

## CHAPTER 6

### FORESTS AND ENVIRONMENT

#### FORESTS

6.01 Forests play a vital role in maintaining ecological balance and contribute significantly to the State economy, particularly in the rural sector. Forest activities contribute a lot to the food security and livelihood of people living around forests. The pressure of human population and livestock on forest for fuel wood, small timber and grazing in most places is much more and beyond the carrying capacity of existing forests and these forests are under continuous threat of degradation. The rapid degradation of forests has created serious problems for the overall eco-system and livelihood of forest dependant population. Therefore, deforestation needs to be arrested and suitable measures devised for rapid reforestation of degraded forests.

6.02 The State has a recorded forest area measuring 58,136.23 sq. km. i.e. 37.34% of the State's geographical area of 1,55,707 sq km. This includes 26,329.12 sq km of reserved forests, 11,686.44 sq km of demarcated and protected forests, 3,838.78 sq km of un-demarcated protected forests, 20.55 sq km of un-classed forests and 16,261.34 sq km of other forests. As per the "State of Forest Report, 2003" published by the

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Forest Survey of India, the State has only 48,366 sq km of forest cover. Of this, 28,170 sq km is dense forest (with crown density greater than 40%) and 20,196 sq km is open forest (with crown density between 10% to 40%). In addition to the above, there is additional 6,381 sq km of area under tree cover. Besides, 7298.01 km of forest roads are there under Forest Department. Thus, while the recorded forest area constitutes about 37.34% of the total geographical area of the State, actual forest cover exists over only 31.06% of the geographical area and out of this, 12.97% is open forest. National Forest Policy stipulates that 33% of the geographical area should be under forest cover. Steps are being taken by the State Govt. to protect the forest area and regenerate the degraded forests.

6.03 The forest sector objective in the Annual Plan 2005-06 and Tenth Plan period is to promote sustainable forest management in the State with a larger goal of supporting the rural livelihood. Recognising the crucial linkages between rural livelihood and conservation of forest resources, particularly in the context of Orissa, the plan specifically focuses on

conservation and development of forests and optimal use of forest resources in a sustainable manner. The immediate goal of forestry in the State is to protect the existing dense forests with their rich biodiversity and wildlife from degradation and to restore through appropriate treatment of their vigour for natural regeneration. The forest policy, rules and regulations in force will also be fine-tuned and modified wherever required during the Tenth Plan period to make the policy and institutional environment conducive for Joint Forest Management of degraded forests.

6.04 The Annual Plan, 2005-06 adopted an approach combining elements of asset creation, institutional development and social development to promote sustainable forest management practices. The plan will support development of forest resources in the State with focus on:

- i) Conserving, protecting and developing 27,972 sq. km of dense forests.
- ii) Regenerating and developing 20,866 sq. km of open forests.
- iii) Afforesting and reforesting 5,782 sq. km of scrub forests.
- iv) Promoting Eco-tourism and Eco-development in the protected area and

- v) Building capacity of the Forest Department and Village level institutions to take up protection and management of the assigned forests.

### **FOREST PLANTATIONS**

6.05 According to the Forest Survey of India, present forest cover in the State is 31.06% as against 33% of the total geographical area stipulated by the National Forest Policy, 1988. There is thus an imperative need to accelerate efforts for afforestation and regeneration of the degraded forests for achieving 33% forest cover.

6.06 During 2004-05, afforestation programme has been implemented in the State under State Plan and Central Plan over a total area of 24,605 ha. Out of this 13,130 ha has been covered under Revised Long Term Action Plan (RLTAP), 10,946 ha under National Afforestation Programme (NAP) and 349 ha under Economic Plantation. Bulk of the afforestation programmes is being implemented in KBK districts under the RLTAP since last four years. During 2004-05, 8035 ha have been covered under block plantation, 5,000 ha under rehabilitation of degraded forests and 95 ha under medicinal plantation. Fruit bearing and NTFP species as well as fuel wood, economic species and bamboo have

been planted under the scheme. At all plantation sites Vana Samrakshana Samities have been formed and people's participation ensured.

6.07 The Forest and Wildlife Wings have also taken up 210 ha of plantation under Jagannath Vana Prakalpa and 211 ha mixed plantations with DRDA funding. Further 6,622 ha plantation under compensatory afforestation has also been taken up during the current year with funds deposited by User Agencies for the purpose. Flowering trees including 2,000 Frangipani seedlings have been planted at Lalitgiri Heritage Site.

### ***ECONOMIC PLANTATIONS***

6.08 The value of the growing stock of our forests is substantially lower in comparison with the other States. This situation can be improved by raising plantations of economically important species like Teak, Sissoo, Rose Wood and Red Sanders etc. on suitable sites on a sustained basis. This will ensure substantially higher production of valuable timber in future. About 4,000–5,000 hectares of suitable degraded barren land in the non-KBK districts will be treated under this scheme every year and about 12,000 hectares of Teak plantations will be raised during the Tenth Plan period.

### ***MEDICINAL PLANTS ECONOMIC SURVEY***

6.09 State Medicinal Plants Board is functioning since Aug'02 for promoting cultivation of medicinal plants in the State. By the end of 2003-04, 63 projects were sanctioned by National Medicinal Plants Board (NMPB) with a project outlay of Rs.3.59 crore. During 2004-05, 43 commercial and 31 promotional projects were recommended to NMPB out of which NMPB has sanctioned five promotional projects at an estimated cost of Rs.0.64 crore and 41 commercial projects of farmers for cultivation and marketing of medicinal plants for assistance of Rs.0.53 crore over 3 years. A scheme on Vanaspati Van with a financial outlay of Rs.5.00 crore is under implementation in Gandharmardan Hill Range in Bolangir district and Baragarh Forest Division.

### ***AREA ORIENTED FUEL WOOD AND FODDER PROJECT SCHEME***

6.10 The Area Oriented Fuel and Fodder Plantation Scheme (AOFFP) is a Centrally Sponsored Plan scheme with a funding pattern of 50:50 between the Centre and the State. The main objective of the scheme is to augment production of fuel wood and fodder species through regeneration of degraded forests and adjoining lands by associating the local people in planning, implementation and

management under joint forest management.

(2005 crop year), procurement price offered to primary collectors has been revised to 21.5 paise per 20 leaves.

**KENDU LEAF**

6.11 Kendu Leaf (KL) trade is not only the major source of revenue receipt from forest produce, it offers largest employment opportunities in rural Orissa as well. The selling and marketing of Kendu Leaf is in charge of Orissa Forest Development Corporation Ltd. During 2004-05, 7,806 Phadis have been opened in 23 districts for purchase of Kendu leaf collected by the villagers and 993 KL Central Godowns have been constructed for storage of the processed and phal kendu leaf bags.

6.12 During 2004-05 (2004 Crop Year), 4.54 lakh qtls of Kendu leaf was produced and Rs.132.52 crore revenue was collected on selling of 3.89 lakh qtls of Kendu leaf as against 4.77 lakh qtls production and revenue earning of Rs.132.02 crore on sale of 3.41 lakh qtls in 2003-04. About 10 lakh pluckers have been benefited in Kendu leaf collection. Other related works like bush cutting, phadi repair, processing and binding of leaves etc. have generated wage employment for 45 lakh person days. 660 MT of food commodities have been issued as an incentive to the binding labourers during the year. During 2005-06

**DIVERSION OF FOREST AREA AND COMPENSATORY AFFORESTATION**

6.13 Forest areas are diverted to non-forest use for development of different projects as per approval of Government of India under Section-2 of Forest Conservation Act 1980. Government of India while giving permission have stipulated for undertaking compensatory afforestation in lieu of forest areas diverted for non-forest use. By the end of 2004-05, 279 proposals involving forest area of about 30,043 ha including 9 proposals involving 1274.39 hect. during 2004-05, have got permission to use the forest land for non-forest purpose viz irrigation, industries, mining, electricity, roads and bridges, railway, defence and human habitation. A sum of Rs.63.06 crore has been deposited with the State Govt. for Compensatory Afforestation. By end of Sept. 2004, Compensatory Afforestation has been done over an area of 23,364 ha in forest and non-forest land with an expenditure of Rs.19.8 crore. State Govt. have submitted a proposal to Govt. of India for regularization of 3328.415 ha. of forest land in favour of 3754 eligible families of 17 districts.

**FOREST PROTECTION**

6.14 With growing population there has been tremendous pressure on the forests both for forest produce as well as forest land. Illegal removal of forest produces is prevalent almost in all places but largely confined to some valuable areas such as the basin of River Mahanadi spread over Sambalpur, Cuttack, Nayagarh, Boudh districts, Similipal Forest in Mayurbhanj district, the forests of Rayagada, Koraput, Malkangiri districts on Orissa-Andhra Pradesh border and the forest corridors on the inter State Orissa-Jharkhanda areas.

6.15 The State Forest Department has been keeping a close vigil over forest offences and taking necessary action. During 2004-05, about 38,753 forest offences were booked involving 29,543 offenders and the value of forest produce seized was about Rs.2.97 crore as against 1,13,808 forest offences booked involving 1,07,093 offenders and the value of forest produce seized worth Rs.15.01 crore during 2003-04. During 2004-05, 1,613 cases were booked under Section 56. 19 units of APR Forces have been posted in different Territorial Forest Divisions in vulnerable areas and CRPF has been deployed in the Dhanuli and Barbara Reserve Forest of Khurda Forest Division which is a patch of rich and unique forest with Teak plantation from the pre-

independence time. Besides, 265 Forest check gates have been established in the State to regulate the transit of forest produce and 739 VHF sets have been installed in different territorial ranges and vulnerable areas. Draft Rules for use of fire arms by Forest Officers are under consideration of State Government.

**JOINT FOREST MANAGEMENT**

6.16 One of the salient features of the National Forest Policy, 1988 is to actively associate the people in the protection, conservation and management of forests. The State Govt. brought out a resolution in 1988 to introduce a scheme of protection of peripheral reserved forests with participation of the people of adjoining villages. The process has been further fine-tuned in 1993 Resolution.

6.17 In accordance with the 1993 JFM Resolution of the Government, 7,358 Vana Samrakshana Samitis (VSS) (including 356 VSSs in 2004-05 upto Sept.04) were formed and 8,039 sq. km of forest area were covered under protection of these VSSs. All the families of 7,646 villages are the members of these VSSs.

**FOREST REVENUE**

6.18 Forests are the important source of non-tax revenue for the State Government. Table 6.1 shows the total

revenue received from forest produce was Rs.96.92 Crore in 2002-03, which came down to Rs.49.81 crore in 2003-04. Again in 2004-05 it has increased by 70.6% and touched Rs.85.00 crore.

**Table 6.1**

**Revenue Receipts from Forest Produces in Orissa**

(Rs. in crore)

Sl. No.	Item	2000-01	2001-02	2002-03	2003-04	2004-05
1	2	3	4	5	6	7
1.	Timber and firewood	14.23	9.36	9.15	3.70	8.94
2.	Bamboo	5.11	2.03	0.07	1.45	1.58
3.	Kendu leaf	55.00	69.00	75.00	31.00	24.25
4.	Others	9.91	7.42	12.70	13.66	50.23
<b>Total</b>		<b>84.25</b>	<b>87.81</b>	<b>96.92</b>	<b>49.81</b>	<b>85.00</b>

Source : P.C.C.F., Orissa.

**ORISSA FOREST DEVELOPMENT CORPORATION (OFDC)**

6.19 Orissa Forest Development Corporation (OFDC) was formed in October'1990. The main activities of the Corporation includes sale of timber, fire wood, bamboo, sal seeds, kendu leaf, honey, pickles etc. The Corporation has 20 commercial units, 4 zones alongwith its Head Office at Bhubaneswar.

6.20 The Corporation has taken up supply of firewood, bamboo and house building materials to the public mostly obtained from salvage of dead and wind fallen timber and U.D. case materials through its retail sale depots. The Corporation finances the entire operational cost of production of Kendu leaf and

carries out marketing of Kendu leaf as an agent of the State Govt.

6.21 The Corporation has sold 14,623 cum of dead and dry timber, 16,023 MT of firewood to the public during 2004-05 and earned a revenue of Rs.20.52 crore approximately. Besides, 25,539 Sale Units of Bamboo valued at Rs.2.25 crore have also been sold in 2004-05. 3.89 lakh qtls.of Kendu leaf valued at Rs.132.52 crore and 1,798 MT of sal seeds valued at RS.0.62 crore have also been sold during 2004-05. Production, sale and revenue receipt from sale are presented in Table 6.2.

**Table 6.2**

**Production and Revenue Collection from Forest Produce in Orissa**

(Rs. in crore)

Sl.No.	Item	Units	2003-04			2004-05		
			Outturn	Quantity sold	Revenue collected	Outturn	Quantity sold	Revenue collected
1	2	3	4	5	6	7	8	9
1	Timber	Cum	15741	11949	15.44	17411	14623	18.58
2	Fire wood	MT	14917	15180	1.99	14982	16023	1.94
3	Bamboo	SU	13152	11015	0.39	14352	25539	2.25
4	Kendu leaf	Qtls	476935	341157	132.02	454000	389318	132.52
5	Others							
i)	Sal Seeds	MT	15850	15727	6.05	1820	1798	0.62
ii)	Plantation		-	-	1.76	-	-	1.89
iii)	Other MFP		-	-	0.12	-	-	0.15

### WILD LIFE

6.22 Orissa with its diversified topography and climate has been the abode of a variety of wildlife species. But due to inadequate protection measures and dwindling forest cover, there has been a rapid decline in the wildlife population in the State. In order to protect and preserve wild life, 18 Wildlife Sanctuaries and 2 National Parks have been constituted. Besides, three elephant reserves namely, (i)Mayurbhanj, (ii)Sambalpur (Badarama-Khalasuni) and (iii) Mahanadi have also been constituted.

The committee set up by the Government of India for 'rationalization of boundaries' of National Parks and Sanctuaries have submitted its report regarding the steps to be taken in respect of villages situated

within the boundary of the Sanctuaries declared under Section-18 of the Wildlife (Protection) Act, 1972. The total area of Sanctuaries / National Parks (excluding the Gahirmatha marine sanctuary in the sea) is 4.1% of the total geographical area of the State and 10.73% of the recorded forest area. The Rationalisation Committee recommends that in order to check any diminishing coverage of area under PA, where villages are required to be excluded as per recommendation of the Collector, new areas have to be added to the existing sanctuary.

6.23 Eighty four species of reptiles, 446 species of birds and 65 species of mammals have been identified in the protected areas. The wild life status survey and census is periodically carried

out by forest personnel with active management interventions for participation of various non-official conservation of elephants. The extent of enumerators. Table 6.3 gives names of notified and proposed forest blocks in some important species and their number these three reserves is 4,129 sq km. and as per status survey and census reports the geographical area covered by these for different years, besides the captive three reserves is 8,509 sq. km. stock at Nandankanan Zoological Park. Constitution of two more elephant

6.24 Three Elephant Reserves (ERs) South Orissa ER as well as expansion of namely Mayurbhanj ER, Mahanadi ER and the Mahanadi and Sambalpur elephant Sambalpur ER were notified in the State in reserves for providing better habitat the years 2001 and 2002. These Reserves condition to the elephants and for are meant to define the prime elephant reducing the problems of elephant habitats and to launch various depredation are being contemplated. .

**Table 6.3**  
**Wildlife Population in the State**

Sl. No.	Name of species	Number	Census Year	Remarks
1	2	3	4	5
1.	Tiger	192	2004-05	In the wild (entire State)
2.	Leopard	487	-do-	-do-
3.	Elephant	1841	2002	-do-
4.	Salt Water Crocodile	1454	2004-05	In Bhitarkanika Wild Life Sanctuary
5.	Birds (Migratory & Resident)	9.59 lakh 1.41 lakh	2004-05 2003-04	Chilka lake ,Bagagahan ( in Bhitarkanika Sanctuary).
6.	Olive Ridley Sea Turtles	4.45 lakh	2004-05	Rushikulya river mouth Gahirmatha Marine Sanctuary
7.	Dolphin in Chilka	111	-do-	Chilka lake
8.	Black Buck	786	2004-05	Balipadar – Bhetnoi
9.	Mugger and Gharial	38	2001	Satakosia Gorge Sanctuary & Mahanadi River.
10	Mugger	83	2004	Similipal Tiger Reserve

Source : Chief Warden, Wildlife, Orissa, Bhubaneswar

6.25 The State Govt. have also of Tiger Reserve in the State comprising proposed to Govt. of India for declaration of Sunabeda sanctuary and adjoining

forest area to its south in Nuapada district. Similipal Sanctuary, which covers 2,200 sq km and is covered in the Project Tiger areas, that extends over 2,750 sq km, has been strengthened with the addition of other Reserved Forests and a transitional zone, and has been designated as a Biosphere Reserve by Government of India. The Biosphere Reserve covers an area of 5,569 sq km with a core area of 845.70 sq km, a buffer of 2,129 sq km and a transitional zone of 2,595 sq km.

6.26 As per Tiger Census held in the year 2004-05, there were 192 tigers and 487 leopards in the State including 101 tiger and 127 leopards in the Similipal Tiger Reserve which constituted about 53% and 28% of tiger and leopards population in the State. Besides, there were 512 elephants in the Similipal National Park which was 27.81% of the elephants in the entire State as per 2002 Census.

6.27 The Bhitarkanika Wild Life Sanctuary and the Bhitarkanika National Park are spread over an area of 672 sq. km and 145 sq. km respectively. The Gahirmatha Marine Sanctuary covering an area of 1,435 sq. km is the largest nesting ground for Olive Ridley sea turtles in the world. During 2004, 2.43 lakh Olive Ridley sea turtles came to Gahirmatha beach for nesting and laying eggs and another 2.01

lakh sea turtles rested at Rushikullya river mouth. The number of salt water crocodiles which was 672 during the year 1998 in Bhitarkanika Wild Life Sanctuary increased to 1,454 during the census year 2004-05. Besides, as per 2003-04 Bird Census, 1.41 lakh birds visited the Bagagahan Sanctuary.

6.28 The Chilka (Nalabana) Wild Life Sanctuary was started in December, 1987 over an area of 15.58 sq. km. which is not only an ideal habitat for migratory birds but also for the endangered Irrawady Dolphin. It attracts migratory birds from far off countries during Winter Season every year. As per census of birds, 9.59 lakh resident and migratory birds visited Chilika lake during 2004-05.

6.29 Chandaka-Dampara Sanctuary, with 193.39 sq km of area, was set up in December 1982 to protect and conserve elephants and their habitation in the vicinity. As per the 2002 Census, there were 62 elephants in this sanctuary. Tiger, leopard, sambar and spotted deer are also found in this Sanctuary. An outlay of Rs.261.67 lakh has been proposed for development of the Sanctuary in the State during the Tenth Plan period.

6.30 Nandan Kanan Zoological Park, one of the premier Zoological Park of the

country was established in 1960 over an area of 3.62 sq km for Nandan Kanan Zoological Park and 4.37 sq kms for Nandan Kanan Wild Life Sanctuary. During 2004-05, there were 1,118 animals of 138 species in the Nandan Kanan Zoological Park comprising of 437 mammals of 46 species, 574 birds of 66 species and 107 reptiles of 26 species as against 1109 animals of 151 species in 2003-04. Besides, Tiger Safari, Lion Safari, an Aquarium, Toy Train, Boating and Aerial Rope way are some of the attraction of this Zoo.

6.31 About 12.41 lakh persons visited the zoological park in 2004-05 as against 13.38 lakh visitors in 2003-04. Total revenue collected from all sources of the Zoological Park has increased from Rs.89.30 lakh in 2003-04 to Rs.111.82 lakh during 2004-05. The park has four

tourist cottages and one Forest Rest House.

6.32 Hon'ble High Court, Orissa, has passed an interim order in which construction of permanent structures within a radius of 1 km around Nandan Kanan Wild Life Sanctuary has been prohibited without the leave of the Hon'ble High Court.

6.33 An Eco-tourism scheme has been introduced in the State from 1995-96 to provide transport and accommodation facilities for tourists in Sanctuaries and National Parks. In the first phase, Similipal, Chilka, Bhitarkanika and Nandan Kanan have been covered under the scheme.

## ECOLOGY AND ENVIRONMENT

6.34 The Environment Wing of the Forest and Environment Department has the following objectives :

- i To act as the nodal agency for environmental management and conservation.
- ii To implement Pollution Control Acts and Rules.
- iii To asses environmental impact of development projects and industries.
- iv To protect ecologically fragile sites, natural living resources and endangered eco-systems including land, waste land, grass land and mangroves.
- v To restore, develop, protect and maintain ecologically sensitive sites and selected nature reserves / locations.

- vi To promote environmental awareness and environmental education.
- vii To promote research, education and training on environmental conservation and protection.
- viii To co-ordinate activities for conservation and management of Chilka and Ansupa lakes, and mangroove areas of the State.

***NATIONAL RIVER CONSERVATION PROGRAMME***

6.35 Monitoring & implementation of the National River Conservation Programme (NRCP) for pollution abatement of rivers have been done through this programme. H&UD Department is the Nodal Department and OWSSB is the executing agency for this programme.

***ENVIRONMENT EDUCATION AND AWARENESS PROMOTION***

6.36 In order to promote awareness for environmental protection & conservation, District Environment Societies have been constituted in each district under the Chairmanship of District Collectors. State Govt. conferred 16 "Prakruti Mitra" and 18 "Prakruti Bandhu" award on the World Environment Day, 2004 to Voluntary Organisations/ institutions and individuals. So far 385

"Prakruti Mitra" and 243 "Prakruti Bandhu" award have been conferred.

***CONSERVATION AND MANAGEMENT OF THE COASTAL AREA***

6.37 The Orissa State Coastal Management Authority constituted by Govt. of India to enforce the Coastal Zone Management Plan and the Coastal Regulation Zone (CRZ) has recommended 9 projects including port, national highways, air strip, crude oil pipe line, fish loading centre, light house etc to Govt. of India for CRZ clearance. During 2004-05, two projects have been recommended for establishment of two light houses to Govt. of India for CRZ clearance.

***NATIONAL GREEN CROP PROGRAMME***

6.38 The National Green Crop Programme has been introduced by the Ministry of Environment & Forests, Govt. of India. 4,500 Eco-clubs have been constituted in schools @150/- Eco-club in each district. These Eco-clubs are pioneer teams creating environmental awareness among the local inhabitants.

***NATIONAL ENVIRONMENT AWARENESS CAMPAIGN (NEAC)***

6.39 NEAC is an important environmental awareness programme taken up by the Environment Department through the Centre for Environmental Studies which has been declared as the

Regional Resource Agencies under the NEAC Programme by the Ministry of Environment and Forest, Govt. of India. Small NGOs are funded for environmental awareness activities.

**STATE POLLUTION CONTROL BOARD (SPCB)**

6.40 State Pollution Control Board (SPCB) was constituted in 1983 and is functioning under Forest and Environment Department, Govt. of Orissa. The Board is entrusted with the responsibility to execute and ensure proper implementation of Environmental Act, particularly the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986 as amended from time to time, and various rules framed there under. The Board is also expected to execute and ensure proper implementation of environmental Policy of the union and the State Government.

6.42 During 2004-05, the Board has received 644 applications for consent to establish and 481 cases carried forward from 2003-04. Out of these 1,125 applications, consent have been given in favour of 393 industries which includes 181 Large & Medium Industries, 174 Small Scale Industries, 24 Stone Crushers and 14 Brick kilns. Besides, during 2004-05, out of 1,384 application received to

obtain consent to operate, consent has been granted in favour of 816 industries.

6.43 During 2004-05, there were 46 cases including 10 spilled over cases from 2003-04 for public hearing. Out of which 26 public hearing have been conducted for major industries / mining / development projects.

6.44 As per the provision of Hazardous Waste (Management & Handling) Rule, 1989 and Amendment, 2003, the Board ensures proper management of hazardous waste through authorization administration. During 2004-05, about 55 authorization applications have been received of which authorization was granted in favour of 51 units.

6.45 Orissa State Pollution Control Board is being declared as a prescribed authority under the rules for enforcement of the provision of the rules, regulates the management of waste through authorization administration. Board is taking proactive role and is constantly pursuing the matter with all occupiers of hospitals for proper implementation of the Rules. As on March'2005, the Board has brought 547 health care establishments under authorization and 64 health care institutions have not applied for authorization. Out of 547 units under Authorization Administration,

Authorization status have been granted in favour of 166 establishment for appropriate management, handling, treatment and disposal of biomedical wastes. The Board has also granted authorization to 17 Municipalities/NACs for environment friendly management of municipal solid wastes under the Municipal Solid Waste (Management & Handling) Rules, 2000.

6.46 In order to plan a comprehensive programme for prevention and control of pollution, the Board has undertaken the following activities during 2004-05.

- i. Monitoring of water quality of six major rivers.
- ii. Monitoring of noise pollution level on occasions like Dushera, Dipabali, Rath Yatra and Bali Yatra.
- iii. Monitoring of ambient air quality of important towns and industrial areas like Cuttack, Bhubaneswar, Balasore, Berhampur, Sambalpur, Rayagada, Rourkela and Angul.
- iv. Acting as a facilitator for the implementation of the Ecocity programme for Puri town.

6.47 Besides, the following Awareness Programmes are also undertaken by OSPCB.

- (i) Organised three seminars/workshops for public awareness

regarding environmental protection.

- (ii) Undertakes periodical orientation programmes like imparting training to police personnel in respect of monitoring and control of vehicular and noise pollution.
- (iii) Published three issued of news letter "Paribesh Samachar" and published a popular book titled "Noise Pollution".
- (iv) Celebrated World Environment Day, Ozone Day and the National Pollution Prevention Day on 5<sup>th</sup> June, 16<sup>th</sup> September and 2<sup>nd</sup> December, 2004 respectively for creating public awareness.

#### **CHILKA DEVELOPMENT AUTHORITY (CDA)**

6.48 The Chilka Development Authority (CDA) established in November, 1992 as an autonomous body, is attending to various problems of the lake including its conservation and all-round development. The lake is facing a number of problems, viz, siltation, shifting of Chilka mouth, loss of salinity, extensive weed growth and depletion of fishery resources.

6.49 Eco-restoration of Chilika Lagoon has been the main activity of CDA that is implementing an integrated management plan for restoration of Chilika Lagoon as per the guidelines of Ramsar Convention. The success of restoration measures taken is evident from the increase in the fish landing to an extent of

more than 28% in case of prawn and 10% in case of crab.

6.50 An innovative participatory watershed management programme is being implemented in the catchments of Chilika with financial support from Govt. of India with the objective of enhancing the productivity in the Micro-Watershed. About 1,050 ha of plantation and 150 ha of rehabilitation of degraded forest were carried out. CDA has been conferred with the prestigious "Indira Gandhi Paryavaran Award,2002" in 2004 for outstanding work on Eco-restoration of Chilika lagoon.

**REGIONAL PLANT RESOURCE CENTRE**

6.51 The Regional Plant Resource Centre (RPRC) has received recognition as a plant science resource institute as well as a centre for conservation of Biological diversity of plants in India through field gene bank(s), seed banks and in-situ conservation. A medicinal germ plasm garden, housing 206 species of medicinal plants collected from all over India, has been developed for sensitization of public in general and researchers in particular. Apart from this, 106 rose varieties are available at the centre. Nearly 13,500 plants are added during 2004-05. The centre has initiated evaluation of plant genetic diversity and phylogentic relationship in different groups of plants like ginger, turmeric, rose, Albizzia etc.

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through modern technique of molecular biology. 443 strains of bacteria and 134 strains of fungi from Bhitarkanika mangroves eco-system are maintained in the centre. Besides, nine Research Projects at an estimated cost of Rs.1.51 cr. have been bagged and several new projects submitted to various funding agencies with an estimated cost of Rs.3.71 Crore.

**CENTRE FOR ENVIRONMENTAL STUDIES**

6.52 Centre for Environmental Studies (CES), an autonomous registered society, has been created during 2000-01 by the State Government with the objective of disseminating environmental-linked information, creation of environmental awareness and taking up need based studies and consultancy assignments in the field of environmental impact assessment and environmental management plan. It has undertaken the following Government of India sponsored projects during 2004-05.

- i. As a nodal agency for National Green Crops Programme of Govt. of India, CES is coordinating the activities of 4,500 Eco-Clubs formed in the Schools for children and to involve them in the environmental related activities.
- ii. CES has been declared as the Regional Resources Agency (RRA) for the National Environment Awareness Campaign (NEAC) of Govt. of India. During 2004-05,application from

1,690 NGOs/ other organizations have been received for NEAC which are being screened.

- iii. CES is maintaining a data base on “ State Environment” under Environment Information System Programme of Govt. of India.

**WORLD FOOD PROGRAMME PROJECT**

6.53 A project for providing subsidised food ration to the labourers engaged in the forestry activities for improving their nutritional status is being implemented in the State by availing food aid from the World Food Programme of the United Nations. The food commodities are received free at port and transported to various work sites at the cost of the State Government. The food commodities are utilised in predominantly tribal areas of the State in the activities like afforestation, bamboo operation and Kendu leaf binding and processing operations. The cost of handling, transport and storage of the food grains is borne by the State as per the agreement with World Food

Programme. To avail food ration, a labourer is required to voluntarily contribute @ Rs.9/- per ration from his daily wage. The generated funds are utilised towards meeting micro development needs of the local communities by implementing locally concerned micro projects such as provision of drinking water, renovation of old tank etc. through effective collaboration between the Forest Department field staff and local communities. The programme continued during 2004-05 and 2866.06 MT of rice and 193.46 MT of pulses were utilised under the project by the end of Dec'04. Welfare funds to the tune of Rs.2.83 crore were utilised for execution of micro projects as approved by S.L.C.C.

**NATIONAL FOOD FOR WORK PROGRAMME (NFFWP)**

6.54 National Food for Work Programme (NFFWP) has been launched in 19 districts of Orissa. So far 359 forest projects costing Rs.6.05 crore have been included in the district plans.

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