



ENVIRONMENTAL IMPACT ASSESSMENT

[Expert Committee(s) and status of appraisal of development projects, Studies and Research projects for amendments to EIA Notification, CRZ Notification 1991, Integrated Coastal Zone Management Plan Preparation]

All developmental activities use natural resources as raw material and the wastes generated are disposed into different environmental media. The signs of stress on the scarce natural resources are evident from the deteriorating air quality, soil degradation, polluted rivers and streams and in the general status of environment in various regions. It is now well recognized that, for sustainable development and optimal use of natural resources, environmental considerations are required to be integrated in planning, designing and implementation of development projects. The envisaged benefits from development projects cannot be fully realized unless they are environmentally and socially sound and sustainable.

Environmental Impact Assessment (EIA) is one of the proven management tools for incorporating environmental concerns in development process and also in improved decision making. The growing awareness, over the years, on environmental protection and sustainable development has further given emphasis on sound environmental management practices through preparation of Environmental Management Plans (EMPs) for minimizing the impacts from developmental activities.

The program of EIA, in vogue in the Ministry for the last two decades was initiated with the appraisal of River Valley Projects. The scope of appraisal was subsequently enlarged to cover other sectors like industrial projects, thermal power plants, mining schemes and infrastructure projects. To give legislative status to the procedure of impact assessment, EIA was made mandatory since January 1994 for thirty categories of development activities.

Keeping in view the current developments in the field of the environmental impact assessment for prediction and analysis, the Questionnaires for EIA were updated and published for various sectors. Further, for facilitating preparation of quality EIA reports, a Manual on EIA has been prepared which is also useful to apprising agencies and decision makers, both at Central and State levels. Ministry has initiated a number of activities to streamline the appraisal process in terms of simplification of procedures, involvement of stakeholders through public hearing, regular meetings of Expert Committees etc. This has resulted in expeditious decision on development projects. Some amendments have been made in the

EIA and Coastal Regulation Zone (CRZ) Notifications based on consultations with all the stakeholders.

Expert Committees and status of appraisal of development projects

Under the provisions of EIA Notification of January 1994, various Expert Committees have been constituted for different sectors for appraisal of projects received for environmental clearance. These Committees were reconstituted in February 2002. Table-7 and Table-8 reveal sector wise details of appraisal of projects.

Appraisal of Ex-post facto projects

Industrial Projects

A total of 249 proposals were received from defaulting units seeking ex-post facto environmental clearance by the final deadline of March 31, 2003. Preliminary appraisal was undertaken for all such proposal to ensure adequacy of documents received.

Mining Projects

During the year a total of 198 proposals of mining projects for availing ex-post facto environmental clearance have been received, in addition to thirty seven routine cases. Preliminary appraisal was done for all 235 projects received during the year. Of the 198 ex-post facto proposals received, a total sixty seven ex-post facto projects (thirty six complete and twenty nine incomplete

projects) were appraised in detail. All the thirty seven routine (non ex-post facto) projects proposals were also appraised in detail. In addition, 35 pending projects carried forward from 2002 were also appraised. Thus, a total 138 projects were appraised in detail for environmental clearance and of these, in 103 projects clarification/submission of additional information have been sought from the project proponent. A total of 15 projects were accorded environmental clearance and the remaining 20 are under process for orders. In addition, 31 projects were accorded site clearance during the year.

Studies and Research Projects

To facilitate formulation of policies and evolve guidelines in various development sectors, studies have been undertaken in specific areas. Progress on some of the studies is reported below.

Carrying Capacity Study of Teesta Basin in Sikkim

At the instance of this Ministry, a study on Carrying Capacity of Teesta Basin in Sikkim has been initiated in the year 2001 sponsored by the National Hydro Electric Power Corporation (NHPC) and coordinated by the Centre for Inter-disciplinary Study of Mountain and Hill Environment (CISMHE), Delhi University. The study would help in formulating guidelines for overall development of Teesta Basin. The Ministry has set up a Steering Committee to monitor and review the progress of the project. The second meeting of the Committee was held in New Delhi on 04.09.2003. The Committee

Table-7
Committee Meetings

Sl. No	Expert Committe	Number of Meetings	Total number of project considered
1	Industry	15	134
2	Thermal Power	04	13
3	River Valley & Hydro Electric	07	25
4	Mining	08	42
5	Infrastructure and Miscellaneous	11	52
6	Nuclear	01	01

Table-8
Status of development projects from January, 2003 - March, 2004

Sl. No	Nature of the project	Projects pending at the beginning of the year	Projects received during the year	Projects cleared during the year	Projects closed/ rejected/exempted /returned during the year	Projects pending at the end of the year
1	Industrial	67	275	220	286	94
2	Thermal Power	10	15	05	04	16
3	River Valley and Hydroelectric Projects	10	26	16	07	13
4	Mining	35	83	19	26	73
5	Infrastructure & Miscellaneous	24	89	54	07	52
6	Nuclear Power	01	--	01	--	00
Total		147	448	315	72	248

was satisfied with the work of the project and recommended that the remaining study be completed within next one year.

Streamlining of Clearance procedures

EIA Notifications

- Mining proposal involving major minerals with lease area more than five ha. in areas covered by the Aravalli Notification has been brought under the purview of EIA Notification, vide Gazette Notification No. S.O. 248(E) dated 28th February 2003.
- Widening and strengthening of existing canals with land acquisition upto a maximum of 20 metres (on both sides put together) along the existing alignments provided such canals do not pass through ecologically sensitive areas has been exempted from the purview of EIA Notification, vide Gazette Notification No. S.O. 506 (E) dated 7th May 2003.
- The distance criteria, which was 25 kms in case of reserved forests and ecologically sensitive areas, and 50 kms in case of interstate boundary has been reduced to 15 kms in both the cases as per Gazette Notification No. S.O. 891 (E) dated 4th August, 2003. As a result power projects of co-generation plants, captive power plants upto 250 MW (both

coal and gas/ Naptha based), coal based plants upto 500 MW using fluidized bed technology, coal based power plants upto 250 MW using conventional technology gas / naptha based plants upto 500 MW and not falling within a critically polluted area; or within a radius of 15 kms of boundary of reserved forests, ecologically sensitive areas in any state can be considered and accorded environmental clearance by the state governments themselves.

- Environmental site clearance made mandatory for mega projects such as green field airports, petrochemical complexes and refineries; in item 4 of schedule 1; isolated petroleum product storages have been included along with Petroleum refineries including crude and product pipelines; and Public Hearing has been exempted for offshore exploration activities, beyond 10 km from the nearest habitated village boundary, goothans and ecologically sensitive areas such as mangroves (with a minimum area of 1000 sq. m.), coral reefs, national parks, marine parks, sanctuaries, reserve forests and breeding and spawning grounds of fish and other marine life ; vide Gazette Notification No. S.O. 1087 (E) dated 22nd September 2003.
- Draft Notification inviting suggestions / objections from all concerned including the members of public on the proposed amendment in the EIA Notification 1994 has been issued on 27.10.2003 vide S.O. No.

1236 (E). The Notification aims to include new projects relating to construction of townships, industrial townships, settlement colonies, commercial complexes, hotel complexes, hospitals, office complexes for 1,000 persons and above or discharging sewage of 50,000 liters/day and above or with an investment of Rs. 50 crores and above and new industrial estates having an area of 50 hectares and above and the industrial estates irrespective of area if their pollution potential is high, are proposed to be brought under the purview of Environment Impact Assessment Notification. The suggestions and objection received in response to the draft notification is under examination.

- In order to improve the environmental clearance process and to make it more effective and time found, the Ministry of Environment & Forests has undertaken a review of Environmental clearance under the World Bank assisted Environmental Management Capacity Building (EMCB) project.

Coastal Regulation Zone Notification, 1991

For the purpose of protecting and conserving the coastal environment the Ministry had issued the Coastal Regulation Zone (CRZ) Notification, on 19th February, 1991, declares coastal stretches of seas, bays, estuaries, creeks, rivers and back waters which are influenced by tidal action (on the land ward side), up to 500 metres from the, high tide line and the inter-tidal zone as the Coastal Regulation Zone. This Notification was issued under Section 3(1) and Section 3(2) (V) of the Environment (protection) Act, 1986 and Rule 5(3)(d) of the Environmental (Protection) Rules, 1986. The Notification imposes restrictions on the: setting up and expansion of industries and operations or process etc., in the Coastal Regulation Zone

Coastal Zone Management Plan

For the purpose of protecting the marine and coastal environment of India, the Government of India has issued a Coastal Regulation Zone Notification, 1991, which regulates developmental activities within 500 mts from the high tide line and the inter tidal region of the country. All 13 Coastal States / Union Territory Governments have prepared Coastal Zone Management Plans demarcating ecologically sensitive areas, built up areas and rural regions. For the purpose of enforcing the provision of the notification the Ministry has constituted

National and 13 state level Coastal Zone Management Authorities.

The Ministry taking note of the experiences of other developed countries and lessons learnt from implementing the Coastal Regulation Zone notification 1991 for a decade and, further, keeping in view the socio-economic issues and developmental needs, the Ministry has embarked upon preparation of an Integrated Coastal Zone Management Plans.

The activities initiated in this regard are :

Integrated Coastal Zone Management Plan Preparation

As a first step, Integrated Coastal Zone Management Plan (CZMP) preparation have been initiated for Andaman and Nicobar and Lakshadweep islands through scientific institutions viz, Institute of Ocean management, Anna University, Chennai and Centre of Earth Science Studies, Thiruvananthapuram respectively.

Under this project twenty inhabited islands of Andaman group of Islands have been selected for developing ICZM Plans based on the status of environment, socio-economic conditions and development potentials. The ICZM report on 13 islands have been submitted to the Ministry. This study considered the constraints to the development in coastal area of the inhabited islands and recommends relaxing the No. development zones of the islands. To prioritise the developmental activities the following Islands have been recommended for tourism sector : 1) Cinique 2) Havelock 3) Neil 4) Rutland 5) North Passage 6) Long Island and 7) Ross and Smith Islands.

In case of Lakshadweep ten uninhabited islands have been studied by Centre for Earth Science Studies. The islands are Agatti, Amini, Androth, Bangaram, Bitra, Chetlat, Kadamat, Kalpeni, Kiltan and Minicoy. The Integrated Coastal Zone Management Plan preparation for Lakshadweep intends to :

- Preserve the functional integrity of the islands ecosystem
- Reduce the resource / or issue based conflicts arising out of developmental activities in and around the island
- Minimize damages to the coral ecosystem for the sustenance of the islands

The land use map of one of the island of South Andaman and Kavaratti Island along with the details is at Fig. 46 & 47 respectively.

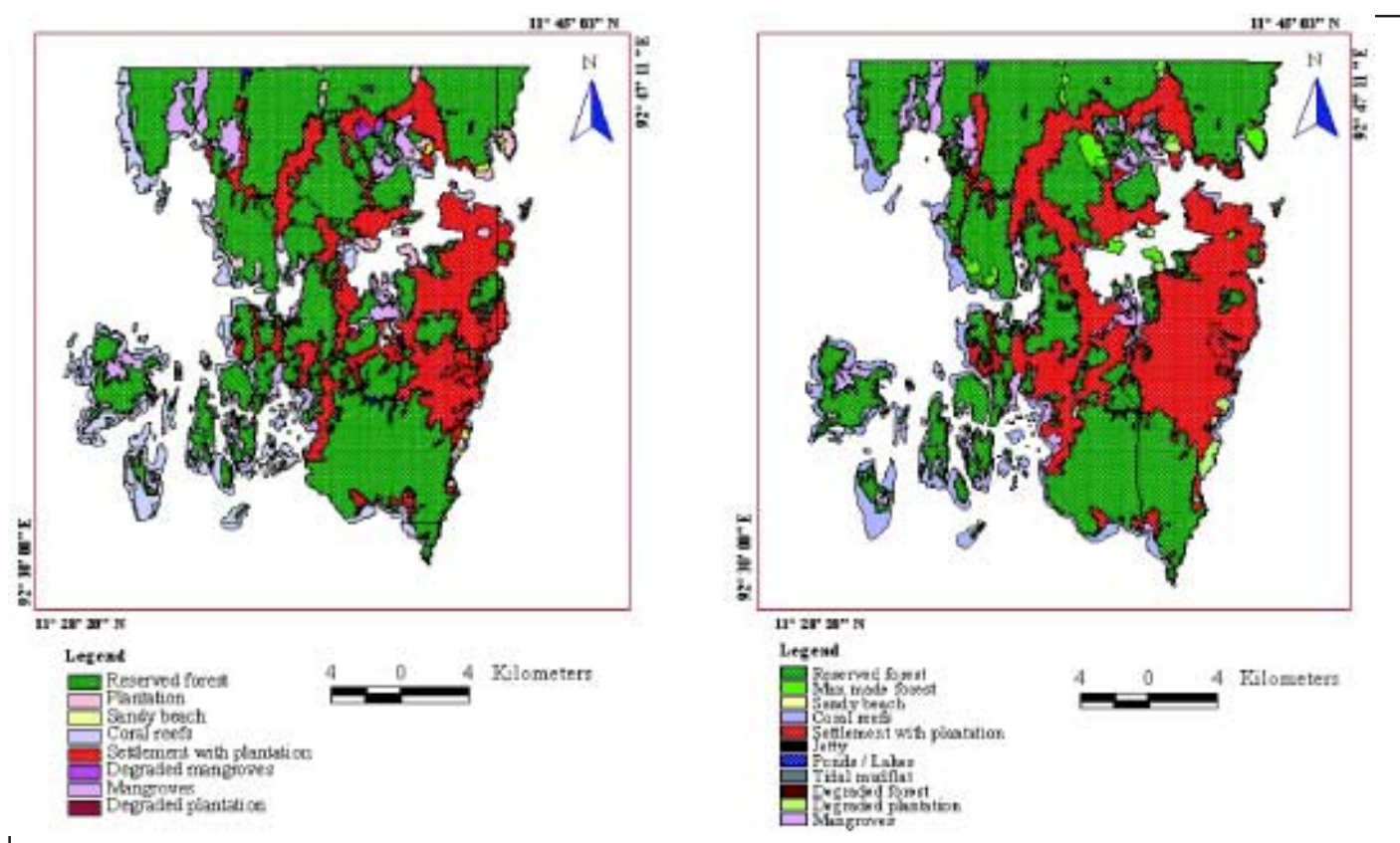
Based on the interim report of the Integrated Coastal Zone Management Plan studies Ministry has amended the Coastal Regulation Zone Notification, 1991 for promoting tourism based on the Integrated Coastal Zone Management Plan study. The interim reports of the Integrated Coastal Zone Management Plan studies pertaining to Andaman, Nicobar and Lakshadweep have

been provided to Ministry of Tourism for their comments.

Similar Integrated Coastal Zone Management Plan studies have been initiated for selected stretches of Karnataka and West Bengal.

Mapping of critical coastal ecosystems

Keeping in view the degradation of coastal ecosystems of the country, work relating to identification, mapping and digitization of the coastal ecosystems for the purpose of sustainable management of these ecosystems has been initiated.



Class	Area in ha. (1988)	Arera in ha. (2003)	Change in are (ha.)
Coral Reefs	5054.64	3843.90	-1210.74
Sandy beach	126.99	152.68	25.59
Man made forest	989.16	817.35	-171.81
Settlements with plantation	10645.91	13619.76	2973.85
Reserve Forest Mangrove	3201.28	2876.28	-325.00

Fig 46. Land use map of South Andaman

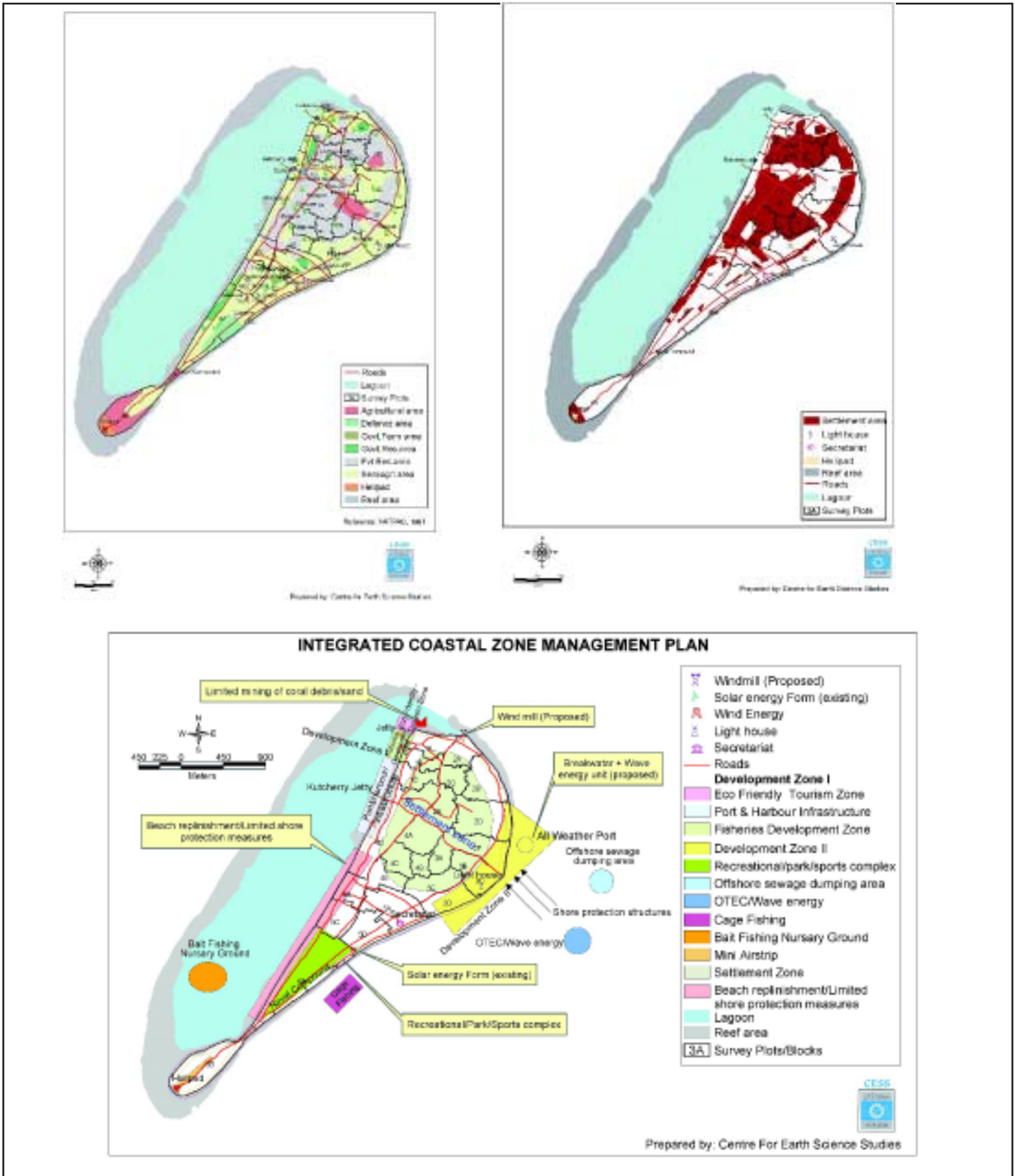


Fig 47. Land use map of Kavaratti Island

A map of Chilka Lake which has been identified as eco-sensitive area is given at Figure 48.

Digitization of the Coastal Zone Management Plans

To facilitate the decision makers in the proper siting of the developmental activities, digitization of the Coastal Zone Management Plans prepared by the Coastal States and Union Territories has been undertaken.

Training in Coastal Zone Management

For the purpose strengthening the capacity of the Coastal Zone management Authorities at the State and Centre, training of the members of the Authority has been initiated.

Monitoring

During the year, the Ministry continued its programme of monitoring the implementation of environmental safeguard measures, stipulated while according environmental clearance to various developmental projects. During the year under report, 395 projects were monitored till December, 2003 through the existing network of six Regional Offices of the Ministry. The issue on which the compliance was found to be inadequate or unsatisfactory include online monitoring of stack emissions, monitoring of fugitive dust, reclamation and rehabilitation of mined out areas, management of overburden, catchment area treatment, green belt development, fly-ash utilization, rehabilitation and resettlement of project oustees etc. These issues were taken up with the project authorities for ensuring an effective compliance of the stipulated conditions.

Ecologically Sensitive Areas/Zones

The Ecologically Sensitive areas are notified under the Environment (Protection) Act, 1986. The main objective of these notifications is to impose restriction on the industries, operations, process and other developmental activities in the region that have detrimental effect on the environment, to provide for restoration of denuded areas, management of catchment areas, watershed management etc., for a planned development. It is also intended to ensure sustainable livelihood for the local community and stakeholders. A High Level Monitoring Committee is constituted to ensure compliance with the notification and take action against any violations.

During the current year action was initiated for implementation of the notification declaring Matheran

and its surrounding region as an Ecologically Sensitive Zone, vide notification S.O. No.133(E) dated 4th February, 2003. A High Level Monitoring Committee has been constituted under the chairmanship of Shri U. K. Mukhopadhyay with members as proposed in the notification. Amendments were issued to the Matheran notification incorporating some of the suggestions made in response to the notification. Vide So No. 83 (E) dated 16th January, 2004

The members of the expert committee visited Mount Abu on 17th April, 2003 in connection with proposed developmental activities in the Dilwara Temple Complex and to notify Mount Abu as Ecologically Sensitive Zone. The Government of Rajasthan is required to submit a final proposal.

The proposal for notifying Sahayadri (Goa, Karnataka and Maharashtra) as Ecologically Sensitive Area is already under consideration. A presentation was made on the proposal and the committee visited the area during October 2003. Further details on the flora, fauna, a detailed map etc. are awaited for issuing the draft notification.

Environmental Management Capacity Building (EMCB) Projects

With the objective of developing national capacity on environmental management in key developmental sectors for achieving effective implementation of environmental policies and regulations as well as for improving environmental appraisal processes. Ministry

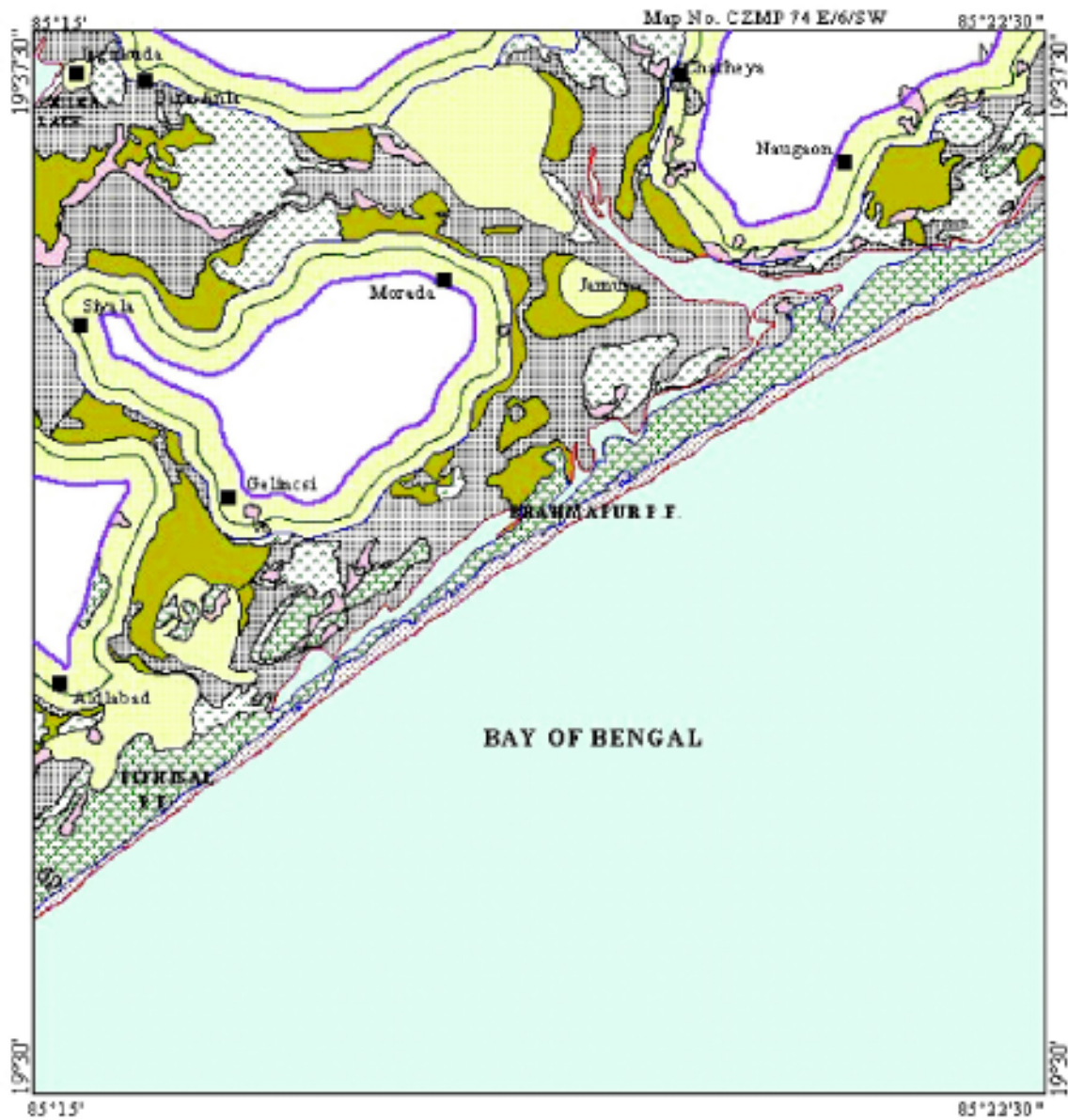
has undertaken two projects namely (a) Mining sub-component, (b) EIA sub-component, with the assistance of World Bank. The progress made during the year are given below :-

Mining Sub-Component

The EMCB Mining component has been under execution since 1999. As mining is known to cause environmental degradation, environmental management in the mining sector was identified as a high priority component for bringing about the necessary improvements therein (Details are given in Chapter 11).

EIA Sub-component

The EIA sub-component was initiated for improving the environmental clearance process with a view to streamline and rationalize the existing EIA Capacity Building Project (Details are given in Chapter 11).



Legend

- Low Tide Line
- High Tide Line
- 200m Line
- 500m Line
- CRE I (Reserved Forest)
- CRE I (Wetland Vegetation)
- CRE I (Mud/Tidal Flat)
- CRE I (Marsh/Other Vegetation)
- CRE I (Sand/Beach/Spit/Bar)
- CRE III
- Sand Dunes
- Water Body

1:25000

2 0 2 Kilometer

Fig 48. A map of Chilka Lake identified as eco-sensitive area