

## CHAPTER 12

# FORESTS & ENVIRONMENT

### Introduction

The life-supporting potential of our planet Earth has been eroding rapidly which may ultimately threaten the very existence of Biosphere. The root cause for depleting natural resource base of the earth is the environmental degradation through anthropogenic losses, due to tropical deforestation, species extinction, and pollution of water, soil and air.

2. The concept of sustainable development has emerged as a prescription for human survival which also ensures long-term maintenance of ecosystem. One of the priority requirements for achieving sustainable development is not only to create sustainable human societies through the promotion of environmental education and research and extension; but also to develop technologies, skills and expertise, which translate into tailor made solutions to environmental problems.

3. The gigantic task of promotion, co-ordination and implementation of various environmental plans and programmes, environmental management to promote health considerations, focusing on poverty alleviation by enhancing access of the poor to natural resources for livelihood and increasing the awareness level on environmentally sound living process are being fulfilled through a series of schemes with the help of environmental impact assessment, eco-regeneration, promotion of environmental research, extension, education and training for capacity building, dissemination of environmental information, international co-operation and creation of environmental awareness among all sections of the people of the Country. Moreover, these activities are supported by a set of legislative and regulatory measures aiming at preservation, conservation and protection of environment. Some of them are the Wildlife Protection Act, 1972, the Water (Prevention and Control of Pollution) Act, 1974, the Forest (Conservation) Act, 1980, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, the National Environment Tribunal Act, 1995, the National Environment Appellate Authority Act, 1997 etc.

### Forestry and Wildlife

#### Forest Cover

4. National Forest Policy aims at achieving 25% by 2007 and one third of the land area of the Country under forest cover by 2012. Forest Survey of India (FSI), using remote sensing technology has shown that the extent of forest cover in the country has stabilized though a large area still remains degraded.

5. The forest cover as calculated in State of Forests Report 2001 is based on improved image analysis. The tree cover in the areas outside forests has also been assessed in the report and adds another 2.48%, totalling the forest and tree cover to 23.03%.

6. The mandate for the Ministry of Environment and Forests under Forestry and Wildlife includes providing policy and legal support to the cause of conservation, and assist the State Governments in managing the Forests and Wildlife efficiently and sustainably.

7. Requirement of forest produce particularly timber and fuel wood calls for concerted efforts to augment the resource base and sustainable utilization. Bamboo being a suitable and cost effective alternative to structural wood, besides being an industrial raw material for cottage, rural as well as large industries, has been recognized as an important resource for development of resource base, trade and technology of use during Tenth plan. An effort to harvest and utilize the bamboo in view of the expected gregarious flowering of bamboo in northeast is an important and impending task to tackle.

### **Review of Annual Plan 2002-2003**

8. As the first year of the Tenth Plan, 2002-03 included several initiatives and new approaches towards conservation of forest resources. Various schemes promoting afforestation and people's participation were merged together into National Afforestation Scheme under NAEB. Forest Development Agencies have been formed as a federal structure for Joint Forest Management Committees (JFMC). Till the end of the year, 62890 JFMCs have been formed involving 29, 45, 773 families managing 142,54,845 ha area in 27 states. However, JFM as a management practice for conservation of degraded forests is yet to be universalized in all the states.

9. Village Eco-development has been made an integral part of the development of Protected Areas. Forest protection and management planning in the states has been given a helping hand under the Integrated Forest Protection Scheme. An integrated forest resource inventory including biodiversity assessment has been initiated by Forest Survey of India taking district as the unit.

10. Under wildlife management, India Eco-development project with the support from IDA and GEF in 7 Tiger Reserves of the Country has been developing as a viable model for conservation through village eco-development with involvement of communities and reducing their dependence on Protected Areas considering the importance of such areas in biodiversity conservation. Such attempts are being replicated in other areas also.

### **Annual Plan 2003 –2004**

11. One of the monitorable targets of the Tenth plan is 25 % land area under forest cover within the plan period. Social-forestry has emerged as a commercially feasible complementary system to conventional agriculture in irrigated lands and a subsistence activity in rain fed areas. The need of People's participation and developing a sense of empathy for the forest resources within the communities has led to the Plan objective of universalization of Joint Forest Management.

12. Considering the potential of bamboo as a means of greening the earth and providing impetus to the rural economy, a National Mission on Bamboo Technology and Trade Development has been launched. The mission envisages augmenting resource base of bamboo by 2 million hectares during the Tenth plan and concrete initiatives for development of tools, technology and facilitation mechanism for world class bamboo products.

13. The potential of *Jatropha curcas* in greening degraded arid lands and its widespread use as an additive in diesel as Bio-diesel needs to be tapped. With this objective, a National Mission on Bio-diesel under which extensive planting of the species as a social-forestry crop and processing units has been set into motion. This program is expected to augment green cover, provide employment to large number of rural poor, facilitate utilization of wastelands and help energy management by substitution of finite petroleum resources besides saving foreign exchange.

14. Zero based budgeting exercise was taken up for the Ministry of Environment and Forests. As a result, two schemes have been dovetailed and one deleted thereby reducing the number of CSS from 17 to 15.

## **Programs and Schemes**

### **Forestry**

#### **Forestry Research:**

15. Forestry and related researches are co-ordinated and undertaken in Indian Council of Forestry Research & Education (ICFRE). Uttar Pradesh and Bihar are the States having less than 5% of cover. ICFRE will provide research and extension supports to these States by upgrading Centre for Social Forestry and Eco-rehabilitation, Allahabad as a full-fledged Institute. IPIRTI will develop technology for producing new generation bamboo products. IIFM will provide training in management and related subjects in forestry sector besides developing literature on Joint Forest Management (JFM).

#### **Human Resource Development**

16. For orientation and acquainting the forest officers with the recent trends in forestry, a system of in service training for IFS officers in Indira Gandhi National Forest Academy, Dehradun (IGNFA), refresher courses and trainings in various institutes specialized in relevant areas, and for forest officials from the State Forest Departments, Forest Corporations and forest based industrial organizations are conducted in three SFS colleges and one Rangers College. These Institutes will organize special trainings on bio-fuel, bamboo technology and JFM.

#### **Resource Assessment**

17. Forest Survey of India (FSI) has been conducting assessment of forest resources in the Country. Its objectives *inter alia* include monitoring of changes in forest structure, composition etc. periodically. With the availability of satellite data in early eighties and realization of the fact that use of remote sensing could lead to the assessment of the forest cover in a much shorter time, FSI has been able to prepare comprehensive State of Forest Report (SFR) including National Forest Vegetation Map (NVM) once every two years.

18. The Institution takes up specific projects on Vegetation mapping, Inventory data processing, Training, Methodology design, Special studies on consultancy basis from State Governments also. Its four regional offices at Shimla, Nagpur, Kolkata and Bangalore undertake

field inventory and related studies. During 10<sup>th</sup> Plan, comprehensive inventory and resource assessment including Non-forest area is being undertaken District wise, which will be helpful in preparation of local plans. It is also envisaged to assess bamboo resources and medicinal plant resources in specific habitats. FSI will help the States in formulation of Working Plans in using remote sensing technology in preparation of Vegetation Maps.

### **Forest Protection**

19. A comprehensive scheme on Integrated forest protection has been proposed as an expanded scheme for assisting the State Governments in reinforcing their capabilities of management planning, demarcating forest boundaries, protection from fire and infrastructure for efficient forest management. It envisages setting up of a central data / information base on forest protection in the Ministry fully equipped with State of Art data base management systems. States will be able to adopt modern tools in management planning and updating information.

### **Wildlife Management**

20. The schemes in the wildlife sector are concerned with in-situ and ex-situ conservation, protection and development of wildlife and its habitat by providing central assistance to the States / UTs. Promoting wildlife research, training and improving enforcement of wildlife laws are the other major spheres of activities.

### **India Eco-development Project (Externally Aided Project)**

21. The Project is being implemented in Seven Protected Areas in Seven States as a Centrally Sponsored Scheme with the assistance of the International Development Agency and Global Environment Facility Trust Fund. The project focuses on involvement of communities in the management of PAs while reducing the dependence thereon. It is expected that the lessons learnt and models developed in the Project will be applied in rest of the Protected Areas also for conservation efforts through village eco-development.

22. The total cost of the project, which was to be completed by 31.12.2001, is US \$67 million (Rs. 288.79 crore), revised at Rs 258.09 crore. This includes IDA loan of Rs 92.48 crore, GEF grant of Rs 72.48 crore, Govt. of India share of Rs 43.19 crore, States' share of Rs 28.68 crore and beneficiary contribution of Eco-development programs worth Rs 21.26 crore. Expenditure anticipated till 2002-03 is Rs 183.86 crore. In the recent appraisal by the World Bank, it was felt that sustaining the process and outcome of the efforts so far would be based on adoption of eco-development as a management strategy in the PAs. The project is expected to be extended till June 2004.

### **Wildlife Protection outside Protected Areas**

23. The Scheme was initiated in the year 1986 with the objectives of strengthening the existing regional offices of Wildlife Preservation for better enforcement of Wildlife (Protection) Act & CITES. It has been proposed to widen the scope of the scheme by providing a component of assistance to the State Governments for improvement of wildlife habitats outside the Protected Area network and strengthening protection system. The proposal envisages reinforcing of the protection machinery of the State Forest Departments for detection and

investigation of wildlife offences outside Protected Areas. An amount of Rs 7.00 crore has been provided for the Annual plan.

### **Development of National Parks and Sanctuaries**

24. National Wildlife Action Plan lays emphasis on setting up of a rationalized bio-geographically representative network of protected areas for improving the management. As a result today, we have 497 Wildlife Sanctuaries and 89 National Parks covering an area of 1.56 lakh sq. kms.

25. Assistance is given by the Central Government to the State Governments /UTs for undertaking several specific activities in the National Parks and Sanctuaries conducive to the conservation of wildlife. This includes a component of eco-development of villages at the fringes of Protected Areas. Funding pattern is 100% for non-recurring items and 50% for recurring items.

### **Wildlife Institute of India (WII)**

26. Wildlife Institute of India (WII), an autonomous institute of the Ministry of Environment and Forests undertakes training, education, extension and research activities in various fields related to wildlife management and advice to the States in investigation of offences and management planning.

27. Three principal courses; the 3 months certificate, the 9 months diploma and the 2 years M.Sc. in Wildlife Biology are being conducted on a regular basis. The Institute has also been conducting short capsule courses for senior Forest Officers. Besides the regular and the capsule courses, the institute conducts a number of workshops. An amount of Rs 8.00 crore is provided for the annual Plan 2003-04.

### **Project Tiger**

28. The project was started to ensure maintenance of a viable population of tigers in India and to preserve some of the forest areas of biological importance as a National Heritage for the benefits of education and enjoyment of people.

29. At present there are 27 Tiger Reserves located in 17 States, covering an area of more than 37760 sq. km. The main thrust of the Project is protection and mitigation of deleterious human impacts with a view to comprehensively review the Natural eco-system in the reserves.

30. The pattern of funding for the scheme is 50% Central Assistance for expenditure under recurring items of work, and 100% Central Assistance for expenditure under non-recurring items of work.

### **Project Elephant**

31. Project Elephant was launched in February 1992 to assist States having free ranging populations of wild elephants to ensure long term survival of identified viable populations of elephants in their natural habitats. States are being given financial as well as technical and scientific assistance in achieving the objectives of the Project. The Project is being

implemented as a 100 % centrally sponsored scheme in 12 States, namely Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Karnataka, Kerala, Meghalaya, Nagaland, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal. Main activities include ecological restoration of natural habitats and migratory routes of elephants, measures for mitigation of man-elephant conflict in crucial habitats, research on elephant management related issues and Veterinary care.

### **Central Zoo Authority**

32. The Central Zoo Authority (CZA) is an autonomous body constituted under the provisions of Wildlife (Protection) Act, 1972 under the Chairmanship of Minister of Environment and Forests. CZA is reconstituted every third year. It receives grant-in-aid from the Government.

33. Under the provisions of Zoo Recognition Rules 1992, it is mandatory for zoos in the Country to get recognition from Central Zoo Authority. CZA advises the state Governments on the matters pertaining to zoo management, captive breeding and on exchange of animals. It oversees and monitors the management of zoos, evaluates their present status and supports plans for improvement of such zoos. A provision of Rs 15.00 crore has been made for the year 2003-04.

### **National Afforestation and Eco Development Board (NAEB)**

34. National Afforestation and Eco Development Board (NAEB) and National Action Plan (NAP) to Combat Desertification

35. The National Afforestation and Eco-Development Board (NAEB) was constituted in the Ministry of Environment & Forests in August 1992. The mandate of the Board covers promoting afforestation, tree planting, ecological restoration and eco-development activities all over the Country, giving special attention to degraded forest areas and lands adjoining forest areas, national parks, sanctuaries and other protected areas.

36. The Board is the nodal agency for afforestation activities supported by the Ministry of Environment and forests. For monitoring and evaluation of afforestation activities taken up in the States, the Board has tied up with 7 regional centres namely Agricultural Finance Commission, New Delhi and Mumbai, University of Agriculture Sciences, Bangalore, Jadavpur University Kolkata, University of Horticulture and Forestry, Solan, Indian Institute of Forest Management, Bhopal and North Eastern Hill University, Shillong.

37. The scheme incorporates the components of expenses related to the activities of the Board, grants-in-aid to the NGOs for specific projects relating to sensitizing communities towards cause of conservation, Action Plan to combat desertification and Greening India, a new proposal under Tenth Plan. Provision of Rs 16 crore has been made for the year 2003-04.

### **National Afforestation Scheme**

38. Different schemes related to afforestation of degraded forests linked with people's participation and tribal development namely IAEPS, AOFFPS, NTFPS, ASTRP as implemented during the Ninth Plan have been merged into a single National Afforestation Scheme. The scheme envisages implementation of rehabilitation of degraded forests with involvement of

community institutions as Joint Forest Management Committees (JFMCs) and Forest Development Agencies (FDAs). The funds are proposed to be released direct to the FDAs on micro-plan/ project basis. Activities include micro planning by the Committees and their implementation for sustainable development of the community and forests.

39. This scheme forms the main plank of universalization of JFM as envisaged in the 10<sup>th</sup> Five Year Plan. The outlay for the year 2003-04 is Rs 196 crore.

#### **Eco-Task Forces**

40. The existing scheme of organizing ex-servicemen as commanded by serving army officers for undertaking afforestation and eco-restoration activities is extended to the 10<sup>th</sup> plan also. These efforts have been found very successful in critically degraded areas. At present four such forces are deployed in Bikaner (Rajasthan), Samba (J & K), Kiarkuli and Pithoragarh (Uttaranchal). Provision for the current year is Rs 8.00 crore.

#### **Animal Welfare**

41. Animal Welfare Division has been transferred to the Ministry of Environment and Forests since the year 2002-03 along with a 10<sup>th</sup> Plan outlay of Rs. 175 crores. The Division has the responsibility of implementation of the Prevention of Cruelty to Animals Act (1960) and supports Societies for Prevention of Cruelty to Animals (SPCAs). Two statutory organizations viz. Animal Welfare Board of India (AWBI) and Committee for the Purpose of Supervision and Control of Experiments on Animals (CPCSEA) are also set up under this Act. A large number of domestic, stray and uncared animals suffer from injuries and disabilities as a result of road accidents or diseases. Animal Welfare Division is implementing schemes with the objective of making available emergency services to animals in distress by provision of appropriate assistance to competent organizations working in the field. Main activities include provision of shelter houses for stray and destitute animals and immunization and sterilization of stray dogs in the urban areas.

## **ENVIRONMENT**

#### **Schemes:**

#### **On going schemes:**

42. Most of the schemes for the Annual Plan 2003-04 are *continuing ones* from the Ninth Plan. Some of these schemes are of *long term* in nature, but in majority of them including those under the National River Conservation Plan (NRCP), the spill-over is due to slow progress of work. Details of major on-going schemes are given below:

#### **Abatement of Pollution:**

#### **Central Pollution Control Board(CPCB):**

43. Central Pollution Control Board has been created to discharge regulatory functions as stipulated under Water Act (1974), Air Act (1981), Water Cess Act (1977), Environment Protection Act (1986), Hazardous Waste Rules, (1989), Hazardous Chemical Rules, (1989), Bio-

Medical Wastes (1998), Municipal Solid Wastes Rules, 2000 etc. Apart from this main function, the Board carries out Surveys and Monitoring activities, R&D, Development of Standards and Guidelines and Studies on Pollution control technologies etc. This organisation has got 9 Zonal offices to assist its activities spread over the entire country.

#### **Common Effluent Treatment Plants (CETPs):**

44. This scheme provides support to a cluster of small scale industries for setting up *Common Effluent Treatment Plants* to meet the standards set for liquid effluent discharge at a manageable cost. Under the scheme, both State Government and Centre provides 25% of the cost each as a grant and the industry has to meet only 20%, the balance 30% is received from the financial institutions as a *loan*. In the Tenth Plan, the scope has been enlarged to provide support for modernisation of CETPs

#### **Taj Protection Mission:**

45. To comply with the Supreme Court order of 1996, Taj Trapezium Zone Pollution (Prevention and Control) Authority has been set up for monitoring and implementing various schemes under Taj Protection Mission estimated to cost around Rs. 600 crore. This project will be implemented with 50:50 share between Centre and State..

#### **Environment Protection Authorities, Commission & Tribunals:**

46. Under the Environment Protection Acts (EPA) 1986, three authorities have been created - *National Environment Appellate Authority, Loss of Ecology Authority for the State of Tamil Nadu and Environment Pollution Authority for NCR of Delhi*. In addition, there is a need to set up *Benches* for National Environment *Tribunal* under the Environmental Tribunal Act of 1995.

#### **Cleaner Technologies:**

47. For sustainable development, both for conservation of resource as well as to avert man made effect on the environment, cleaner technology for power and industrial production, transport etc. is going to be unavoidable. Ministry of Environment & Forests has taken up a few schemes to increase awareness like Life Cycle Assessment (LCA), Carrying Capacity based Regional Development Planning, Natural Resource Accounting etc. as well as Promotion of Cleaner Technology. LCA Studies for steel plants, lignite / coal based thermal power plant have been completed. At present, LCA studies for pulp and chemical industries are undergoing. Other sectors will be taken up in the coming years.

#### **Conservation & Survey:**

##### **Botanical Survey of India:**

48. This Institute was established in 1890 with the objectives of making survey and inventory of floral resources of the country. Activities during the Tenth Plan include the establishment of a *Botanical Garden at Noida*, devise training programmes for State Forest Departments, collect and distribute germ plasma of known species of bamboo, *Jatropha* and medicinal plants to the Botanical gardens.



### **Zoological Survey of India:**

49. This institute surveys the fauna of the country through its 16 regional and field stations spread all over the country. It was established in 1969. Activities proposed to be taken up during Tenth Plan include *status survey of endangered species, taxonomic study, publication of Red Data Book and Fauna of India Series* and computerisation of data on Faunal Diversity including National Zoological Collections.

### **G.B. Pant Institute of Himalayan Environment and Development:**

50. It undertakes R&D activities on the fragile eco-systems of the Himalayan region and provides valuable inputs on the conservation plan of the Bio-Diversity. It has also been entrusted with the specific responsibility of promotion of medicinal plants in the region and their commercial exploitation.

### **Bio-sphere Reserves (BR):**

51. It is a Centrally Sponsored Scheme to facilitate conservation of major bio-geographical areas of the country, terrestrial or coastal as recognised within the UNESCO's framework of Man and Biosphere. During Tenth Plan, 14 additional sites in different zones will be taken for designation as additional BRs. The scheme broadly covers the following aspects :

- Enhanced protection
- Value addition to local resources
- Setting up of pilot plots for bio-mass production, medicinal plants, traditional agriculture etc.
- Sustainable use of resources
- Alternate livelihood options for local communities to reduce pressure on core zone.

The core zone of the BRs are kept absolutely free from any human pressure external to the system.

### **Conservation and Management of Mangroves, Coral Reefs and Wetlands:**

52. Coral Reefs and Mangroves in the coastal regions is an important chain for the productivity of commercially important fisheries in the region and also sets as a protection to the shore lines. Coral Reefs and Mangroves are under severe threat now, due to natural calamities, anthropogenic activities and various biotic factors. A National Committee on Mangroves and Coral Reef is constituted in 1986 and on the advice of this Committee, 30 Mangroves and 4 Coral Reefs areas in the country have been identified for intensive conservation and management. State Level Steering Committees have been constituted for formulation of specific Management Action Plans for each area. During the Ninth Plan, area under Mangroves in the country has increased by 618 sq. kms. During Tenth Plan, 30 identified Mangroves and 4 Coral reefs areas will be taken up for intensive conservation and management. The scheme of wetland conservation is also an on-going scheme and shall continue during Tenth Plan..

### **National Museum of Natural History:**

54. This museum was established in New Delhi in 1978 and is devoted to *non-formal* environmental education. It has got three *regional* museums at Mysore, Bhopal and Bhubaneswar. The fund requirement is partly for *acquisition of land and construction of new building at Delhi* as the present building is a rented one and is not suitable for expansion. Funds are also required for phase III of the Bhubaneswar Museum and staff quarters for Bhopal and Bhubaneswar museums.

### **Environmental Information System(ENVIS):**

55. It is a Central Sector scheme continuing since 1982 based on the concept of distributed network of databases to enable integration of national efforts in environmental information collection, collation, storage, retrieval and dissemination to a wide range of users. Under the scheme a network of 25 centres (ENVIS) have been established and a dedicated website ( <http://enfor.nic.in> ) designed. ENVIS also acts as a national focal point and regional service centre for South Asia Sub-Region countries for the INFOTERRA, a global information network of UNEP. World Bank has agreed in principle to provide assistance for strengthening ENVIS network through Environmental Management Capacity Building Project under progress since January, 2002.

### **Centres of Excellence:**

56. The scheme is in operation since 1983 and it sets up or supports various areas of environmental science and management. 9 Centres of Excellence have already been created as listed below :

- Centre for Environment Education, Ahmedabad.
- CPR Environment Education Centre, Chennai.
- Centre for Animals and Environment, Bangalore.
- Centre for Ecological Sciences, Indian Institute of Science, Bangalore.
- Centre for Mining Environment, Indian School of Mines, Dhanbad.
- Salim Ali Centre for Ornithology and Natural History, Coimbatore.
- Centre for Environmental Management of Degraded Eco-systems, University of Delhi, New Delhi.
- Tropical Botanical Garden and Research Institute, Thiruvananthapuram, Kerala.
- Madras School of Economics.

## **Policy & Law:**

### **Industrial Pollution Prevention Project (Externally Aided Project) (EAP):**

57. This project is in operation since 1994 with the world bank financial support (IDA grant of Rs. 100 crore sanctioned for Ninth Plan) to strengthen State Pollution Control Boards, encourage use of green technologies, resource recovery and adoption of cost effective pollution abatement measures. During Ninth Plan, Rs. 18 crore towards upgradation of regional laboratories, Rs. 22 Crore towards analytic and monitoring equipments, Rs. 12 crore for use of Information Technology for environmental activities and Rs. 2.5 crore towards environmental awareness activities have been spent. The project was expected to expire by March, 2002 but as half of the grant is still to be utilized, extension of the project by two years is being sought.

### **International Cooperation:**

#### **India Environment Capacity Building Project (EAP):**

58. This project was initiated in August, 1997 with the help of IDA credit of \$ 50 millions. It focuses on filling up of gaps on all aspects of environment management i.e. structural, legislative and administrative ones. Due to slow progress of the work, the project outlay has been brought down to \$29.62 millions and was expected to culminate in June, 2003. One of the major achievements under the project will be Industrial Siting i.e. Zoning Atlas Programme under which local level mapping of many districts has been undertaken to indicate suitability of sites for industrial estates.

#### **Indo-Canada Environment Facility (ICEF) (EAP):**

59. ICEF has been established as a registered society under joint funding by the Government of India (GOI) and Canadian International Development Agency (CIDA) to support projects in areas of forest conservation, eco-restoration, watershed management, water harvesting, environment education, sewerage and sanitation, renewable energy sources and environment health.

#### **Government of India-UNDP-CCF Programme (EAP):**

60. It is a UNDP supported programme under the Country Cooperation Framework-I with focus on equity, poverty alleviation and human development and is on-going since 1997. This External Aided Project (EAP) has total outlay of US \$ 8.1 million. The funds are routed through budget and UNDP gives this amount as grant.

#### **Global Environment Facility (GEF) (EAP):**

61. This EAP scheme is a financial mechanism to achieve global environment benefits in the areas of Bio-Diversity, Climate Change, International Waters & Ozone layer depletion and Land Degradation. It is a cooperative venture among national governments, World Bank, UNEP, FAO, ADB etc. and is functional since 1994. A fund of US \$ 167 million has been programmed for India.

### **Information Technology (IT):**

64. As a policy, Government of India has prescribed 2-3% of the plan budget should be earmarked for Information Technology. The Ministry of Environment & Forest, besides investment on ENVIS has taken up various IT related networking activities in the environmental field including *e-governance*.

### **National River Conservation Plan (NRCP) :**

66. To improve the sustainability of the river cleaning programmes under NRCP, a number of initiatives adopting an integrated and holistic approach are planned. These are:

- A decentralised approach to sewage interception, diversion and treatment will be adopted as this would not only minimise the capital cost but also the operation and maintenance (O&M) work.
- The non-point sources of pollution would be addressed more aggressively through the local municipal bodies.
- Treated sewage would be utilised for irrigation after dis-infection wherever feasible.
- Apart from the pollution control boards, universities and colleges would also be involved in monitoring the water quality in rivers and lakes.
- Projects would be approved only when there is a firm commitment on meeting O&M costs on the part of local bodies/State Governments.
- Institutional arrangements at the State level would be strengthened for effective and timely implementation of the programme.

67. An outlay of Rs. 124 Crore is proposed for the year 2003-2004 for NRCP for ongoing / new projects. Important among the new projects are pollution abatement works on Musi River (Hyderabad), Gomti Action Phase II in Lucknow, Sewage Collection and Treatment System in Puri (Orissa) and Environment Action Plan for Bangalore covering rivers Cauvery and Pennaiyar in Karnataka.

### **National River Conservation Plan (EAP) :**

68. The External Aided Projects under NRCP amounting to Rs. 120 Crore shall be taken up during 2003-04. An outlay of Rs. 100 crore has been approved for the Yamuna Action Plan Phase II, which is being funded by JBIC as an extension of Yamuna Action Plan Phase I. In addition, an amount of Rs. 20 Crore has been allocated for on-going Ganga Action Plan at Kanpur being funded by Government of Netherlands.

### **National Lake Conservation Plan :**

69. An outlay of Rs. 45 Crore is provided for ongoing new projects to be undertaken during 2003-04. NLCP being a relatively new scheme, the projects under this scheme are at initial stages and yet to gain momentum. The ongoing-projects include lake cleaning works at Powai, Ooty, Kodaikanal and Bangalore lakes. Major new projects to be taken up during 2003-04 are of Mansagar Lake (Jaipur), Nainital Lakes (5 Nos) and Rabindra Sarovar (Kolkata).

### **Centrally Sponsored Schemes (CSS):**

70.. The Ministry of Environment and Forests is responsible for planning, promotion, coordination and overseeing of implementation of various environmental and forestry programmes under CSS, poverty alleviation by increasing availability of natural resources to the poor, especially tribals and also to heighten environmental awareness by focusing on nature-man synergy.

71. The CSS under operation in the country have as their objectives promotion of wildlife through resurrection of floral and faunal genetic diversity in endangered species, protection of biodiversity through eco-development, Eco-restoration and enrichment of animal habitat through plantation etc. At the end of 2002-03, there were 15 CSS in operation in various States and Union Territories.

72. Scheme-wise Plan Outlays and Expenditure, Physical Targets and Achievements, State-wise release of Central Share under CSS during 2002-03 and State-wise Sectoral outlays are at **Annexures 12.1.1 to 12.1.4** respectively.

**Scheme-wise Plan Outlay & Expenditure for  
Environment Sector**

(Rs crore)

Sector	2001-02 Actuals	2002-03 Outlay	2002-03 RE	2003-04 Outlay
<b>ENVIRONMENT SCHEMES</b>				
Abatement of Air and Water Pollution	69.48	55.57		46.50
Environmental Impact Assessment	4.48	6.00	4.00	2.80
Conservation & Survey	21.14	45.00		31.00
Research & Eco- Regeneration	18.92	4.00	4.00	4.50
Environmental Education Training and Environmental Information	12.51	37.00		18.00
Policy & Law *	48.65	19.00		4.00
International Cooperation	1.10	42.52		2.52
Information Technology	4.63	3.00	2.50	2.50
Civil Engineering	1.66	2.00	2.00	1.94
New Schemes	0.00	14.91		11.00
Capital Provisions for ecology and environment	10.54	0.00	13.00	85.24
<b>Total (Environment Schemes)</b>	<b>193.11</b>	<b>229.00</b>	<b>207.81</b>	<b>210.00</b>
<b>NRCD SCHEME</b>	<b>297.23</b>	<b>295.00</b>	<b>296.45</b>	<b>295.00</b>
<b>TOTAL (ENV. + NRCD)</b>	<b><u>495.82</u></b>	<b><u>524.00</u></b>	<b><u>504.26</u></b>	<b><u>505.00</u></b>

\* includes Environmental Planning & Coordination and Other Expdr.

**Annexure – 12.1.1 (Concl.)**

**Scheme-wise Plan Outlay and Expenditure for Forestry, Wildlife,  
NAEB, Animal Welfare Sectors**

**(Rs. Crore)**

<b>Sector</b>	<b>2001-02 Actuals</b>	<b>2002-03 Outlay</b>	<b>2002-03 RE</b>	<b>2003-04 Outlay</b>
Forestry Research, Education & Training	57.91	50.00	51.33	48.00
Forest Survey of India	3.74	7.00	7.00	7.00
Forest Protection \$	19.20	65.00	47.10	67.00
Strengthening of Forest Division \$	5.27	7.00	6.65	7.00
Capital Outlay on Forestry	7.00	-	-	-
<b>Forestry -Total</b>	<b>93.12</b>	<b>129.00</b>	<b>112.08</b>	<b>129.00</b>
<b>Wildlife-Total #</b>	<b>115.44</b>	<b>136.00</b>	<b>132.13</b>	<b>136.00</b>
<b>National Afforestation &amp; Eco- Dev. Board (NAEB)- Total</b>	<b>114.88</b>	<b>201.00</b>	<b>186.72</b>	<b>220.00</b>
<b>Animal Welfare</b>	<b>-</b>	<b>-</b>	<b>15.00</b>	<b>20.00</b>
<b>Total – Forestry &amp; Wildlife</b>	<b><u>323.44</u></b>	<b><u>466.00</u></b>	<b><u>445.93</u></b>	<b><u>505.00</u></b>
<b>Lumpsum Provision for North East</b>	<b><u>79.77</u></b>	<b>@</b>	<b>@</b>	<b>@</b>
<b>Grand Total - MOEF</b>	<b><u>893.55</u></b>	<b><u>990.00</u></b>	<b><u>950.19</u></b>	<b><u>1010.00</u></b>

\$ MOEF reported data for 2001-02 (Actuals) for these 2 Schemes under 'Forest Conservation, Development and Regeneration'.

# includes Wildlife Preservation and Zoological Parks.

@ data included in Environment, NRCD, Forestry and Wildlife figures.

**Annexure – 12.1.2****Physical Targets and Achievements – E & F Sector**

<b>S. No.</b>	<b>Parameter</b>	<b>10<sup>th</sup> Plan Target</b>	<b>2002-03 ( Actuals)</b>
1.	Forest and Tree Cover in the country	25% of geographic area	23.03% till 2001
2.	No. of villages covered under Joint Forestry Management (JFM)	1.70 lakh	0.70-0.80 lakh



## Annexure – 12.1.3

State-wise Break-up of Release of Central Share under CSS –  
E & F Sector –2002-03

(Rs. lakh)

S. No.	Scheme	State/UT	Central Funds Released in 2002-03	
1.	Development of National Parks and Sanctuaries	Andhra Pradesh	82.73	
		Arunachal Pradesh	105.01	
		Assam	182.14	
		Chattisgarh	92.03	
		Gujarat	90.37	
		Haryana	18.75	
		Himachal Pradesh	93.85	
		J & K	99.90	
		Jharkhand	30.80	
		Karnataka	599.02	
		Kerala	198.98	
		Madhya Pradesh	196.33	
		Maharashtra	168.20	
		Manipur	64.50	
		Meghalaya	40.25	
		Mizoram	235.60	
		Nagaland	107.84	
		Orissa	82.57	
		Rajasthan	366.27	
		Sikkim	132.76	
		Tamil Nadu	136.11	
		Tripura	101.88	
		Uttar Pradesh	137.36	
		Uttranchal	77.99	
		West Bengal	223.67	
		Andaman & Nicobar Islands	20.75	
		Chandigarh	14.00	
		D & N Haveli	15.25	
		Total –	<u>3714.91</u>	
2.		Biosphere Reserve	Assam	21.96
			Kerala	35.79
			Madhya Pradesh	50.00
	Meghalaya		25.00	
	Orissa		50.00	
	Sikkim		42.23	
	Tamil Nadu		6.00	
	Uttaranchal		71.70	
	West Bengal		50.00	
	Total	<u>352.68</u>		

<b>Annexure – 12.1.3 (Contd.)</b>			
<b>S. No.</b>	<b>Scheme</b>	<b>State/UT</b>	<b>Central Funds Released in 2002-03</b>
3.	NRCP	Bihar	25.00
		Gujarat	800.00
		Goa	246.00
		Haryana	237.00
		Karnataka	800.00
		Madhya Pradesh	700.00
		Maharashtra	2639.50
		Orissa	128.00
		Punjab	2620.00
		Tamil Nadu	4142.00
		Uttar Pradesh	3814.00
		Uttranchal	327.00
		West Bengal	2025.00
		Delhi	9185.00
		Total	<u>27688.50</u>
4.	National Lake Conservation Plan	Karnataka	178.52
		Maharashtra	100.00
		Rajasthan	600.00
		Uttranchal	40.48
		West Bengal	300.00
		Total	<u>1219.00</u>
5.	Conservation and Management of Mangroves, Coral Reefs and Wetlands	Andhra Pradesh	60.30
		Goa	7.15
		Gujarat	31.88
		Himachal Pradesh	26.45
		Jammu & Kashmir	132.65
		Karnataka	17.80
		Orissa	158.28
		Punjab	82.90
		West Bengal	48.82
		Andaman & Nicobar	34.50
		Lakshdweep	5.50
		Total	<u>606.23</u>
6.	Project Elephant	Andhra Pradesh	50.00
		Arunachal Pradesh	52.00
		Assam	116.00
		Bihar/Jharkhand	45.00
		Karnataka	93.00
		Kerala	111.88
		Meghalaya	41.00
		Mizoram	5.00
		Nagaland	49.00
		Orissa	108.39

<b>Annexure – 12.1.3 (Contd.)</b>			
<b>S. No.</b>	<b>Scheme</b>	<b>State/UT</b>	<b>Central Funds Released in 2002-03</b>
		Tamil Nadu	71.26
		Tripura	3.00
		Uttar Pradesh/ Uttranchal	107.00
		West Bengal	86.47
		Total	<u>939.00</u>
7.	Project Tiger	Andhra Pradesh	21.00
		Arunachal Pradesh	35.88
		Assam	65.70
		Bihar	25.00
		Chhattisgarh	32.48
		Jharkhand	18.00
		Karnataka	289.56
		Kerala	63.75
		Madhya Pradesh	786.44
		Maharashtra	621.79
		Mizoram	98.32
		Orissa	32.88
		Rajasthan	294.92
		Tamil Nadu	125.00
		Uttar Pradesh	32.75
		Uttranchal	168.00
		West Bengal	168.33
		Total	<u>2879.80</u>
8.	India Eco Development Project	Jharkhand	252.00
		Gujarat	841.00
		Karnataka	1042.00
		Kerala	65.00
		Madhya Pradesh	539.00
		Rajasthan	565.00
		West Bengal	217.00
		Total	<u>3521.00</u>
9.	Integrated Forest Protection Scheme	Andhra Pradesh	129.00
		Arunachal Pradesh	426.02
		Assam	376.60
		Chhattisgarh	150.00
		Goa	49.20
		Gujarat	75.00
		Haryana	70.00
		Himachal Pradesh	57.40
		Jammu & Kashmir	74.25
		Jharkhand	81.17
		Karnataka	77.00
		Kerala	83.50
		Madhya Pradesh	158.50
		Maharashtra	188.92

<b>Annexure 12.1.3. (Concl.)</b>			
<b>S. No.</b>	<b>Scheme</b>	<b>State/UT</b>	<b>Central Funds Released in 2002-03</b>
		Mizoram	574.12
		Nagaland	407.47
		Orissa	100.00
		Rajasthan	55.00
		Sikkim	358.63
		Tamil Nadu	100.00
		Tripura	692.13
		Uttar Pradesh	80.00
		Uttranchal	98.07
		West Bengal	120.00
		<b>Total</b>	<b>4581.98</b>
10.	Taj Protection Mission	Uttar Pradesh	24.42
11.	Common Effluent Treatment Plants (CETPs)	Andhra Pradesh	30.00
		Gujarat	95.00
		Maharashtra	102.50
		Punjab	4.00
		Tamil Nadu	10.50
		<b>Total</b>	<b>242.00</b>
12.	Industrial Pollution Prevention Project	Andhra Pradesh	323.76
		Chhatisgarh	158.27
		Gujarat	100.78
		Karnataka	438.20
		Madhya Pradesh	121.49
		Rajasthan	36.96
		<b>Total</b>	<b>1179.46</b>

**Grand Total- MOEF**

**46009.98**

**Annexure – 12.1.4**

**State-wise Sectoral Outlays – E & F Sector**

(Rs. Crore)

S. No.	State	2001-02	2002-03	2002-03	2003-04
		Actuals	BE	RE	BE
1.	Andhra Pradesh	92.56	125.45	77.85	
2.	Arunachal Pradesh	15.43	12.58	12.58	12.00
3.	Assam	35.96	27.49	27.49	
4.	Bihar	2.01	7.53	5.99	
5.	Chattisgarh	38.51	53.51	53.51	
6.	Delhi	6.81	10.70	44.33	
7.	Goa	3.91	4.47	4.47	
8.	Gujarat	154.72	175.04	175.04	175.04
9.	Haryana	34.42	32.25	30.95	
10.	Himachal pradesh	72.76	73.95	75.05	
11.	J & K	53.81	60.75	60.75	
12.	Jharkhand	82.00	85.00	85.00	90.00
13.	Karnataka	119.63	143.40	132.66	128.74
14.	Kerala	50.61	42.00	45.00	95.90
15.	Madhya Pradesh	100.06	79.64	154.86	
16.	Maharashtra	26.58	22.09	22.09	31.59
17.	Manipur	1.19	13.76	13.76	
18.	Meghalaya	8.04	7.50	7.50	8.50
19.	Mizoram	5.78	6.04	6.04	6.19
20.	Nagaland	4.48	4.15	4.15	2.06
21.	Orissa	37.23	82.64	34.79	
22.	Punjab	80.54	94.81	94.81	
23.	Rajasthan	42.93	174.04	4.66	15.12
24.	Sikkim	6.36	6.94	7.14	6.00
25.	Tamil Nadu	124.83	119.85	112.09	
26.	Tripura	6.88	6.84	6.84	
27.	Uttar Pradesh	128.29	172.71	90.09	129.25
28.	Uttranchal	101.10	66.74	66.74	61.03
29.	West Bengal	42.99	48.52	44.92	18.34
30.	Andaman & Nicobar Islands	9.48	11.96	11.96	12.25
31.	Chandigarh	7.45	7.10	7.10	5.03
32.	D & N Haveli	2.80	2.67	2.67	2.97
33.	Daman & Diu	0.34	0.37	0.37	0.37
34.	Lakshadweep	0.47	0.61	0.61	0.66
35.	Pondicherry	1.52	1.69	1.30	
	<b>Total – All States &amp; UTs</b>	<b>1502.48</b>	<b>1784.79</b>	<b>1524.26</b>	

Note : 2003-04 (BE) is compiled only for those States/UTs for which Working Group Meetings have been completed.