

CHAPTER-II A
REVIEW OF OVERALL PERFORMANCE DURING 1994-95

FORESTRY AND WILDLIFE

I. INDIRA GANDHI NATIONAL FORESTRY ACADEMY DEHRADUN.

The IGNFA was established in May,1987 by upgrading the Indian Forest College, Dehra Dun and delinking it from the Forest Research Institute. The Academy is responsible for in-house training for Indian Forest Service probationers.

- 63 IFS probationers of 1992-94 batch completed training in Dec,1994. 82 probationers of 1994-97 batch were undergoing training.
- One computer course was conducted in which 19 TFS Officers participated.
- One course on Project formulation and implementation was conducted in which 11 IFS officers participated.

II. STATE FOREST SERVICE AND RANGERS COLLEGES

The responsibility for training of State Forest Service Officers lies with the Government of India. There are three State Forest Service Colleges one each at Dehra Dun, Coimbatore and Burnihat to cater to the training requirements of SFS Officers of different States. Although, the Rangers training was decentralized in 1986 whereby the responsibility for the same was transferred to the State Governments, the Eastern Forest Rangers College (EFRC), Kurseong still remains with the Government of India. The administrative and financial control over the three SFS Colleges and EFRC, Kurseong is exercised by the Directorate of Forest Education (DFE) headquartered in Dehradun.

- 90 State Forest Service Officers completed 2 years Diploma course.
- 60 Rangers passed out 2 years training course during the year from Eastern Forest Rangers College, Kurseong.
- 210 State Forest Service Officers participated in 13 refresher courses of 2 weeks duration in State Forest Service Colleges.
- 19 State Forest Service Officers were trained in 4 short term computer courses.

III. INDIAN INSTITUTE OF FOREST MANAGEMENT, BHOPAL.

The Indian Institute of Forest Management, Bhopal, was established on Jan 15,1982. The main task of the Institute is to facilitate and actively contribute to the development of managerial capacity in the forestry sector.

- 27 students of 1993-95 batch were passed out in Post Graduate Diploma in Forestry Management. Another 27 students were admitted to the programme for 1994-96 batch.
- A new M.Phil Level course on Resource Management of one year duration was started.
- 19 Management Development Programmes and 4 workshops/ seminars were conducted.
- 18 different research studies were started.

- During the year construction of 26 staff quarters, boundary wall at Vanika Residential complex and roads were completed.
- 1984 new books and 7 video films were added to the library.
- A computer centre was added to the Institute.

FORESTRY RESEARCH

INDIAN COUNCIL OF FORESTRY RESEARCH AND EDUCATION

Indian Council of Forestry Research and Education is an autonomous body under the Ministry of Environment and Forests, Government of India. The Council was established in December, 1986 and received full autonomy w.e.f. 1st June, 1991. It has 10 Institutes/Centres spread all over the country.

1. Forest Research Institute, Dehra Dun.
2. Institute of Forest Genetics and Tree Breeding, Coimbatore.
3. Arid Forest Research Institute, Jabalpur.
4. Tropical Forest Research Institute, Jabalpur.
5. Institute of Wood Science and Technology, Bangalore.
6. Institute of Rain Moist Deciduous Forests Research, Jorhat.
7. Temperate Forest Research Institute, Shimla.
8. Institute of Forest Productivity, Ranchi.
9. Centre for Social Forestry and Eco-Rehabilitation, Allahabad.
10. Institute of Forestry Research and Human Resource Development, Chhindwara.

Asart from the above, new research centre is likely to be opened at Hyderabad

- 30 brochures on multi-purpose tree species have been published.
- 10 books and monographs on various issues have been published.
- Special issues of Indian Forester and Van Vigyan were brought out.
- A 30 minute video film (Van Anu Sandhan) on high band U-matic format was prepared and telecasted on Doordarshan.
- One high band U-matic, audio-visual film using multi-screen and multi projector on "Forest and Man" was prepared.
- Six Research Institutes and three Centres under ICFRE during 1994-95 carried on various research activities.

INDIAN PLYWOOD INDUSTRIES RESEARCH AND TRAINING INSTITUTE (IPIRTI), BANGALORE.

The Indian Plywood Industries Research and Training Institute (IPIRTI) was established in 1963 by the Plywood Industry and the Government of India under the Cooperative Research Scheme (CRS). It was under the administrative control of CSIR till March, 1978 and subsequently under the Ministry of Industry till April, 1990. With effect from 1st May, 1990 it is under the administrative control of Ministry of Environment and Forests. IPIRTI is a centre of expertise in the mechanical wood industries sector and is equipped with modern facilities for

research and training in saw-milling and plywood. It has a special library which provides referral services to industry and scientific community apart from Institute staff and students.

- Out of 38 on-going projects, 8 projects were completed.
- 8 training programmes including two special courses primarily on 'Adhesive Manufacture and Applications' were organized. Particle board industry personnel (14 Nos.) representing M/s.Shankardada Sugar Institute, Pune and M/s. CIBATUL resin manufacturers (6 Nos.) attended these courses.
- The Fifth batch of Certificate Course Mechanical Wood Industries Technology of one year duration was completed on 16th September,1994. 27 candidates were awarded certificates after the successful completion of the course.
- 644 samples have been tested for conformity to Indian Standards.
- 17 process improvement demonstrations were arranged in different factories.

SURVEY AND UTILIZATION OF FORESTS RESOURCES

FOREST SURVEY OF INDIA (FSI)

The achievements of FSI during 1994-95 were as under:

Items	Unit	Targets	Achievements
1. Forest inventory	Area in Km ²	26,000	27862
2. Thematic Mapping	1:50,000 Scales	260 maps Sheet No.	256
3. Vegetation mapping	1:250,000	181	172
4. Training	No. of Persons trained	90	115
5. Wood Consumption	No. of areas	4	2
6. Data Processing	Area in sq. km.	26,000	38,965

FOREST CONSERVATION

The Forest Conservation (Act),1980 was enacted with a view to check indiscriminate deforestation and diversion of forest land for non-forest purpose. The act was amended in 1988 to make it more stringent. The Advisory Committee with representation of eminent personalities was set up under this Act. At field level there are six regional offices situated at Bangalore, Lucknow, Shillong, Bhopal, Bhubaneshwar and Chandigarh with Headquarters at New Delhi. These offices were set up to monitor cases under Forest (Conservation) Act. Later in 1988 these offices were strengthened and also entrusted with the responsibility of monitoring cases under Environment(Protection) Act. Under the revised guidelines, the regional offices have been empowered to decide cases for diversion of forest land for non-forest purposes up to the extent of 5 ha. except mining and regularization of encroachments and examine cases between 5-20 ha. in consultation with State Advisory Board.

As per Annual Action Plan 1994-95, monitoring of 900 cases approved/rejected under Forest(Conservation) Act and 400 Environmental Clearance projects/cases were to be done by the Regional Offices. The Regional Offices monitored 770 cases approved under Forest (Conservation) Act and 456 Environmental Clearance projects/cases during 1994-95. Region-wise physical targets for 1994-95 and achievements are given below:

REGIONAL OFFICE	FOREST	(CONS.) ACT ACT	ENVIRONMENTAL	(PROTECTION)
	Target	Achievement	Target	Achievement
Bangalore	75	177	80	142
Bhubaneswar	75	172	80	143
Bhopal	175	152	80	45
Lucknow	175	65	80	57
Shillong	120	122	45	33
Chandigarh	80	82	35	36
Total	700	770	400	456

FOREST PROTECTION AND REGENERATION

Under the scheme “Association of Scheduled Tribes and Rural Poor in Regeneration of Degraded Forests on Usufruct Basis”, projects sanctioned to the States of Andhra Pradesh, Madhya Pradesh, Bihar, West Bengal, Maharashtra, Orissa, Gujarat and Rajasthan were sanctioned. A sum of Rs.339.89 lakh was released to State Governments up to 1994-95.

During the Eighth Plan, a centrally sponsored scheme ‘Modern Forest Fire Control Methods in India’ was continued. The scheme was launched during the 7th Plan with UNDP assistance as a pilot project in Uttar Pradesh and Maharashtra mainly to protect the forests from fire. During 1994-95, assistance of Rs.115.07 lakh was provided to 8 States to enable them to develop necessary infrastructure to protect the forests against forest fire.

FOREST POLICY

The Indian Forest Act, 1927 is the main Act which regulates the management of forests by the states. Of late, forestry has undergone many conceptual changes leading to the announcement of the New National Forest Policy of 1988. Consequently, need has been felt for a revised and more comprehensive legislation which would take into account the New National Forest Policy and the emerging imperatives of conservation of forests. A draft legislation was circulated to the state Governments and Union Territories and comments received from them were under examination. Consultations were also initiated with non- governmental organizations so that their views could also be adequately reflected in the final draft legislation.

NATIONAL FORESTRY ACTION PLAN

With the announcement of the National Forest Policy, 1988, it became necessary to orient all ongoing forestry programmes to meet the objectives set by it. Consequently, an integrated perspective programme for long, medium and short term development of the forestry sector at national and state level is being prepared, taking all aspects of forestry and people. This is being done under the project National Forestry Action Programme (NFAP) with the assistance of UNDP and PA0. The project document was signed during June, 1993 and became operational since July, 1993. Zonal Sector Review Reports under the NFAP were also prepared.

WILDLIFE

Ministry of Environment and Forests oversees the implementation of Wildlife (Protection) Act, provides financial assistance for development and protection of National Parks and Wildlife Sanctuaries and deals with matters relating to Wildlife Institute of India, Dehradun (WII) and Convention on International Trade in Endangered Species (CITES) etc.

The achievements in various centrally sponsored Schemes are as follows:

Schemes	Targets	1994-95 physical achievement (No of areas covered)
1. Assistance for Development of National Parks & Sanctuaries.	200	219
2. Project Elephant	--	13 (States Covered)
3. Eco-development around National Parks and sanctuaries	50	55

WILDLIFE INSTITUTE OF INDIA

Scheme	Persons trained(1994-95)
1. M.Sc. course in Biology	7(candidates)
2. PG Diploma in Wildlife Management	16 numbers
3. Certificate course in Wildlife Management	12(Range Officers)
4. Field Workshop/Short Courses	11 numbers.

CENTRAL ZOO AUTHORITY

- During the year 1994-95, 6 medium zoos, 7 small zoos and 22 mini zoos were evaluated.
- Financial assistance to the tune of Rs.258.9 lakh was provided to 25 zoos.
- Research projects worth Rs.27.42 lakhs regarding assisted reproduction and DNA fingerprinting were awarded to the Centre for Cellular and Molecular Biology, Hyderabad.
- Training programmes for zoo managers was organized in December,1994 to January,1995 through Wildlife Institute of India.
- A -workshop on "Indira Gandhi Vision of Wildlife Conservation: Zoo One Such Instrument" was organized from 29th to 31st October, 1994 in which the Scientists, Zoo Managers, animals lovers and wildlife protected area managers participated.

ANIMAL WELFARE BOARD OF INDIA (AWBI)

Animal welfare programme in the country receives power from the provisions of the Prevention of Cruelty to Animals Act 1960 (PCA Act 1960). Animal welfare Board of India established under the provisions of the Act is engaged in the Prevention of cruelty to animals. Various Animal Welfare Organizations along with the Board take steps to generate public awareness. AWBI receives grants-in-aid from Government of India and in turn provides assistance to various organizations in the country for rescue/ shelter homes, animal birth control, vehicles, medicines and veterinary care etc. AWBI also imparts training to representatives of

various Animal Welfare Organizations and public in animal care, laws and various other disciplines.

During the year 1994-95, 164 animal Welfare organization recognized by AWBI received financial assistance from AWBI. Th, various, schemes for which the grants were released to Anima Welfare Organizations is as under:

		(Rs. in lakhs)
1.	Construction of Animals shelters/ Sheds/Rescue Homes, Construction of water troughs.	36.88
2.	Anti Rabies/Animal Birth Control Programmes.	41.89
3.	Purchase of medical equipment/purchase of medicines, veterinary clinic and for rescue operations during flood/cyclone/drought, etc.	20.06
4.	For newly recognized organizations for furthering animal Welfare activities including establishment charges.	14.45
5.	Research and Development	1.00
		114.28

AWBI organized a three week Trainer's Course, besides 12< Human Education Training Programmes (5 day duration). It also organized an International Seminar on Animal Welfare on 30th Nov 1st December, 1994 at New Delhi. AWBI; also brought 1 lakh copies of multicoloured and multilingual posters on various themes relating to Animal welfare and distributed to NGOs for mass awareness.

AWBI with the involvement of 15 NGOs carried out mass immunization-cum-sterilization programme with a view to stop killing of stray dogs in dog pounds of municipalities. 13,30 stray dogs were sterilized and immunized in six Metropolitan cities i.e. Bombay, Delhi, Calcutta, Madras, Hyderabad and Bangalore.

PROJECT TIGER

During 1994-95, central assistance to the extent o Rs.798.00 lakhs was provided for the development and maintenance of 21 tiger reserves. Two new tiger reserves, namely - Panna Tiger Reserve (Madhya Pradesh) and the Dampha Tiger Reserve (Mizoram) were created.

PROJECT ELEPHANT

The Scheme Project Elephant started in the year 1991-92. The Scheme is continuing during the VIII Plan with an initial outlay of Rs.6.25 crores. The additional requirement of funds has been approved by the Expenditure Finance Committee. The revised outlay approved for VIII Plan is Rs.23.00 crores for the entire VIII Plan period.

ECO- DEVELOPMENT IN AND AROUND NATIONAL PARKS AND SANCTUARIES

The scheme Eco-development around National Parks and Sanctuaries was launched during the year 1991-92 to provide alternative sources of sustenance to the communities living on the fringes of national parks and sanctuaries including tiger reserves.

The various activities proposed under this scheme are Silvipastoral development, raising fuelwood and fodder plantation, primary health care, safe drinking water, veterinary improvement of land productivity and minor irrigation, local cottage industries like apiculture, pisciculture and sericulture and creation of environment awareness.

An amount of Rs.358.25 lakhs was released in 1994-95 to various State Governments as central assistance to undertake various activities under the scheme for the benefit of the people and to reduce the pressure on protected areas.

BENEFICIARY ORIENTED SCHEME FOR TRIBAL VILLAGES OF PROJECT TIGER AREAS, NATIONAL PARKS AND WILDLIFE SANCTUARIES.

The Scheme was launched during 1989-90 with an objective of rehabilitation of tribal families affected under the relocation plan of Project Tiger areas, National Parks and Wildlife Sanctuaries. Under the scheme, so far, the central assistance has been provided to the State Governments of Madhya Pradesh, Uttar Pradesh, Kerala, Mizoram, Tamilnadu, Arunachal Pradesh, Karnataka and West Bengal for relocation of tribals families outside the protected areas. Of late difficulties were experienced in implementing this scheme. The State Governments were reluctant to send the proposals as the cost norms per family provides in scheme was not attractive enough to encourage the tribal families to shift from the protected areas. During the year, the Ministry set a Task Force to review the scheme and suggest a suitable package to make the scheme more acceptable to the state Governments. The report of the Task Force was awaited.

NATIONAL ZOOLOGICAL PARK

On the recommendation of the Indian Board of Wildlife the Government of India set up National Zoological Park in the capital in October 1955 on a plot of land measuring 214 acres.

The scheme of National Zoological Park is a continuing scheme since 1955-56. The park has been set up mainly with the object to conserve and breed rare and endangered animals to conduct research regarding their behaviour, reproduction and nutrition to educate and entertain the people about preservation of wildlife. It also provides assistance and guidance to the other zoos in the country.

During 1994-95, following works were undertaken:

1. Construction of Additional Kraol for Indian Rhino at NZP.
2. Providing and fixing steel sliding gate and chain link fencing for additional Kral of Indian Rhino.
3. Renovation of Director's bungalow at NZP.

4. Providing and fixing chain link fencing along moat side of Sikka Deer enclosure and making interconnecting opening of wild bore enclosure.

NATIONAL AFFORESTATION AND ECO-DEVELOPMENT BOARD (NAEB)

20-POINT PROGRAMME: The NAEB is the Nodal agency at the Central level for monitoring the overall national targets for afforestation/ tree planting in consultation with the State Governments, who are the main implementing agencies.

The targets and achievements under point No.16 of the 20 Point Programme during 1994-95 are as follows:

	Seedling distribution (in crores)	Area (in ha)
Targets	120.85	101320.00 ha
Achievements	108.65	984102.05 ha

Scheme - wise Progress

The NAEB is responsible for implementing 6 Central Sector / Centrally Sponsored Schemes. The progress of these Schemes during the year 1994-95 is follows:

S.No	Scheme / Activity Financial outlay	Physical Targets	Physical Achievements
1	Integrated Afforestation and Eco-Dev Scheme. Rs. 51 . 57	60, 000 ha	71, 271 ha.
2	Fuelwood / Fodder scheme Rs. 29.98	60, 000 ha	80.945 ha
3	Non - Timber Forests Produce (including Medical Plants) Schemes Rs. 15.00 Cr.	20, 800 ha	24, 417 ha
4	Seed Development Schemes Rs. 1.90 Cr.	22 States	13 States were assisted
5	Aerial Seeding Schemes	22, 500 ha	Not Reported
6	Grants-in-Aid Scheme	Rs. 1.50 Cr.	36 Projected 36 projected were sanctioned

(For voluntary Agencies)

ECOLOGY AND ENVIRONMENT

BOTANICAL SURVEY OF INDIA

The targets laid down, the achievements made and reasons in cases of under-achievements are as follows:

S.No	Particulars of Activities	Target	Achievement	Percentage of fulfillment	Reasons for under achievement, if any
1	2	3	4	5	6
1	Exploration Surveys	36 tours	35 tours	90.72%	1. Disturbed conditions
2	National Flora	100 sp.	100 sp.	100%	2. Vacant posts
3	Endangered	200	200	100%	-
4	State Floras	1800 Sp	1654 sp.	90%	1. Posts lying vacant
5	National Data Base	1500 sp.	1500	100%	-
6	Cryptogams	140sp.	140 sp.	100%	-

ZOOLOGICAL SURVEY OF INDIA

EXPLORATION AND SURVEY

Himalayan Ecosystem: A total of 8 surveys were undertaken, 4 each in Himachal Pradesh and Sikkim.

Desert Ecosystem: One survey carried out in Rajasthan.

Tropical Rain forests Ecosystem: 20 surveys undertaken in Nagaland, Mizoram, Manipur and Western Ghat (Kerala).

Estuarine Ecosystem: 3 Surveys each undertaken in Godavari delta and Sunderbans.

Freshwater Ecosystem: A total of 12 surveys carried out in 5 wetlands, viz, Loktak lake, Kolleru lake, Sambhar lake, Sukhna lake, Pichola lake, and Kondakaria lake.

Marine Ecosystem: 2 surveys, one each in Little Andaman and Rutland Island (Andaman) and 24 surveys in Digha coast undertaken.

Conservation Area: 8 surveys to 4 conservation areas, viz., Eravikulam National Park, Kerala; Govinda Pashu Vihar, UP; Gulf of Mannar Biosphere Reserve and Tadoba/Pench Tiger Reserve, MP carried out.

State Survey: 17 surveys undertaken in 5 states, viz., Andhra Pradesh, Bihar, Delhi, Madhya Pradesh and Tamil Nadu.

Status Survey of Endangered Species: 5 surveys carried out to study the Status of Satyr & Western Tragopan, Chinkara & Desert Cat and Dugong.

Taxonomic Studies:

Fauna of Sikkim	:	Study partly completed
Fauna of Manipur	:	Preliminary identification completed
Fauna of Nanda Devi Biosphere Reserve	:	Partly completed
Fauna of Ujni Wetlands	:	To be completed

Publication:

Fauna of India : As and when received.

Records of ZSI : Volume 93

Annual Reports of ZSI: One volume.

Bibliography of Indian Zoology: Volume 28.

State Fauna of Meghalaya: Part I-IV to be published.

Fauna of Chilka Lake: To be published.

Fauna of Hugli-Matla Estuary: In final stage of Printing.

Fauna of Rajaji National Park: Published.

Fauna of Western Himalaya: Published.

Red Data Book (vertebrate): Published.

Status survey Report of three endangered species (Golden Langur, Phayre's Leaf Monkey & Hispic Hare: Published.

Computerization of Collection Data: Computerization of data of general collections of the National Zoological Collections (NSC) continued.

Environmental Education, Awareness and Training

Targets and Achievements during the year 1994-95 under various schemes are as follows:

Items		Target for Achievements the year 1994-95	
a. Environmental Education			
i.	Establishment of Eco/Environment Clubs in Schools	1000	1300
ii.	Production of Environment Education Resource Material	4	4
iii.	Production of films (completed)	15	3
iv.	Advertisement of Bus Panels	4 States/Uts	1
v.	Advertisement through magazine	4	1
vi.	Newspaper advertisement	2	1
vii.	Radio Programmes	4	4
viii.	Printing of Poster/poster calendar	5	-
b. Grants in aid to Professional Societies		13	10

c. Paryavaran Vahini : A total of Rs. 19.70,000 was released for expenditure of Paryavaran Vahinis. Against a target of 40 districts 72 districts were related during the year for institutions of Paryavaran Vahinis.

Environmental Information System (ENVIS)

The ENVIS network with the Focal Point at the Ministry and 20 subject specific ENVIS Centres located in different parts of the country continued their activities.

Grant-in-aid to professional Societies

Grant--in-aid financial support was provided to various organizations including NGOs for developing exhibition galleries and education programmes relevant to ecology, wildlife and environment and to develop activities in the field of environment.

Environmental Information System (ENVIS) on Animal Ecology:

- Data on Schedule I animals pertaining to their ecology were collected and computerized.
- Enquiries on animal ecology were attended to as and when received.
- Half—Yearly Newsletter on Animal ecology published.

Environmental Impact Assessment: The following surveys were undertaken.

- Tuheli Barrage.
- Goriganga Hydroelectric Project, UP.
- Doon Valley Studies, UP.
- Hydroelectric project at Khadki Tal Turaganat Nasik.
- Kalpong Hydroelectric Project at North Andaman.

Renovation of Zoological Galleries and Regional Museums:

Fish Gallery in Indian Museum at Calcutta to be completed. New Ecology gallery partly completed with totally reconstructed habitat cases depicting mangrove ecosystem, tropical rain forest ecosystem, arid ecosystem and other principal ecosystems of India. Regional museums at High Altitude Field Station, Solan (Himachal Pradesh), Southern Regional Station, Madras and Eastern Regional Station, Shillong developed.

Marine Aquarium-cum-Research Centre, Digha:

All decorating material have been appropriately fixed up for the foreground and background of 24 aquarium chambers. Live material more than 1100 have been collected from Andaman sea.

Training & Extension service:

- World Environment Day and Wildlife Week celebrated.
- In-house Symposium on Concept of Biodiversity conducted.
- Parataxonomical course on faunal diversity held.
- 3 scientific lectures and colloquia arranged.
- Environmental Awareness and Conservation celebrated.

- Training and Extension service to NGO bodies, School and College students arranged.
- Second Training Course in EIA & Management Plan with regard to ecology conducted.

NATIONAL MUSEUM OF NATURAL HISTORY

- (a) Galleries, Bio-science computer room, technical infra-structure, landscaping and horticulture of the Regional Museum of Natural History, Mysore were partially completed.
- (b) Construction of the building and initiation of collection work for the Regional Museum of Natural History, Bhopal was partially Completed.
- (c) Laying of foundation stone and initiation of construction works for the Regional Museum of Natural History. Bhubaneswar.
- (d) Collection of specimens, preservation, fabrication and production of exhibits needed for the Regional Museums of Natural History.
- (e) Regular educational and outreach activities of the NMNH, throughout the year including Mobile Museum Service, School Loan Service, Summer Programmes, Teacher Orientation Workshops,, Environment Awareness Campaign, Popular Publications, organization of Temporary Exhibitions etc.
- (f) Follow-up action on the 'Care for the Environment Contest' by prototype production of environment education resource material based on the entries received in various categories of the contest.
- (g) Collaboration with Delhi University and the National Museum Institute, New Delhi, in conducting course in Environment Biology and Museology.
- (h) Professional enrichment programme through exchange visits of museum personnel with US Natural History Museums under the Indo-US Natural History Museum Partnership Programme.
- (i) Strengthening the educational infra-structure and potential of the NMNH through enriching the Library, Audio-visual and Film collection, Photographic Documentation of the flora, fauna and ecosystems of India etc.

In terms of the target set for 1994-95 there have been shortfalls in acquiring land at proper location

CIVIL CONSTRUCTION UNIT MAJOR (CCU)

MAJOR WORKS COMPLETED DURING 1994-95

- i) Office-cum-laboratory Building for AFRI, Jodhpur.
- ii) 72 staff quarters (Phase-I & II), AFRI, Jodhpur.
- iii) Herbarium building for BSI, Shillong.
- iv) 18 Nos. staff quarters for BSI, Barapani.
- v) 65 Nos. staff quarters for BSI, Shillong.
- vi) 12 Nos. staff quarters for ZSI, Itanagar.
- vii) 18 Nos. staff quarters for ZSI, Dehra Dun.
- viii) Office building for ZSI, Port Blair.
- ix) Extension to guest house for IFGTB, Coimbatore.
- x) Construction of Additional floor over existing office building for ZSI, Port Blair.

ENVIRONMENTAL INFORMATION SYSTEM (ENVIS):

- The ENVIS Network with the Focal Point at the Ministry and 20 subject-specific ENVIS Centres located in different parts of the country continued its activities in information collection, storage, retrieval and dissemination.
- The Network responded to a total of 6721 queries out of which 5816 National and 905 International. These were on such subject areas as pollution control, renewable energy, bio-degradation of wastes, Western Ghats ecology, environmental management etc.
- During the year, one new ENVIS Centre and Environmental Law was set up Environmental Studies, Jawaharlal Nehru University
- The ENVIS Centre on 'Eastern Ghats' located earlier at Andhra University has been relocated at the Environment Protection Training and Research Institute (EPTRI) Hyderabad.
- The ENVIS Centre on 'Plant Ecology' located at Botanical Survey of India, Calcutta, started functioning.
- The focal point of ENVIS continued to publish the quarterly journal namely, Paryavaran Abstracts reporting information on environmental research in the fields of environment and its related areas in Indian context.
- The INFOTERRA network also continued its activities as National Focal Point (NFP) and Regional Service Centre (RSC) of INFOTERRA network of the UNEP during the year.
- The ENVIS Centres also continued their activities on information collection, collation, storage, retrieval and dissemination of all concerned in the specified subject areas assigned to them. Various publications were also published by the respective centres in the areas related to their fields.
- In order to expedite the retrieval and dissemination of information, work on automation of the Ministry's library has been initiated.

Connectivity among the Focal Point and other ENVIS Centres is now being established through the ERNET Programme of the Department of Electronics. This will enable the users of ENVIS to have an access to the databases of some premier educational and research institutions in the country.

CENTRES OF EXCELLENCE

- i) **Centre for Mining Environment, Dhanbad:**

The Centre organized the following short courses for the benefit of the mining industry personnel:

- Six-weeks orientation programme on Environment Protection and Improvement for the executive of the South Eastern Coalfields Limited.
- An off-campus course on Environmental Management for Central Coalfields Limited executives at Ranchi.
- One week executive development programme on Reclamation on Mined out areas.
- One week executive development programme on Environmental Impact Assessment.
- One week executive development programme on 'Water Resource Management in Mining Areas'.

Several research projects were also initiated during the year

ii. Centre for Ecological Sciences, Bangalore :

This Centre initiated research projects in such areas as Ecology and behaviour of the Quenelles and Diacamma Epidemiological modeling of PPRV and Rinderpest outbreaks, Feasibility survey of micro, mini and small hydel potential in Uttar Kannada District, Panchayat level bio-diversity mapping Wild relatives of cultivated plants, Biodiversity: Classifying Habitats, Wild relatives of cultivated plants, Computerized information system.

NATIONAL NATURAL RESOURCE MANAGEMENT SYSTEM (NNMRS)

Of the ten on-going research projects, one was completed. The Monitoring Committee provided specific guidance for implementing and periodical monitoring of various projects and sanctioned four new projects.

NATIONAL RIVER CONSERVATION DIRECTORATE

GANGA ACTION PLAN PHASE I

Up to March'95, 241 projects were completed. 18 Sewage Treatment Plants were set up. The project for sewage interception and diversion were accorded priority under the Ganga Action Plan. In all, 88 projects were sanctioned in the 3-States which involved laying of 370 kms. of sewers (including force- mains) and installation\renovation of 129 sewage pumping stations. 81 projects were completed. As a result, 645 mld of waste water flowing into the river was diverted out of which 484.5 mld was taken to the Sewage Treatment Plants for treatment. The projects when completed, will intercept\divert 873 mld waste water and would have a capacity to treat 888.5 mld waste water.

Under the low cost sanitation programme, 43 projects were taken up in the three States. 42 projects involving construction Or 2,757 public toilet complexes and 47,705 individual pour flush latrines were completed. This enabled tourists and the people living near the river banks to use these toilets, and in turn, helped in reducing pollution of the river.

During the period, 4 research projects were completed and 4 new projects were sanctioned. Special emphasis was laid to identify the suitable technology for controlling the microbial pollution. The experiments using Gamma Radiation technology were completed. The projects on W radiation technology and a project using biological control for microbial pollution were initiated. The surveys and laboratory analysis on bio-monitoring and bio-conservation research projects continued during the year to assess the ecological status of the river with reference to the pollution abatement programmes taken up under the Ganga Action Plan. The results of the rehabilitation of turtle project for control of the biological pollution were entrusted to Wildlife Institute of India for critical evaluation for possible replication in Phase II of the Action Plan and National River Conservation Plan.

With the completion of most of the projects under GAP Phase I, a rapid evaluation of the works was initiated through outside agencies. The emphasis of this rapid evaluation was to assess the strong points and weaknesses in the implementation of GAP Phase I for incorporating appropriate modifications, if required in the schemes to be taken up under GAP Phase II and National River Conservation Plan. Water quality monitoring of river Ganga, Gomti, Western Yamuna Canal and Hindon at 46 identified stations to assess the improvement in the water quality continued during the year. The water quality monitoring at 15 identified locations was also initiated for river Yamuna.

GANGA ACTION PLAN PHASE II

The second phase of Ganga Action Plan covered the following works:

1. Works required but not included in the 1st Phase in 25 class I towns;
2. Pollution abatement works in Class II and Class III towns identified on the main river;
3. Pollution abatement works on the grossly polluted stretches of tributaries of the Ganga (Yamuna, Gomti and Damodar Action Plans).

YAMUNA ACTION PLAN & GOMTI ACTION PLAN

Under the Yamuna component of Ganga Action Plan Phase II, pollution abatement works are to be taken up in 15 towns - 8 in Uttar Pradesh, 6 in Haryana, besides Delhi. The estimated cost of the Yamuna component is Rs.357 crores for which external assistance from Government of Japan is available. Under the Gomti component works are to be taken up in 3 towns of UP namely: Lucknow, Sultanpur and Jaunpur. The estimated cost of the works is Rs.64 crores. The implementation period of both Yamuna Action Plan and Gomti Action Plan is six years.

The Yamuna and Gomti Action Plans for the pollution abatement of rivers Yamuna and Gomti were formally launched on 5th June 1993. In 1994-95, of the total 49 DPRs envisaged to be prepared, 22 DPRs were received from Haryana of which 17 DPDRs were approved under Yamuna Action Plan, while 22 DPDRs were approved for UP.

As regards Gomti Action Plan of the total 10 DPRs envisage-to be prepared for Jaunpur and Sultanpur towns, all the 4 DPR-received were approved.

NATIONAL RIVER CONSERVATION PLAN (NRCP)

Based on the proposals received from the concerned States, of Note seeking approval of the CCEA for the pollution abatement, river Ganga under Ganga Action Plan Phase II (Uttar Pradesh ar Bihar) and other river stretches under National River Conservation Plan was submitted on 23.12.94. The estimated cost of works under GAP II is about Rs.235 crores for 10 towns in UP and 11 towns of Bihar on main stem of river Ganga. The estimated cost of works in 46 towns of 18 rivers in 10 States is about Rs.772 crores.

CENTRAL POLLUTION CONTROL BOARD

- i) Inventory of industrial estates Andhra Pradesh, West Bengal, Rajasthan, Delhi and Maharashtra were continued for Pondicherry, Goa, Tamil Nadu, Punjab Jammu & Kashmir.
- ii) Studies relating of assessment of water quality for polluted river strerches were completed.
- iii) Pollution status studies for cities of madras, Bangalore, vadodrara and Ahmedabad were completed.
- iv) River basin reports were prepared and printed for river Narmada, Tapi and Cauvery.
- v) Review of water and air quality monitoring stations were initiated.
- vi) Laboratory establishment works at Zonal offices we undertaken.
- vii) Research and development of projects relating to pollution control were continued.
- viii) Development of Standards which were initiated during 1993-94 were completed.
- ix) Guidelines for developing "Green Belt" have been prepared.
- x) Finalized criteria for Eco-mark for Lubricating oil, Battery, Electrical Electronics goods, Food additives, Food items, (Beverages, Processed Fruits and Vegetable and Infant food, Packaging material and Architectural paints.
- xi) Training course on different aspects relating to pollution abatement were organized, including training on critical pollutants for State Board Officials.
- xii) Monitoring of progress relating to facilities provided by industries categories of industries was carried out.
- xiii) Irnplementation of action points in identified 24 problem areas was pursued with State Boards.
- xiv) Micro-earth station (MES) has been installed and stabilized to have on-line access to NICNET and International Network.
- xv) Interaction with NGOs was continued to involve them in various programmes relating to Pollution abatement. Meetings with NGOs were organized at Guwahati, Sangli and Vadodara.
- xvi) Inventorisation of hazardous waste generating units were completed in the State of Madhya Pradesh, Haryana, Rajasthan, Punjab, Himachal Pradesh, Uttar Pradesh, Karnataka, Maharashtra, Gujarat, Assam and in Medak Distt. of Andra Pradesh. Studies were continued in the State of Tamil Nadu and Kerala.

- xvii) Draft guidelines for preparing environmental atlas for siting of industries have been prepared. Training programmes and workshops were organized for State Boards for its implementation.
- xviii) Participated in exhibitions at Delhi, Calcutta and Bombay on different occasion where activities of the CPCB and other information relating to various aspects of pollution were displayed.

WETLAND

- During the financial year 1994-95 management action plans in regard to Loktak, Pongdam, Deepar Beel, Renuka and Nalsarover were sanctioned.
- An amount of Rs.70.34 lakhs was released against the total allocation of Rs.150 lakhs.
- Four-research projects were sanctioned.
- Asian Regional Meeting of the Contracting Parties of Ramsar Convention was held from 23-25 March, 1995 in Delhi.

ASSISTANCE TO BOTANIC GARDENS

Pursuant to the decisions taken in the meeting of the Expert Group, the BSI inspected six botanic gardens and forwarded proposal for strengthening of these gardens. The proposals were examined and financial assistance of Rs.71.81 lakhs was released to them.

Research and Development

192 projects were reviewed for their progress through Expert Committee and 70 new projects sanctioned. An expenditure of Rs.357 lakhs was made against the allocation of Rs. 385 lakhs.

The Pitambar Pant National Environment Fellowship Award for 1994 was given to Dr. M.P. Nayar, Emeritus Scientist, TBGRI, Thiruvananthapuram on Hot Spots Plants diversity and ecologically sensitive area in india.

Hazardous Substance Management

- i) 14 Industrial Pocket-wise hazard analysis reports prepared so far were finalized and 11 more areas were taken up.
- ii) A Poison Control Centre at AIIMS, New Delhi was set up.
- iii) Action has been initiated to establish Regional Register for Potentially Toxic Chemicals at three places, viz. Chandigarh, Bhubaneshwar and Bangalore under the scheme of National Register for Potentially Toxic Chemicals and implementation of London Guidelines.
- iv) Amendments to the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 were gazetted on 3rd October, 1994.
- v) Draft Amendments to the Hazardous Waste (Management & Handling) Rules, 1989 and Rules on Manufacture, Import, Export, Use and Storage of Hazardous Micro-organisms Genetically Engineered Organisms have been prepared.

- vi) Draft Rules for Management of Bio-medical wastes have also been prepared. Scheme on Development of Secured Landfill sites was implemented and funds released to Punjab, M.P. and U.P.
- vii) Reports on Survey of Municipal Solid Wastes have been received from the cities viz., Madras, Bombay, Nagpur, Bhubaneshwar and Calcutta.
- viii) A guide to Safe Road Transport of Hazardous Chemicals was prepared for publication.

MANGROVES

- During the financial year 1994-95, management action plans in regard to Pichavaram, Muthupet and Goa were sanctioned.
- Four research projects were sanctioned.

BIOSPHERE RESERVES

During 1994-95, the National Committee on Biosphere Reserves approved the financial assistance for the Management Action Plan for Nilgiri, Sunderbans, Gulf of Mannar, Nokrek, Nanda Devi and Andaman and Nicobar Biosphere Reserves and Rs 114.26 lakhs were released. An amount of Rs.15.18 lakhs was sanctioned to various research projects in major thrust areas of mapping, inventory of biodiversity, population dynamics, socio-economic aspects etc.

BIODIVERSITY CONSERVATION

The Convention on Biological Diversity signed by 171 countries including India came into force on 29 December, 1993. India ratified the same on 19th February 1994.

During the year, the work for coordinating the preparation of Status Report on Biological Diversity was continued. The drafts of volume I & II have been prepared.

The consultations were continued to identify the gaps in the existing legal framework on biodiversity. Action was also initiated to regulate the transfer of indigenous genetic material from the country. Five meetings of the Core Group for formulating the National Action Plan on Biological Diversity were held. A detailed framework of the Action Plan was prepared.

An Indian delegation participated in the 2nd meeting of the Inter-Governmental Committee on Convention on Biological Diversity, (ICCBD) held in Nairobi in June-July, 1994. India was the Vice-Chairman of one of the working groups.

In order to evolve mechanisms for regional cooperation on issues related to biodiversity, the Ministry took the initiative to organize an international convention of biodiversity among SAARC, ASEAN and other countries of the region in August 1994. The participating countries adopted the Bangalore Declaration.

Indian delegation participated in first meeting of the Conference of Parties to the Convention in Nassau, the Bahamas in November-December, 1994.

INTERNATIONAL COOPERATION

The Ministry of Environment and Forests is the nodal agency in the country for United Nations Environment Programme (UNEP), South Asia Cooperative Environment Programme (SACEP), International Centre for Integrated Mountain Development (ICIMOD), and the International Union for Conservation of Nature and Natural Resources (IUCN). Annual Contributions are made to these Organizations. The Ministry also functions as the nodal agency for participation in International agreements such as the Convention on International Trade in Endangered Species on Wetlands and the Basel Convention on Trans Boundary Movement of Hazardous Substances.

Commission on Sustainable Development:

India participated in the 2nd session of the Commission on Sustainable Development (CSD) in May, 1994 at a high level and reviewed the implementation of the cross sectoral themes of Agenda 21, notably financial resources and mechanisms, transfer of environmentally sound technologies, role of major groups, decision making structures, consumption and production patterns, etc. Specific themes like health, human settlements, fresh water, toxic chemicals hazardous wastes, reviewed. etc. were also reviewed.

India was also elected to the Bureau of CSD as a Vice- Chairman representing Asia and chaired the proceedings dealing with the critical issues of finance, technologies, trade consumption patterns decision making structures, major global information and inter-sessional activities.

India co-hosted with the U.K. an International Workshop, entitled "Towards Sustainable Forestry - Preparing for CSD, 1995 over July 25-27, 1994 in New Delhi. 39 countries and some major international organizations like the World Bank, FAO, etc. Participate in the Conference. The workshop developed a framework in which information was to be presented to the Third Session of CSD on forestry matters.

An Indian delegation participated in a Round Table Conference on Sustainable Production and Consumption Patterns held at Oslo, Norway over 6- 10 February, 1995 in which Environment Ministers of a large number of countries were also presented and deliberated to prepare elements for an international work programme on sustainable production and consumption as mandated by the Second Session CSD.

India participated in an International Workshop on Integrated Planning and Management of Land Resources jointly organized by the FAO and the Govt. of Netherlands in Netherlands over 20-22 Feb'95. India also participated in the Inter Sessional Ad-hoc Working Group of the CSD on sectoral issues in New York over 27 Feb-3 March,'95.

Global Environment Facility (GEF)'s Activities:

A Workshop was held in the Ministry for funding of projects by the GEF in the area of Global Warming Mitigation where representatives from WB, UNDP, TERI and the Ministry participated.

Matters relating to ESCAP:

An Indian delegation participated in the ESCAP Second Session of the Committee on Environment and Sustainable Development held at Bangkok. India also participated in the ESCAP High Level Meeting on Environmentally Sound and Sustainable Development in Asia and the Pacific held in Manila; in the ESCAP/ADB/UNEP Workshop on Coastal and Marine Environmental Management held at Bangkok; and in a Regional Workshop on ecoTourism Development at Bali, Indonesia.

State of Environment (SoE), 1995:

India took up in right earnest, the preparation of India's Country-Report for the "State of Environment (SoE), '95 for Asia and the Pacific."

Matters relating to ICIMOD, Kathmandu:

India hosted the 21st meeting of the Board of Governors of ICIMOD, at New Delhi where the Board approved the terms of reference and composition of the Review Panel for the 2nd Quinquennial Review of the Organization.

Matters relating to SAARC:

India participated in the 2nd Technical Committee meeting of SAARC on Environment held in Islamabad and in the SAARC activity entitled "Rehabilitation of Degraded Lands" held in Kathmandu. India also hosted a SAARC workshop in New delhi to develop a common position on important issues related to the Framework Convention on Climate Change.

INDIA-CANADA ENVIRONMENT FACILITY (ICEF)

A Joint Project Steering Committee (JPSC) of ICEF has been set up with Additional Secretary(IC) as Chairman and representatives of MOEF, DEA, and the Canadian High Commission members. The JPSC will select the projects for funding under ICEIF. An amount of Rs.55.24 crores was released to the ICEF Society.

Other Activities:

Mr. John Gummer, Environment Minister of the U. K. -visited India in July, 1994, and bilateral discussions held. Dr. Klaus Topfeer, Minister for Environment of Germany also visited India in July, 1994, and held bilateral discussions on environment matters. Mr. Roy Maclaren, Canadian Minister for Trade met the Minister for Environment and Forests in October, 1994, and held bilateral discussions.

During the visit of Ms. Hazel O' Leary, US Secretary of Energy to India in July, 1994, a Joint Statement on "Energy Enhancing Technologies" has been signed by the Ministry of Environment and Forests with the U.S Energy Department.

During the visit of the Prime Minister to Moscow in June, 1994, a MOU in the field of Environment was signed with Russia.

WORLD BANK AIDED INDUSTRIAL POLLUTION CONTROL AND PREVENTION PROJECTS (PHASE I & II)

The overall performance during 1994-95 satisfactory except that the procurement of equipment could not be completed due to slow and indifferent progress by DGS&D. Only a few equipment could be procured and given to the State Pollution Control Boards earmarked under phase I. The progress under common effluent treatment plant until the beginning of the year was slow as many of the small scale industrial entrepreneurs were not so keen to adopt and join the CETP company. a workshop was held to appraise these entrepreneurs and were apprised of the benefits which will be accrued to them. As a follow up of the direction from the Honorable Supreme Court, now the progress under this component is gaining a high momentum.

The procuring activity has since been withdrawn from the DGS&D for the reasons mentioned above. Efforts are in progress is entrust the activity for procurement of equipment to another procuring agency.