

CHAPTER - IX

SCIENCE TECHNOLOGY & ENVIRONMENT

8.1 SCIENCE & TECHNOLOGY

8.1.1 The Eleventh Plan (2007-12) proposed outlay for this sector is **Rs1500.00** lakhs. The approved outlay during 2007-08 is Rs.125.00lakhs which is expected to be fully utilized. The proposed outlay for Annual 2008-09 is Rs.200.00 lakhs Out of the projected 10th Plan 2002-07 outlay of Rs.515.00 for this sector the total actual expenditure is **Rs 428.57** lakhs .

8.1.2 Under the Science Technology sector in the State, a number of programmes are taken-up to promote the application of science & technology for over-all development of the State. Such programmes include Popularization of Science, Introduction of Appropriate Technology, Specific Projects, Students' Projects, S&T Library & Documentation, Science & Technology Entrepreneurship Development and Science Centres

8.1.3 The State S&T Council associates itself with any science & technology initiative/ projects taken-up by other organizations. Some of the projects are:-

(a) **Science Centres Programme:** A first-ever Centre of its kind, the Shillong Science Centre, has been set up in Shillong. The Centre is a place for promoting science awareness among the public, particularly school children. The Centre is functioning as an autonomous society of the State Govt. The project was set-up by National Council of Science Museums, Kolkata in association with Planning (Science &Technology) Department of the State Government with 90:10 fund contribution from Govt. of India and the State Government. Currently, the Shillong Science Centre is being supported for its day-to-day functioning through the State Plan. During the next financial year (2008-2009), the regular support to the Centre would continue. Provision has also been made for organising and enhancing science awareness programmes in the Centre during the year.It is also proposed to initiate similar activities at the district-level during the next financial year, but at a lower-scale

(b) **Bio-Resources Development Programme:** A Bio-Resources Development Centre has been set-up in the State under the S&T sector during the 10th Plan period. The Centre is being looked after by a Scientist-in-Charge, currently assisted by 11 (eleven) scientific, technical and administrative personnel. The Centre is operating as an autonomous society of the State Government. Currently the Centre is implementing a project with the financial assistance from the Department of Bio-Technology, Govt. of India. In the 2008-09 Annual Plan, it is proposed to strengthen the activities of the Centre through a number of projects to be funded under State Plan scheme under this new programme.

(c) **Remote Sensing Application Programme:** A project on survey and identification of the science and technology needs of the State is currently being taken up by the State S & T Council with the funding from the Department of Science & Technology, Govt. of India. The project has been carried out utilizing remote sensing application based techniques. Considering the potential for remote sensing application in various developmental sectors in the State, a number of remote sensing application projects have been proposed in 2008-09.

8.1.3 The schematic broad break up during the 11th Plan and Annual Plan (2007-08) and Proposed outlay for 2008-09 is shown in the table below :-

Name of the Scheme	Proposed Eleventh Plan(2007-12)	Annual Plan 2007-08		Proposed Outlay 2008-2009
		Approved outlay	Anticipated expenditure	
1.	4.	5.	6.	7.
1. Popularization of Science	300.00	26.00	26.00	40.00
2. Introduction of Appropriate Technology	500.00	50.00	50.00	70.00
3. Specific Projects	50.00	3.00	3.00	5.00
4. Student Projects Programme(SPP)	20.00	1.00	1.00	3.00
5. S&T Entrepreneurships Development	50.00	3.00	3.00	4.00
6. S&T Library and Documentation	30.00	2.00	2.00	3.00
7. Science Centres Schemes(SCS)	150.00	12.00	12.00	20.00
8. S&T Cell/Council	200.00	18.00	18.00	23.00
9. (BRDP.) Bio-Resources Dev. Programme.	150.00	8.00	8.00	26.00
10. Remote Sensing Application Programme (RSAP)	50.00	2.00	2.00	6.00
TOTAL	1500.00	125.00	125.00	200.00

8.2. INFORMATION TECHNOLOGY

8.2.1. The Information Technology Department had in 2006-07 implemented State Plan Schemes with a total expenditure of Rs. 110.00 Lakhs excluding implementation of NeGP. However, in 2007-08 the State Plan Schemes excluding NeGP would have an anticipated expenditure level of Rs. 150.00 Lakhs. During 2007-08 many initiatives have been made by the Department and as such a Plan Outlay of **Rs. 1250.00 Lakhs** for 2008-09 which includes Rs.250.00 lakhs for State Plan Schemes and Rs. 1000.00 lakhs for implementation of NeGP is proposed. For the XI Five Year Plan Period an outlay Rs. 6300.00 lakhs has been projected.

8.2.2. During 2007-08, the Government had set up an IT Park (STPI) in Shillong which is now functional. An IT Estate at New Shillong Township under PPP or other vehicle is being proposed. The SWAN and CSC projects have reached the final stages of RPF and the

same will be floated during the current financial year. A proposal for installation of Wi-Fi Hot Spots in Shillong with funding from NEC had been initiated. The State GIS Laboratory is being augmented and consolidated. The Department has awarded desktops and laptops to toppers of SSLC and HSSLC under MBOSE and the same will be continued during 2008-09 involving all boards. The Department is strengthening infrastructures and logistic support to the Secretariat Officers, Departments and staff. An arrangement with Symantec International, the 4th largest IT company in the world for HRD programmes and IT Advisory Services to increase the employability potential of the youths in the State is underway. The Department conducted DOEACC ITES Course and about 70% of passed out trainees has been provided placement. CISCO Certification courses have also been conducted besides providing financial support to educational institutions for internet connectivity.

8.2.3. The following schemes/programmes proposed to be implemented during the Eleventh Plan (2007-2012) and the Annual Plan 2008-09 are indicated below:-

(Rs. in lakhs)

Sl. No.	Items	Eleventh Plan 2007-12 Approved Outlay	Annual Plan - 2007-08		Proposed Outlay for 2008-09
			Agreed Outlay	Anticipated Expenditure	
1	2	3	4	5	6
1	Development of IT Infrastructure	500.00	79.89	79.89	90.00
2	Development of e-Governance	100.00			15.00
3	Other Promotional Activities	125.00	5.90	5.90	20.00
4	Contribution to ICT Institution	100.00	7.96	7.96	15.00
5	HRD/IT Advisory Arrangement of IT Deptt	500.00	50.00	50.00	100.00
6	Contribution to Meghalaya IT Society	75.00	6.25	6.25	10.00
7	ACA for SWAN, CSC	3600.00	475.00	475.00	1000.00
	Total	5000.00	625.00	625.00	1250.00

- Besides the above, IT Education would be emphasised for which provisions in Education Sector has also been kept.
- Development of IT Estate would, be encouraged and under infrastructure development. Other ICT Programmes of India would be accessed and implemented.

8.3. ECOLOGY AND ENVIRONMENT

8.3.1. The projected outlay for the Eleventh Five Year Plan (2007-2012) is Rs.700.00 lakhs. The approved outlay during 2007-08 is Rs.75.00 lakhs which is expected to be fully utilized. The amount proposed for 2008-09 is Rs.95.00 lakhs.

8.3.2 The State Government through the State Forest & Environment Department has taken up various schemes of afforestation, roadside plantation, construction of public convenience and maintenance of parks etc. under this sector. The agreed Tenth Plan (2002-07) outlay for Ecology and Environment sector was Rs.450.00 lakhs and the actual expenditure incurred during the entire period was Rs.193.60 lakhs. The department proposed to carry out these various activities in different parts of the State during the Eleventh Plan. Improvement of ecology and environment with participative approach with traditional Institution /NGO's is also proposed to be taken up during 2008-09 under this programme.

8.4. FORESTRY AND WILDLIFE

8.4.1. The proposed outlay for the Eleventh Plan period is Rs.16000.00 lakhs and the approved outlay for the Annual Plan 2007-08 is Rs.2475.00 lakhs including Rs.600.00 lakhs under the **Twelfth Finance Commission Award** for maintenance of forest and Rs. 875.00 lakhs for Zoological Parks and Botanical Gardens. The proposed outlay for the Annual Plan 2008-09 is Rs.2900.00 lakhs which includes Rs. 1475.00 lakhs under TFC Award.

The Tenth Plan projected outlay for the sector is Rs 5250.00 lakhs. The actual expenditure incurred during the plan period was Rs.4425.35 lakhs which includes Rs.1500.00 lakhs under TFC award.

8.4.2. Achievements made during the Tenth Plan Period:-

i) During the Tenth Plan period, plantations were taken up in the blank areas in the Reserved Forests covering an area of 5753.7 hectares. Tending operation were carried out by way of weeding, fire protection etc upto the Fifth Year of plantation.

ii) The number of seedlings raised under forest nurseries were 89,36,000 nos. which were distributed to the public.

iii) Under Communication and Building programme, 618.4 kms. of forest roads were maintained through construction of bridges, culverts, retaining walls etc and 4 kms. were covered under new roads. A total of 91 nos. (ninety-one) buildings were constructed both Govt. non-residential and residential buildings for accommodation of staff.

1) Survey & Forest Resources :-

Under this scheme, management plans of State Forest Resources are prepared by the Working Plan Division. Survey of bamboo, canes and medicinal plants is also taken up by the Forest Resources Survey Division. For the year 2008-09, the proposed outlay is Rs 22.00 lakhs.

2) Forest Conservation and Development :-

Under this scheme, Botanical Gardens and Children Parks in different districts are maintained. Forest protection works are also carried out by way of employing protection

staff, construction of sub-beats and patrolling camps, purchase of arms and ammunition in the Territorial Divisions and Wildlife Divisions of the State. Funds are also provided to meet the salary of staff posted in the Autonomous District Councils. An amount of Rs 132.00 lakhs is proposed for 2008-09.

3) Plantation Schemes :-

(a) Plantation in Government Forests :

This is a regular scheme of the Department under which blank area inside reserved forest are planted up to improve the growing stock with valuable and most suitable species. The species are mainly teak, sal, plywood and other natural miscellaneous species.

(b) Social Forestry Programme :

Under the scheme, Plantation works are taken up in degraded areas outside the reserved forest. The proposed outlay during the year 2008-09 for (a) and (b) is Rs 550.00 lakhs. This is meant for creation of new plantation, new nurseries, maintenance of old plantation / nurseries outside reserved forest.

4) Preservation of Wildlife :-

The Wildlife Wing of the Department undertake works of habitat improvement inside the Balpakram National Park, Nokrek National Park, Siju Wildlife Sanctuary, Nongkhylllem Wildlife Sanctuary, Pitcher Plant Sanctuary, Lum Nehru Park, Lady Hydari Park and Tura Park areas. Eco-development works are also taken up in sites adjoining wildlife-protected areas. More funds shall be tapped under the Central Assistance Scheme to take up works under the wildlife programme. The proposed outlay for 2008-09 is Rs.195.00 lakhs.

5) Other Schemes include:-

- A) Direction & Administration
- B) Education & Training
- C) Communication & building
- D) Contribution to Eco- Development society
- E) Maintenance/improvement of Public Gardens

6) TFC Award :- The Twelfth Finance Commission has recommended a grant of Rs. 65.00 crores spread over the award period 2005-2010 as grants for tackling certain state-specific issues for the following schemes:-

i) Maintenance of Forests :- The Commission has recommended Rs. 30.00 crores for maintenance of forests as it recognizes that forests are a national wealth which needs to preserve it. This shall cover the forest area of 15584 sq. kms. During 2006-07 the State High Level Committee approved an amount of Rs.1141.90 lakhs for the scheme. Out of Rs. 600.00 lakhs allocated each year during 2005-06 & 2006-07, Govt. of India had released Rs. 300.00 lakhs and Rs. 600.00 lakhs respectively. During the financial year 2007-08 an amount of Rs. 600.00 lakhs has been allocated and the same is yet to be released by Govt. of India. The proposed outlay for the Annual Plan 2008-09 is Rs. 6.00 crores.

(ii) Zoological Park:- For protecting endangered species, the TFC recommended an assistance of Rs. 30.00 crore for establishment of a Zoological Park in Meghalaya. During 2006-07 & 2007-08, the TFC had allocated Rs. 750.00 lakhs each year and an amount of Rs. 1200.00 lakhs was released during 2006-07. The State High Level Committee has approved an amount of Rs. 3415.00 lakhs for setting up of 'Zoological Park' under "State Specific

Needs,” out of which Rs.3000 lakhs will be met out of central funds recommended by TFC and the balance of Rs.415.00 lakhs will be financed by Zoo Authority of India.

(iii) **Botanical Garden:-** In order to conserve flora, the Commission has recommended an amount of Rs.5.00 crore for establishment of Botanical Garden. The TFC allocation during 2006-07 & 2007-08 is Rs. 125.00 lakhs each year and the amount is yet to be released by Govt. of India.

The proposed outlay for the Annual Plan 2008-09 for establishment of Zoological Park and Botanical Garden is Rs. 8.75 crores.

The schemewise breakup for the plan outlay & anticipated expenditure during 2007-2008 and the proposed outlay for 2008-2009 is given in the table below:-

Name of scheme	Proposed outlay 11th Plan	Approved outlay 2007-08	Anticipated expenditure 2007-08	Proposed outlay 2008-09
Direction & administration	1200.00	200.00	200.00	165.00
Education & Training	500.00	100.00	100.00	73.00
Survey of Forest Resources	270.00	50.00	50.00	22.00
Statistical Plg & Evaluation	150.00	25.00	25.00	18.00
Communication & Bldg	300.00	75.00	75.00	67.00
Forest Conservation & Dev.	1000.00	200.00	200.00	132.00
Social & Farm Forestry-Plantation	3000.00	600.00	600.00	550.00
Preservation of wildlife	2500.00	200.00	200.00	195.00
Zoological Park	200.00	50.00	50.00	15.00
Public Garden	200.00	50.00	50.00	27.00
Bamboo Mission	1500.00	200.00	200.00	-
Scheme under TFC Award	4100.00	1060.00	1060.00	1475.00
Contribution to Eco-Dev. Society	200.00	40.00	40.00	44.00
Forest Research & Education	100.00	50.00	50.00	22.00
Asstt. to public sector	300.00	100.00	100.00	55.00
Comm. & Building- Maintenance of PCCF office	480.00	100.00	100.00	40.00
Grand Total	16000.00	3100.00	3100.00	2900.00