



EDUCATION AND AWARENESS

The Environment Education and Training Scheme of the Ministry is precisely meant for environmental awareness. Under this scheme, various programmes are conducted every year for creating environmental awareness both through non-formal activities as well as through formal education system. While the programmes like National Environmental Awareness Campaign (NEAC), National Green Corps (NGC), use of Electronic Media etc. fall in the non-formal sector, the Ministry's initiative of taking up a pilot project for strengthening environmental concept in the school curriculum and the linked Global Learning and Observations to Benefit the Environment (GLOBE) programme use the formal education system for conveying the message.

Formal Environment Education

The Ministry has taken various initiatives for strengthening Environment Education (EE) in the formal education curriculum. For this purpose, the Ministry had been closely interacting with the University Grants Commission (UGC), the National Council for Education Research and Training (NCERT), the Ministry of Human Resources Development (MHRD), the All India Council for Technical Education (AICTE) and the State Education Department to ensure integration of environmental concept into the curriculum.

Pilot Project on Environment Education in School System (EESS)

This Project was earlier launched with the basic objective of strengthening Environment Education in the formal school system. During Phase I, a nation wide survey to assess the extent of its delivery in the classroom was conducted by Bhartiya Vidyapeeth Institute for Environmental Education & Research (BVIEER). As a part of this study, a national consultation on EE was organized, which was of the view that instead of teaching environment as a separate subject, separate space/forum should be created within the school system for integrating the various environmental concept infused/introduced in other subjects. Based on these recommendation and the outcome of the EE study carried out by the BVIEER, the EESS project was implemented in eight States namely Andhra Pradesh, Assam, Goa, J&K, Maharashtra, Orissa, Punjab and Utranchal on a pilot basis under Phase II of the project. One hundred schools in each of these States were selected for pilot implementation. During the pilot implementation, the textbooks of Science, Social Studies and language of standards VI to VIII in the selected schools of the project States were modified to strengthen infusion of environment education on the basis of findings of Phase-I study. This exercise was also accompanied by development of other education material like teachers' handbooks/guides/manual, classroom materials, etc. Subsequently the concerned teachers (about five in no.) from each project school were also trained for effectively teaching the environmental concept infused in the modified / greened textbooks. The modified textbooks were introduced in the project schools during the 2002-2003 and 2003-2004 academic session.

In view of the success of this initiative, the project was extended until 30th June, 2004 and seven additional States viz. Chattisgarh, Himachal Pradesh, Karnataka, Kerala, Sikkim, Tamil Nadu, and Tripura were covered. Hundred schools from each of these States implemented the project on pilot basis as done previously for the eight States. Activities like development and printing of educational materials including textbooks, training of master trainers, training of the teachers, introduction of green textbooks in the project schools etc. were completed in the seven States.

Global Learning and Observation to Benefit Environment (GLOBE)

GLOBE is an international Science and Education program which provides "Hand-on Environmental

learning” of environmental concept to the students to carry out various measurements so that they can learn about scientific protocol and perform environmental learning activities, which have already been introduced as theory in the greened textbooks developed for EESS project. These experiments and measurement were included as a part of new curriculum so that the students can gain a better understanding of the infused environmental contents by taking measurement and doing practicals. The Hands-on Environmental Learning Programme being an integral component of EESS project has been implemented in all the EESS project schools.

About 1800 teachers from about 1700 schools have been trained so far in various protocols for conducting the experiments in respect of four broad environmental parameters, namely Hydrology, Soil, Land Cover and Atmospheric temperature / rainfall. Instruments/ kits for carrying out various experiments have been provided to about 800 schools. While more than 400 schools have already started taking the measurement, more than 200 schools are regularly reporting the data collected by them.

Strengthening Environment Education in Indian Management Schools

This initiative, which was launched by the Ministry in 2002 to integrate environmental concepts in the management education, made good progress during the year. An inventory of the courses offered in India and abroad has been prepared along with the inventory of resource material.

Environment Appreciation Courses

In order to provide interested persons an opportunity to learn in detail about specific environmental issues, the Ministry has already got a course module developed from Indira Gandhi National Open University for Environmental Appreciation courses. It proposed to start delivery of these courses through distance education mode by IGNOU. The material for these courses have also been prepared. IGNOU has started introducing these courses at the under graduate level on compulsory basis.

Non-Formal Environment Education and Awareness

Environmental Education, Awareness and Training play a significant role in encouraging and enhancing people’s participation in activities aimed at conservation, protection and management of the environment, essential for achieving sustainable development. Accordingly the Ministry accords priority to the promotion of non-formal environment education and creation of awareness among all sections of the society through diverse activities using traditional and modern media of communication. Some of the major activities undertaken in this regard during the year are as follows:

National Environment Awareness Campaign (NEAC)

The NEAC programme was started in year 1986 for creating environmental awareness at the National level. An action component was introduced in the awareness campaign in the year 2001-02. This programme was continued during the year with the main theme as “**Solid Waste Management**”. The following sub themes for action components were considered for financial assistance:

- Household waste and composting/vermi-composting
- Municipal waste
- Biomedical waste
- Plastic waste
- Waste management at higher altitude
- Electronic waste (e-waste)
- Industrial waste including flyash

Twenty nine organizations located in different parts of the country, designated as Regional Resource Agencies (RRAs) by the Ministry, implemented NEAC programme for 2004-05 and physically monitored the activities in the areas of their jurisdiction.

Seven thousand five hundred and eighty eight participating organizations were provided financial assistance for organizing awareness creating activities such as padyatras, rallies, public meetings, exhibitions, folk dances, street theaters, essay/debate, painting/poster, competitions for school children, seminars, workshops, training courses, etc. for preparation and distributions of environmental education resource material and for following these with action oriented activities. Diverse target groups ranging from students/youths/teachers to tribal, rural population, professionals, etc. were covered under the campaign.

The Ministry has invited applications from NGO's, VO's, Educational Institutions, and others for appointment of new RRA's for the period 2005-07.

National Green Corps (Eco-clubs)

To impart environmental education and to encourage and mobilize participation of school children in various environmental conservation activities in the localities, the Ministry provided financial assistance to about 72,000 schools for functioning of Eco-clubs during the year. Each club has 30-50 members taken from the students of Class VI to X. The student members of the Eco-clubs constitute the National Green Corps (NGC). It is proposed to establish Eco clubs in at least 150 schools in each district of the Country.

The NGC programme addresses various issues concerning protection and improvement of environment e.g. solid waste management, pollution control, afforestation, maintenance of parks and open spaces, dissemination of information and creation of awareness.

The State and Union Territory Government have been assigned the responsibility of identifying school, teacher and Nodal Agencies. The Nodal Agencies are responsible for implementing, supervising and monitoring the programme. All the States and Union Territories are implementing the programme.

The Central Government provided financial assistance to the States Nodal Agencies for organizing training for Master Trainers and in-charge teacher and for printing and distribution of locally relevant resource material. Besides, the Ministry also granted an annual financial assistance of Rs.1000/- per Eco club. The Ministry also provided a set of resource material in the form of books, posters, booklets etc. to each Eco-club. Prominent Non-governmental organizations working in the area of environmental education are associated as the Resource Agencies to assist the State Nodal Agencies in implementing the programme. It has also been decided to extend the programme to colleges.

Seminars/Symposia/Workshops/Conference

Under this programme, financial assistance is provided to educational institutions, Non-governmental organizations and other for organizing seminars / symposia / conferences / workshops on environmental related issues. During the year 118 proposals were supported for financial assistance.

Grants in aid to Professional Societies and Institution

The major objective of the programme is to provide assistance to professional societies and institution to augment their capability in the field of environment with an ultimate objective of involving such professional bodies in the various activities relating to protection of environment and conservation of natural resources. Four organizations were provided financial assistance under the programme during the year.

Publication of Resources Material

The objective of the programme is to utilize expertise available with professional societies, voluntary organizations, institutions, etc. for printing and publication of resource material for promoting environmental education and awareness. Four organizations were provided financial assistance during the year for this purpose.

Media Action Plan

With the objective of spreading environmental awareness through various media activities, the Ministry has formulated a 'Media Action Plan'. Under the Acton Plan, the Ministry has taken up several initiatives. These include:

- Launching of a 15 minute programme "Yeh Gulistan Hamara" in 12 languages on All India Radio,

- ❑ A National Theatre Festival on environment was organized during Feb.18 to 21, 2005 at New Delhi.
- ❑ Ministry has sponsored a half hour weekly Environmental Magazine Programme on television called BHOOMI, which is being telecast on Doordarshan National Channel every Sunday.
- ❑ To make use of the medium of documentary films for environmental awareness, a MoU has been signed with Public Service Broadcasting Trust (PSBT) for production of 13 films every year on environment and their telecast on Doordarshan.
- ❑ To take “Vatavaran” film festival to cities other than Delhi, two screenings were organized in Chennai and Mumbai. Screening support was provided for another screening in Assam to coincide with ‘Kaziranga Centenary Celebrations.’

The Ministry has sponsored 10 lakh ‘meghdoot’ postcards. These cards carry environmental messages relevant to rural population. Campaigns were planned for using the potential of FM channels effectively. A campaign was launched on various TV channels against the use of firecrackers during festivals. Several features were sponsored on popular magazines like ‘Outlook’ and ‘Frontline’ for highlighting the policies and programmes of the Ministry.

Other Awareness Programme:

- ❑ The Ministry sponsored the organization of “Green Olympiad” (an International Environment Quiz Program) by The Energy and Resources Institute (TERI). This was conducted in both Hindi and English this year. More than one lakh school students from India, Russia and UAE participated in this competition. The regional winners were selected for the televised quiz program named “TERRAQUIZ” which was telecast in 13 episodes on National channel of Doordarshan was a great success in sensitising the children about environmental issues.
- ❑ The Ministry sponsored organization of “Earth Day 2004” through TERI. Nearly 500 students from various schools in Delhi participated in a series of activities associated with the event.

National Museum of Natural History (NMNH)

The NMNH was set up by the Ministry to impart non-formal environmental education and conserve the example of flora, fauna and geological feature of the country. This is anchored in various awareness programmes for the student/teacher community as well as for the general public. During the year NMNH and its Regional Museums of Natural History (RMNH) have been able to position in a network of their own to provide dedicated service to the society.

Major achievements through various programming of NMNH and RMNH during the year are as follows :

Regional Museum of Natural History, Bhubaneswar

The NHNH opened its 3rd Regional Museum of Natural History at Bhubaneswar, Orissa on 10th August 2004.

The permanent Exhibit Galleries of the RMNH depicts the biodiversity of eastern India with six lively dioramas and 15 thematic exhibits. The main focus has been given to the Simlipal Tiger Reserve, Elephant Reserves, Wildlife Sanctuaries, National Parks, ecological components of Sal forests etc. The detailed information about the ecological aspects of the Chilka and the Bhitarkanika is a notable contribution. Ecological diversity of wetlands, story of the Olive Ridley Sea Turtles, and unique



Fig 68. A participating exhibit in the Discovery Centre of the RMNH, Bhubaneswar

distributions of three species of the crocodiles in wetlands have been highlighted.

In the “Eco Theatre”, a magnified version of the insect-world is shown through a visual presenter as live show. The “Discovery Centre” has been a main attraction in this museum meant for children. This is based on “Touch & Feel” concept where all the exhibits are participatory. The calls of various animals and birds can also be heard there. Charts, Maps, Models and popular books kept in the Centre are a source of inspiration to the younger minds.

A “Bio–Science Computer Facility” with several participatory educational software and Internet linkage enrich visitors’ knowledge on environment with network facilities. It almost functions like a cyber-café.

An ‘Exhibition of Wheels’, a Mobile Museum with display of exhibits on a theme ‘Sustainable Village Life’ was also flagged-off on the inauguration day at the R M N H, Bhubaneswar by Hon’ble Minister of State for Environment & Forests and Hon’ble Chief Minister of Orissa for the rural extension services in order to sensitize the rural communities and develop a sense of belonging to save the natural resources.

Establishment of a “Touch, Feel and Learn Garden” for the visually challenged at R M N H, Mysore

A “Touch, Feel and Learn” Bio-resource Garden at the Regional Museum of Natural History, Mysore is being developed with special features like a sunken bridge with a water pool for aquatic plants; hidden multimedia reproduction of bird and animal calls; hanging flower pots for the plants of medicine and fruits; weather proof Braille labels etc. The garden will be open to special visitors in the second quarters of 1995.

Environment Awareness Centres in Uttar Pradesh

The NMNH has established two numbers of Environment Awareness Centres for the Environment Directorate, U.P. Government at the “Kukrail Picnic Spot” and at the Zoological Garden, Lucknow. Nearly 80 nos. of thematic exhibits covering major environmental issues have been displayed with the help of digital panels, backlit translites, showcases, dioramas, open air exhibits and murals of different themes. These would be handed over to the Govt. soon.

The Vigyan Rail – “Science & Technology on Wheels Exhibition”

The NMNH also participated in the Vigyan Rail project started by the Vigyan Prasar, Ministry of



Fig 70. Slogan writing competition on the “World Population Day, 2004



Fig 69. The medicinal plant *Basella* sp. being reared for the “Touch, Feel and Learn” Garden

Science & Technology and developed a full coach on ‘Environment’. The thematic display was provided with digital panels, miniature mock-up models, translites and participatory exhibits. The ambiance of the coach was enhanced by providing different types of tree canopies fabricated in fiberglass with a forest types foliage. The displays were augmented with synchronized calls of animals and birds.

The Vigyan Rail travelled to different parts of India having stoppages at important cities and towns in each of the States/Union Territory depending on its population and geographical size for about ten months.

This gave a unique opportunity to all its visitors to know about the achievements and problems related to science and technology as well as natural heritage and environment of the country.

Exhibitions

The NMNH and its Regional Museums at Mysore, Bhopal and Bhubaneswar held various temporary exhibitions on the theme of topical interests. The notable among them were the exhibition on 'Indian Dinosaurs' and on 'Snakes are not our enemies' aimed to create awareness about snakes. Live snake shows were held during the exhibition. These exhibitions became popular and drew lots of crowd.

Publication

National Museum of Natural History and its Regional Museums of Natural History published about 10 publications in English and Hindi on the topics related to animals, plants, environment etc.

Workshops

Teacher orientation Workshops on environmental education through 'Low Cost Teaching Aid' and field demonstrations were organized in collaboration with Environmental Planning and Coordination Organization (EPCO), Bhopal. Twenty eight teachers participated in this Workshop.

Educational Activities

National Museum of Natural History along with its Regional Museums of Natural History organized number of inhouse and outreach programmes for the benefit of children, college students, teachers, challenged children and general public. Various national and international days of scientific relevance like-World Wetland Day, Earth Day, Science Day, Conservation Day, World Environment Day and National Environment Awareness Campaign (NEAC) were observed. The museums organized different educational activities and competition like Quiz, Declamation, On-the-spot Painting, Poster, Essay writing, Bird Watching etc. on these occasions.

Summer Programmes and Nature Camps

Nature camps were organized as part of the summer and winter vacations programmes for students, teachers and winner children of various competitions. The students were taken to Great Himalayan National Park, Sariska Wildlife Sanctuary Churdhar Sanctuary and Kanha National Park.

Collaboration with other Institutions

The NMNH and its Regional Museums of Natural History continued their academic and professional collaborations with allied institutions and non-governmental organizations like the National Museum Institute of Museology; Department of Museology, Aligarh Muslim University; Department of Environment, Govt. of Delhi; Ashoka Trust of Research in Environment & Ecology (ATREE) etc.

Professional enrichment and participation in Seminar/Workshops etc.

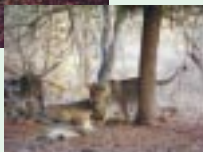
Director, National Museum of Natural History, New Delhi participated in the 20th General Conference & 21st General Assembly of the International Council of Museums (ICOM) held at Seoul, Korea from October 2-10, 2004. He was also elected as the Vice Chair for the International Committee of the Natural History Museums of ICOM (NatHist-ICOM) for the next three years' term.

The senior level officers, middle level scientific and technical staff of National Museum of Natural History and its Regional Museums of Natural History participated in the Annual General Conference of the Museums Association of Indian held at the National Museum Institute of History of Art, Conservation & Museology, New Delhi from 13th to 15th February, 2004 on the theme "Museum Evaluation".

Resource Materials

The NMNH and its Regional Museums enriched their libraries by addition of good number of books on the subjects of environment and natural history to their existing collections. The NMNH library has more than 15,000 titles of books on environment, natural history, wildlife, ecology etc., which are in process of retro-conversion into digital format on to a specialized library software. This would enable it to connect to DELNET, the Developing Library Network for better access by users.

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- Various activities like development and printing of educational materials including text books, training of master trainers, training of teachers, introduction of Green Text Books under pilot project on "Environment Education in School System" in several States identified under the project have been completed.

- Seven thousand five hundred and ninety three organizations including NGOs and Voluntary Bodies throughout the country were provided financial assistance for organizing environmental awareness creation activities through diverse means among the various target groups under National Environment Awareness Campaign (NEAC) during 2003-04.

● To impart environmental education and to encourage and mobilize participation of school children in several environmental conservation activities in the localities, financial assistance to about 72,000 schools for functioning of Eco-Clubs was provided under National Green Corps (NGC) Programme.

- With the objective of spreading environmental awareness through various media, the Ministry sponsored several programmes including telecast of films, organizing environmental quiz programmes, etc., during the year. A half-hour-weekly environmental magazine programme called "BHOOMI" has also been sponsored by the Ministry for telecast on Doordarshan National channel, on Sundays of every month.
- The National Museum of Natural History (NMNH) has opened its third Regional Museum of Natural History (RMNH) at Bhubaneswar, Orissa on 10th August, 2004 with diverse facilities to impart non-formal environmental education and conservation among students, teachers and the general public.
- The NMNH of the Ministry participated in the Vigyan Rail project with the development of a full coach on 'environment' depicting several digital panels, miniature models, diverse forest types with synchronized calls of animals and birds in order to make the people aware about the natural heritage and environment of the country, during the year.

Forestry Education, Training and Extension

Forestry education and training in India began in the early part of this century for scientific requirements, especially in natural sciences and surveys. The present system of forestry education and training is well tailored to produce skilled forest managers so as to manage, protect and conserve the forests in consonance with National Forest Policy, 1988 and the National Forestry Action Programmes, 1999 etc.

The activities relating to forestry education training and extension are performed by the different institutes organization under Indian Council of Forestry Research and Education (ICFRE). Salient achievements during the year are as follows :

- ❑ A technical bulletin titled, "Guidelines for Eco-Rehabilitation of Limestone Mined Areas in Himachal Pradesh" and two pamphlet namely [i] Kachnar – Ek Bhu-Udeshiya Variksh and [i] Variksha Ropan Taknik – Mahatavapuram Jankariyan were published by Himalayan Forest Research Institute (HFRI), Shimla.
- ❑ Scientists of AFRI, Jodhpur published four brochures namely (i) *Cassia angustifolia* Vahl.: A green gold for arid areas. (ii) *Chlorophytum borivillianum* S & Femandes.: Tuberous power for healthy life. (iii) *Embllica officinalis* Gartn.: The store house of vitamin C and (iv) *Commiphora wightii* Arn.: A shining tree of golden gum during the month.
- ❑ A booklet titled, "Guidelines for Eco-Rehabilitation of Limestone Mined Areas in Himachal Pradesh" was published by HFRI, Shimla.
- ❑ A national workshop on 'Forests and Water Conservation – Myths and Realities' was organized by FRI during 8th to 10th June, 2004.
- ❑ FRI imparted training on Inventory and Status Survey of the Herbal Wealth in the Cold Desert Region on Indian Himalayas from 4th to 6th July, 2004.
- ❑ Training on plywood manufacture was organized w.e.f. 9th to 13th August, 2004 by FRI, Dehradun.



Twenty one participants from industries and technical officers from Govt. organization participated in the training.

- ❑ FRI imparted training on Agroforestry for Watershed Management Division of the Garhwal Region, Uttranchal, Trade and Industry, Forest Department, Chattisgarh and Rural Development, Gujarat.
- ❑ IFGTB, Coimbatore actively actively participated in the Regional Cooperation on Conservation of Biodiversity Hotspots of the Indian Subcontinent and Taxonomic Database for conservation workshop held at Doddi Resort, Bangalore during 1st September – 30th October, 2004.
- ❑ During the year the FRI Deemed University provide courses in three disciplines leading to M.Sc. degree in addition to Ph.D. degree in forestry.
- ❑ A book titled Anatomy of Indian Bamboo authored by Luxmi Chauhan and Mohinder Pal (2004) was published by Forest Research Institute.

Indira Gandhi National Forest Academy (IGNFA), Dehradun

Indira Gandhi National forest Academy (IGNFA) has the mandate to impart initial in-service professional training to the IFS (Probationers), organize professional skill upgradation courses for the officers promoted from the State Forest Service (SFS) to the Indian Forest Service and Advanced Forest Management (AFM) courses for the senior IFS officers who have put in 10,17 & 21 years of service.

Brief activities carried out by the Academy are as follow

Initial in-service professional courses

Twenty two IFS Probationers of 2001-2004 Course have completed advanced phase of training and passed out of the Academy on 3rd August 2004.

Twenty Seven IFS Probationers and two Foreign Trainees from Bhutan in the 2002-2005 Course have completed their 'Professional Phase-One' training and are undergoing 'On-the-Job Training' (OJT) in different states and Union Territories.

At present 32 IFS Probationers of 2003-2006 batch and two foreign trainees from Bhutan are undergoing Professional Phase One Training.

Twenty one IFS Probationers of 2004-2007 and two trainees from Bhutan joined the Academy for in servicing training.

Professional skill upgradation course

In the XVII Skill Upgradation Course held during August – October, 2004, Twenty Seven officers from Andhra Pradesh, Meghalaya, Karnataka, Jammu & Kashmir, Himachal Pradesh, Madhya Pradesh, Chattisgarh, Kerala, Rajasthan and West Bengal participated.

Short-term refresher courses

One refresher course was conducted on "Policy and Legal Issues in Forestry" during August 2004 in which 18 IFS Officers participated.

Advanced Forest Management Courses for Officers having 10, 17 & 21 years of Service

In order to apprise the officers of latest technologies and emerging trends in forest management and social sciences, IGNFA conducted 10 AFM courses during the year, - two for 1983 batch, in which 61 officers participated, four for officers of 1987 batch, in which 95 officers participated and two for officers of 1994 batch, in which 50 officers participated.

Eighth Senior Foresters workshop for the officers of 1979 batch was organized during July 2004 in which 49 officers participated. The issues deliberated upon included National Forest Commission, 'State Level Cadre Management for IFS-Officers – Gaps and Needs', 'Training thrusts and need for review of IFS (Probation) Rules and 'Eco-tourism – Policy and Guidelines'.

Two special Advanced Forest Management courses for 1981, 1982 and 1985 batches have been organized for those officers who could not able to attend these courses earlier.

Workshops / Seminars

A workshop was organized on 'Professionalizing the Forest Service: identification of themes for developing expertise in forestry & Wildlife and developing a Personal Action Plan for the IFS officers' from 14th July to 16th July 2004. Senior officials from the state govts participated in the workshop.

During the year Dr. Barin Ganguly lecture was delivered by Dr. Prodipto Ghosh, Secretary, (E&F) on 1st August 2004 on "Global Forestry Issues".

A two-days national workshop on 'Training Curriculum and Effectiveness Review in Gender Issues & Participatory Forest Management' under the project of Ford Foundation, India was organized on 12th-13th October, 2004 where 32 Forest Officers from various states participated.

Directorate of Forest Education

The Directorate forest Education under the Ministry caters to the training needs of the SFS officers and Range Forest Officers of the states and union territories in the country. The forestry training institutes under the direct administrative control of the Directorate of Forest Education are

- ❑ State Forest Service College , Dehradun (Uttaranchal)
- ❑ State Forest Service College , Coimbatore (Tamil Nadu)
- ❑ State Forest Service College, Burnihat (Assam Meghalaya)
- ❑ Eastern Forest Rangers College, Kurseong (West Bengal)

Various courses/trainings conducted by the Directorate during the year include :

- ❑ Induction training in the form of "Two years diploma & Certificate Courses" for newly recruited SFS and Range Forest Officers of the states and UTs.
- ❑ In-service training of SFS and Range Forest Officers through short-term refresher and theme based courses. Seven courses have been organized during the year.
- ❑ Six capacity building training courses (computer application-basic and advanced and theme based) have been organized during the year.
- ❑ Promotion-linked skill upgradation courses for SFS and Range Forest Officers.
- ❑ Refresher and theme based courses have also been started since December 2003 in the constituent colleges of the directorate to further enhance capabilities of the front-line cadres viz., deputy rangers, foresters and forest guards.
- ❑ Training of front line cadres (forest guards, foresters and deputy range officers) in the forestry schools was organized under the directorate.

Refresher and theme-based courses

In order to update the knowledge and skills of the forestry professionals deployed all over the country, the Directorate conducts general refresher courses, theme-based courses and computer application courses which also include brief exposure to remote sensing and geographical information system applications. The courses were conducted in the following areas during the year :

- ❑ Computer Application in Forestry (Basic)
- ❑ Computer Application in Forestry (Advanced)
- ❑ General Refresher Courses

Theme Based Courses

- ❑ Joint Forest Management and Sustainable Development
- ❑ Biodiversity Conservation and Watershed Management
- ❑ Project Formulation and Environmental Impact Assessment
- ❑ Policies and Legal Issues and International Conventions
- ❑ Special course in forestry for the senior executives of the National Thermal Power Corporation.

Indian Plywood Industries Research and Training Institute, Bangalore

Under training programme, 22 trainees have successfully completed diploma in Mechanical Wood Industries Technology and campus interview was arranged and all the trainees got placement in different wood based industries. Sixteen short term courses were conducted for 53 industrial personnel in updating the technology of production of panel products and 60 Artisans were trained in primary processing and preservation of bamboo and bamboo products. Training programme on “Innovative Industrial Products from Bamboo for Poverty Alleviation” for IFS officers was conducted during November, 2004. Ten officers participated in the programme.



Fig 71. Trainees in adhesive technology laboratory at IPIRTI, Bangalore

Indian Institute of Forest Management, Bhopal

The Institute provides training in forest management and related subjects to officer's from IFS, State Forest Departments, Forest Development Corporation and Forest based Industries with a view to inculcating professionalism in forestry management. Under the Management Development Programme (MDP), the institute continued to impart training to personnel from the government and NGOs. Forty seven training programmes and workshops were organized during the year. Twenty four training programmes have also been scheduled by the institute starting from December 2004 to March 2005.

Capacity building of IFS officers

The thrust of this scheme is on capacity building of the Indian Forest Service Officers through organizing mid-career short-term refresher courses. During the year, the Ministry sponsored 66 courses in the premier training/management institutions in the country on a wide range of disciplines including human resource development, financial management, gender issues in forestry, joint forest management, project identification, formulation, monitoring and appraisal, GIS, multilateral environmental and forestry agreements, policy and legal issues, EIA, effective leadership, organizational behavior, management of change, conflict resolution, coastal zone management, value added food products from NTFP, conservation laws and policies – national and international perspective, communication and preventative skills and internet application & website development etc.

The Ministry has also decided to organize seminars/workshops for the IFS officers on emerging national and international issues in forestry, wildlife and environment management so as to keep the officers abreast with latest developments and equip them for managing the natural resources in a better way.

Other Activities

- During the year the Ministry has taken a number of initiatives for capacity building of forestry personnel at all levels. The Ministry has notified 'Entrance & Training Rules (Revised), 2004' for induction training of the State Forest Service Officers and Forest Range Officers being administered

by the Directorate of Forest Education, Dehradun. These rules would be applicable w.e.f. April 01, 2005. The syllabus and course contents for the induction training courses for SFS Officers and Forest Range officers have also been revised and notified.

- Detailed guidelines along with suggested course contents have been issued to the state governments for the induction training and refresher course of foresters and forest guards in the state forest departments. The rules and guidelines have been published in the form of a book.
- The Ministry has also decided to bear all expenses for a few refresher courses including the traveling expenses for organizing courses for the frontline staff of the state forest departments in their training schools/institutes under the technical supervision of the DFE.
- Keeping in view the changing role of the foresters and the emerging needs of the civil society, the Ministry has constituted a Syllabus Committee to thoroughly review the course contents being imparted to the IFS Probationers at the IGNFA. The Committee submitted its report to the Ministry.
- The Division has brought out a booklet on 'In-service Training of the Forest Officers during 2004-2005'. A compilation on 'Forestry & Wildlife Statistics, India 2004' has also been brought out.
- The new webpage of the RT Division (www.ifs.nic.in) has been developed and is being updated regularly with maximum information on in-service training programmes of forest officers, provision for exercising choices by the officers for participation in courses, information relating to rules, guidelines etc. concerning forestry training and research.

Forest Survey of India

Training unit of FSI has been imparting training to forestry personnel with the objective of disseminating knowledge and information on the modern techniques being employed in forest survey to enable efficient planning, management, scientific and sustained exploitation of the nation's forest resource. Forestry personnel of various levels, working in the State Forest Departments are provided training in various disciplines like Application of Remote Sensing (RS) and GIS in Forest Resource Management, Application of GIS and Inventory in Forestry and Global Positioning Systems (GPS) Application in Forest Survey and Demarcation, during in-house training courses of varying durations.

The Training Unit has imparted training to 1806 forestry personnel till January 2005 on various aspects.

The Training Section of FSI continuously upgrades its existing training facilities through the following:

- ❑ Upgradation of Computer Laboratory Facility including Hardware and Software by replacing the existing hardware/software with up to date and modern hardware/software.
- ❑ Updation of reading material for trainees.
- ❑ Furnishing of the Conference Room at the FSI Training Hostel (Vanavaran Bhavan).

The Extension Unit at FSI is engaged in printing and publication of State of Forest Report, Inventory Reports, Quarterly Newsletter, Training Calendar, Annual Reports and other informative material generated by FSI. Publicity and liaison works, organizing workshops/conferences and conducting visit of officers, trainees and dignitaries from different organizations from India and abroad also form a part of the extension activities of FSI. FSI is equipped with a small library containing more than 5,000 books of diverse subjects ranging from Remote Sensing, GIS & forestry. In addition, the library is stocked with toposheets, thematic maps, vegetation maps and aerial photographs.

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- Seven thousand five hundred and ninety three organizations including NGOs and Voluntary Bodies throughout the country were provided financial assistance for organizing environmental awareness creation activities through diverse means among the various target groups under National Environment Awareness Campaign (NEAC) during 2003-04.
- To impart environmental education and to encourage and mobilize participation of school children in several environmental conservation activities in the localities, financial assistance to about 72,000 schools for functioning of Eco-Clubs was provided under National Green Corps (NGC) Programme.
- With the objective of spreading environmental awareness through various media, the Ministry sponsored several programmes including telecast of films, organizing environmental quiz programmes, etc., during the year. A half-hour-weekly environmental magazine programme called "BHOOMI" has also been sponsored by the Ministry for telecast on Doordarshan National channel, on Sundays of every month.
- The National Museum of Natural History (NMNH) has opened its third Regional Museum of Natural History (RMNH) at Bhubaneswar, Orissa on 10th August, 2004 with diverse facilities to impart non-formal environmental education and conservation among students, teachers and the general public.
- The NMNH of the Ministry participated in the Vigyan Rail project with the development of a full coach on 'environment' depicting several digital panels, miniature models, diverse forest types with synchronized calls of animals and birds in order to make the people aware about the natural heritage and environment of the country, during the year.

Wildlife Education & Training

Wildlife Education and Training activities are carried out by Wildlife Institute of India (WII) Dehradun, an organization of the Ministry. The details of educational and training programmes conducted by the Institute are as follows :

IX M.Sc. (Wildlife Science) – The ongoing IX M.Sc Wildlife Science program at the Institute which commenced from July 2003 has a dissertation project in the IV semester (November 04-July 05). Applications are being invited for admission to the X M.Sc. Wildlife Science course commencing from July, 2005.

XXV P.G. Diploma Course in Wildlife Management, September 1, 2003 to May 31, 2004. – The nine-month XXIV P.G. Diploma Course commenced on September 1, 2003 with 18 officer trainees. All the trainee officers have successfully completed the course.

XXVI Post Graduate Diploma Course, September 1, 2003-May 31, 2004. – The Diploma Course in Wildlife Management commenced from September 1, 2003 for nine months at WII. In all 28 officer trainees joined the course of which nineteen candidates from different states of the country and nine foreign nationals of which four were under SAARC fellowship scheme.

XX Certificate Course in Wildlife Management, November 1, 2004 to January 31, 2005. – A total of nineteen officer trainees (fifteen Indian and four foreign) joined the course at WII. The fifteen officers from Indian states and the four foreign trainees sponsored by Global Tiger Forum (GTF) include one from Bhutan, two from Nepal and one from Vietnam.

Meetings, Workshops and Conferences

Third International Symposium on Galliformes, WII, Dehradun, (April 5-10, 2004) – This symposium

was organized by the World Pheasant Association and the IUCN/SSC Specialist Group for Pheasants, Partridges, Quails, Francolins and Megapodes. The WII and the Uttaranchal State Government were the co-hosts for this symposium. Over 150 delegates from 25 countries participated in this symposium.

Vacation Training Programme on Bioresources for School Children, Dehradun, (June 5-22, 2004) – The third ‘Vacation Training Programme on Bioresources for School Children’ was jointly organized by the Wildlife Institute of India, Dehradun and the Institute of Himalayan Bioresources Technology, Palampur in collaboration with National Bioresource Development Board (NBDB), Dept. of Biotechnology.

The objectives of the training programme were to inculcate among school students an appreciation of the importance of biological resources of the country, their use and management. Twenty-six students from 10 schools had participated in this training programme.

National Workshop of ENVIS Nodes and Centres, Dehradun, (June 25-27, 2004) – The Environmental Information System (ENVIS) Centres and Nodes held the National Workshop at the Wildlife Institute of India on behalf of the Ministry. The objective of the workshop was to take stock of the achievements, shortcomings and preparing a road map for the future of the Environmental Information System in the country. Over 175 participants from 75 ENVIS Centres and Nodes, technical experts, representatives from scientific institutions participated in the workshop.

One-Week Compulsory Training Course on “Wildlife Management : Issues and Concerns” (July 19-23, 2004) – This training course was held at the Institute for IFS officers as a part of their compulsory training programme. The course was designed to sensitize and strengthen the field officers in dealing with the issues of wildlife management and biodiversity conservation with latest findings and developments in this field. Eleven officers from various Indian states participated in the training course.

Nature Guide Training Programme, (August 16-20, 2004) – A week long training programme was organized in collaboration with Uttaranchal Forest Department involving local hill people in tourism and conservation activities.

Training Course on Current Trends in Wildlife Management, Dehradun, (November 1-5, 2004) – The wildlife Institute of India organized a training course on ‘Current Trends in Wildlife Management for Indian Forest Service Officers. The objective of the course was to acquaint the forest managers, who have not had the benefit of formal training, with principles, practices and current trends in wildlife management. Thirteen participants from different States attended the course.

Training Course on ‘Environment and Wildlife Conservation’, Dehradun, (December 13-15, 2004) – The WII in collaboration with the Environment and Ecology Cell, Army Headquarters, New Delhi organized a training programme on ‘Environment and Wildlife Conservation’ for the officers of Indian Army. The objective of the course was to sensitize the army officers about various facets of environment and wildlife conservation issues and to prepare a road map for participation of the armed forces in the initiatives to conserve the environment and wildlife resources of the country. Eighteen Army officers participated in the training programme.



Fig 72. Sambar deer in a National Park

Other activities

The WII Celebrated Various International/national days through diverse activities with the aim of inculcating awareness sensitization and knowledge on protection and conservation of wildlife.

The Institute also released several audio CDs on songs and calls of the “Birds of India”.

Visit by Afghan Minister

Dr. Yusuf Nuristani, Hon’ble Minister of Irrigation, Water Resources and Environment, Govt. of Afghanistan accompanied by Dr. Dave Ferguson,, USFWS and Mr. M.Qaseem Naimi, Technical Advisor, Government of Afghanistan visited WII on April 21, 2004.

UPDATES 2004-2005

- IX M.Sc. Wildlife Science Programme was successfully conducted by the Wildlife Institute of India (WII), Dehradun during the year.
- The WII also organized various PG Diploma Courses and Certificate courses in Wildlife Management during the year. Several officers and wildlife personnel from within and outside the country participated in these courses.
- The III International Symposium on Galliformes were co-hosted by the WII and the Uttaranchal State Government during the year. Over 150 delegates from 25 countries participated I the symposium.
- The WII also organized several training courses on current trends in Wildlife Management for the Forest Managers, Indian Army officials and several other personnel in this field during the year.