

Department of Environment and Forests

A note for "State Development Report"

FOREST:

As per report on State of Forests (1999) of the Forest Survey of India 92.21% of the 8249 sq.km. of geographical area of Andaman and Nicobar Islands is under forest cover. Out of this about 86% is recorded forests. Of the total recorded forest area of 7171 sq.km., about 2929 sq. kms. (40%) is under Reserve forest and balance 4242 sq. kms. (60%) under Protected forest, comprising wildlife sanctuaries, national parks, tribal reserve and biosphere reserve overlapping with each other.

Following table gives the district wise brief information on forests of Andaman and Nicobar Islands.

(Area in Sq.Km.)

<i>Particulars</i>	<i>Dense Forest</i>	<i>Open Forest</i>	<i>Mangrove</i>	<i>Total</i>	<i>Recorded Forest</i>
Andaman Group of Islands	4864	90	929	5883	5628.62
Nicobar Group of Islands	1651	35	37	1723	1542.07
Total	6515	125	966	7606	7170.69

DISTRICT WISE AND CATEGORY WISE RECORDED FORESTS

<i>DISTRICT/ CATEGORY</i>	<i>RESERVED FOREST</i>	<i>PROTECTED FOREST</i>	<i>TOTAL FOREST</i>
ANDAMAN	2928.76	2699.86	5628.62
NICOBAR	-	1542.07	1542.07
TOTAL	2928.76	4241.93	7170.69

The islands enjoy tropical climate with annual rainfall of more than 300 cm received from southwest and northeast monsoons between April to January. Islands are hilly having highly broken terrain with mainly ridges lying north –south

directions. The coast line extends over 1985 kms. Established on the eastern side highly broken forms bay and harbours

These islands are endowed with a varied animal life. Fauna of Indo china and Indo Malaya regions influences faunal distribution in these islands:

Of the approximately 5357 species of fauna covering all major groups, 487 (9%) are endemic. Endemism is very high in some faunal groups such as birds where 99 of the 284 species and sub species recorded from these islands are endemic 32 of the 62 mammal species, 24 species of the 88 of reptiles endemic species, Marine life comprises more than 1200 spp of fish 350 spp of echinoderms, 197 spp of corals 1000sp of mollusks and many other forms of life.

Of the 1454 taxa of angiosperms 221 are endemic, of these 60 species are only known from type specimens and 22 only from type localities.

The Nicobar Megapode, Narcondum Hornbill, Crab eating Macaque, Nicobar pigeon, White bellied Sea eagle, Salt water crocodile, Giant robber crab, Dolphin, Dugong, Leatherback Turtle, Olive Ridley Turtle, Water Monitor Lizard, Andaman Pig, Reticulate Python are among rare and endangered animal species found in these islands.

To conserve such a vast biodiversity department maintains 9 national parks, 96 wild life sanctuaries, One biosphere reserve and one zoological garden .One biological Park is also coming up at Chidiya tapu.

The coastal areas of this island territory have mangroves (13% of forest area) and is next only to magnificent mangroves of the Sundarbans.

The Environment:

Studies conducted by the Central ground water board, Eastern Region, Calcutta. Central electro chemical Research Institute Chennai and Central

Pollution Control Board, Zonal Office Calcutta have shown that the levels of air, water and noise pollution in these islands are well within the limits.

Pollution Control Committee A&N islands was formally constituted on 24th November 1991. Committee has the Secretary (Science & Technology) as its Chairman, the Director (Science & Technology) as its Member Secretary and seven members which include Head of the Departments of Environment & Forests, Police, Andaman Public Works Department, Port Management Board, Health Agriculture and Industries

Following Acts and rules notified by Central Pollution control Board are being enforced by the Committee in these islands.

1. The Water (Prevention and control of Pollution Act) 1974, as amended up to 1988.
2. The Water (Prevention and Control of Pollution) Rules, 1975
3. The Water (Prevention and Control of Pollution-Procedure for transaction of business) Rules, 1975
4. The Water (Prevention and Control of Pollution) Cess Act 1977,as amended by amendment Act 1991.
5. The Water (Prevention and control of Pollution) Cess rules 1978.
6. The Air (Prevention and control of Pollution) Act, 1981 as amended by the amendment act 1987.
7. The Air (Prevention and control of Pollution) Rules, 1982
8. The Air (Prevention and control of Pollution) Rules, 1983
9. The Environment (Protection) Act, 1986
10. Hazardous Wastes (Management and Handling) Rules, 1989
11. Manufacture, storage and import, export and storage of hazardous Microorganisms Genetically Engineered organisms or cells Rules, 1989.
12. Bio medical waste (Management& Handling) Rules, 1998.
13. Recycled plastics Manufacture and Usage Rules, 1999.

The Coastal Regulation Zone Notification of 1991 under the Environment (Protection) Act, 1986 is being implemented by the Department of Environment and Forests. The Coastal Zone Management Plan has been prepared and is being implemented by the Forest department, Deputy Commissioner and Municipal Council.

Organization :

The Department of Environment and Forests came into existence in 1883 in these Islands and is the nodal department in the administrative structure of Andaman and Nicobar Administration for planning, formulation and implementation of policies and programmes for conservation, protection, utilization and management of the environment, forests and wildlife in the territory.

The main activities of the department are conservation, protection and sustainable development of Forests and Wildlife, regeneration of forests and protection of ecology. These functions are carried out through implementation of forestry programmes on conservation, bio-diversity including Wildlife, Silvicultural research, utilization of forest resources on sustainable principle, capacity building and extension including creation of environmental awareness and enforcement of statutory provisions of National Forest Policy, 1988. Indian Forest Act, 1927, the Wild Life (Protection) Act, 1972, the Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 including the Coastal Regulation Zone Notification of 1991.

EXTENT OF FOREST AREA (CATEGORY WISE) [SQ KM]

Forest Division	Geographical Area	Forests		Total
		Reserved	Protected	
1. South Andaman	1665	1208.28	111.66	1319.94
2. Baratang	721	646.51	--	646.51
3. Middle Andaman	965	53.07	804.05	857.12
4. North Andaman	2325	314.41	1784.15	2098.56
5. Nicobar	1841	--	1542.07	1542.07
6. Little Andaman	732	706.49	--	706.49
Total	8249	2928.76	4241.93	7170.69

The Department of Environment and Forests has been one of the major revenue earners for the territory of Andaman and Nicobar Islands. However, due to the shift in emphasis from Production to Conservation forestry as per latest forest policy timber extraction have been scaled down and regulated the harvesting of timber strictly as per the Working Plan prescriptions and the average annual cut during 2000-2001 was around 70,000 cum which was expected to yield around Rs. 30 crores. However, during 1998-99 onwards there has been significant reduction in the revenue realization due to lesser consumption of timber by major wood based industries because of recession in the timber and plywood market due to import of timber and plywood in the mainland. The Hon'ble Supreme Court of India, vide its Order dated 7.5.2002 on IA No. 502 in WP (Civil) No. 202 of 1995, issued various directions in the matters concerning forest administration and management. The major implications of the order are the following:

- Felling has been stopped in little Andaman.
- All the working plans are to be revised confining the operations to already worked areas..
- No felling is to be carried out to meet needs of local wood based industries. All local requirement of timber are to be met by Govt saw mills.
- All Pre-1978 encroachers are to be settled as per the plan formulated in 1989 and all Post -1978 encroachers are to be evicted. sand mining is to be reduced in a phased manner by 20 % every year to bring it to the level of 33% of present level of mining (2001-2002) within 5 years.
- All approvals granted under Forest (Conservation) Act, 1980 are to be reviewed to restrict the approval to the barest minimum in future, proposals shall be considered only after detailed EIA.

SRATEGY FOR THE FUTURE

Keeping in view the National Forest Policy 1988, National Forestry Action Plan, National Forestry Research Plan, National Wildlife Action Plan (2002-2016), National Biodiversity Strategy and Action Plan for A&N Islands, WTO – UNDP Tourism Plan, Report of Shekhar Singh Commission on State of Forests and Allied matters in A&N islands ,Coimbatore Charter on Environment and Forests issued in the National Conference of Minister of Environment and Forests held during Jan., 2001 in Coimbatore and the order of the Supreme Court, the following important issues have emerged which will play vital role in the perspective plan of forestry and environment sector.

- The commercial orientation of the department has changed with emphasis on biodiversity and wild life conservation.

- The area of operation of the department has been extended into marine ecosystem also consequent to the inclusion of certain shells, sea cucumber and some sharks in the schedule - I of the Wildlife (Protection) Act, 1972.
- Forestry and wild life research activities have been strengthened with collaborative projects on biodiversity characterization, enumeration of medicinal plants, ex-situ conservation of edible nest swift let, coral reef monitoring, mangrove conservation, planting stock improvement etc.
- Environment education is gaining importance through establishment of eco-clubs in association with NGOs.
- Evicted areas to be reclaimed and reafforested.
- Cultivation of bamboo is gaining importance in view of its employment potential, requirement by cottage industries and its potential for replacing the requirement for ballies and posts extracted from the natural forests.
- The protection machinery of the department needs to be strengthened in view of increase in the influx of population, and the biotic pressure on the natural resources.
- In view of the decrease in employment potential in forestry sector, the tourism and fisheries sector need strengthening. Eco-tourism of high value and low volume in forest areas needs to be promoted.
- The joint forest management is to be launched for meeting the requirement of local people for non-timber forest produce in exchange for their role in protection of forests.
- The legal framework for protection of forests needs to be strengthened by providing additional powers to forest officers.

In the next 25 years department plans to continue with these schemes projected under X plan with greater allocation of the fund and bringing the different activities with in the umbrella of 15 major schemes framed under X plan.

Scheme 1 : Direction, Administration and Management of Forests:

Scheme envisages recruitment of staff, establishment of a VHF and HF communication network for improving communication, procurement of vehicle boats, computers including networking for information storage, retrieval, sharing, procurement of arms etc. The scheme also includes creation of technical posts. Number of litigation cases with respect to encroachment over forestland, forest and wild life offences are on the rise. To handle complicated cases as well as to advise field officers on legal matters a full-fledged legal cell with some law professional is planned to be established. Similarly strengthening of newly established Little Andaman division and opening of new functional divisions/sub divisions planned to be taken up during next 25 years.

Scheme No. II - Silviculture & Forestry Research

The Andaman & Nicobar Islands are endowed with a rich bio-diversity due to the presence of variety of flora and fauna. The flora and fauna and the bio-diversity have not yet been thoroughly studied. The State Level Research priorities have been identified in the National Forestry Research Plan prepared by the Indian Council of Forestry Research & Education after conducting workshops in different stages i.e. at State Level, Institute Level and National Level.

On the basis of above Forestry Research Plan, 17 Research Projects have been formulated and each of them is to be carried out over a period of 5-10 years. At present, the following projects taken up in the IX Plan period are in progress:

1. Assessment of Regeneration Status of logged areas
2. Introduction Trial of Solid Bamboos.
3. Genetic Improvement Programme of Padauk.
4. Genetic Improvement Programme of Casuarina.
5. Studies on Seed Biology and Phenology of important tree species.

Besides, the following Research Projects shall be taken up immediately during the X Plan period:

1. Bio-Fertilizer Trials in important Forestry Species.
2. Macro Propagation of important tree species.
3. Comparative study of Selection System and Irregular Shelter wood System.
4. Development of Agro-Forestry Models
5. Regeneration & Development of Medicinal and Aromatic Plants.

The rest of the projects included in the National Forestry Research Plan shall be taken up in the over a period of next 25 years, with each of the project lasting for about 5-10 years, subject to availability of funds.

The following are the projects envisaged:

S. No.	Name of the Project	Period (Years)	Approximate fund required (Rupees in lakh)
1.	Development of Agro-forestry models for Andaman Islands	5	15.00
2.	Development of medicinal and aromatic plants	5	20.00
3.	Genetic improvement of <i>Pterocarpus dalbergioides</i>	10	25.00

4.	Development of Commercial Orchids in Andaman Islands		15.00
5.	Introduction of solid bamboo	5	15.00
6.	Genetic improvement of <i>Terminalia bialata</i>	10	20.00
7.	Studies on Seed Biology of important tree species	5	10.00
8.	Improvement and value addition of Bamboo products of Andaman	5	15.00
9.	Study on the impact of encroachment and habitat fragmentation on the floral and faunal diversity	5	15.00
10.	Establishment of germplasm bank of bamboos and important tree species	5	20.00
11.	Genetic improvement of <i>Dipterocarpus</i> spp.	10	20.00
12.	Assessment of regeneration status of logged areas	5	15.00
13.	Environmental Impact Assessment of Tourism in the Islands	5	15.00
14.	Macro Propagation of important tree species	5	8.00
15.	Bio fertilizer trials in important tree species	5	8.00
16.	Standardization of nursery technique for local spp.	10	10.00
17.	Study on regeneration of canes	5	8.00
18.	Afforestation trials in degraded mangroves	5	20.00

Scheme III : Forestry Training and Education :

The Forest Department runs one Forest training school at Wimberlygunj, which trains newly recruited executive staffs of Forest department and Forest Corporation up to the level of Dy. Ranger. To ensure that proper training is imparted to the forest personnel, it is planned to strengthen the existing training school by supporting staff, and providing equipment and other infrastructure facilities. This Institution shall provide basic education in environment and forest to the PRI members/staff of other departments and students at large. The department envisages to upgrade the institution to the level of Forest Training College which will have the State Forest Library and Information Center connected with the existing National Forest Library and Information Center (NFLIC) at Dehra Dun. This College shall also organize capsule courses for State Forest Service and Indian Forest Service Officers.

Scheme IV : Natural Regeneration and Enrichment of forests:

The scheme envisages regeneration of Forest area harvested through the process of aided natural regeneration to maintain and improve productivity of Forest area. Regeneration of tropical forests of these

islands is done under a Silviculture system called. “Andaman Canopy lifting shelter wood System” which involves tending of advance growth of economically important species through canopy manipulation as well as planting in the gaps for four years till young regeneration gets established.

Certain special sites/patches of forests where natural regeneration is not adequate because of various adverse factors need restocking to improve productivity. The scheme, therefore envisages to undertake enrichment plantation in such areas in next 25 years.

Scheme No. V – Forest Settlement & Consolidation :

The Forest Settlement Unit under the control and supervision of Assistant Commissioner, Forest Settlement is carrying out Survey and Demarcation of Forest Boundaries and consolidation. Besides, the Unit is also carrying out Survey & Demarcation of de-reserved blocks for settlement of pre-1978 encroachments in South, Middle, Mayabunder & Diglipur Forest Divisions. Similarly, Survey & Demarcation of de-reserved blocks is to be carried out in Baratang Forest Division and Little Andaman. Further, intentions were notified under Section 6 of the Indian Forests Act, 1927 to constitute some of the forest areas in Middle Andaman, Mayabunder, Diglipur and Nicobar Divisions as Reserve Forests.

So far, Survey & Demarcation work has been carried out in South Andaman and the work has been completed except a few blocks. Similar work has been taken up in Baratang, Middle Andaman & Diglipur Forest Divisions. In Baratang, though the Survey & Demarcation work was taken up but further work has been suspended due to certain disputes. The work will be taken up after settling the dispute. The Survey and Demarcation work in Middle Andaman and Diglipur Divisions are in progress. Due to limited strength of executive staff the progress of Survey and Demarcation work is very slow. In order to speed up the work and complete the Survey and Demarcation and Consolidation of the forest boundaries in all the Divisions during the X Five Year Plan, the strength of survey trained executive staff need to be increased so that work can be taken up simultaneously in different divisions on war footing basis.

The recommendations of the National Workshop on Forest Boundary Management shall be implemented. The important recommendations of the National Workshop which need to be implemented under this Scheme in the next 25 years are as under:

1. The Forest Settlement Process needs to be expedited.
2. Creation of Land Cell in the Forest Department.
3. A comprehensive Forest Land Record System is to be established. .

4. Reconciliation of revenue records with forest Notifications is to be carried out.
5. Modern Technology viz. GIS shall be utilized for maintaining Forest Land Records.
6. Human Resource Development and Capacity Building for Forest Boundary Management will be given due importance.

Scheme No. VI – Forest Resources Survey & Working Plan

There are 7 Territorial Divisions in Andaman & Nicobar Islands. For the management of the Forests, each Division requires a Working Plan. .

In view of the Hon'ble Supreme Court's order dated 7 May 2002 in IA 502 of WP (1) 302 of 1995, all the existing Working Plans have to be re-worked and revised Working Plan for each division is to be submitted to the Hon'ble Supreme Court for approval. In pursuance of the Hon'ble Supreme Court's said Order, the Working Plan for South Andaman Forest Division has been re-worked and a revised Working Plan has already been submitted to the Hon'ble Supreme Court and approval is still awaited. Similarly, the existing Working Plan, which expires on 31 March 2003, is also being re-worked and revised Working Plan will be submitted to the Hon'ble Supreme Court by May 2003 for seeking approval. In the meanwhile, fieldwork for revision of the existing Working Plan for Mayabunder Division has been taken up and the work is in progress. Action will be taken to revise the existing Working Plans for Diglipur and Baratang Divisions.

As per Hon'ble Supreme Court's above order, the felling of trees from the forests of Little Andaman has been suspended. As such, Working Scheme is proposed to be prepared for Little Andaman Division for collection of non-timber forest produce like cane, bamboo, ballies and thatching leaves etc. to meet the requirement of the villagers and other local inhabitants.

Similarly, in the case of Nicobar Division, a Working Scheme is envisaged for similar purpose as in the case of Little Andaman, since no timber is proposed to be harvested. Moreover, major portion of the Division is under Tribal Reserve, National Parks, Sanctuaries and Biosphere Reserve.

Working Plan is prepared for a period of 10 years, field work for revision of the Working Plan has to be taken up from the 8 year onwards so that revised Working Plan for the next 10 years, duly approved by the competent authority, is available for implementation immediately on expiry of the last Working Plan.

Scheme VI : Development of Non-Timber Forest Produce :

Availability of Non timber forest products, viz, cane, bamboo etc for domestic consumption as well as for small scale industries is becoming scarce with increase in demands. These non-timber forest resources are required to be regenerated by undertaking plantation of the same. The scheme envisages raising of 5000 hect. of cane and bamboo plantation during next 25 years @ 200 Ha. per annum.

It is estimated that potential cane bearing areas extend to only 30000 ha. in Andaman group of islands. If systematically collected and properly managed cane areas get restocked in five years. The availability of cane on sustained basis is tentatively estimated at 18 lakh metre/year from the potential cane bearing areas. There are 62 permanently registered cane units in these islands, dependent on these canes.

There are five species of bamboos found in these islands but all of them are hollow and thin walled. The scheme envisages raising of bamboo plantations, not only of the local bamboo species but also of the solid bamboos from mainland, which are useful as structural materials, value addition items, and can replace ballies and poles, collection of which cause degradation in free forests. Commercial utilization of Gums, Resins (White dhup), Tan and Dyes (Mangroves), and Honey shall also be explored in the next 25 years

Scheme No. VIII - Social Forestry, Agro Forestry & Extension Forestry

Presently, the Social Forestry Cell is carrying out following activities in and around Port Blair Town:

1. Raising of Road side plantations.
2. Raising of plantations on waste land/ vacant land
3. Raising of coastal belt plantations
4. Raising of nurseries of flowering, fruit bearing plants for above plantations and for distribution to the public and Govt. Depts. / Institutions/ Organizations.
5. Maintenance of plantations of previous years.
6. Publicity and extension work for bringing awareness about the environment and forests.
7. Celebration of various important National and International Days declared by UN/ Union Govt.

Apart from these activities, few more activities are to be taken up in the next 25 years.

1. Urban Forestry.
2. Road side plantation.
3. Block plantation for fuel wood
4. Bamboo Plantation
5. Agro-Forestry
6. Publicity
7. Growing Medicinal Plants on farmers land

Scheme IX : Forest Utilisation:

The timber extraction is carried out departmentally by the Department of Environment and Forests. The departmental timber extraction activity is also funded under Plan scheme and is essential for ensuring scientific harvest of timber and for facilitating follow up regeneration works in the harvested area. Provision to harvest about 30000 cum is made under this scheme, which includes procurement of extraction equipments and maintenance of the existing machinery, boats etc. and creation of additional manpower. Sale of timber is one of the major sources of revenue for this Union Territory. Besides, to prevent illicit extraction of timber and ensure fulfillment of silvicultural requirements, harvesting of timber is required to be done departmentally. Therefore, to strengthen our infrastructure for timber extraction, additional funds shall be required under this scheme in the next 25 years once the working plans are approved by the Supreme court as per the order passed on 7.5.2002

Scheme X : Communication & Buildings :

The scheme envisages construction of fair weather roads for transportation of logs from the forest to road depot/Ghat depot and for connecting regeneration areas in remote forest areas. During the five year plans it is proposed to construct about 60 kms of fair weather road in each five year plan to take out harvested timber from the interior forest area to all weather road depots for quick disposal of timber how ever this will largely depend up on the approved working plans.

The Department of E&F has its activities spread over the entire territory, covering some of the most remote and far-flung islands. The workers and the staff posted in such islands have to be provided with basic facilities like housing etc. and therefore the department proposes to construct various types of residential accommodation/office buildings in the various places in next 25 years

Scheme XI: Bio-diversity, Wildlife Conservation & Eco-Development: Future Management Strategies :

Future management strategies are guided by the Wildlife (Protection) Act, Wildlife Action Plan, Eco-tourism guidelines of Govt. of India and directions issued by Supreme Court.

Future thrust areas for wildlife management are as follows:

Protection :

Protection will be the main thrust area. Prevention of poaching and control of illegal trade in Wildlife, its derivatives, and parts in the entire PAs and outside will be topmost priority of Department.

Management Plan:

For the proper management of National Parks and Sanctuaries, management plan have to be prepared for all/major National Parks and Sanctuaries. The Management plan prepared earlier for a few National Parks and Sanctuaries like Cuthbert Bay, Mount Harriet etc. have expired. Management plan for Mount Harriet, Cinque Island, MGMNP, Cuthbert Bay have been initiated. There is need of Management Plan Officer (MPO) exclusively for writing the management plan for the National Park and Sanctuaries.

Infrastructure development:

Under this programme reorganization of forest staff according to the new protection plan will be made in each base camp and made into viable units and arm them with sophisticated weapons and other equipment to combat poaching and illicit trade effectively. Mobility and communication facility will be increased by procuring of high-speed sea worthy vessels, vehicles and wireless networking including high frequency wireless equipments. Accommodation and amenities to staff will also be provided.

Capacity building:

Capacity development of staff by imparting training and improving capabilities of individuals.

Eco-development :

Under this programme Department will be providing assistance and promoting involvement of local communities in protection and conservation measures.

Research Survey and Monitoring:

Under this programme while preparing management plan for PAs research priorities for each PA will be made for 5-year period based on the part of conservation needed.

Management of Biological Park Chidiyatapu :

Biological Park is coming up at Chidiyatapu. It will house wildlife found in these islands will veterinary facilities, interpretation Centre and public facilities-Management of zoo animals will be done on modern lines.

Education and Awareness:

Under this programme the main priority will be creating awareness on the need of conservation and management wildlife and their habitats/eco-system.

Eco Tourism:

Under this programme apart from the existing facilities provided for the tourists in the protected area of south Andaman especially Chidiya Tapu, Mahatma Gandhi Marine National Park, Mount Harriet, Cinque Islands etc where more facility will be upgraded. Six potential circuits have been proposed for promotion of eco-tourism.

- South Andaman Circuit
- Baratang- Ritchie's Archipelago Circuit
- Long Island Circuit

- Mayabunder Circuit
- Diglipur Circuit
- Little Andaman Circuit.

Scheme XII : Improvement of Govt. Saw Mills:

Machinery of Chatham and Betapur Saw Mills have become obsolete due to tear and wear because of which production is adversely affected. It would need modernization and renovation both in respect of machinery, timber yards, gantry and buildings to improve its efficiency and out put. Therefore it is proposed to replace the existing unproductive and uneconomical machinery with the new ones in a phased manner. To comply with the direction of the order of the court additional plants are being set up to meet out the local demand of treated timber in the islands. To minimize the waste and to utilize the sawdust appropriate technology be used in the next 25 years.

Scheme XIII : Protection of forests and coastal eco-system :

At present, the existing machinery is inadequate to provide effective protection particularly to counter the frequent threats from foreign poachers. Under the scheme the department plans to improve protection activity and augment the mobility, communication and arms available with the staff engaged in protection of forests and wildlife, with latest technology. As such the department may procure more vehicles like Gypsy (Jeep), Arms and Ammunitions and communication network (like VHF sets etc.) under this scheme for protection of forest from the poachers.

Scheme XIV : Conservation of Mangroves :

Mangroves cover an area of 966 sq.kms. in these islands. Whereas most of the mangrove areas in these islands are in pristine condition, there are certain areas where mangroves were degraded due to biotic pressure. However under the Scheme it is planned to have a management action plan for conservation of mangroves in Andaman and Nicobar Islands for next 25 years. Under this action plan entire mangrove area of Andaman and Nicobar Islands will be surveyed and eco-restoration work will be taken up in the identified degraded areas. Educating the people and conserving this natural heritage shall be a regular feature of this scheme in the next 25 years

Scheme XV : Eco-Tourism :

The landscape of Andaman & Nicobar Islands has tremendous potential for promoting eco-tourism. As a measure to conserve and bring awareness among the local people and the tourists towards ecology and environment of these islands, the Department has a separate scheme for Eco-Tourism in the X Five Year Plan. Department shall open forest areas for this purpose in the next 25 years. Interpretation Centre, Bird Watching, Trekking through nature trails,

cruise through creeks bordered by mangroves and camping facilities will be provided to develop eco-tourism.

The details of the schemes during the X five year plan and annual Plan 2002-03 is furnished below as an illustrations. Under IX Five Year Plan, the Department of Environment & Forests had implemented 16 schemes. At the time of formulation of X Plan, one of the schemes was dropped and these schemes were merged with other schemes reducing the number of schemes to 12. In addition, 3 new schemes have also been added. The details of the schemes are given below.

Outlay of X Five Year Plan (As per the new allotment by the Administration)

(Rs. in lakhs)

<u>Sector</u>	<u>Outlay of continuing schemes</u>	<u>New schemes</u>	<u>Total</u>	<u>Salary component on committed expenditure of IX Plan</u>
<u>Forestry & Wildlife sector</u>	<u>6541.50</u>	<u>701.50</u>	<u>7243.00</u>	<u>780.88</u>

Outlay of Annual Plan 2002-03 (As per the allotment by the Administration)

(Rs. in lakhs)

<u>Sector</u>	<u>Outlay of continuing schemes</u>	<u>New schemes</u>	<u>Total</u>	<u>Salary component on committed expenditure of IX Plan</u>
<u>Forestry & Wildlife sector</u>	<u>1092.50</u>	<u>103.50</u>	<u>1196.00</u>	<u>140.60</u>

New Schemes:

(Rs. in lakhs)

<u>S.No</u>	<u>Name of the Scheme</u>	<u>Xth Plan 2002-07</u>	<u>APO 2002 03</u>
<u>1.</u>	<u>Protection of Forests & Coastal Eco-System</u>	<u>289.00</u>	<u>46.00</u>
<u>2.</u>	<u>Conservation of Mangroves</u>	<u>129.00</u>	<u>27.00</u>
<u>3.</u>	<u>Eco-Tourism</u>	<u>283.50</u>	<u>30.50</u>
	<u>Total</u>	<u>701.50</u>	<u>103.50</u>

Continued schemes
(Rs. in lakhs)

<u>S.No.</u>	<u>Name of the Scheme</u>	<u>Xth Plan 2002-07</u>	<u>APO 2002-03</u>
<u>1.</u>	<u>Direction, Administration & Management of Forests</u>	<u>1058.27</u>	<u>140.00</u>
<u>2.</u>	<u>Silviculture and Forestry Research</u>	<u>166.55</u>	<u>26.00</u>
<u>3.</u>	<u>Forestry Training and Education</u>	<u>109.32</u>	<u>21.50</u>
<u>4.</u>	<u>Natural Regeneration and Enrichment of Forests</u>	<u>799.40</u>	<u>146.50</u>
<u>5.</u>	<u>Forest Settlement and Consolidation</u>	<u>176.15</u>	<u>33.40</u>
<u>6.</u>	<u>Forest Resources Survey and Working Plan</u>	<u>170.65</u>	<u>30.50</u>
<u>7.</u>	<u>Harvesting and Development of Non-Timber Forest Produce</u>	<u>286.60</u>	<u>50.60</u>
<u>8.</u>	<u>Social forestry, Agro-Forestry and Extension Forestry</u>	<u>372.60</u>	<u>72.60</u>
<u>9.</u>	<u>Forest Utilization</u>	<u>1293.96</u>	<u>226.00</u>
<u>10.</u>	<u>Communication and Buildings</u>	<u>484.70</u>	<u>74.20</u>
<u>11.</u>	<u>Bio-diversity and Wildlife Conservation and Eco-Development</u>	<u>1246.53</u>	<u>235.20</u>
<u>12.</u>	<u>Improvement of Govt. Sawmills</u>	<u>376.77</u>	<u>36.00</u>
	<u>Total</u>	<u>6541.50</u>	<u>1092.50</u>

In the X Five Year Plan, the emphasis of the Forestry & Wildlife sector is on Biodiversity & Wildlife Conservation and Strengthening of the Direction, Administration & Management of Forests. An existing Network of VHF will be strengthened and HF Network will be installed to cover Nicobar District also. In view of the increase in the area of operation due to changes in the Wildlife (Protection) Act including marine fauna in the schedule, it is proposed to procure 2 MS Act compliant fast patrolling boats.

Due to the increasing pressure on the forests from the expanding population, the department proposes to improve the protection network under new scheme titled "Protection of Forests and Coastal Eco-System". This territory has a long coastline and is rich in mangroves, which are required to be conserved. Conservation of mangroves is essential to protect the land from erosion and also for the survival of many marine species, which is a major source for food for the islanders. Therefore, a new scheme for "Conservation of Mangroves" has been included

These islands are endowed with rich tropical forests and unspoilt beaches, which offer scope for low volume, high value eco-tourism aimed at promoting education and appreciation of nature. Eco-tourism in these islands can also ensure employment to a large number of islanders. In order to promote eco-tourism in selected circuits, a new scheme of “Eco-tourism” has been included. All the other schemes are continuing schemes related to the normal functioning of the department such as Direction, Administration & Management, Silviculture, Training, Natural Regeneration, Forest Settlement, Resources Survey & Working Plan, Harvesting & Development of Non-timber Forest Produce, Social Forestry, Forest Utilization, Communication & Buildings, Biodiversity & Wildlife Conservation and Improvement of Govt. Sawmills. A proposal for the procurement of 1 No. LCT is also made in the Xth Five Year Plan.

The Hon’ble Supreme Court of India has ordered to revise all the working plan of the territorial division and a committee has been constituted with two experts to prepare working plan of all the territorial division. Additional manpower with mobility and fund will be provided to ensure drafting of working plan within the stipulated period.

ANDAMAN AND NICOBAR ADMINISTRATION							
DEPARTMENT OF ENVIRONMENT AND FORESTS							
SUMMARY OF THE TWENTY FIVE YEARS PLAN							
S.No	Name of the item	Financial Projection				Total Fund Requirement in lakh Rupees	
		1st Five Year Period	2nd Five Year Period	3rd Five Year Period	4th Five Year Period	5th Five Year Period	
1	Improved Protection of Forests, Mangrove and Marine Eco-system.	2762.35	3965	3977	3991.4	4008.68	18704.43
2	Meeting the local need of timber and other Forest Produce	725	198	346	179	350	1798
3	Regeneration & Management of Natural Forests	900	450	507.5	564.25	630	3051.75
4	Survey Demarcation & Consolidation of Forest Boundary	189	126				
5	Conservation & Development of NTFP including Bamboo Can & Medicinal Plants through JFM, Farm Forestry	505	325	225	175	175	1405
6	Preparation of Management Plan Documents for Forest & Protected Area	265	140	315	160	390	1270
7	Promotion of Eco tourism and Environmental awareness	73	85.5	77.81	82.5	58	376.81
8	Forest Research and Development	26	42	65	28	31	192
9	Strengthening of Forest & Environmental Administration & Monitoring	210	78	122	39	39	488
	TOTAL						27285.99
					Rs.in Lakh		27286

*Physical and Financial Projections are in addition to the regular committed expenditure on establishment

IMPROVED PROTECTION OF FOREST, MANGROVE & MARINE ECOSYSTEM

S. No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			Phy	Fin (lakh)	Phy	Fin (lakh)	phy	Fin (lakh)	phy	Fin (lakh)	phy	Fin (lakh)
1	<i>INFRASTRUCTURE IMPROVEMENT</i>											
a	Creation of Protection beats	327	96	9.6	0		0		0			
b	Creation of Marine beats	0	26	2.5	2		2		2		2	
c	Formation of Forest Station	0	23	46	0		0		0		0	
d	Construction of the office building	40	25	250	5	60	5	72	5	86.4	5	103.68
e	Construction of the residential building	50	85	850	35	3500	35	3500	35	3500	35	3500
f	Procurement of light Motor Vehicles	8	15	75	5	25	5	25	5	25	5	25
g	Procurement of Jeeps	30	20	100	10	50	10	50	10	50	10	50
h	Procurement of Seaworthy M S Act Compliant Vessels	0	1	200	1	200	1	200	1	200	1	200
i	Procurement of Fast patrolling Boats	0	50	500	10	100	10	100	10	100	10	100
j	Procurement of VHF sets	60	250	125	50	25	50	25	50	25	50	25
k	Procurement of Arms	10	50	25	10	5	10	5	10	5	10	5
2	<i>MANPOWER</i>											
a	Group A	33	3	10								
b	Group B	140	35	60								
c	Group C	1358	414	414								
d	Group D	415	127	95.25								
				2762.35		3965		3977		3991.4		4008.68

Total projected requirement of fund in lakh

Rs.18704.43

REGENERATION & MANAGEMENT OF NATURAL FOREST

S No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin	Phy	Fin
1	Creation of NRA (ha)		5000	100	5000	120	5000	140	5000	160	5000	180
2	Enrichment Plantation/ Afforestation of Evicted encroachment area (ha)		4000	800	1500	330	1500	367.5	1500	404.25	1500	450
			900		450		507.5		564.25		630	

Total Requirement of fund in
lakh Rs.

3051.75

SURVEY DEMARCATION & CONSOLIDATION OF BOUNDARY

S No.	<u>Activities</u>	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin500
1	Survey of the Boundary (Km)	547	300	9	200	6						
2	Erection of Boundary Pillars	8468	6000	180	4000	120						
				189		126						

Total requirement of fund
in lakh Rs.

315

CONSERVATION & DEVELOPMENT OF NTFP INCLUDING BAMBOO CANE & MEDICINAL PLANTS THROUGH JFM, FARM FORESTRY

S No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)
1	Bamboo Plantation in the Forest Area	713	1500	150	1500	150	1500	150	1500	2500	1500	150
2	Bamboo Plantation in the Non Forest Area		1000	100	1000		1000		1000		1000	
3	Cane Plantation	713	750	75	750		750		750		750	
4	Medicinal Plantation		25	25	25	25	25	25	25	25	25	25
5	Formation of VFC	0	25	25	25	25	25	25				
6	Formation of JFM committee	0	25	25	25	25	25	25				
7	Formation of FDA	0	2	5								
8	Establishment of Modern Nurseries	0	10	100	10	100						
				505		325		225		275		175

Total requirement lakh Rs. 1405

PREPARATION OF MANAGEMENT PLAN DOCUMENTS FOR FOREST & PROTECTED AREA

S No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
		Phy	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)
1	Revision of Working Plans	1	4	200	2	100	5	275	2	120	5	350
2	GIS & remote sensing	1	3	15	2		1					
3	Preparation of the management Plan of the protected areas	0	20	40	20	40	20	40	20	40	20	40
4	Survey of Flora & Fauna & Habitats	0	2	10								
				265		140		315		160	390	

**TOTAL REQUIREMENT
OF FUND IN Lakh Rs.**

1270

PROMOTION OF ECOTOURISM AND ENVIRONMENTAL AWARENESS

S No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			phy	fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)	Phy	Fin(lakh)
1	Procurement of the Tentage accommodation	8	16	16	30	33	5	10	5	10	5	10
2	Starting of elephant Safaries	0	2	2	2	2.5	2	4	2	4	2	4
3	Laying of Nature trails	1	5	5	5	5.5	5	10	2	4	2	4
4	Establishment of interpretation centre	2	2	10	2	12.5	2	15	2	17	1	10
5	Purchase of motor Launch	0	1	10	1	15	1	20	1	25		
6	Purchase of small Boats for movement in Creeks and Harbour limits	24	30	30	15	17	15	18.81	15	22.5	15	30
				73		85.5		77.81		82.5		58

Total requirement of Fund in Lakh Rs. 376.81

FOREST RESEARCH

Sr No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			phy	fin(lakh)	phy	fin(lakh)	phy	fin(alkh)	phy	fin(lakh)	phy	fin(lakh)
1	Vegetative propogation complexes		1	10	1	12	1	15	1	18	1	21
2	Orchidarium		1	6	2	15	3	30				
3	Silviculture & associated research projects as per National Forestry Research action plan		2	10	2	15	2	20	2	10	2	10
				26		42		65		28		31

Total requirement of fund in lakh Rs. `

192

STRENGTHENING OF FOREST & ENVIRONMENTAL ADMINISTRATION

S No.	Activities	Present Status	1st Five Year		2nd Five Year		3rd Five Year		4th Five Year		5th Five Year	
			phy	fin	phy	fin	phy	fin	phy	fin	phy	fin
1	Ensuring effective & transparent governance structure & Enforcement											
a	Opening of enforcement cell		1	1	2	3						
b	Establishment of separate public grievances cell at all administrative level above range		5	5	8	16	30	60				
2	Responsive Administration & Monitoring											
a	Video Conferencing facility at divisional & circle level		5	15	6	20	5	23	5			
b	Establishment of touch screen kiosks		2	4	2	4	2	4	2	4	2	4
3	e-governance											
a	Computer Networking (At Divisional Level & circle level)		5	10	5	10	5	10	5	10	5	10
b	Linking of the Divisions & circle with the head quarter with dedicated lines		5	10	5	10	5	10	5	10	5	10
c	Computer Linking of the ranges with the headquarter with dedicated lines		5	10	5	10	5	10	5	10	5	10

4	Capacity Building, Training etc											
a	Construction of Forest training school building		1	100								
b	Construction of Guest House		1	50								
c	Providing Laptop & GPS at the divisional level		5	5	5	5	5	5	5	5	5	5
				210		78		122		39		39
Total requirement of Fund in Lakh Rs.				488								



