

# CHAPTER 6

## FORESTS AND ENVIRONMENT

### FORESTS

6.01 Forests play a vital role in maintaining ecological stability. They provide protection against, and reduce impact of, natural calamities like droughts, floods and cyclones. Forests are also an important source of livelihood for weaker sections of society in general and tribal in particular. Forestry activities also create substantial wage employment opportunities. Forests also provide a wide variety of products of commercial value such as timber, lac, resins, oil seeds, kendu leaves and medicinal plants. However, forest cover is dwindling at a fast pace. Several factors, including rising population, increasing needs for fuel wood, timber and fodder, and increasing industrialisation and urbanisation have contributed to large scale forest degradation. Deforestation needs to be arrested and measures need to be taken for rapid reforestation in degraded forest areas.

6.02 Orissa has a recorded forest area measuring 58,136.23 sq kms including 26,329.12 sq kms of Reserved Forest, 11,686.44 sq kms demarcated and protected forests, 3,838.78 sq kms of un-demarcated protected forests, 20.55 sq kms of un-classed forest and 16,261.34 sq kms of other forests including village and private forests which is 37.34% of the State's Geographical area of 1,55,707 sq kms. As per the "State of Forest Report, 2001" prepared by the Forest Survey of India, the State has only 48,838 sq kms of forest cover including 219 sq kms of mangrove forest and 5,782 sq kms of scrub. Of this, 27,972 sq kms is Dense forest (with crown density greater than 40%) and 20,866 sq kms is open forest (with crown density between 10% to 40%).

6.03 Forests of the State are unevenly distributed. The coastal districts with higher population density are having comparatively smaller areas of forest. Higher forest coverage is found in the districts of Kandhamal, Sundargarh, Mayurbhanj, Sambalpur, Malkangiri, Gajapati, Deogarh and Keonjhar. The National Forest Policy, 1988 has mandated that 33% of the geographical area should be under forest cover, with 60% coverage in hilly tracts and 20% in plains. Against this, the State has 31.4% forest cover according to the Forest Survey of India. Thus, there is an imperative need to accelerate efforts for afforestation and regeneration of the degraded forests for achieving the mandated 33% forest cover.

6.04 The forest sector objective in the Annual Plan 2004-05 and Tenth Plan period is to promote sustainable forest management in the State with a larger goal of supporting the rural livelihoods. Recognising crucial linkages between rural livelihood and conservation of forest resources, particularly in the context of Orissa, the plan specifically focus 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 bio-diversity and wildlife from degradation and to restore through appropriate treatment their vigor 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.

6.05 The forestry sector development in the Annual Plan, 2004-05 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.Kms of dense forests.
- ii) Regenerating and developing 20,866 Sq.Kms of open forests.
- iii) Afforesting and reforesting 5,782 Sq.Kms 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***

6.06 In order to prevent fast depletion of forest resources and to enhance ecological stability, plantation programmes have been undertaken in degraded forests and waste lands under various State and Central Plan schemes. The main objective and strategy of forest planning is to achieve the mandated 33% forest cover in place of the present 31.4% and also to restock the forest in the entire recorded forest area which is 37.3% of the State's geographical area. Action taken for fulfillment of this objective will lead to creation of additional employment opportunities for economically backward groups such as tribals and women.

6.07 During 2003-04, the afforestation programme has been implemented in the State under different State Plan and Central Plan Schemes over a total area of 39,376.50 hectares. Out of this 32,326.50 hectares have been covered under block plantation and 7,050.00 hectares under rehabilitation of degraded forests. The Territorial, Social forestry and Afforestation Wings of OFDC have implemented afforestation works. Bulk of the plantation is carried out in K.B.K. districts under RLAP. During 2003-04, afforestation programme has been carried over 8,650 hectares under Block Plantation and another 7,050 hectares have been covered by rehabilitation of degraded forests in K.B.K. districts under RLAP. Besides, 272.498 lakh seedlings planted over 31,603 ha. of land have been achieved under 20-point programme. The plantation programmes carried out by different wings of Forest Department for 1999-00 to 2003-04 are summarised in Table 6.1.

**Table 6.1**  
**Achievement under Plantation Programmes by Different Wings of Forest Department**

Sl. No.	Activity (Unit)	Name of the Organisation	Achievement during the year				
			1999-00	2000-01	2001-02	2002-03	2003-04
1	2	3	4	5	6	7	8
1	Block Plantation (ha)	Territorial	30,883.60	15,389.96	18,673.42	10,589.00	32,326.50
		SFP	398.00	2,607.00	2,700.00	800.00	-
		OFDC	374.04	134.53	161.50	-	-
		Total	31,655.64	18,131.49	21,534.92	11,389.00	32,326.50
2	Rehabilitation of Degraded Forests (ha)	Territorial	18,857.36	26,115.00	26,273.86	6,100.00	7,050.00
		SFP	-	5,000.00	4,100.00	-	-
		OFDC	-	-	-	52.80	-
		Total	18,857.36	31,115.00	30,373.86	6,152.80	7,050.00

Contd.

**Table 6.1 (Contd.)**

Sl. No.	Activity	Name of the Organisation	Achievement during the year				
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(Unit)			1999-00	2000-01	2001-02	2002-03	2003-04
1	2	3	4	5	6	7	8
3	Farm Forestry	Territorial	325.63	-	-	60.00	-
	(seedlings distributed in lakh)	SFP	-	327.14	349.57	237.75	-
		OFDC	-	-	-	-	-
		Total	325.63	327.14	349.57	297.75	-
4	Avenue Plantation	Territorial	43.93	80.04	-	-	-
	(Rkm)	SFP	97.66	132.00	-	-	-
		OFDC	50.24	4.00	4.00	1.50	-
		Total	191.83	216.04	4.00	1.50	-

*Territorial : Territorial wing of Forest Department.*

*SFP : Social Forestry Project.*

*OFDC : Orissa Forest Development Corporation.*

*Source : Principal Chief Conservator of Forests, Orissa, Bhubaneswar.*

*Directorate of Social Forestry, Orissa, Bhubaneswar.*

*Orissa Forest Development Corporation, Bhubaneswar.*

## ***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. The Afforestation Wing has taken up 2,984.5 hectares of Economic Plantation under State Plan Scheme. Further, with DRDA funding, 698 hectares of plantation under Sri Jagannath Bana Prakalpa has also been taken up in 2003-04. For the above plantation programme, an out lay of Rs.1.41 crore is proposed in the annual Plan, 2004-05.

6.09 With financial assistance from Government of India, casurina plantation over 7,549 hect. was done by the end of 2002-03 under the Central Plan IAEP scheme for restoring the Coastal Shelter Belt Plantation in the districts of Puri, Ganjam, Jagatsingpur, Kendrapada, Bhadrak, and Balasore. Maintenance of the said plantation was taken up under the scheme during 2003-04.

**MEDICINAL PLANTS**

6.10 State Medicinal Plants Board is being functioning in the State since August' 2002 for construction and promotion of medicinal plants sector in the State. During 2001-02 and 2002-03, 14 proposals were sanctioned by National Medicinal Plants Board with a project outlay of Rs.2.25 crore. During 2003-04, 49 proposals have been sanctioned by National Medicinal Plants Board with a project cost of Rs.1.34 crore. Besides, Vanaspati Bana Praklapa with a financial outlay of Rs.5.00 crore has also been sanctioned by Ministry of Health, Government of India to be implemented in the State.

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

6.11 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 JFM.

**KENDU LEAF**

6.12 Kendu leaf is one of the most important minor forest products and is used for manufacturing bidis. Plucking of Kendu leaf is highly labour intensive activity and it creates employment opportunity for the rural poor in most interior areas. By the end of 2002-03 ( 2002 Crop Year ), the Kendu Leaf Organisation has opened 7,820 phadis in different districts of the State for purchase of Kendu leaf and 988 Kendu leaf Central Godowns have been constructed for storage of processed and phal Kendu leaf bags. During 2003-04, (2003 crop year) another 95 new Phadies have been opened under Jeypore Kendu Leaf Division, increasing the number of Phadies to 7,915.

6.13 During 2003-04 (2003 crop year), about 4.77 lakh qtls of Kendu leaf were produced against the target of 4.85 quintals benefitting 9.50 lakh pluckers (to whom pluckers card issued). Besides, 65 lakh mandays of wage employment were generated in the work of bush cutting, phadi repair, seasonal workers, drying and storage, processing and binding of Kendu leaf etc. The price offered for Kendu leaf has been revised since 2002 with 20 paisa per 21 leaves with one paisa incentive for each 20 leaves. 2,660 MT, of food commodities under World Food Programme have been issued as an incentive to the binding labourers during the year. The revenue from Kendu leaf trade has increased over the years.

During the year 2003-04, revenue to the tune of Rs.31.00 crore has been received. It has been targeted to produce 4.75 lakh qtls. of kendu leaf during 2004-05 (crop year 2004).

6.14 During 1996, SIDA decided to implement a new project namely "Capacity Building for Participatory and Sustainable Management of Degraded Forest in the State". Stage I of the new project continued from 01.12.1997 to 31.05.1999 and an amount of Rs.1.28 crore was spent. Stage-II of the project has been conceptualized to be implemented over a period of three years at an estimated cost of Rs.73.00 crore which aims at intensifying Joint Forest Management (JFM) with active participation of people. An outlay of Rs.73.60 crore has been proposed in the Tenth Five Year Plan and Rs.2.63 crore has been proposed in the Annual Plan 2004-05 for implementation of the project.

### ***DIVERSION OF FOREST AREA AND COMPENSATORY AFFORESTATION***

6.15 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 the lieu of forest areas diverted for non-forest use. By the end of 2003-04, 275 proposals involving an area of 29,056.89 hect. have been submitted by different agencies / organizations to Government of India, out of which 270 proposals involving forest area of 28,769 hect. have got permission. During 2003-04, 23 proposals involving 1,494 hect. of forest area have got permission to use the forest land for non-forest use. By the end of December, 2003, Compensatory Afforestation has been done over an area of 21,429 hect. including forest and non-forest land with an expenditure of Rs.18.38 crore, out of Rs.62.34 crore deposited with State Government by various agencies for the purpose. By the end of March' 2004, forest area of 28,769 hectares has been diverted for 270 nos. of projects belonging to sectors like irrigation, industries, mining, electricity, roads and bridges, railways, defence and human habitation. Out of these, 23 projects have been cleared by Government of India with diversion of 1493.71 hectares during 2003-04.

### ***FOREST PROTECTION***

6.16 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 largely confined to some valuable areas such as the forest on the bank of River Mahanadi spread over a number of districts, Similipal Forest in Mayurbhanj district etc. The Forest

Development has been keeping a close vigil over forest offences and taking necessary action. During 2003-04 (Dec'03), about 1,13,808 forest offence cases were booked involving 1,07,093 offenders and the value of forest produce seized was about Rs.15.01 crore as against 72,099 forest offence cases booked involving 62,000 offenders and the value of forest produce seized was Rs.3.37 crore during 2002-03. 19 units of APR Forces have been posted in different Territorial Forest Divisions in vulnerable areas and CRPF has been deployed in the Dhuanali and Barbara Reserve forest 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.

6.17 In addition to the above measures, the State has also adopted the policy of Joint Forest Management (JFM) and has involved the local villagers in protection and management of the degraded forests. In accordance with 1993 JFM Resolution of the Government, 7002 numbers of Vana Sarankhyan Samities (VSS) were formed by the end of September,2003 and 668895 hectares of forest area is covered under protection of these Vana Sarankhyan Samities.

## ***FOREST REVENUE***

6.18 Forests are an important source of non-tax revenue for the State Government. Year-wise collection of revenue from 1999-00 to 2003-04 is presented in Table 6.2. The table shows that during 2003-04, except the revenue collected from Bamboo, revenue collection from all other sources has declined over 2002-03. The total revenue receipt from forest products during 2003-04 has decreased by 60.50% over 2002-03.

***Table 6.2***  
***Revenue Receipts from Forest Products***

( Rs. in crore )

Sl. No.	Item	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	2	3	4	5	6	7	8
1.	Timber and firewood	6.47	5.21	14.23	9.36	9.15	4.08
2.	Bamboo	8.52	5.50	5.11	2.03	0.07	1.09
3.	Kendu leaf	63.50	74.50	55.00	69.00	75.00	31.00
4.	Others	8.32	10.18	9.91	7.42	12.70	2.11

<b>Total</b>	<b>86.81</b>	<b>95.39</b>	<b>84.25</b>	<b>87.81</b>	<b>96.92</b>	<b>38.28</b>
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Source : P.C.C.F., Orissa.

## ***WILD LIFE***

6.19 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. 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 4.2% of the total geographical area of the State and 11.37% 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.

6.20 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 participation of various non-official enumerators. Table 6.3 gives names of some important species and their number as per status survey and census reports for different years, besides the captive stock at Nandankanan Zoological Park.

6.21 Three Elephant Reserves (ERs) namely Mayurbhanj ER, Mahanadi ER and Sambalpur ER were notified in the State in the years 2001 and 2002. These Reserves are meant to define the prime elephant habitats and to launch various management interventions of conservation of elephant. The extent of notified and proposed forest blocks in these three reserves is 4,129 sq kms, and the geographical area covered by these three reserves is 8,509 sq. kms. Constitution of two more elephant reserves i.e. Brahamni-Baitarani ER and South Orissa ER as well as extension of the area of the existing Satakosia and Sambalpur ER is under active consideration.

***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	In the wild (entire State)
2.	Leopard	457	-do-	-do-
3.	Elephant	1841	2002	-do-
4.	Salt Water Crocodile	1358	2004	In Bhitarkanika Wild Life Sanctuary
5.	Birds (Migratory & Resident)	8.66 lakh 1.41 lakh	2003-04 -do-	Chilka lake Bagagahan ( in Bhitarkanika Sanctuary).
6.	Olive Ridley Sea Turtles	2.01 lakh 2.43 lakh	2003-04 -do-	Rushikulya river mouth Gahirmatha Marine Sanctuary
7.	Dolphin in Chilka	59	-do-	Chilka lake
8.	Black Buck	786	2004	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

6.22 Similipal Sanctuary, which covers 2200 sq km and is covered in the Project Tiger areas, that extends over 2,750 sq kms, 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 kms with a core area of 845.70 sq kms, a buffer of 2,129 sq kms and a transitional zone of 2,595 sq kms.

6.23 As per Tiger Census held in the year 2004, there were 101 tigers 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 22.81% of the elephants in the entire State as per 2002 Census.

6.24 The Bhitarkanika Wild Life Sanctuary and the Bhitarkanika National Park are spread over an area of 672 sq. kms and 145 sq. kms respectively. The Gahirmatha Marine Sanctuary covering an area of 1,435 sq. kms 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 1,358 during the census year 2003-04. Besides, as per 2003-04 Bird Census, 1.41 lakh birds visited the Bagagahan Sanctuary.

6.25 The Chilka (Nalabana) Wild Life Sanctuary was started in December 1987 over an area of 15.58 sq. kms. It is an ideal habitat for migratory birds and also for the endangered Irrawady Dolphin. It attracts migratory birds from far off countries during Winter Season every year. As per census of birds in Chilka Lake 8.66 lakh resident and migratory birds (water fowl) visited the lake during 2003-04.

6.26 Chandaka-Dampara Sanctuary, with 193.39 sq kms 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.

6.27 Nandan Kanan Zoological Park, one of the premier Zoological Park of the country was established in 1960 over an area of 3.62 sq kms for Nandan Kanan Zoological Park and 4.37 sq kms for Nandan Kanan Wild Life Sanctuary. During 2003-04, there were 1109 numbers of animals of 151 species in the Nandan Kanan Zoological Park comprising of 460 mammals of 49 species, 356 birds of 75 species and 113 reptiles of 27 species. These live stocks and birds are being kept in 90 animal houses (Cages-63, Moats-27) and 152 regular staff are taking proper care for them. Tiger Safari, Lion Safari, an Aquarium, Toy Train, Boating and Aerial Rope way are some of the attraction of this Zoo.

6.28 During 2003-04, the flow of visitors to the park was about 13.39 lakh including 892 foreign visitors and an amount of Rs.89.73 lakh revenue was collected as against about 12.76 lakh visitors and revenue collection of Rs.85.68 lakh during the previous year. The park has four tourist cottages and one forest Rest House.

6.29 During 2002-03, by an interim order passed by Hon'ble High Court, Orissa, construction of permanent structures in a radius of 1 K.M. around Nandan Kanan Wild Life Sanctuary was prohibited without the leave of the Hon'ble High Court.

6.30 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, Bhitari Kanika and Nandan Kanan have been covered under the scheme.

### **ECOLOGY AND ENVIRONMENT**

6.31 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 assess 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 mangrove areas of the State.

### ***ENVIRONMENT EDUCATION AND AWARENESS PROMOTION***

6.32 In order to promote awareness for environmental protection and conservation, thirty District Environment Societies, one for each district, have been

constituted under the Chairmanship of District Collectors. The Government have instituted "Prakruti Mitra" and "Prakruti Bandhu" awards for encouraging Voluntary Organisations / Villages / Institutions / Individuals to work in protection of environment. By the end of 2003-04, a total of 369 "Prakruti Mitra" award and 225 "Prakruti Bandhu" awards have been conferred including 19 "Prakruti Mitra" and 19 "Prakruti Bandhu" awards conferred during 2003-04.

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

6.33 The Orissa State Coastal Zone Management Authority constituted by Government of India to enforce the Coastal Zone Management Plan and violations of Coastal Regulation Zone (CRZ) has recommended seven developmental projects including Ports, National High-ways, Air Strip, Crude Oil Pipeline and Fish Landing Centre etc to GOI for CRZ clearance. The Authority reviewed all cases of violations and directed the Collectors to take action against violators.

### ***STATE POLLUTION CONTROL BOARD (SPCB)***

6.34 State Pollution Control Board (SPCB) was constituted in 1983 and is entrusted with the responsibility, to execute and ensure proper implementation of Environmental Acts, particularly Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and various rules framed under Environment (Protection) Act, 1986 as amended from time to time.

6.35 It has taken up two projects i.e. preparation of Environmental Management plan for Bhubaneswar city under Zoning Atlas Cell in collaboration with the CPCB and preparation of environmental status of Cuttack city. It is also monitoring the river water quality under National Water Quality Monitoring Programme (NWQMP) for river Mahanadi, Brahmani, Rushikulya, Nagavali, Subarnarekha and Baitarani and monitoring the ground water quality for Cuttack, Puri and Bhubaneswar city. The Board has seven Ambient Air Quality Stations and monitoring the Ambient Air Quality of Bhubaneswar, Balasore, Sambalpur and Puri cities. The Board has conducted an environmental study and prepared an action plan for abatement of hexavalent chromium pollution in Sukinda Valley and also taken up a study on water quality monitoring of all rivers falling into Chilika lake.

6.36 During 2003-04, the Board has granted 387 'Consent to Establish' new Industries and granted "Consent to operate" to 934 industries in the State. Besides, the Board has granted authorisation to 151 units for management and handling of hazardous waste and to 394 Health Care Units under Biomedical Waste (Management & Handling) Rules, 1948.

6.37 During 2002-03, Government of Orissa had declared the entire State as "Air Pollution Control Area" and accordingly the Board has taken steps to bring all air pollution generating units of the State within its consent administration. Besides, the Board has declared the Puri Municipality, Konark NAC, Nandan Kanan Zoological Park, Bhitarkanika Sanctuary and area surrounding Chilika lake as Polythen free Zone.

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

6.38 The Chilka Development Authority was established in November, 1992 as an autonomous body to attend to various problems of the lake and to ensure its conservation and all-round development. The lake is facing a number of problems that include siltation, shifting of Chilka mouth, loss of salinity, extensive weed growth and depletion of fishery resources.

6.39 Eco-restoration of Chilka Lagoon has been a major activity of CDA. Taking a cue from the encouraging results of the phase-I hydrological intervention, phase-II was designed to improve the circulation by renovation of the Palur canal and extension of Muggermukh channel as per recommendation of the Central Water and Power Research Station, Pune. During 2003-04, about 3.92 lakh cum of distillation was completed and a new bridge was constructed over Palur canal. As a part of community development programme, improvement and maintenance of roads, construction of sanitary latrine, solar street light system have also been undertaken. After opening of the new mouth, there has been continuous improvement in the fishery resources. During 2003-04, 14,000 MT of fish, prawn and crab were landed which is an all time high for Chilka. An integrated strategy of terrestrial and aquatic resource management was adopted with major emphasis on the capacity building at the community level through a series of training and exposure visits.

### ***REGIONAL PLANT RESOURCES CENTRE***

6.40 The Regional Plant Resources Centre (RPRC), a unique institution devoted to preservation and development of plant genetic resources of the State, has been

functioning at Bhubaneswar since March, 1985 as an autonomous body. The RPRC has been doing research in the field of Plant Biotechnology, Molecular Biology, Taxonomy, Cytogenetics, Physiology and Biochemistry, Microbiology, Horticulture, Minor and Aromatic Plants, Fuel wood species and related studies. During 2003-04, the Centre has introduced 54 species of medicinal plants, 44 species of trees, 20 hybrid orchids, 5 species of bamboo, 11 species of palms & more than 100 varieties of ornamentals. The centre has facilities for propagation of plants through tissue culture technique. During 2003-04, 50,000 tissue cultured banana plants, 10,000 budded rose plants, 4000 chrysanthemum from cuttings and 28,000 ornamental plants from leaf cuttings have been produced & hardened in the nursery for planting. The centre has made significant contributions in the field of plant tissue culture, biotechnology and cytogenetics. DNA finger printing and molecular phylogeny of several species have been performed.

### ***CENTRE FOR ENVIRONMENTAL STUDIES***

6.41 Centre for Environment studies, 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 under- taken the following Government of India sponsored projects during 2003-04.

- (i) National Environment Awareness Campaign is being implemented in the State by the CES. Under this programme grants amounting to Rs.31.14 lakh have been sanctioned in-favour of 577 institutions /voluntary organisations for organising environment awareness programmes on the theme “Water Elixir of Life”.
- (ii) As a nodal agency for National Green Crop Programme, the CES has been coordinating the activities of 4,500 Eco clubs formed in schools of the State for spreading environmental awareness among school children and to involve them in some environmental related activities.
- (iii) Under the E.M.C.B., E.N.V.I.S. programme, a data base on “Pollution due to Coal Mines in Orissa” is being developed.

**WORLD FOOD PROGRAMME PROJECT**

6.42 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 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 provisions of drinking water, renovation of old tank etc. through effective collaboration between the Forest Department field staff and local communities. The programme continued during 2003-04 and 3787.11 MT of rice and 352.53 MT of pulses was utilised under the project Welfare funds to the tune of Rs.4.20 crore were utilised for execution of micro projects as approved by S.L.C.C. It is proposed to provide Rs.15.00 lakh in the Annual plan, 2004-05 for the purpose.

**FOOD FOR WORK PROGRAMME**

6.43 During 2002-03, Forest Department undertook implementation of labour intensive work under Food For Work programme by utilising food grains received from Central Government through Panchayatiraj Department and funds received from NCCF and CRF for execution of drought relief and flood restoration works. 19,650 MT of food grains and Rs.3.45 crore were available under SGRY. Out of which 15,125 MT of food grains and Rs.2.56 crore were utilised for Economic plantation, repair of forest roads, creation of water bodies inside sanctuaries and other forests and raising seedlings for distribution during 2003-04. The above resources under the drought relief component and repair / restoration of damaged forest roads was taken up under the flood damage repair component. The complete programme generated about 21,60,783 lakh person days of wage employment.

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