

CHAPTER V

EXPLANATION OF FINANCIAL REQUIREMENTS

There is need to carefully balance environmental and developmental considerations in the interest of the process of development. The priority of a developing country like ours is undoubtedly to provide to its people a decent standard of living. But this has to be achieved while carefully husbanding, environmental resources and keeping a close watch on the pollution problems and taking preventive and corrective steps in time. The Ministry has to keep these objectives in mind, also keeping in view that these are critical to the overall national, economic and social effort.

FOREST & WILDLIFE

Forestry Education & Training

Expansion of Forestry education to cater to the increasing needs is an essential activity for achievement of the goal of Forest Conservation. It is necessary that the officers who occupy important positions in State Forest Deptt. should have adequate educational background in the field of Forestry. Indira Gandhi National Forest Academy (IGNFA) conducts training programmes for Indian Forest Service probationers. Besides, refresher training courses for IFS officers under the scheme 'Training of IFS Officers' are organised through premier management institutes of India. State Forest Service Colleges take care of training needs of State Forest Service Officers. Training of Range Officers is conducted in Rangers College. To develop managerial skills and specialisation relating to conservation, optimum utilisation and increasing production and productivity over space and time in forest based products as well as large afforestation and social forestry programme, there is an Institute viz., Indian Institute of Forest Management. The Institute conducts a number of training programmes including; a 2 years Post Graduate Diploma Course in Forest Management. The Plan outlays for IGNFA, SFSC and IIFM for 1993-94 are Rs. 142 lakhs, Rs. 90 lakhs and Rs. 244 lakhs respectively.

To ensure proper forestry education in the Universities, financial assistance is provided in State Agricultural Universities through a scheme viz., Forestry Education. The scheme is under implementation in 14 State Agricultural Universities. The assistance is given through ICFRE. The purpose of the assistance is to support B.Sc. (Forestry) Course and to set up separate department faculty of Forestry. About 300 graduates are being benefited, under the scheme every year. During 1993-94, the various schemes under Forestry Education & Training will be continued. An outlay of Rs. 90 lakhs is earmarked in the budget of ICFRE for 1993-94 for grants in aid to the State Agriculture Universities.

Forestry Research

Intensification for forest research towards fuller development of the Forest resources and, its proper utilisation is one of the important objectives of this Ministry. To achieve this objective "Indian Council for Forestry Research and Education (ICFRE) " was set up in December, 1986

by restructuring of Forest Research Institute & Colleges. The objectives of the ICFRE are as under:

- To undertake aid, promote and co-ordinate forestry education, research and its application.
- To develop and maintain a National Information Centre for forest and allied sciences.
- To act as a clearing house for research and general information relating to forests and wildlife.
- To develop Forest Extension programme,
- To provide consultancy service in the held of forestry research, education and, training.

The ICFRE became an autonomous body of this Ministry with effect from 1-6-1991. The Forest Research Institute under ICFRE is a Centre of Excellence in forestry research. The other 5 institutes of ICFRE take cart: of research needs in different eco geographical regions. Except Forest Research Institute, the other research institutes are at developing stage. These institutes will pursue their on-going research activities during 1993-94. The outlay for ICFRE for 1993-94 is Rs. 27.50 crores.

For research and development in respect of plywood and allied projects, there is a separate institute "Indian Plywood Industries Research and Training Institute" (IPIRTI). The institute renders technical services to manufacturing units with a view to make optimum utilisation of available raw material for the manufacture of plywood and allied products. The institute serves as an information, training and testing Centre for wood based industries. In the year 1993-94 the Institute will continue its research extension, demonstration and training activities. Earlier when the institute was under the Department of Industrial Development, it was getting grant from industries. With the transfer of the Institute to this Ministry, the entire expenditure towards salaries, and staff etc. is to be met from Central grant. The Plan outlay for IPIRTI for 1993-94 is Rs: 30 lakh.

SURVEY AND UTILISATION

To conduct forest resources survey, the scheme "Forest Survey of India including Application of Remote Sensing Techniques" is under implementation. The objectives of the scheme are to prepare forest inventory to design methodology for vegetation mapping and to prepare comprehensive forest report once in every two years. The scheme aims to achieve the following objectives:

- (i) Ground inventory of Forest Resources of Northern Eastern States.
- (ii) Preparation of Thematic maps of 1:50,000 scale covering 13 States.
- (iii) Assessment of Forest Cover by interpretation of Satellite data.
- (iv) Publication of State of Forest Report and preparation of Vegetation maps numbering 774 sheets.
- (v) Training of techniques and professionals in Remote Sensing Techniques.
- (vi) Acquisition of 8atellite data and renovation of sites for installation of computer system.

Forest Survey is an essential prerequisites for forest planning on scientific lines. Efforts are being made to acquire digital cartography system and map production facility. Plan outlay for 1993-94 under this scheme is Rs, 865 lakhs (including Rs, 60 lakh capital).

FOREST CONSERVATION

To deal with forest conservation matters and better enforcement of Forest Conservation Act, six regional offices were set up under the scheme "Strengthening of Forests Division". Regional Offices have the following functions to perform:

- (i) To monitor and evaluate all on-going forestry development projects and schemes with special emphasis on conservation of forests.
- (ii) To assist the State Governments to formulate, the proposals for the diversion on forest land for non-forestry use under the provision of Forest Conservation Act.
- (iii) To undertake the physical inspection of the sites involving more than 40 ha. of the forest land and to monitor conditions stipulated by the Government of India for approved cases.
- (iv) To assist the States/UTs in preparation of management plan for working of forests and collection and retrieval of the data relating to forestry activity.
- (v) To follow-up implementation of conditions and safeguards laid down for projects activities when environmental clearance is given.
- (vi) To maintain liaison and provide linkage between the State Governments, and Central Government agencies,
- (vii) To follow-up pollution control measures taken by industries, local bodies, under- takings etc

These offices have been entrusted with the responsibility of disposing of proposals for diversion of forest lands upto the extent of twenty hectare without referring to the Ministry. During 1993-94, the Regional Offices will continue their activities and are expected to the Ministry. During 1993-94, the Regional Offices will continue their activities and are expected to monitor 900 cases under Forest Conservation Act and 400 cases under Environment Protection Act. For 1993-94, plan outlay for this scheme is Rs. 150 lakhs.

FOREST PROTECTION AND REGENERATION

During VIII Plan, a scheme "Introduction of Modern Forest Fire Control Methods" is being implemented. The scheme has been framed with the experience gained from Modem Forest Fire Control Project launched with the assistance of UNDP during the VII Plan. The economic evaluation - of the said Project indicated that fire can be controlled considerably by introducing Modem Forest Fire Control Methods. The scheme now introduced in the VIII Plan in a Centrally Sponsored Scheme aims to develop well knit organised programme for each State. To begin with, scheme would be introduced in 11 States and in these States also with particular attention to most fire prone districts. The pattern of assistance is 100% for selected Non-Recurring items like hand-tools, water-handling equipments, watch towers, fire resistant clothing etc. The outlay for 1993-94 under this scheme is Rs. 160 lakhs.

The National Forest Policy, 1988 provides for involvement of people in managing the forests to attain the desired objectives of Forest Conservation, extension of tree cover and meeting the requirement of people. With this aim in view, a scheme 'Association of Scheduled Tribe and Rural poor in Regeneration of Degraded Forests' has been framed for implementation during VIII Plan. The objective of the scheme is to associate Scheduled Tribes and Rural Poor in Afforestation of Degraded forests in order to provide gainful employment and sustainable economic base to these people. The scheme will be implemented through the State Forest Department on the basis of projects formulated for the purpose. Apart from the wages for the work done by these people, they will be entitled to usufruct rights and sharing of final harvest. The outlay for 1993-94 for this scheme is Rs. 245 lakhs.

FOREST POLICY

A National Forestry Action Programme is being prepared for the entire country. This would highlight the state of the forests, the perspective plan for the next 25 years and the areas where technical inputs, research & material assistance would be called for on short term and long term basis. The programme is assisted by FAO/UNDP. For 1993-94, an outlay of Rs. 35 lakhs is earmarked for this scheme.

AFFORESTATION AND ECO-DEVELOPMENT

An outlay of R9: 98 crores has been provided for the year 1993-94 for the Schemes/ programmes of National Afforestation & Eco-Development Board which are listed below:

1. Integrated Wastelands Development Projects Scheme.
2. Fuelwood/Fodder Projects Scheme.
3. Raising of Minor Forest Produce including Medicinal Plants Scheme.
4. Seed Development Scheme.
5. Aerial Seeding Scheme.
6. Grants-in-Aid Scheme (for Voluntary Agencies).

The following scheme/activities for afforestation and eco-development will be implemented by the NAEB during 1993-94:

Integrated Wastelands Development Projects Scheme:

This scheme was initiated during 1989-99. The basic objective of the scheme is

- (i) to take up pilot projects ensuring an integrated approach to land management, specially wasteland development, through preparation of integrated wastelands development plans on the watershed principle;
- (ii) Conservation of selected ecologically/fragile watersheds through protection, afforestation, pasture development, soil and water conservation, etc.
- (iii) extension of available technologies for treatment of special problem lands, like saline/alkaline soils, ravines, desert areas, mined areas, Aravallis and Western Ghats, and

- (iv) Regeneration of degraded forest areas, with focus on diverse vegetation of indigenous species.

This is a 100% Centrally Sponsored Scheme with a Central Sector component. For 1993-94, an allocation of Rs. 46 crores has been proposed for this scheme to cover an area of 65000 hectares.

Grants-in-Aid to Voluntary Agencies

The NAEB has a mandate to promote peoples' participation through active involvement of non-governmental organisations, voluntary agencies and the public at large. To this end, appropriate voluntary agencies/non-governmental organisations are identified, encouraged and assisted to raise nurseries for tree planting on forest lands and adjoining areas and related activities, which are financed from the plan funds of the Board. NAEB has constituted a Standing Committee, which includes some representatives of NGOs, for the appraisal and sanction of projects under the scheme. For 1993-94 an amount of Rs. 2.5 crores has been proposed for this scheme. It is envisaged to sanction 35 projects to the voluntary agencies for taking up afforestation & eco-development work. In addition to normal monitoring by the Board Secretariat, evaluation of ongoing and completed projects is carried out through independent agencies. So far, 255 projects have been evaluated. From the evaluation reports, It is seen that performance in respect of about 70% of the projects ranges from good to excellent. 10 projects would be undertaken for evaluation.

Area Oriented Fuelwood and Fodder Project Scheme

The scheme provides assistance to the State Forest Departments for non-arable lands, public (specially degraded forest lands) through integrated treatment comprising of soil and moisture conservation, afforestation, silvipasture development agroforestry on degraded lands, etc. for meeting the fuelwood & fodder requirements of local people. This is an ongoing scheme started during Seventh Plan period. The scheme is 50 per cent Centrally Sponsored. For 1993-94 an amount of Rs. 30.10 crores had been proposed for the scheme to cover 40,000 hectares area.

Aerial Seeding

This is a 100% Centrally Sponsored Scheme introduced in 1988-89 to assist a few selected States in systematically carrying out aerial seeding operation⁹, and testing the efficacy of the technique. The objectives of the scheme are :

- (i) to study the effectiveness of the aerial seeding techniques for afforestation of difficult and inaccessible areas.
- (ii) to study the cost and time effectiveness of aerial seeding vis-a-vis the conventional afforestation techniques, and
- (iii) To standardize and upgrade the various operations involved in aerial seeding so as to help in large scale afforestation in a quick manner at an economic cost.

During 1993-94 an amount of Rs. 2 crores has been proposed under the Scheme to cover an area of 30,000 hectares.

Scheme for raising Plantations of Minor Forest Produce including Medicinal Plants.

The scheme which is 100% Centrally sponsored, aims at augmenting production of minor forest produce (like bamboo, cane, oilseeds bearing trees, tends, grasses etc.) fruit bearing and other species, including medicinal plants.

During 1993-94 an amount of Rs. 10 crores has been earmarked for the scheme. to cover an area of 22,000 hectares.

Seed Development Scheme

The scheme is 100 per cent Centrally sponsored and aims at creating infrastructure at the State level for production and testing of quality tree seeds, including collection, testing certification, storage and distribution of such seed.

During 1993-94 an amount of Rs. 2 crores has been earmarked for the scheme and 22 States will be assisted.

OTHER ACTIVITIES/PROGRAMMES:

Monitoring and Evaluation

The primary purpose of monitoring is to develop systematic methods for Collecting and analysing information useful to project management for increasing effectiveness of its implementation. The following major activities need to be specifically monitored:

- (a) Production and distribution of seedlings/saplings.
- (b) Rehabilitation of degraded forest lands.
- (c) Survival rate among the old and the new plantations.
- (d) People's participation in the programme.

The State Governments have their own arrangements to monitor progress in tree planting /afforestation under point No. 16 of the 20 point programme. At the Centre, the achievements are monitored by the National Afforestation t, Eco-Development Board and the Ministry of Programme Implementation. Externally aided projects are monitored by the donor agencies also. It was felt that information about the afforestation activities was not adequately available to people's representatives and the people themselves, which gave rise to criticism about the success of afforestation programmes. It was felt that availability of such information would lead to better monitoring and evaluation of the afforestation progrnmme. In this context, the States/UTs were requested to:

- (i) Share the District-wise, Block-wise & Village-wise information regarding afforestation activities available to the people's representatives as well as the public;
- (ii) to provide the information to Central Government so that sample checks may be conducted in selected districts through independent institutes and experts.

The information received from States/UTs was computerised & bound documents in respect of 24 States/UTs containing district/taluk wise information of plantation carried out during; 1991-92 has been placed in library of Parliament House as well as Ministry of Environment & Forests for information of MPs and general public. The sample checks through independent agencies/experts are also being conducted in identified districts representing different agro climatic zones.

As part of the monitoring effort, a computerisation programme has been undertaken to build up and maintain a data base of useful information. Under the programme, computers have been installed at the State headquarters. Software and training are also being provided to staff.

Wastelands Mapping - Under the National Waste-lands Identification Project Phase I & II (1985-86 to 1988-89), 147. Districts of the country were mapped using satellite imagery. During next phase of this project wasteland) maps for 84 additional districts are currently under preparation.

For 1993-94 an amount of Rs. 1.50 crores has been earmarked for the scheme to undertake further evaluations.

Regional Centres

Seven Regional Centres have been set up. These are located in the following institutions.

- (1) University of Horticulture and Forestry , Solan (H.P.).
- (2) University of Agricultural Sciences, Bangalore.
- (3) Indian Institute of Management, Ahmedabad;
- (4) Indian Institute of Forest Management, Bhopal;
- (5) Agricultural Finance Consultants, Bombay/New Delhi;
- (6) Jadavpur University, Calcutta;
- (7) North-Eastern Hill University, Shilong.

The Regional Centres provide support to NAEB and States in project appraisal, monitoring and evaluation, special studies etc. The Major portion of the expenditure incurred in the setting up of the regional centres is reimbursable by IDA/USAID under the National Social Forestry Project.

During 1993-94 an amount of Rs. 2 crores has been earmarked for the Scheme. Preparation of status reports and evaluation of NAEB activities would be undertaken by the Regional Centres during 1993-94.

Communication

The main objective is to create general awareness about the problems of ,deforestation and 'and degradation (which in turn leads to fuelwood and fodder crisis) through media like radio and television and through traditional and folk art.

During 1993-94 an amount of Rs. 0.50 crores has been earmarked for the Scheme. Experience sharing workshops would be organised to disseminate information, traditional folk media would

be utilised to propagate. Social Forestry & community participation in forest management. Follow-up action on communications strategy will also be undertaken during 1993-94.

Professional and Special Services

The National Afforestation & Eco-Development Board takes up special studies of important issues relating to policy formulation, programme implementation, etc. The Board also engages special consultant for taking up a variety of assignments.

During 1993-94 an amount of Rs. 0.25 corers has been earmarked for the scheme to undertake studies on the areas like employment generation, reorientation of existing programmes etc.

Externally Aided Social Forestry Projects

Externally Aided Social Forestry Projects are being implemented in 9 States with donor assistance from various Donor agencies like World Bank, SIDA, OECF, ODA and EEC. The State Governments are directly responsible for the implementation of the externally-aided projects and are also expected to monitor the project and provide necessary information to the NAEB and the donar agency, as per the requirements of the projects.\

The National Rorestation & Eco-Development Board monitors the projects, on behalf of the Government of India; it also coordinates those aspects which relate to policy at the Government of India level and ensures that the project implementation is as per the declared policy of the Government from time to time.

It is proposed to finalise projects on eco-development in Changar Valley (H.P.), Kulu Mandi Forestry Project (HP) , AP Forestry Project, MP Forestry Project with multilateral /bilateral donor agencies during 1993-94. A number of projects are likely to be identified and posed for external assistance.

Indira Priyadarshini Vriksha Mitra Awards (IPVM)

IPVM awards are presented annually to individual, Panchayats, educational institutes, voluntary agencies etc.

The awards are given on the basis of innovative efforts and outstanding work in afforestation, with special reference to wastelands development and involvement of the people. The activities in the areas such as establishing decentralized nurseries, tree planting on wastelands farm lands, Awareness- rising, motivation and extension work, involving tile rural poor tribal cooperatives in afforestation and tree planting, setting up grassroots level institutions like the 'Tree Growers' cooperatives, social fencing of community woodlots and pasture lands are kept in view wll be deciding the awards.

WILDLIFE PRESERVATION

Wildlife preservation including enforcement of Wildlife Protection Act and CITIES is one of the main important functions of this Ministry. During 1991-92 Wildlife Protection (Amendment) Bill was passed by the Parliament and promulgated as an Act No.44 of 1991. One of the provisions of this Act relates to setting up of the Zoo Authority of India to, oversee the management of zoos in the country, enforce certain minimum standards of the up-keep of animals and to ensure that animals are acquired by the Zoos strictly according to the provisions of the Act. The Central Zoo Authority came into existence in February, 1992. The rules for recognition of Zoos have been finalised in consultation with State Governments. These have since been notified in August, 1992. Plan outlay for 1993-94 for Central Zoo Authority is Rs. 150 lakhs.

There are various centrally sponsored schemes for providing assistance to State Governments for wildlife preservation. Under the scheme " Assistance for development of National Parks and Sanctuaries", assistance is provided to State Governments-100 per cent for non-recurring items of development works for protection of wildlife in National Parks/Sanctuaries. For development of National Parks, 50 per cent assistance on selected recurring items is also provided. During 1993-94, 200 sanctuaries and 50 National Parks are expected to get assistance under the scheme. Under the scheme Project Tiger, 19 tiger reserves notified for this purpose are entitled to get Central assistance at 100 percent for non-recurring items and 50 percent for recurring items. The schemes will be continued during 1993- 94 with outlay of Rs. 1100 Lakhs. "National Parks and sanctuaries anti Rs. 750 lakhs for Project Tiger.

Under the scheme 'Project Elephant'. assistance is provided to 23 identified elephant areas in 11 States. The pattern of assistance is 100 per cent and is provided to the States for improving existing elephant habitats and restoration of their migratory routes. Outlay for 93-94 under this scheme is Rs. 500 lakhs. To improve the ecological productivity of the buffer zones of protected areas through the introduction of sustainable economic activities, there is a scheme- "Eco-development in and around protected areas". Pattern of assistance under this scheme is 100 per cent for non-recurring items and 50 percent for recurring items. Scheme will have an outlay of 480 lakhs during 1993-94.

The scheme-'Control of Poaching and Illegal Trade in Wildlife' was centrally sponsored till 1991-92. As per the decision of National Development Council, the said scheme has been transferred to States. The budget of 1992-93 allocated to the Ministry has been transferred to the State Governments as per the guidelines issued by the Planning Commission.

In order to ensure there is minimum human activities in the protected areas, a scheme Beneficiary 'Oriented Scheme for Tribal Development is in operation. The scheme provides for creation of infrastructure for the villages. Relocated from the protected areas. Outlays for the scheme during 1993-94 is Rs 100 lakhs.

Prevention of Cruelty to Animals Act is implemented through Animal Welfare Board-a statutory organisation established under section IV of the Act. The Board provides financial assistance to organisations and institutions in carrying out activities to prevent cruelty to animals and ensure their compassionate treatment. During 1993-94, Rs. 100 lakhs (Plan) and Rs. 25 lakhs (Non-Plan) will be provided.

For ensuring better management of the protected areas, Wildlife Institute of India conducts training courses to train managers and biologists. Wildlife Institute of India is an autonomous body and gets its grant-in-aid from this Ministry. The Institute also undertakes research activities connected with wildlife and provides advisory and consultancy services to the Central and State Governments. A provision of Rs. 325 lakhs (Plan) and Rs. 70 lakhs (Non-Plan) is made for grant in aid to Wildlife Institute of India during 1993-94.

ECOLOGY AND ENVIRONMENT

SURVEY: The Ministry has two major organizations, the Botanical Survey of India and the Zoological Survey of India to conduct survey and identification of the genetic resources of the country, for listing out endangered species, to collect and maintain germplasm and gene bank of endangered, threatened and vulnerable species and to undertake measures for the effective conservation of such species. These organisations also identify, collect and preserve specimens of plants which are economically and otherwise beneficial to human beings and prepare a National Data Base on plant resources of the country, conduct exploration of faunal resources, maintain National Zoological Collections, Museums etc. and serve as Central retrieval, information, advisory and library services on information relating to fauna of India.

During 1993-94, the Zoological Survey of India proposes to undertake faunistic survey of Himalayan Eco-system (Arunachal Pradesh), Tropical rain forests, marine eco-system (Andaman & Nicobar Islands) etc. Renovation of Zoological galleries will be taken up. Computerisation of faunistic data will continue. The Botanical Survey of India is to continue survey and taxonomic studies in the priority areas of Assam, Nagaland, Arunachal Pradesh, to complete studies on revision of 25 per cent species and bringing out volumes of Flora of India, to complete data on State District flora and to continue work on developing National Data Base on flora, computerisation of floristic data, survey of specified conservation areas like Biosphere Reserves, Wetland, Mangroves etc, undertake multiplication work on some important orchids, ethnobotanical studies in the tribal belt of Darjeeling District, Sunderban etc. and to establish linkage with Universities and other Scientific Research institutions.

Environment Education/ Awareness Training

The scheme was introduced in VII Plan in the Central Sector. The objectives of the scheme are to create Environmental Awareness as well as to extend techniques and methods of environment education to almost all age groups of the country's population through exhibitions, camps, training programmes, seminars and TV and radio programmes and various other non-formal educational methods. The National Environment Awareness Campaign has been launched since 1986 to create environmental consciousness at all levels. National Environment Month is celebrated every year from 19th November to 18th December as a part of the campaign. The campaign is centred around themes specific to environmental issues and problems of relevance relating to afforestation, eco-degradation, conservation, energy pollution, health, wasteland development etc.

Since Environmental Education and creation of conservation awareness among the masses are vital pre-requisites for ensuring public participation in environmental management activities in this area need to be considerably stepped up. Wider coverage of the programmes throughout the country reaching out to various target audiences, development of adequate infrastructure for promoting environmental education at the national and regional levels and introduction of more imaginative and innovative programmes will be given priority during the Eighth Plan.

National Museum of Natural History

The National Museum of Natural History (NMNH) is devoted to environmental education. The Museum opened on 5th June, 1978 with a gallery on Natural History. Within the last 14 years, it has developed four exhibit galleries, a Discovery Room for children, an Activity Room for pre-school children and a Bio- science Computer Room and conducted a variety of educational programmes, brought out popular literature for creation of public awareness on environment and conservation and organised several temporally exhibitions.

The aims and objectives of the NMNH and its developmental projects are to develop the Museum in the Capital -to achieve the highest level of quality to promote environmental education to develop Regional Museums of Natural History, to establish a network of Rural Extension Service through Mobile Museums, to develop and structure museum based, educational project at the formal and the non-formal level, to develop audio-visual aids, interactive exhibits, school loan kits, etc. to promote environmental education and to conduct ecological research consistent with the scope of the museum.

The educational programme of NMNH have served various target groups, Certain projects relating to expansion of educational facilities, organisation of temporarily exhibitions, organization and development of scientific galleries in addition to construction of its own building at New Delhi, establishment of regional museums at Bhubaneswar and Bhopal, operationalisation of Mysore Regional Museum are proposed to be taken up during the next financial year.

ENVIS

ENVIS is a decentralised information system network of distributed subject oriented centres ensuring integration of national efforts in environment information collection, collation, storage/retrieval and dissemination to all user groups. ENVIS has been providing environmental information to decision makers, policy planners, scientists, engineers, research workers and the public all over the country. ENVIS network presently consists of focal point at the Ministry and 10 subject oriented ENVIS centres set up in various organisations in the country in selected areas of environment like Pollution Control, Toxic Chemicals, Central and Offshore Ecology, Energy and Environment etc.

During the year, the ENVIS has built up an information base in the form of publications, reports, abstracts etc. The information data base is being continuously strengthened through the focal points well as various ENVIS centres all over the country.

The activities of the existing ENVIS centres would be continued in order to build up a National Information Network for various environmental aspects to a wide variety users in the country. Three ENVIS centres in priority areas in environment are proposed to be set up to make the network comprehensive. The ENVIS centres are to be provided with financial support for acquisition of latest information technology requiring additional outlay.

CENTRES OF EXCELLENCE

Centres of Excellence have been set up in order to promote research and training in priority areas of Environmental. Science and Management and to strengthen awareness in the field of Environment. The five Centres of Excellence set up so far are :-

1. Centre for Environment Education, Ahmedabad.
2. CPR Environmental Education Centre, Madras.
3. Centre for Ecological Sciences, Bangalore
4. Centre for Mining Environment, Dhanbad.
5. Salim Ali Centre for Ornithology and Natural History

The activities of Centre for Environment Education, Ahmedabad and CPR Environmental Education Centre, Madras for the production of environmental education resource material and to propagate environment education especially among the children would be continued and strengthened.

Apart from the production of the resource material, the Centers would be encouraged to organise training on environment education, to organise seminars/ symposia/ workshops at National/ Regional levels in the areas of environmental education and to organise exhibitions to propagate and inculcate awareness among the common masses.

These Centres would also undertake the production of the audio visuals to propagate environmental awareness as an aid to strong media campaign during the year.

In addition to these Centres, a New Centre in the North Eastern region is proposed to be set up to cater to the needs of the people of the region on various environmental education related issues. The Centre is likely to be set up within 1992-93 and will be supported during 1993-94 also.

The other centres, Centre for Ecological Sciences, Bangalore, Centre for Mining Environment, Dhanbad and Salim Ali Centre for Ornithology and Natural History are also to continue their activities in their respective fields of Ecology, Mining and Ornithology.

CONSERVATION

The Ministry has several programmes for conservation, both in situ and ex-situ, of the country's genetic resources viz. Biosphere Reserves, Conservation of Wetlands, Mangroves, National Board of Biodiversity etc. which also cover research on ecological conservation. Out of this the major schemes are Biosphere Reserves, Conservation and Management of Wetlands and Conservation and Management of Mangroves.

The Biosphere Reserves Scheme was introduced in the Central Sector during VII Plan for preserving genetic diversity in representative eco-systems and provide for in situ conservation of plants, animals and micro-organisms. The scheme is being implemented through State Governments and funds are released through State Forest Departments. In addition, funds are also being released for research studies to provide scientific inputs for better management of the area. The scheme is monitored by the concerned State Governments through Steering Committees. It is now proposed to review the implementation of the schemes twice a year through a National Committee. Under this scheme, Biosphere Reserves been set up at Nilgiri, Nanda Devi, Nokrek, Great Nicobar, Gulf State of Manner, Manas and Sunderbans etc. It is proposed to set up some more areas as biosphere reserves during the VIII Plan. The scheme has been extensively revised for the VIII Plan.

The scheme for Conservation and Management of Wetlands was taken up in 1987 in the Central Sector with the objective to lay down policy guidelines for conservation, management, and research of wetlands, undertake priority wetlands for intensive conservation measures and to prepare an inventory of Indian Wetlands. With these objectives, a National Wetland Management Committee was constituted in 1987. Based on the recommendation of the Committee, sixteen Wetlands have been taken up for conservation and management. More areas will be identified for preparation of management action plan in addition to 16 wetlands already identified. A complete mapping of wetland areas in the country using remote sensing technique is to be employed. A re- source appraisal of selected wetlands is also planned.

The scheme for Conservation and Management of Mangroves in the Central Sector was initiated in 1987 with the objectives to undertake appropriate policies for conservation of mangroves and related eco-systems including coral reefs, promote research and training on mangroves and related eco- systems, undertake preparation of management plans for identified areas for conservation and collaborate with UNDP, UNESCO and other relevant international bodies in the field of Mangroves research and conservation. The scheme is 100 percent Centrally sponsored and is being executed through the respective State Governments. There is a National Mangroves Committee at the Centre to monitor and review the implementation of the Scheme in addition to the State Steering Committees at the State level.

The main activities under the scheme include demarcation and survey, natural regeneration, afforestation, protection of Mangroves and education and awareness in respect of these areas.

So far 15: Mangroves areas have been identified covering all major mangroves areas in the country. It is proposed to cover more areas and to promote more research work under the scheme, The allocation of funds has been increased during the current year and for the next year.

Research and Development Programme aims at identifying and developing data base for judicious utilisation of resources besides planning for formulation and development of strategies for environmental protection, conservation and management. It also envisages improvement of 'Overall scientific technological base with creation of infrastructural facilities and development of technical capabilities. There are 2 major programmes of research. The Man and Biosphere Programme and Environment Research Programme. In addition to this, there is an All India Coordinated Research Programme on Ethnobiology.

The scheme is being implemented through execution of various research projects assigned to various universities/research institutes. The projects are reviewed at the monitoring workshop and in the MAB Committee.

Integrated Oriented Research development and Extension Project has the objective to promote research and to evolve technology packages for solving location specific environmental problems and undertaking Eco-development activities in the Eastern and Western Ghats and those related to river Kaveri. The information generated out of these research projects is useful for developing strategies for conservation and management of natural resources of these areas. The scheme is being implemented by release of funds through Universities/Research Institute and NGOs for undertaking research works. The monitoring of this scheme is done through periodical progress reports and holding of review workshops at least; once in a year by the Review Committee constituted by the Ministry.

Eco-Development Forces: Eco- Task Forces is a Joint Venture of the Ministry of Environment and Forests, Ministry of Defense and the concerned State Governments to undertake Eco-restoration work in selected environmental degraded areas. The main aim of the scheme is restoration of degraded eco-systems through afforestation, soil conservation etc. The scheme is currently operational in three States of Uttar Pradesh, Rajasthan and Jammu and Kashmir. The scheme is being executed through deployment of ex- servicemen by the Ministry of Defense. The activities include afforestation, pasture development, soil and water conservation and other restorative works. The progress of the scheme has been reviewed from time to time and attempts are being made to render it more cost effective by requesting the States, to share the expenditure on 50-50 basis and reduction of over- head costs.

The G.B. Pant Institute of Himalayan Environment & Development was established in August, 1988 as an autonomous organisation of the Ministry to deal with the environmental problems of the Himalayan Region. It carries out and co-ordinates research activities in this region. The Institute has been provided 35.844 hectares of land, free of cost at Kosi-Katarmal, Almora by Government of U.P. for the construction of its building, gene-bank and arboretum. Arrangement has also been made by the Government of UP for acquisition of 7.64 ha. private land at Katarmal Architectural model of the first phase construction of the Institute's building at Kosi-Katarmal were finalised and site reparations required for execution of the construction work were completed. It is proposed to establish two centres of the G.B. Pant Institute at Gangtok, Sikkim and Kullu in Himachal Pradesh during the VIII Plan. For this purpose, construction is to begin in 1993-94". During the coming few years, the activities and programmes of the Institute are to expand considerably, besides the construction of its own building and development and strengthening of its infrastructure.

PREVENTION AND CONTROL OF POLLUTION

One of the most important functions of the Ministry is formulation of policies and programmes relating to prevention and control of pollution. Several schemes have been formulated, some of which are administered directly through Central Pollution Control Board and some through State Governments such as establishment of Common Effluent Treatment Plants. A major scheme

taken up during the VII Plan was Ganga Action Plan for which a separate Directorate has been established. Briefly the scope and objectives of major schemes are :

Prevention of Air & Water Pollution: The Central Pollution Control Board (CPCB) was set up in- 1974 under the Water (Prevention and -Control of Pollution) Act, 1974. The main objective of the Board is to advise the Central Government on problems of water and air pollution and to plan and execute a nation-wide programme for prevention, control and abatement of pollution in the country. The Central Board coordinates the activities of various State Pollution Boards by providing the technical guidance and assistance.

A total outlay of Rs. 339.50 lakhs has been allocated for 1993-94 for the projects and schemes relating to Pollution Assessment & Monitoring, Laboratory Management, Development of Standards Training, Data base management and Library Pollution Control Enforcement, Development of Pollution.

Control Technology (Development, Application and Demonstration), Mass awareness and Publication, hazardous Waste Management etc.

A scheme 'Environment Audit' has been started in 1992-93 and will continue for the whole of the VIII Plan period. Environmental Audit is an assessment of an industry of its processes, technology etc. to ensure observance of pollution standards, waste minimisation etc. The scheme is proposed to be implemented in three phases. Phase I has already started. A notification has already been published under which all the industries which are required to take consent or authorisation or both are required to submit an environmental statement in the prescribed form to the respective state pollution control board beginning from 1993. Under Phase II, training will be provided to staff of the Central and State Pollution Control Boards and industry in conducting the audit. Under Phase III, the qualification and duties of the accredited environmental auditors will be done with the help of the institutions and professional bodies viz. Institution of Chartered Accountants and Institutes of Costs and Works Accountants and industry associations. Phase I has already been initiated. An amount of Rs. 10 lakhs has been provided for 1993-94 for Phase II & III.

Another scheme on 'Adoption of Clean Technologies by Small Scale Industries' has been started during 1992-93 and will continue for the whole of the VIII Plan period.

The scheme has 3 components :

a. The Small Industries Development Bank of India (SIDBI) will provide financial assistance for modernisation of small industries directly by way of term loans etc. Through the scheme, subsidy will be provided through low interest loan (10 per cent) to Small Scale Industries.

b. Research and Development programme will be carried out for innovation, identification, diffusion of clean technology and for creation of data base.

c. An awareness programme and personnel training of the small scale industries will be carried out through the Development Commissioner, Small Scale Industries with the support of various

research organisations/ nodal sectoral institutions by conducting seminar/ symposia, preparation of slide films etc.

Environmental Policy and Law and Environment Protection Authority

The main objective of the scheme is to oversee and notify the various legislative majors relating to environment and to bring about amendments to the various legislative acts from to time. During recent times, various like Environment Protection Act 1986, Water (Prevention & Control of Pollution Cess) Act 1977. Public Liability Insurance Act, 1991, Environment Friendly Products, Environment Tribunal and Environment Commission have been either reviewed by way of amendments or fresh legislation initiated.

Besides activities like review of legislative measures, expenditure in regard to Hazardous Substances Management and Abatement of pollution are also met out of this budget head. The Environment (Protection) Act, 1986 places on the Central Government the responsibility of laying down procedures and safeguards for handling of hazardous substances and prevention of accidents. Three sets of rules have been prepared to regulate the handling of hazardous chemicals, hazardous micro-organisms/genetic engineered organisms and wastes. The main objective of the scheme is to lay down the procedures and safeguards for handling of hazardous substances and to prevent and control the accidents arising out of hazardous substances. Various activities like schemes for labeling of Environment Friendly Products, setting up of Environment Tribunals at National and State level for dealing with compensation cases, functioning of State Environment Protection Councils, assistance to State Environment Protection Councils, assistance to State Pollution Control Boards and State/UT Departments for strengthening their set-up, awareness campaign for Public Liability Insurance Act etc. are being carried out. Steps have been taken for implementation of Public Liability Insurance Act. The scheme for Hazardous Substances Management has been revised to incorporate measures for solid waste management and hazardous waste management, establishment of a National Register for Potentially Toxic Chemicals, establishment of a crisis responses mechanism at State level and District level hazard analysis.

Scheme for construction of Common Effluent Treatment Plants (CETPs) for clusters of industries:

The Ministry of Environment and Forests started a scheme from June, 1990 for setting up of CETPs for clusters of industries, in view of the significant adverse impact of effluents on the environment. As per this scheme, a subsidy of 25 per cent of the capital costs of the CETP upto a maximum of Rs. 50 lakhs could be given for common treatment facilities, provided the State Government put in a matching contribution.

The above mentioned scheme was merged with the component related to assistance to CETPs under World Bank Aided 'Industrial Pollution Control Project', on November 6, 1991. As per this, a grant assistance towards 20 per cent of the capital costs of the plants upto a maximum of Rs. 50 lakhs is available subject to a matching grant from State Government.

For the year 1993-94, it has been decided to provide Rs. 3 Crores towards the CETP Scheme (externally aided) for proposals under the new World Bank Scheme.

World Bank Aided Industrial Pollution Control Project:

The 'Industrial Pollution Control Project' included a line of credit of \$ 55.6 million from the World Bank. The project came into effect from November 6, 1991.

The Project has 3 major components: (i) Institutional Development (ii) Investment Component (iii) Technical Assistance Component.

Of the \$ 155.6 million, a total of \$ 20.04 million is to be made available as credit to Government of India through Plan Finance mechanisms. These are to be channelised to the different components as given below:

	Amount (\$ million)
(i) Institutional Development of SPCB	12.6
(i) CETPs	12
(ii) Technical Assistance	1.44
	26.04

The project is being actively implemented from 1992 onwards and hence the provision of Rs. 4 crores being made for 1993-94 is expected to be fully utilised.

IMPACT ASSESSMENT

The main objective of the scheme is to integrate environmental consideration with the requirement of economic growth and social development by evaluation of beneficial and adverse effects of developmental projects activities from the point of view of socio- economic, cultural and aesthetic concerns and incorporation of necessary safeguards right from the planning stage.

The main activities under this scheme include examination of developmental proposals of river valley projects, industry and mining, thermal and nuclear power, ports and harbours etc. and framing of guidelines for preparing Environmental impact assessment reports.

The environment impact assessment studies are carried out through various research institutes, university, NGOs etc. Proposals have also been drawn up for taking up for studies on completed projects which have been accorded environmental clearance by this Ministry. Some studies for assessment of carrying capacity of ecologically vulnerable regions are also being taken up.

For the year 1993-94, a sum of Rs. 4.90 crores has been allocated for taking up studies, strengthening of impact assessment set up and development and promotion of clean technologies. Some 250 projects are expected to be appraised during the year.

PREVENTION OF POLLUTION OF RIVER GAN(TA AND NA TTONAI RIVER ACTION PLAN

The objectives of the Ganga Action Plan (GAP) are to reduce the pollution of the river Ganga in 25 Class-I towns on the mainstream of the river in the three States of Uttar Pradesh, Bihar and West Bengal and thereby improving the water quality and making it fit for bathing purposes. The objectives of the Plan are achieved through various schemes of Interception and Diversion a Low Cost Sanitation. Sewage Treatment Plants (STPs) , Electric Crematoria and River Font Development. Besides, it is also aimed to conserving the biotic diversity and productivity of the river. The Ganga Action Plan is being executed through the State implementing agencies, in the three States namely Uttar Pradesh Jal Nigam in Uttar Pradesh, Calcutta Metropolitan Development Authority in West Bengal State and Bihar Rajya Jal Parishad in Bihar. Besides these agencies, there are a few more viz., Nagar Mahapalika and Development. Authorities which are also involved ill implementing the Ganga Action Plan.

By and large, the progress of the Ganga Action Plan has been as per its time schedule. 261 scheme were sanctioned within the schedule. However there have been some delays in respect of some scheme particularly, sewage treatment plants and electric crematoria due to procedural delays in land acquisition at the State/District level and litigation field in the Courts because of which there have been cost overruns.

The programmes under GAP are 100 per cent centrally sponsored for ongoing schemes of GAP Phase-I. For schemes to be taken up under GAP Phase-II and NRAP, the cost would be shared OI1 50: 50 basis between the Centre and the States. This excludes Rs. 115 crores of Dutch assistance which would be a 100 percent grant to be given through Central Government. Similarly Rs. 22.00 crores for Establishment and Research etc. would be 100 percent centrally funded. An amount of Rs. 1200 crores including outlay on existing schemes and the Dutch Assistance in the form or grams is envisaged during Eighth Plan out of which the Central share would be Rs. 700 crores including the Dutch Assistance component.

CIVIL CONSTRUCTION UNIT

The Civil construction Unit (CCU) was set up to secure expeditious completion of construction activities of various units of this Ministry both in the Ecology and Environment as wen as Forestry and Wild-life sectors. The CCU has divisions and sub divisions set up ati Delhi, Bangalore, Dehradun, Mysore, CoiInbatore, Jodhpur, Jabalpur and Almora where it is directly executing the construction projects. At other places it looks after the pre-co11struction planning work and the execution is done through CPWD. The maintenance work is also looked after by CPWD).

The Civil Construction Unit has been taken up 44 new sehemes so far with total estimated cost of Rs. 40 crores. Out of these, works amount to Rs. 26 crores are directly being executed by CCU and the rest are being executed either by CPWD or through State PWD. Maintenance of the completed works is being looked after by CPWD. A sum of Rs. 6.62 crores has been provided for the works of the Ministry during 93-94 besides deposit works.