978. The approved

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outlay for the academy for the 6th Five Year Plan was Rs.630 lakhs was intended to cover the cost of construction of Main building, Mess, Hostel, residential accommodation, play ground etc. together with the recurring expenditure for running the academy. Due mainly to increase in cost of construction materials such as cement, steel and revised of the schedule of rates of works of the executing agency, a revised project report for enhancing the project cost to Rs.896 lakhs has already been submitted to Ministry of Home Affairs and the same is pending for clearance. Construction works pertaining to various types of buildings is at various stages.

6.19 Up to the end of 1986 about 850 officers have been trained by organising basic training courses for Deputy Superintendents of Police and Sub-Inspectors of Police in addition to several pre-promotional courses. During the calendar year 1987, 12 courses have been slotted which include 2 basic courses one each for DSP and SI, 5 pre-promotional/refresher courses, 2 VIP security Courses, 2 training of trainer courses and one each course on police community relation, computer course etc.

6.20. The 7th Five Year Plan approved outlay for the scheme is Rs. 347.39 lakhs. Till March, 1987, an amount of Rs.509.23 lakhs has been spent by the academy of which Rs.271.75 lakhs has been spent during 1985-87. Pending the formal clearance of the revised project cost, revised estimate of expenditure for the year 1987-88 has been scaled down to Rs.64 lakhs as against approved outlay of Rs. 128 lakhs. An amount of Rs. 200 lakhs is proposed for the year 1988-89.

(14) Regional Dental College, Gauhati

6.21 A four-year BDS course was introduced in Dental Wing of the Gauhati Medical College in 1982 with financial assistance from the North Eastern Council. Objective of the programme was to train young men and women of the NE Region in dental surgery leading to BDS degree qualification. A two storey college building for a 100 seat accommodation was constructed and equipment, furniture and books were purchased during the 6th Plan.

Subsequently, a number of girl students have joined the institution under make shift arrangement for accommodation and 42 girl students have already been admitted. To accommodate the girl students hostel facilities are required to be provided for 50 students and expansion of the college building was felt necessary with construction of compound wall and purchase of equipment. Accordingly, the scheme was included in NEC 7th Plan with an approved outlay of Rs. 40.00 lakhs. The scheme has been sanctioned in 1986-87 with an estimated cost of Rs.35.88 lakhs. An expenditure of Rs. 10.00 lakhs was incurred during 1986-87.

6.22 Till June 1987, 50% works pertaining to girls hostel and 45% works in respect of second floor of the college building have been completed. Remaining works and construction of compound fencing will be completed by March, 1988. Similarly purchase of equipments, furniture, books etc. will also be completed in 1987-88. Thus the scheme is expected to ^{be} completed by ~~March~~ 1988. Anticipated expenditure for 1987-88 is Rs.25.88 lakhs against the approved outlay of Rs. 15.00 lakhs. No outlay is proposed for 1988-89.

(15) Regional Graduate Nursing College, Gauhati:

6.23 The Regional Graduate Nursing College, Gauhati was sanctioned by the North Eastern Council in May, 1977 with an intake capacity of 30 students but the admission was limited to 30 students due to non-availability of accommodation. As the scheme could not be completed in all respects in Sixth Plan, it was decided to take a new programme to complete the college in the Seventh Plan. A proposal for expansion of the college was received from the Govt of Assam based on the recommendations of the Indian Nursing Council. The Council Secretariat has accordingly included the scheme in the 7th plan and sanctioned the scheme at an estimated cost of Rs.84.80 lakhs in 1986.

6.24 The Govt of Assam has already floated tenders for construction of institutional building while construction of 20 staff quarters have reached upto plinth level. The quarters will be completed by March, 1988 and a portion of the institutional building will be completed by March, 1988. The ~~play~~-ground will also be completed by March, 1988. The institutional building will be completed in all respects by March, 1989.

6.25 The college is presently functioning temporarily in the Gauhati Medical College premises having one Principal, two professors, 4 lecturers, 8 demonstrators, 18 part time faculty members and 8 grade II staff. So far 175 graduates have passed from the institution and 19 will graduate during the current financial year.

6.26 The Seventh Plan approved outlay for the scheme is Rs. 60.00 lakhs. During 1986-87 an amount of Rs. 5.00 lakhs was incurred on the scheme. The 1987-88 outlay of Rs. 20.00 lakhs will be fully utilised. The scheme is proposed to be completed by 1988-89, and as such, an outlay of Rs. 60.00 lakhs is proposed for the Annual Plan 1988-89.

(16) Expansion of Regional Pharmacy Institute, Agartala :

6.27 The original scheme was sanctioned at an estimated cost of Rs. 20.92 lakhs in December, 1977 with an annual intake of 50 students from Manipur, Mizoram and Tripura. This scheme has been completed by 1983-84. Considering the increasing need to expand the existing intake capacity from 50 to 100 a provision of Rs. 30.00 lakhs was approved in the Seventh Plan. The scheme with an estimated cost of Rs. 43.56 lakhs has been sanctioned in February, 1987. During the year 1986-87 an amount of Rs. 3.00 lakhs was released for preparatory work. Govt of Tripura has intimated that the PWD has just taken up construction works pertaining to the expansion programme. The outlay of Rs. 7.00 lakhs for 1987-88 will be utilised for construction wrks. An outlay of Rs. 15.00 lakhs is proposed for 1988-89 for purchase of equipments and building construction.

(17) Improvement of ITI, Aizawl:

6.28 The scheme for strengthening and modernisation of ITI, Aizawl, at an estimated cost of Rs.8.22 lakhs was approved during the Sixth Plan. As the scheme did not cater to the need of the Institutional buildings, hostel, auditorium an outlay of Rs.15.00 lakhs has been provided in the Seventh Plan. The scheme submitted by the Govt of Mizoram was approved at an estimated cost of Rs.26.69 lakhs in February, 1987. For 1986-87 Rs.5.00 lakhs were released for taking up new construction programme. The approved outlay of Rs.15.00 lakhs will be utilised fully for completing the construction works. An outlay of Rs.5.00 lakhs is proposed for completing the major improvement inputs.

(18) Linemen Training Centre, Mizoram:

6.29 At present, there are two Linemen Training Centres one each at Barapani and Jorhat which are being financed by the NEC. From the utilisation pattern of this facility, it is seen that the inservice personnel from Tripura, Manipur and Mizoram could not use these facilities to the fullest extent and, as such, there is an urgent need to establish a third Linemen Training Centre to cater for the needs of Manipur, Mizoram, Tripura and Barak Valley of Assam. The scheme with an estimated cost of Rs.8.905 lakhs has since been sanctioned in February, 1987.

6.30 The Planning Commission has provided a token provision of Rs.1.00 lakh during the Seventh Plan. The approved outlay for 1986-87 was however, Rs.8.00 lakhs which was released and provision of Rs.1.00 lakh was made for 1987-88 for completing the scheme. No outlay is proposed for 1988-89 as the scheme will be completed.

(19) Regional ITI for Women, Tinsukia :

6.31 In the entire NE Region there is no ITI for Women. Hence, there is an urgent need to provide this training facility to the women of this region. Accordingly, it has been decided to establish a Regional ITI for Women at Tinsukia to cater to the needs of the constituent States of the NEC. In the Seventh Plan of NEC a token provision of Rs.10.00 lakhs was made for the scheme. The scheme envisaged the intake capacity of 128 seats in Dress Making/Cutting & Tailoring, Hair Dressing and Skin Care, Secretarial Practice, Knitting with Machine and Hand Embroidery and Needle work and Draftsmen(Civil). The scheme has been approved at an estimated cost of Rs.75.82 lakhs in last part of 1986-87. During 1986-87 a sum of Rs.8.00 lakhs was spent for purchase of tools and equipments. The Institute has already started functioning and the first batch of trainees have been undergoing training. The current year provision of Rs.10.00 lakhs will be utilised. An amount of Rs.33.00 lakhs is proposed as outlay for 1988-89.

(20) Modernisation of ITI, Imphal:

6.32 The modernisation of ITI, Imphal at an estimated cost of Rs.20.00 lakhs has been approved in February, 1987. In 1986-87 an amount of Rs.10.00 lakhs was spent on the scheme for replacement of equipments, purchase of new equipments for introducing new trades etc. An expenditure of Rs. 8.65 lakhs is expected in 1987-88 for the same purpose. An outlay of Rs.1.00 lakh is proposed for 1988-89 for completing the scheme in all respects.

(21) Regional Centre for Training of Trainers in Farm Management, Rani(Assam):

6.33. The Govt of Assam had submitted a scheme for Establishment of a Regional Centre for Trainers Training in Farm Management at Rani near Gauhati. The scheme has since been sanctioned at an estimated cost of Rs.77.47 lakhs. In the Sixth Plan the State Govt had set up an Institute for Farm Management

in order to impart professional training to the educated rural youth of the State in taking up composite farming as a viable occupation. Under this, training is imparted apart from mixed farming, in Horticulture, Fisheries, Livestock and poultry management etc so that the educated rural youth is provided with an opportunity to make productive use of his own land. After receiving training at the Institute the trainee prepares a project which with loan assistance from the banks, if necessary, will provide self-employment. The training course is suitably organised and the staff drawn from the relevant disciplines to provide practical training at the Institute. The Institute is already having some physical facilities such as farm land, buildings, fishery tanks, dairy etc. The scheme aims at upgrading these facilities for providing training to trainers in similar activities in other parts of N.E. Region so that the flow of institutional finance in Agriculture for Entrepreneurship Development Programme in Agriculture sector is increased. The Institute is being developed as a centre for Entrepreneurship programme in Agriculture. 184 Bighas of land for the centre has been acquired and construction of five functional buildings and administrative block completed. The Planning Commission made a token provision of Rs.1.00 lakh for the scheme in 1986-87 where as the expenditure was Rs.20.00 lakhs in 1986-87. For the year 1987-88 anticipated expenditure is Rs.35.00 lakhs against an outlay of Rs.22.00 lakhs. For 1988-89 a provision of Rs.15.00 lakhs is proposed.

(22) Construction of Training Shed in Goalpara Sainik School, Assam :

6.34 The Sainik School at Goalpara (Assam) during the past 20 years has been providing training facilities to the boys of the North Eastern States. Presently, the Institution has been experiencing acute shortage of accommodation. A scheme for construction of a shed for physical training of students has already been cleared by the Planning Commission at an estimated cost of Rs.6.06 lakhs. The proposal is awaiting clearance of the Defence Ministry which is likely to be received. Keeping this in view, a provision of Rs.6.06 lakhs is proposed for 1988-89. There is no approved outlay for the scheme in the Seventh Plan of NEC.

(23) Establishment of a Regional Survey Training School in Tripura :

6.35 The North Eastern Region specially Tripura has been feeling shortage of trained personnel in Survey & Settlement Work. Since the work of Survey & Settlement is highly technical, the Departments as such, cannot be manned properly for shortage of trained personnel in Tripura and also in the other North Eastern States.

6.36 In order to cater to the needs of Tripura as well as the neighbouring States of Manipur and Mizoram, it has been proposed to establish a Regional Survey Training School at Agartala in Tripura at an estimated cost of Rs. 36.75 lakhs. The main components of the cost are for (i) construction of administrative building & a hostel (ii) purchase of equipments, vehicle, furniture etc and (iii) salaries of staff and contingency expenditure. The scheme is being submitting to the Planning Commission. A token provision of Rs. 5.00 lakhs is proposed for 1988-89.

(24) Scheme for Financial Assistance to NEHU for improvement of Science & Mathematics Education in Hill/Tribal Areas of North Eastern Region :

6.37 In the North Eastern Region, the P.U. Education, corresponding to the plus 2 sector of National School System still continues in the Universities. In/^{order}~~scholar~~ to improve the standard of Science and Mathematics at P.U. Level, it is proposed to introduce remedial courses for the first year students in the colleges under the NEHU. This would also involve teachers' training (Refreshers' Course) to update their knowledge.

6.38 The scheme with an estimated cost of Rs. 4.04 lakhs has already been submitted to the Planning Commission for their concurrence. A token provision of Rs. 2.00 lakhs is proposed for 1988-89.

- (25) Construction of a Hostel accommodation in the Banasthali Vidyapith, Rajasthan for the students of the North Eastern Region :

6.39 The Vanasthali Vidyapith in Rajasthan has the status of a deemed University and has won wide acclaim for the programme of comprehensive and progressive education for the girls. A good number of girls of this region pursue their studies in that Institute. The progressive number of students of this region during the last three years is 412. A scheme has been prepared to additional hostel accommodation for the girls hostel hailing from the North East. The cost of the scheme has been worked out at Rs.20.00 lakhs. The proposal is being submitted to the Planning Commission. A token provision of Rs. 5.00 lakhs is proposed for 1988-89.

- (26) Construction of a Hostel at Delhi for the students of the North East :

6.40 The problem of hostel accommodation for the students of the NER at Delhi has been engaging the attention of the Council for quite sometime. Honourable Members of the Council have also emphasised the need of such a facility at Delhi. It is, therefore, proposed to construct a hostel at Delhi to accommodate about 200 students of this region. The detailed proposal is being worked out. To enable the Council Secretariat to take up preparatory works a token provision of Rs.5.00 lakhs is proposed for 1988-89.

- (27) Setting up of a Institute of Cost & Works Accountancy :

6.41 There are large number of industrial units under both public and private sector in the NER and their number is steadily increasing. Unfortunately, most of these units have not experienced healthy growth. As is known, shortage of qualified manpower capably of professionally managing these industries is one of the bottlenecks of the region. It is, therefore, urgent and essential to take active steps to build up manpower with requisite qualifications to fill up this serious gap.

6.42 For filling up this gap, it is proposed to set up an Institute of Accountancy and Management in the N.E. Region. Finance will be required mainly for land and buildings, salary to the faculty and other staff, library, etc. An estimated cost of the project will be around Rs.100.00 lakhs. A token provision of Rs.10.00 lakhs may be provided for the scheme during 1988-89.

(28) Entrepreneurship Development Institute in NER :

6.43 Entrepreneurs play an important role in the process of economic and industrial growth and entrepreneurship is accepted as an essential driving force for industrialisation. A major impediment in the industrial and economic development of the NER has been the lack of entrepreneurs, industrial culture and inadequate infrastructure. Considering these in view, the NEC under its Plan have sponsored Entrepreneurs Development Programmes (EDPs) with the help of NEITCO, IDBI and NISIET. The above institutions have been conducting the programmes with the existing facilities with them or by hiring premises. It has been a constraint of these institutes to accommodate the requirement of NER with the existing facilities both in terms of infrastructure, equipment, staff etc. It is therefore, considered necessary to upgrade the infrastructure in the existing Institutes or set up a full fledged EDP Institute at a central place in the NER and its sub-centres in other parts of the region. Proposal is being finalised in consultation with all concerned and detailed proposal when finalised will be sent to the Planning Commission. A token provision of Rs.1.00 lakh is proposed as an outlay for the project under NEC Annual Plan 1988-89.

(29) Construction of Building for Regional Cooperative Training College at Gauhati:

6.44 The Govt of Assam has submitted a proposal for providing financial assistance for the construction of the building complex for the Cooperative Training College at Khanapara,

Gauhati. The total cost of the first phase of the project is estimated at Rs.82.87 lakhs. NEC has been requested to finance the project to the tune of Rs.50.00 lakhs. The remaining cost of Rs.32.87 lakhs will be shared by the Govts of Assam, Sikkim, Arunachal Pradesh, Meghalaya and the Govt of India through the National Council of Cooperative Training. The proposal is being finalised and will be sent to the Planning Commission in due course. A token provision of Rs.5.00 lakhs is proposed for the scheme during 1988-89. There is no outlay for the scheme in the Seventh Plan of NEC.

(30) Introduction of Computer Education

6.45 The use of computers in every work of modern life has been widely accepted and practiced. In the recent past with the special emphasis of the Govt of India, on computer education, lot of awareness about the use and utility of this facility has been created in the Country. However, the North-Eastern Region is far behind in the field as compared to the rest of the Country. It is necessary to create better awareness and aptitude for the facility right from the school education. NEC has been approached by various educational institution to make a beginning in the field. It is therefore proposed to make a modest beginning in basic computer education in some selected schools of the region on a pilot basis. Under the scheme it is envisaged to provide only the hardware equipments. For introducing the scheme from 1988-89 an outlay of Rs.10 lakhs is proposed.

6.46 The Schemewise detailed expenditure, outlay and proposed outlay is given in the annexed Statement.

DRAFT ANNUAL PLAN 1988-89

MANPOWER DEVELOPMENT

(Rs. in lakhs)

(Ref. Para 6.46)

| Name of the scheme | 7th Plan Approved Outlay | Actual Expenditure | | 1987-88 | | Proposed Outlay for 1988-89 |
|--|--------------------------------|--------------------|---------|--------------------|----------------------------|-----------------------------------|
| | | 1985-86 | 1986-87 | Approved Outlay | Anticipated Expenditure | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. Fellowship & Academic Programme. | 230.00 | 44.79 | 48.49 | 52.00 | 33.06 | 46.00 |
| 2. Linemen Training. | 25.00 | 7.56 | 8.50 | 9.00 | 9.50 | 10.00 |
| 3. Miscellaneous Training Programme. | 132.00 | 14.50 | 21.74 | 35.00 | 25.00 | 35.00 |
| 4. Regional Institute of Science & Technology | 1500.00 | 700.00 | 600.00 | 500.00 | 100.00 | 500.00 |
| 5. Extension of Assam Survey School. | 7.00 | 8.50 | 1.00 | 1.00 | 1.00 | 6.00 |
| 6. Improvement of Science & Mathematics Education | 25.00 | 10.20 | 7.52 | 10.00 | - | - |
| 7. Financial Assistance to Assam Rifles Public School for improvement in the standard of Science & Mathematics education | 25.77 | 5.42 | 6.90 | 7.00 | 7.00 | 7.00 |
| 8. Establishment of Regional Fishery Institute, Assam. | 54.41 | - | 5.00 | 10.00 | 18.00 | 13.60 |
| 9. Regional Mining School, Nagaland. | 10.00 | - | - | 3.00 | 3.00 | 50.00 |
| 10. Regional Students Hostel (Hostel for Researchers) | 55.00 | - | - | 1.00 | - | 1.00 |
| 11. North Eastern Judicial Officers Training Institute, Gauhati. | 20.00 | 2.28 | 3.70 | 5.00 | 4.00 | 4.00 |

6.19

Contd.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|--------|--------|--------|--------|--------|--------|
| 12. Regional Medical College, Imphal. | 700.00 | 135.00 | 190.00 | 150.00 | 150.00 | 190.00 |
| 13. North Eastern Police Academy. | 347.39 | 123.75 | 144.92 | 128.00 | 64.00 | 200.00 |
| 14. Regional Dental College, Gauhati. | 40.00 | - | 10.00 | 15.00 | 25.00 | - |
| 15. Regional Graduate Nursing College, Gauhati. | 60.00 | - | 5.00 | 20.00 | 20.00 | 60.00 |
| 16. Expansion of Regional Pharmacy Institute, Agartala. | 30.00 | - | 3.00 | 7.00 | 7.00 | 15.00 |
| 17. Improvement of ITI, Aizawl. | 15.00 | - | 5.00 | 15.00 | 15.00 | 5.00 |
| 18. Linemen Training Centre, Mizoram. | 1.00 | - | 8.00 | 1.00 | 1.00 | - |
| 19. Regional ITI for Women, Tinsukia. | 10.00 | - | 8.00 | 10.00 | 10.00 | 33.00 |
| 20. Modernisation of ITI, Imphal. | 20.00 | - | 10.00 | 10.00 | 8.65 | 1.00 |
| 21. Regional Centre for Training of Trainers in Farm Management, (Rani) Assam. | - | - | 20.00 | 22.00 | 35.00 | 15.00 |
| *22. Construction of Training shed in Goalpara Sainik School, Assam. | - | - | - | - | - | 6.06 |
| *23. Establishment of Regional Survey Training School, Tripura. | - | - | - | - | - | 5.00 |
| *24. Financial Assistance to NEHU for improvement of Science & Mathematics Education in Hill/Tribal Areas, North Eastern Region. | - | - | - | - | - | 2.00 |

6.20

Contd.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---------|--------|---------|
| *25. Construction of Hostel accommodation in the Banasthali Vidyapith Rajasthan for the students of North Eastern Region. | - | - | - | - | - | - | 5.00 |
| *26. Construction of Hostel at Delhi for the students of North Eastern Region. | - | - | - | - | - | - | 5.00 |
| *27. Setting up of an Institute of Cost & Works Accountancy. | - | - | - | - | - | - | 10.00 |
| *28. Entrepreneurs Development Institute in North Eastern Region. | - | - | - | - | - | - | 1.00 |
| *29. Construction of Building for Regional Co-Operative Training College, Assam. | - | - | - | - | - | - | 5.00 |
| *30. Introduction of Computer Education. | - | - | - | - | - | - | 10.00 |
| TOTAL | | | | | 1011.00 | 537.09 | 1240.66 |

6.21

* New Proposals.

SOCIAL AND COMMUNITY SERVICES

1. Artificial Limb Fitting-cum-Rehabilitation Centres, Meghalaya and Manipur:-

7.01 The recommended Seventh Plan outlay for the two centres one each at Shillong, Meghalaya and Imphal, Manipur under this scheme is Rs. 20.42 lakhs. Centrewise details are as follows :-

MEGHALAYA

7.02 This scheme was sanctioned by the Government of India in August, '83 at an estimated cost of Rs. 10.60 lakhs of NEG's share was Rs. 9.63 lakhs. The balance was contributed by a voluntary organisation known as Talent Club, Raj Bhawan, Shillong. The project components consist of construction of buildings, project equipments and appointment of staff. Initially it was expected that the unit will function partly in existing buildings of the Civil Hospital and in a new accommodation of 2000 sq.ft. Later, accommodation was not available from the Civil Hospital and a 2 storey RCC building of 4000 sq.ft. was found necessary to accommodate the staff and equipments. An expenditure of Rs. 10.59 lakhs has already been incurred upto March, 1987. Due to increase in cost of construction necessity of separate accommodation, the cost of the scheme is being revised to Rs. 27.90 lakhs.

7.03 The Government of Meghalaya has already gone ahead with the construction work and it is reported that the building has now been completed.

7.04 Equipment for the various sections of the Artificial Limb Fitting Centre have already been purchased. 40 patients are being treated daily in the centre. The requirement of funds for the scheme for 1987-88 are as follows against the approved outlay of Rs. 2.00 lakhs.

| | |
|------------------------------|--------------------------|
| a) Building | Rs. 5.08 lakhs. |
| b) Salary | Rs. 1.24 " for 16 posts. |
| c) Equipment, machinery etc. | Rs. 1.08 lakhs |
| Total :- | <u>Rs. 8.00 lakhs.</u> |

7.05 Requirement of funds for the year 1988-89 is Rs. 5.00 lakhs for maintenance of staff and purchase of equipments.

MANIPUR

7.06 On the recommendation of experts in rehabilitation and representatives of the Ministry of Health and Social Welfare held at Shillong on 24-8-81 it was decided that a number of rehabilitation centres should be established in each State of the North Eastern Region to provide basic rehabilitation services to the physically handicapped. With this objective in view, a pilot project on comprehensive rehabilitation centre was approved in 1982-83 at an estimated cost of Rs. 43.00 lakhs at Imphal in Manipur.

7.07 Due to various reasons implementation of the project could not be started till late 1984. During implementation of the scheme it was found that the staffing pattern and infrastructure was different from the requirements of the medical rehabilitation centre. On the advice of the Department of Rehabilitation, Medicine, Safdarjung Hospital, New Delhi and All India Institute of Physical Medicine and Rehabilitation, Bombay a minimum staffing pattern has been prescribed. The whole scheme was, therefore, revised to cost Rs. 54.13 lakhs taking into consideration their suggestions and keeping local requirements and State of development of infra-structure.

7.08 Upto March, 1987 an expenditure of Rs. 31.84 lakhs has been incurred on the scheme. So far about 54 staff members both technical and non-technical have been appointed and 76,000 patients have been treated under rehabilitation centre(6559), prosthetic/orthotic unit(214), physiotherapy unit (44596), occupational therapy unit (18325) speech and hearing rehabilitation unit (3375), education and counselling

and training unit (3067) etc. 7000 sq.ft. of building has been completed and 73 nos of equipments purchased besides necessary furniture. The anticipated expenditure for 1987-88 is Rs. 4.16 lakhs, against the approved outlay of Rs. 8.00 lakhs. An outlay of Rs. 11.20 lakhs is proposed for 1988-89 for purchase of equipments, staff salary, maintenance of equipments etc.

2. Artificial Limb Fitting-cum-Rehabilitation Centre, Kohima, Nagaland

7.09 This scheme was sanctioned by the North Eastern Council in December, 1986 at an estimated cost of Rs. 15.32 lakhs for providing artificial limbs, prevention, early detection and training of village level workers. The main components of the scheme are:- Construction of building, equipment and furniture, hand tools and small tools, physiotherapy equipment, salary, materials for prosthetic/orthotic and training.

7.10 The Seventh Plan approved outlay for the scheme is Rs. 11.50 lakhs. During 1986-87 an amount of Rs. 2.00 lakhs was spent on preparatory works. In 1987-88 an anticipated expenditure is Rs. 5.00 lakhs against the approved outlay of Rs. 3.50 lakhs. The scheme is expected to be completed by 1988-89 as the major construction works and purchase of equipments is likely to be over during 1987-88. An amount of Rs. 8.30 lakhs is proposed for the year 1988-89.

3. Food and Drug Laboratory, Shillong.

7.11 Prior to the creation of the States of Meghalaya which was under Assam a State Public Health Laboratory was sanctioned at Shillong. After the separation of Meghalaya from Assam the Laboratory alongwith all staff and equipment was shifted to Gauhati and till date all work related to examination and investigation of food and drug specimen are being sent to Gauhati. This has resulted in delay and in deterioration of specimen due to distance from Shillong and inadequate facilities available

at Gauhati. The population in the State of Meghalaya is to be protected from the hazards of food adulteration and therefore, a scheme for establishment of a Food and Drug Laboratory at Shillong at an estimated cost of Rs. 35.05 lakhs has been sanctioned in March, 1987. The 7th Plan allocation for the scheme is Rs. 15.00 lakhs. The main components under the scheme are construction of RCC buildings (808.50 sq.ft.) purchase of instruments and apparatus, staff salary, chemical, furniture etc. An amount of Rs. 2.00 lakhs was released for the scheme during the year 1986-87 for preparatory works. During the year 1987-88 an anticipated expenditure on the scheme is Rs. 3.00 lakhs for construction of buildings, purchase of equipments and apparatus, chemical and glass-ware, salary, furniture etc. Since the major work pertaining to capital investment are to be completed in the year 1988-89, an outlay of Rs. 20 lakhs is proposed.

4. Food and Drug Laboratory, Gauhati.

7.12 The objective of the scheme is to ensure distribution of wholesome and nutritious food, safe drinking water and clean air for the healthy growth of the population both in the urban and rural areas. A laboratory was set up at Gauhati after separation of the States of Meghalaya and Assam and this laboratory is rendering services to Mizoram, Manipur, Nagaland, Arunachal Pradesh and Meghalaya. All samples of water from the States Army and para-Military Formations are referred to Gauhati Laboratory for examination. In view of the heavy commitments of work as stated above, it has been decided to expand the activities of the laboratory by providing analytical laboratory facilities, imparting of training and refresher course of Analysts, Technicians, Food Inspectors and other functionaries, and offer technical guidance to the constituent units.

7.13 Keeping the above objective in view, a scheme for strengthening the laboratory services to control food adulteration at Gauhati has been sanctioned at an estimated cost of Rs. 30.34 lakhs in March 1987. The 7th Plan allocation for the scheme is Rs. 18.00 lakhs. The main components of the scheme are

construction of Laboratory building (564 sq.n) purchase of instrument and apparatus, staff quarters, purchase of chemicals, furniture etc. An amount of Rs. 2.00 lakhs was released for the scheme during the year 1986-87 for preparatory works. The construction works have been taken up at the full swing and the same would be completed during 1987-88. Instruments and apparatus are also to be purchased during the current financial year. An anticipated expenditure for the year 1987-88 is therefore, Rs. Rs. 17.65 lakhs as against approved outlay of Rs. 5.00 lakhs. In the year 1988-89, it is, proposed to start the basic work of the Laboratory and therefore, new staff will be appointed besides purchasing of glass apparatus, chemicals etc. An outlay of Rs.6.00 lakhs is therefore proposed for the year 1988-89.

5. Food and Drug Laboratory, Tripura.

7.14 The Government of Tripura has given much importance in ensuring good quality of food and drugs to the people of the State. A Drug Control and food control unit has been established in Tripura and to achieve maximum results a Drug Testing Laboratory is necessary. Accommodation is available for setting up the proposed laboratory. The approved outlay for the scheme in the 7th Plan is Rs. 20.00 lakhs. The scheme with an estimated cost of Rs. 31.22 lakhs has been approved in March 1987. The main components of the scheme are construction of buildings for Laboratory, Staff and office (3950 sq.ft.), purchase of instruments and apparatus, chemicals and glass-ware, staff salary, furniture etc. During the year 1986-87 an amount of Rs. 2.00 lakhs was released for the scheme for preparatory works. The Government of Tripura has already taken up construction programme for buildings, creation of posts and purchase of equipments etc. The approved outlay of Rs. 5.00 lakhs for the year 1987-88 will be fully utilised. An amount of Rs. 12.00 lakhs is proposed for the year 1988-89.

6. Orthopaedic and Traumatology Centre, Shillong, Meghalaya.

7.15 In view of the large increase in vehicular traffic and other transportation activities in the North Eastern

Region particularly on highway No.40 which is one of the main life lines of communications for the States of Meghalaya, Mizoram, Tripura and a portion of Assam and Manipur, the Government of Meghalaya has proposed to start an Orthopaedic & Traumatology Centre at Shillong to take care of highway accident cases at an estimated cost of Rs. 25.16 lakhs during the 7th Plan. The scheme envisages an accident care service in the Civil Hospital, Shillong, casualty service unit in Public Health Centres and Sub-centres on the national highway and to raise a volunteer corps in the villages situated on the highway. The main components of the proposal which has been finalised in consultation with Medical Officer M/O Health and Family Welfare, Government of India consist of construction of buildings, capital equipments, staff salary recurring expenditure etc.

7.16 Implementation of the scheme has been deferred for 1988-89 and an amount of Rs. 8.50 lakhs is proposed for 1988-89.

7. Establishment of Regional Blood Bank attached to Pasteur Institute, Shillong, Meghalaya.

7.17 Though a blood bank was set up before independence under Pasteur Institute at Shillong primarily for blood transfusion of wounded soldiers brought to Shillong from the places of war and it functioned only as a stop gap arrangement. At present it functions for blood grouping, cross matching and laboratory tapping without any facilities for storage etc. In order to improve conditions for supply of blood to patients it is proposed to provide better facilities at the existing institution under the scheme sanctioned for Rs. 18.74 lakhs in June, 1987 as an expansion programme of the blood bank. The main components of the scheme are as follows :-

- | | |
|------------------------------|-------------------|
| a) Construction of building. | - Rs. 5.19 lakhs. |
| b) Equipments | - Rs. 4.99 lakhs. |

| | | |
|--|---|-------------------------|
| c) Vehicles | - | Rs. 5.00 lakhs. |
| d) Salary | - | Rs. 3.18 lakhs. |
| e) Publicity | - | Rs. 0.07 lakhs. |
| f) Stationeries, tiffin for donors, contingencies, chemicals and drugs, transfusion set and blood bottles. | - | Rs. 0.15 lakh. |
| g) Training | - | Rs. 0.16 lakh. |
| TOTAL | - | <u>Rs. 18.74 lakhs.</u> |

7.18 During the year 1987-88 the revised estimate of expenditure is Rs. 13.00 lakhs as against the approved outlay of Rs. 10.00 lakhs for construction works, purchase of equipments and vehicle. An amount of Rs. 4.50 lakhs is proposed for 1988-89 to complete the construction works, staff salary etc.

8. Establishment of Radiation Medicine Unit, Agartala, Tripura.

7.19 Nuclear medicine is a recent advancement for the diagnosis and treatment of disease. It has been made possible by the development of very short half life radioisotopes and development of nathing technique for imagine of orbans by use of radio-isotope. In the field of advanced diagnosis of disease, nuclear medicine is helpful to identify diseases of cardio-vascular organs thyriod glands, kidneys, brain and liver which was hither-to not possible. Radio-isotope can be used for treatment of disease like throtisic goitre and some other malignant diseases. Goitre is very common in the North Eastern Region and only operative treatment was so far possible.

7.20 The Cancer Hospital, Agartala has been functioning since May, 1985 as a separate institute in the GB Hospital campus. It deals with mainly diagnosis and treatment of cancers. The diagnosis of cancers at this moment is limited to clinical examination, operative diagnosis and X-ray finding. More modern diagnosis of cancers and other diseases are not available in the State, with the result, a large number of cases reported very late.

7.21 In view of the above, a Regional Nuclear Medicine

Department at the Cancer Hospital attached to the GB Hospital, Agartala is proposed to be started under NEC Plan at an estimated cost of Rs. 14.50 lakhs.

7.22 The main components of the project cost are construction of building (Rs. 3.00 lakhs), equipments (Rs. 8.00 lakhs), staff salary (Rs. 4.00 lakhs), others (0.50 lakhs). The Medical Officer Health and Family Welfare has advised the Director Bhabha Atomic Research Centre, Bombay Tripura and finalise the technical details of the scheme and send the same to the Ministry for technical clearance of the scheme. As the finalisation of the proposal may take time, no expenditure is anticipated in the year 1987-88. An outlay of Rs. 5.00 lakhs is however, proposed for 1988-89.

9. Establishment of a Speech Therapy Unit at GB Hospital, Agartala.

7.23 It is estimated that Tripura alone has about 500 children who are born mute or with defective speech. Loss of hearing of different degrees is also increasing because of different types of hazards. The commonest cause of deaf mute is congenital. In order to ameliorate sufferings of such types of people speech therapy is essential for patients. The Government of Tripura has proposed to establish a speech therapy unit to be attached to the existing E&T Department of the GB Hospital, Agartala at an estimated cost of Rs. 13.31 lakhs.

7.24 The main components of the scheme are construction of building, purchase of audiometry machine, routine E&T equipment, staff salary etc. The implementation of the scheme has been deferred for 1988-89 and ^{an} outlay of Rs. 5.00 lakhs has been proposed.

10. Upgradation/Expansion of the Rehabilitation Centre at GB Hospital, Agartala.

7.25 The rehabilitation is the restoration of the handicapped to the fullest physical, mental, social, vocational and economical usefulness of which they are capable. In

other words, it is the prove of returning a man, woman, children to a normal healthy position in the social structure after they have been dislodged from it for one reason or other.

7.26 Handicaps resulting from congenital malformation and acquired conditions like polio, cerebral palsy, amputation, paraplegia, hemiplegia muscular dystrophies, leprosy, accidental injury and various neuro-muscular and arthritic conditions.

7.27 The philosophy of rehabilitation medicine is very well accepted in India. The problem of disabled in India is a gigantic one and the problem is very acute in NE Region where estimated disabled population is 16 lakhs against 2.66 crores of population. Of the total population in Tripura, about 10% are estimated as disabled. But of the total disabled 70% are orthopaedically handicapped and polio comprised a lion share of more than 60%. The incidence of amputated patients had been increased due to the 1971 Bangladesh liberation war and June, 1980 riot in Tripura.

7.28 A Rehabilitation Centre at G.B.Hospital was established with the assistance from the NEC. The centre is required to be upgraded/expanded keeping in view the added requirements. The scheme at an estimated cost of Rs. 11.90 lakhs is being approved. The main components of the scheme are purchase of equipments and machinery, salary for the staff etc. Since purchase of equipments is likely to take time no expenditure is anticipated during 1987-88. An outlay of Rs. 6.00 lakhs is proposed for 1988-89.

11. Forensic Science Laboratory at Gauhati, Assam (Supplementary scheme)

7.29 Under the NEC Sixth Plan, NEC's support was provided to the Forensic Science Laboratory at Gauhati for improvement of some facilities. The need for further expansion of these facilities is now felt by other constituent units as the existing laboratory has not been able to cope with the increased work-load which was reviewed in the conference of Police

official of the region. The Government of Assam has submitted a revised scheme for Rs. 146.24 lakhs which has been sent to Ministry of Home Affairs for examination and comments. The approved outlay of the scheme is Rs. 2.00 lakhs for the year 1987-88 and no expenditure is anticipated during 1987-88. An amount of Rs.30.00 lakhs has been proposed for the year 1988-89.

12. Revised Project Report for the Pasteur Institute, Shillong.

7.30 The objective of the scheme for expanding various facilities under Pasteur Institute is to cater to the requirement of the States in the NE Region for supply of bio-logical products such as Cholera Vaccine, Thyphoid Vaccine and Rabies vaccine and to render expert advice on such diseases and to impart training for medical and para-medical personnel in diagnostic and treatment of rabies, laboratory techniques and investigations etc. The NEC has provided financial assistance to modernise the whole structure of the buildings and to introduce latest equipment for augmentation of production of vaccine. The original cost of the scheme was for Rs. 54.00 lakhs during the 6th Plan and later revised to Rs. 104.48 lakhs due to escalation cost in renovation and construction of buildings and increase in cost of equipment. The scheme was allowed to be continued in the 7th Plan with an approved outlay of Rs. 50.00 lakhs.

Upto March, 1987 an expenditure of Rs. 104.00 lakhs has been made for purchase of equipments and for building construction. No funds allocated for the scheme during 1987-88 as the scheme was expected to be completed in 1986-87. Building construction has since been completed, however, due to increased in cost imported equipments, the purchase of necessary equipments could not be completed. Thus to complete the scheme in all respects an amount of Rs.30.00 lakhs is assessed as an expenditure during 1987-88.

13. Upgradation of Dr.B.Baruah Cancer Institute, Gauhati,
A - am

7.31 High incidence of certain types of cancer in the region has been causing anxiety to the Health Authorities of the different States in the Region. It is the general consen-

that absence of adequate facilities for cancer treatment in the region has been telling heavily on the financial capabilities of the patients as they have been and are required to go outside the region for treatment. A large number of poor people have even to go without any treatment with fatal consequences. Dr. B. Baruah Cancer Institute is the only Cancer treatment Institute in this region which was established in 1974 by a voluntary organisation and recently taken over by the Government of Assam. At present there are 50 beds in the hospital. On an average 2500 patients attend hospital annually from different parts of the NE Region. This scheme was proposed as supplementary scheme to the Planning Commission for inclusion in NEC Annual Plan 1987-88. The Working Group of the Planning Commission during Annual Plan discussion accepted in principle inclusion of this scheme and recommended that the scheme may be taken up during the 8th Plan and also suggested that the preparatory works for the scheme may be taken up right now. The Government of Assam is accordingly going ahead for preparation of the detailed report in consultation with the Cancer Institute, Madras. The project is being examined in the Council Secretariat in consultation with Ministry of Health and other concerned. As per the report, the total cost of the project is likely to be about 15.00 crores. The deferring of implementation of this project in the 8th Plan would delay the project by at-least two years and would lead to delay in the process etc. It is, therefore, proposed that this proposal may be included in the NEC Annual Plan 1988-89 itself and a token provision of Rs. 10.00 lakhs may be made available for initiating preparatory works.

7.32 The schemewise detailed expenditure, outlay and proposed outlay is given in the annexed statement.

-7.12.-

(Rs. in lakhs)
(Ref para 7.32)

DRAFT ANNUAL PLAN 1988-89

SOCIAL & COMMUNITY SERVICES

| Name of Scheme | Approved 7th Plan outlay | Anticipated Expenditure | | 1987-88 | | Proposed out- lay for 88-89. |
|--|--------------------------------|--------------------------------|-------|--------------------|----------------------------|---------------------------------|
| | | 1985-86 | 86-87 | Approved outlay | Antici- pated expdr. | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Artificial Limb Fit- ting-cum-Rehabilitation Centre, Shillong/Imphal. | 20.42 | 2.00 (Shg) 7.42 (Imp) | 9.80 | 2.00 8.00 | 8.00 4.16 | 5.00 11.20 |
| 2. Artificial Limb Fit- ting-cum-Rehabilitation Centre, Nagaland. | 11.50 | - | 2.00 | 3.50 | 5.00 | 8.30 |
| 3. Food & Drug Laboratory, Shillong. | 15.00 | - | 2.00 | 5.00 | 3.00 | 20.00 |
| 4. Food & Drug Laboratory, Gauhati. | 18.00 | - | 2.00 | 5.00 | 17.65 | 6.00 |
| 5. Food & Drug Laboratory, Tripura. | 20.00 | - | 2.00 | 5.00 | 5.00 | 12.00 |
| 6. Orthopaedic & Trauma- tology Centre, Shillong. | 10.00 | - | - | 3.00 | - | 8.50 |
| 7. Regional Blood Bank attached to Pasteur Institute, Meghalaya. | - | - | - | 10.00 | 13.00 | 4.50 |
| 8. Estt. of Radiation Medicine Unit, Agartala. | - | - | - | 5.00 | - | 5.00 |
| 9. Estt. of Speech Therapy Unit at GB Hospital, Agartala. | - | - | - | 3.00 | - | 5.00 |
| 10. Upgradation & Expansion of Rehabilitation Centre at GB Hospital, Agartala. | - | - | - | 6.00 | - | 6.00 |
| 11. Forensic Science Laboratory. | - | - | - | 2.00 | - | 30.00 |
| 12. Pasteur Institute, Shillong. | 50.00 | 22.00 | 28.00 | - | 30.00 | - |
| *13. Upgradation of Dr. B Borooah Cancer Institute, Gauhati. | - | - | - | - | - | 10.00 |
| Total | | | | 57.50 | 85.81 | 131.50 |

* New proposals

GENERAL SERVICES1. Regional Information & Documentation Centre:

8.01. The Regional Information and Documentation Centre was set up in 1974-75 with a view to disseminating information pertaining to different aspects of the socio-economic life of the five States and two Union Territories constituting the North Eastern Region. The major objectives of this centre were to build up a repository of essential information regarding economic resources, trend of development and potentialities and problems of the entire region and to maintain systematic record about the developmental activities sponsored by different agencies like the Govt of India, States and Union Territories Govt and the North Eastern Council. The Centre has developed a collection of more than 13,000 books covering all disciplines besides a respectable stock of journals, reports and studies having relevance to this region.

8.02. The original Sixth Plan allocation was Rs.17.15 lakhs while the actual expenditure was Rs.25.00 lakhs. More than 20 printed publications have been brought out under this scheme during the last few years. A journal of the North Eastern Council and the "Basic Statistics of the NE Region" are also being brought out regularly.

8.03. It is proposed to continue the present activities like purchase of new books and journals, printing of publications and expansion of press and audio-visual activities. The activities of this centre envisaged in Seventh Plan are:

- a) The activities which have been under way under the Regional Information and Documentation Centre would be continued as before.
- b) The Information Wing should be strengthened with acquisition of essential audio-visual equipments and also providing new technical hands to look after certain specialised works like Press Research and General liaison.
- c) A new drive for collecting technical information and their systematic dissemination among Government Departments, Research Institutions and scholars will be launched to make plan formulation and implementation more fruitful.

8.04. The Centre has also started a number of Press Clipping files covering all the sectors under the Secretariat individually and few other clipping files in respect of general information. Besides, newspaper cuttings these files contain summaries of important documents concerning the individual sectors and extracts from special publications reports and technical journals.

8.05. The Seventh Plan outlay for the scheme is Rs.50.00 lakhs, Rs. 17.20 lakhs were spent during 1985-87. The approved outlay of Rs.10.00 lakhs for 1987-88 and anticipated expenditure is assessed at Rs.8.00 lakhs. An amount of Rs.10.00 lakhs is proposed for 1988-89.

2. Natural Hazard Reduction Programme:

(i) Setting up an Earthquake Risk Evaluation Cell in North Eastern Council Secretariat:

8.06. On the recommendation of ERE Council, and ERE Centre was established in 1980 to augment and co-ordinate the Earthquake Prediction related research in the North-East India. A nucleus has already been created in NEC with five Senior Technical Assistants (trained in Seismology and Computer Programme), an Extension Officer, Statistician, headed by a Director (Science & Technology). This small working team of ERE Centre so far have completed analysis of Seismographs generated during the period 1963 to 1980 by the World Wide Standardised Seismictic Network Station (WWSSN) located in the Central Seismological Observatory at Upper Shillong. Moreover, staff attached to the ERE Centre have also analysed the out-station seismograph.

8.07. This Centre is also recording the Kopili Reservoir level data with a view to study the reservoir induced seismicity. A mini computer has beenⁱⁿstalled at the Centre in 1982 for processing of the earthquake and other geophysical data. A programme called Hypo 71 originally developed by US Geological Society in a big computer has been truncated and designed so as to accommodate it in this mini computer. This programme is now regularly used by the Department of Environment, Gauhati University for the earthquake location. Moreover, the (analysed) data of WWSSN of Central Seismological Observatory, Shillong and other Stations is being stored in the computer in a definite format so as to utilise the same as and when required.

8.08. The Centre, in collaboration with National Geophysical Research Institute, Hyderabad has so far established three seismic observatories and the preliminary survey work for establishment of another two has also been completed.

8.09. The approved outlay for the Sixth Plan was Rs.40.00 lakhs out of which, Rs.24.00 lakhs were spent. An amount of Rs.40.00 lakhs has been provided in the Seventh Plan and Rs.12.38 lakhs were spent during 1985-87. The approved outlay for 1987-88 of Rs.8.00 lakhs will be utilised. The scheme has been revised recently and it is expected that the revised scheme will be approved shortly. An outlay of Rs.7.20 lakhs is proposed for 1988-89 as per phasing of the scheme.

2. (ii) Scheme for Earthquake Risk Evaluation in North Eastern Region - Establishment and Operation of a Network of Short Period Seismic Stations in North Eastern Region.

8.10 This is a new scheme formulated by the amalgamation of the two earlier approved schemes for Earthquake Risk Evaluation viz: (a) Setting up of 10 Seismological Stations and (b) Telemetered Seismic Network in North Eastern Region. The approved outlay for the scheme at (a) was Rs.15.00 lakhs while that for the scheme at (b) was Rs.25.00 lakhs for the Seventh Plan period.

8.11. A provision of Rs.34.90 lakhs was made for the establishment of 10 Seismological Stations in the Sixth Plan. Only Rs.10.6 lakhs were spent out of this for purchase of 5 sets of instruments during the Sixth Plan. The scheme was allowed to continue in the Seventh Plan with an approved outlay of Rs.15.00 lakhs. Approved outlay for this scheme in 1986-87 was Rs.4.00 lakhs.

8.12. The new scheme which replaces these two schemes will be implemented at a cost of Rs.60.21 lakhs by the National Geophysical Research Station, Hyderabad. The approved provision of Rs.7.00 lakhs for both the schemes in 1987-88 will be utilised. A provision of Rs.30.00 lakhs may be kept for 1988-89.

3. Research and Development Projects:

(i) Repetitive Geodetic Survey for Monitoring Land Deformation Precursor of Earthquake:

8.13. The Geodetic and Research Branch of Survey of India is carrying out a study of land deformation in the North Eastern India as a precursor of earthquake. It is a NEC sponsored scheme implemented by the Survey of India. Out of the approved outlay of Rs.14.91 lakhs in the Sixth Plan

an expenditure of Rs.9.70 lakhs has been incurred for purchasing instruments to carry out this survey. The scheme is continuing in the Seventh Plan period with an approved outlay of Rs.4.00 lakhs. No expenditure was incurred during 1985-87. The approved outlay of Rs.1.00 lakh for 1987-88 will be utilised. An amount of Rs.5.00 lakhs may be kept for 1988-89 towards the payment of customs duty on import of equipments such as, gravity meter. Efforts are being made to get custom duty exemption.

(ii) Radon Emission Study for Identifying Earthquake Precursor:

8.14. The scheme is being implemented by the Earthquake Risk Evaluation Cell of the NEC with the active assistance of Atomic Mineral Division of the Department of Atomic Energy, Govt of India. Work had commenced in 1982 and would continue during the Seventh Plan. An outlay of Rs.10.00 lakhs has been approved for the scheme in Seventh Plan. The approved outlay for 1986-87 was Rs.0.50 lakhs but no expenditure was made as this scheme was run on the funds provided by Atomic Mineral Division. An amount of Rs.1.00 lakh has been approved for 1987-88 which will be utilised. A mini laboratory in the NEC is being set up in the current year. AMD is also continuing the work concerning the study. An amount of Rs.4.00 lakhs may be provided for the year 1988-89 for extension of the study in the North Eastern Region as the work at present is confined in and around Shillong only.

(iii) In-Situ Stress Measurements:

8.15. The main objectives of the scheme are (1) to measure In-Situ Stress in the North Eastern Region (Shillong, Mikir Hills, Mishmi Hills and some of the inselverges north of Brahmaputra); (2) to know whether the seismic gaps are highly in stress condition or not. This study forms a valuable complement to the earthquake related research programme in the North Eastern Region. The scheme will be implemented by the Geophysical Research Institute, Hyderabad. The NEC's share will be Rs.15.00 lakhs mainly towards drilling of the bore wells only and the rest will be borne by the implementing agency i.e. NGR I, Hyderabad. The scheme has been sent to the Department of Science and Technology for technical clearance and the same is expected soon. The Planning Commission has approved an outlay of Rs.5.00 lakhs for the Seventh Five Year Plan for the scheme. It is proposed to take up the scheme from 1988-89 and an amount of Rs.5.00 lakhs is proposed for 1988-89 as an outlay.

4. Science and Technology

(i) Regional Science and Technology Council:

8.16. The North Eastern Council had established a North Eastern Regional Committee of Science and Technology (NERCST) in March 1981 to co-ordinate the work of State Science Councils and to assist the NEC in formulating S&T programmes of the North Eastern Region. The Committee has held three meetings so far. It is represented by eminent scientists and academicians engaged in Science and Technology activities in the North Eastern Region. An outlay of Rs.5.00 lakhs has been approved for the Seventh Plan while an amount of Rs.1.00 lakh was approved for 1987-88. A similar amount may be approved for 1988-89.

(ii) Other programmes:

8.17. In addition to the existing projects, the NERCST is expected to consider and recommend a number of small R & D Projects in various fields related to the development needs of the region. The Committee has so far financed three projects namely (a) Study of Uranium contents in water (b) Mutation by Gamma Radiation on Banana and (c) Data collection on Metallic and Non-Metallic Ore minerals in Ultramafites belt of Indo-Burma Region. Out of these, (a) and (c) have been already completed and the reports submitted. The report in respect of (c) has been forwarded to the Govt of Manipur and Mineral Exploration Corporation for further action.

8.18. An outlay of Rs.5.00 lakhs is approved for the Seventh Plan period. An amount of Rs.0.67 lakhs has been spent on these studies till March 1987. Against the approved outlay of Rs.3.00 lakhs for 1987-88 an anticipated expenditure is Rs.1.00 lakh. An outlay of Rs.3.00 lakhs is proposed for 1988-89.

(iii) Science Museum/Science Centre:

8.19. To develop basic culture among the masses about the modern developments in Science and Technology a comprehensive scheme has been drawn up for having a Regional Science Museum and five sub-regional Science Museums/Centres in the NE Region with the support of the National Council of Science and Museums. The total estimated expenditure on the scheme will be of the order of Rs.270.00 lakhs of which NEC's share will be 50 per cent. An outlay of Rs.131.00 lakhs has been approved for the Seventh Plan. The Regional Science Museum at Gauhati is being set up by NCSM and the case for sub-centres is being processed. The construction and other works at Regional Science Museum, Gauhati have been already started and some models and exhibits have also been procured. A sum of Rs.20.60 lakhs was released to NCSM for this scheme in 1986-87 out of an approved outlay of Rs.50.00 lakhs. Anticipated expenditure on the scheme for 1987-88 is Rs.20.65 lakhs against the approved outlay of Rs.25.00 lakhs. A provision of Rs.25.00 lakhs may be necessary for 1988-89 for setting up of five Sub-Regional Science Museums.

5. Regional Centre for Resource Evaluation
Documentation and Information System:

8.20. Recognising the critical role of information in plan formulation and other developmental activities, the scheme for Regional Centre for Resource Evaluation Documentation and Information was included in the Sixth Plan with an outlay of Rs.50.00 lakhs. The scheme with an estimated cost of Rs.165.52 lakhs has been approved. The centre is expected to collect detailed information in regard to natural, organisational and human resources and realistic determination of the extent of utilisation of the same. The task of the Centre broadly are:

(i) Documentation (ii) Data Processing (iii) Reference and Planning and (iv) Information dissemination.

8.21. The Seventh Plan approved outlay for the scheme is Rs.45.00 lakhs. Till March, 1987 an expenditure of Rs.1.84 lakhs has been incurred on the scheme. Keeping in view the developments that the National Informatics Centre, Deptt. of Electronics, Govt of India is setting up computer based information networks in the NER, the Ministry of Home Affairs have suggested that NEC Secretariat may operate the scheme in consultation with the NIC so as to avoid duplication. Accordingly, Secretary, NEC had series of discussions

with the representatives of the NIC and it has been agreed that NIC will take care of the requirements of NEC in their comprehensive scheme. The comprehensive proposal from NIC is yet to be received. However, it has also been agreed that funds available for the scheme with NEC will be made available for the comprehensive scheme. In the mean time, recruitment of Joint Adviser/and Manager for co-ordinating the activities of the scheme besides appointment of other minimal staff is in progress. NEC is however, finding it difficult to get suitable officers for the posts of Joint Adviser and Manager. NIC and also the Deptt. of Statistics have been requested to spare the services of officers from their cadres.

8.22. Anticipated expenditure for 1987-88 is assessed at Rs.1.00 lakh as against the outlay of Rs.3.00 lakhs. An amount of Rs.50.00 lakhs is proposed for 1988-89 for meeting the part payment for equipments, infrastructure development, staff salary etc.

6. Documentation of Tribal Culture:

8.23. The North Eastern Region has a large concentration of tribal population which consist of more than 100 tribes and sub-tribes. Each tribe has a distinct identity and way of life, social customs, dances and music, fairs and festivals, rites and rituals. They present a scene of fantastic diversity and a unique cultural mosaic. They have very rich cultural heritage which the people of the region are proud of. This cultural heritage is in danger of extinction due to variety of complex factors and call for immediate measures to preserve and protect these traditional arts, culture and craft of the family of the north east. In the 7th Plan of NEC, therefore, a comprehensive scheme for documentation of traditional culture of the major tribal groups of the region was included and a token provision of Rs.15.00 lakhs was provided.

8.24. Schemes for Arunachal Pradesh (estimated cost Rs.2.542 lakhs) Assam (estimated cost Rs.2.156 lakhs) and Manipur (estimated cost Rs.1.00 lakh) have been sanctioned in August 1987. Schemes for other States of the region are being prepared in consultation with concerned State Governments. Anticipated expenditure for the scheme in 1987-88 is assessed at Rs.2.50 lakhs against the approved outlay of Rs.1.00 lakh. An outlay of Rs.6.00 lakhs is proposed for 1988-89.

8.25. In this connection, the need for a modern archives was felt for preservation of documented art and culture of the region. It is, thus proposed to establish an archive at North Eastern Hill University for preservation of documented art and culture of NE Region. The archives will provide facilities for preservation of a video tapes, film, books, objects of arts etc. for research and general informations. North Eastern Hill University has already agreed to provide building for the proposed archive. For operating the centre, some additional staff, equipments and training facilities are to be added only for which an amount of Rs. 2.00 lakhs will be required. The detailed scheme is under preparation.

Planning Commission has earmarked Rs.15.00 lakhs for the scheme on "Documentation of Traditional Culture of Tribal people for NEK". The proposed amount of Rs.2.00 lakhs for 1988-89 will be met from within the approved Seventh Plan outlay.

7. Chairman's Survey & Consultancy:

8.26. A number of surveys, studies/investigations in regard to problems peculiar to this region are required to be taken up and feasibility reports/techno-economic reports are required to be prepared for optimal utilisation of region's resources and enabling taking up of appropriate projects. Occasionally experts are required to be engaged for undertaking such and other activities. An outlay of Rs.250.00 lakhs has been provided in the Seventh Plan for the purpose. During 1985-87 an amount of Rs.44.88 lakhs has been spent on such activities and an amount of Rs.38.00 lakhs is anticipated during 1987-88. An amount of Rs.50.00 lakhs is proposed for 1988-89.

8. Environmental Studies:

8.27. The proposal has been discussed with the Deptt. of Environment, Govt of India and accordingly, a Regional Committee on Environment has been set up. The Committee has recommended for constituting 20-25 teams of various institutions and voluntary organisations to take up specific study to find out the actual needs of the people and how the needs could be met from local resources. After receiving the reports from the teams NEC will take up pilot demonstration projects. So far till March 1987 an expenditure of Rs.0.07 lakh has been made. For the current financial year 1987-88 an anticipated expenditure of Rs.1.00 lakh against the approved outlay of Rs.5.00 lakhs. For 1988-89 also an outlay of Rs.1.00 lakh is proposed.

9. Housing for NEC Staff:

8.28. Provision of residential accommodation for NEC Advisers and staff has been of constant concern of the Council Secretariat because of various obvious reasons. A scheme for providing housing facilities was therefore, included in the Seventh Plan of NEC and the Planning Commission provided an outlay of Rs.72.00 lakhs. So far a type-IV complex (10 units) has been completed and construction work for the other complex of type-III quarters has also been started by the CPWD. An expenditure of Rs.38.00 lakhs has been incurred on the project till March 1987 and an anticipated expenditure for the year 1987-88 is Rs.20.00 lakhs. An outlay of Rs.20.00 lakhs is proposed for 1988-89.

10. Youth Activities:

8.29. For promoting youth activities in the region in the Seventh Plan, there is an approved outlay of Rs.5.00 lakhs. The outlay is so meagre to take up any worthwhile programme in the field of sports and youth affairs. The NER has a very rich heritage of athletics and sports. Though the region is endowed with a small population, the sportmen and women from the NER had donned the national colours in football, hockey and athletics with distinction. However, despite this rich potential spread of high standard sports in the NER has been somewhat tardy and it is even felt that the standards are declining. The major constraint on development of sports in the region is lack of tracks, stadium etc. even at places of established sport cultures. The Govt of Assam, has come with a proposal to set up a new Regional Sports complex at Nagaon in collaboration with Netaji Subhash National Institute of ^{sports} Patiala.

8.30. The scheme will be implemented by the NIS, Patiala and the State Govt has already handed over the required land of 180 bighas to the NIS. The sports complex project envisages provision of sports infrastructure like outdoor and indoor stadium, swimming pool, 400 mt track and ground facilities for different sports disciplines for the budding talents of the region. The part of the cost of the project above is Rs.1.00 crore will be borne by the NIS. Since the complex will serve the interest of the entire region and help in improving the standard of sports, it is, proposed to support the proposal under NEC Plan. The proposal has been sent to the Deptt. of Youth Affairs and Sports for technical clearance. A token provision of Rs.10.00 lakhs is proposed for the project in 1988-89. For existing programmes an anticipated expenditure for 1987-88 is Rs.0.50 lakh against the approved outlay of Rs.2.00 lakhs.

11. Establishment of a Film Studio-cum-Production Centre of Jyoti Chitraban, Gauhati, Assam

8.31. Over the years the Audio-Visual medium has assumed a great importance in the field of knowledge, information, understanding, education, culture, communication etc. In the coming years, its role is sure to assume greater importance. The NER has to keep pace with the development and equip itself with the necessary facilities.

8.32. The Jyoti Chitraban (Film Studio) Society with existing facilities of shooting floor, sound studio, black and white laboratory editing etc. has been catering to some of the needs of the film makers, artists and technicians of the region. But in view of the growing needs, improvement in the existing facilities of Jyoti Chitraban has become necessary. The improvement in the existing facilities, will help the society in playing an effective role in the development of audio-visual system of the entire region. A proposal for development of Jyoti Chitraban was sent to the Planning Commission and it was agreed in principle that the project needs support under NEC Plan. On the recommendation of the Planning Commission the NEC has taken up preparation of detailed project report for the establishment of the Film Studio-cum-Production Centre through the Consultant. The total project cost and its details would be submitted to the Planning Commission in due course. In the meantime, a token provision of Rs.10.00 lakhs may be provided for the project in NEC Annual Plan 1988-89.

12. Integrated Multi-Channel Police Tele-communication for NER:

8.33. As per the present policy of Govt of India, Multi-channel Tele-communication system in the Microwave Frequency Range from 2.3 to 2.5 GHz is available to the Police. In view of this major policy M/S B.E.L. was requested by the Assam Govt to prepare a scheme consisting of Micro-wave systems for the NER in general and the Assam Police in particular. The scheme prepared by B.E.L. is to cost about Rs.13.00 crores based on present prices. The Non-recurring expenditure is of the order of Rs.12.46 crores and the recurring expenditure is of the order of Rs.0.46 crores. The proposal has been sent to the Ministry of Home Affairs for consideration. Keeping in view the importance of the scheme for maintenance of law and order, it is proposed to include the scheme in NEC Plan from 1988-89 and a token provision of Rs.5.00 lakhs is requested in 1988-89.

8.34. The scheme-wise detailed expenditure outlay and proposed outlay are given in the annexed statement.

DRAFT ANNUAL PLAN 1988-89

GENERAL SERVICES:

(Rs. in lakhs) (Ref. para 8.34)

| Name of scheme | Approved | Actual expenditure | | 1987-88 | | Proposed |
|--|--------------------|--------------------|---------|--------------------|-----------------------------------|-------------------|
| | 7th Plan Outlay | 1985-86 | 1986-87 | Approved outlay | Anticipated for Expenditure | Outlay 1988-89 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <u>Continuing schemes</u> | | | | | | |
| 1. Regional Information & Documentation Centre. | 50.00 | 8.07 | 9.13 | 10.00 | 8.00 | 10.00 |
| 2. Natural Hazards Reduction Programme: | | | | | | |
| i) Earthquake Risk Evaluation Cell. | 40.00 | 6.64 | 5.74 | 8.00 | 8.00 | 7.20 |
| ii) Earthquake Risk Evaluation in NER - Establishment and operation of network of short period Seismic Station in NER. | 40.00 | - | - | 7.00 | 7.00 | 30.00 |
| 3. <u>R & D Projects:</u> | | | | | | |
| i) Repetitive Geodetic Surveys for monitoring land deformation Precursor of earthquake. | 4.00 | - | - | 1.00 | 1.00 | 5.00 |
| ii) Radon Emission Studies for Identifying Earthquake Precursors. | 10.00 | - | - | 1.00 | 1.00 | 4.00 |
| iii) In-situ Stress Measurements. | 5.00 | - | - | - | - | 5.00 |
| 4. <u>Science & Technology:</u> | | | | | | |
| i) Regional Science & Technology Council | 5.00 | - | - | 1.00 | 1.00 | 1.00 |
| ii) Other Programmes | 5.00 | 0.37 | 0.30 | 3.00 | 1.00 | 3.00 |
| iii) Science Museum/Science Centre. | 131.00 | - | 20.60 | 25.00 | 20.65 | 25.00 |
| 5. Regional Centre for Resource Evaluation Documentation & Information System. | 45.00 | - | 1.84 | 3.00 | 1.00 | 50.00 |
| 6. Documentation of Traditional Culture | 15.00 | - | - | 1.00 | 2.50 | 8.00 |
| 7. Chairman's Survey & Consultancy. | 250.00 | 18.16 | 26.72 | 50.00 | 38.00 | 50.00 |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|-------|-------|-------|--------|--------|--------|
| 8. Environmental Studies | | 15.00 | - | 0.07 | 5.00 | 1.00 | 1.00 |
| 9. Housing for NEC Staff. | | 72.00 | 18.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| 10. Youth Activities. | | 5.00 | 0.02 | - | 2.00 | 0.50 | 10.00 |
| *11. Establishment of Film Studio-cum-Production Centre - Jyoti Chitraban, Assam. | | - | - | - | - | - | 10.00 |
| *12. Integrated Multi-Channel Police Tele-Communications for NE region. | | - | - | - | - | - | 5.00 |
| Total | | | | | 137.00 | 110.65 | 244.20 |

* New proposals.



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Planning and Administration
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