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## **AGENDA NOTES**

*for*

***National Conference***

*of*

***Ministers of Environment and Forests***

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# Agenda I

## **MONITORING COMPLIANCE WITH ENVIRONMENTAL AND FORESTRY RELATED LAWS AND REGULATIONS AND THE ROADMAP FOR INSTITUTION - BUILDING**

### **1.1 Introduction**

The existing hiatus between the environmental and forestry laws and their implementation in the country is a matter of concern. The increasing urbanization along with rapid growth in industrial infrastructure and transportation sectors has resulted in new pressures on the ecosystems. Newer and emerging challenges like climate change, loss of biodiversity, electronic waste, noise pollution, man-animal conflict and illegal trafficking of wild animals are posing varied threat to environment. These challenges require strategic interventions and creative solutions.

**1.2** There is a general consensus that despite adequate policy, legislative, and institutional framework, compliance of environmental and forestry related laws and regulations is marred due to ineffective implementation. We must, therefore, focus on a time bound strategic approach to improve enforcement and compliance with prescribed standards and regulations. This, interalia, requires strengthening and re-engineering our institutions, upgrading technical skills, strengthening infrastructural requirements including pro-active use of Information Technology and instruments like GIS and GPS.

**1.3.** A number of environmental and forestry & wildlife related statutes have been enacted from time to time to address the challenges of environment, forests and wildlife management. A brief on the various legislations is at **Annexure I (i)**. The Environmental (Protection) Act of 1986 is an umbrella legislation under which various rules and notifications have been framed to take care of the different dimensions of environmental challenges. A brief note on these rules and important notifications may be seen at **Annexure I (ii)**.

## **1.2. Status of compliance**

**1.2.1.** The status of environmental compliance in the country needs to be improved. Under 17-categories of highly polluting industries, the major non-complying industrial sectors are chlor-alkali, thermal power, copper, iron and steel and pharmaceuticals. There are 36165 hazardous waste generating industries in the country, generating an estimated 6.2 million tonnes of waste every year. The break up is, 2.7 million tonnes per annum of landfillable waste, 0.41 million tonnes per annum of incinerable waste and 3.08 million tonnes per annum of recyclable hazardous waste. The Sewage Treatment Plants (STPs) installed at present treat only 35 per cent of the total quantum of sewage generated in the country.

**1.2.2** There are major gaps in handling and safe disposal of municipal solid waste in the country. Similarly, despite the provisions of the Biomedical (Management and Handling) Rules 1998 only about 57% of biomedical waste generated in the country is properly handled and disposed of in an environmentally sound manner. At present, as many as 10 States do not have even a single CBMWTDF plant.

**1.2.3** Air Quality Monitoring is being done in residential area of 128 cities/towns. Ambient Air Quality Monitoring data in 85 in 2007 cities showed Respirable Suspended Particulate Matter (RSPM) levels exceeding the stipulated norms. As far as water pollution is concerned, there are 139 identified polluted stretches in Indian rivers.

**1.2.4.** Loss of bio-diversity and the dwindling population of critically endangered species like the tiger are alarming. There have been reports of extinction of tiger population in reserves like Sariska and Panna. Wildlife poaching and trans-boundary smuggling are also areas of major concern. Similarly, against the National Forest Policy, target of 33% tree cover, the present coverage is only 23.6%.

### **1.3 Issues of environmental related compliance**

#### **(a) Institutional Strengthening:**

**1.3.1** To meet the emerging environmental challenges, it is imperative to strengthen and re-engineer the existing institutional framework at both national and state level. On the environment side, the CPCB may be strengthened and also upgraded as an Environment Protection Authority (EPA) or we may create an EPA denovo. The areas for strengthening include technical manpower, laboratory and other related infrastructure of the CPCB as well as its regional offices. Simultaneously, database management system and capacity building of officers need to be taken up. The empowerment of CPCB as EPA also envisages greater devolution of powers to CPCB and its regional offices, which may assume the role of Regional EPAs. States may provide their views.

**1.3.2** The CPCB/SPCBs/PCCs should augment their training capacities and provide adequate capacity building for various levels of staff, with special emphasis on enforcement, compliance, sampling, inspections and legal work. This could be supplemented by outsourcing the training programme to various institutions.

**1.3.3** The State Governments should undertake a comprehensive review of the functioning and capacity of the State Pollution Control Boards (SPCBs). Suitable measures should be taken to augment technical manpower, laboratories and related infrastructure of the Boards. Adequate financial support to the State Boards may be provided.

**1.3.4** States like Andaman & Nicobar, Jammu & Kashmir and Manipur have not established their state-level Crisis Management Groups. Himachal Pradesh and Nagaland have not provided information regarding the same. Constitution and operationalization of Crisis Management Groups as per MSIC Rules 1989 for chemical accidents has to be undertaken on top priority.

**1.3.5** As per the EIA Notification, 2006, a decentralized procedure for appraisal of projects has been introduced by delegating category 'B' projects to State level. For this purpose State level Environmental Impact Assessment Authorities (SEIAAs) have been constituted only in 22 States/UTs to exercise the powers and procedures as enumerated in the EIA notification of September, 2006. It is expected that State Governments will provide similar facilities as provided to the SCZMAs for timely disposal of cases referred for Environmental Clearance.

**1.3.6** Some States/UTs are yet to constitute their State Bio-diversity Boards and Bio-diversity Management Committees, as mandated under the Biological Diversity Act, 2002.

**(b) Database Management:**

**1.3.7** There is need for creation of comprehensive database (industries-specific data/ambient data/other data) by the State Boards. There should be regular transmission of data to CPCB. All data should be web-enabled to enhance its accessibility and transparency.

**1.3.8** Inventorisation of hazardous waste generation, recycling and disposal has to be updated. Its movement and storage should be closely monitored by the States. The web-based GIS for hazardous wastes developed by MoEF has to be regularly updated by the concerned SPCBs/PCCs.

**1.3.9** Data on generation and recycling of E-waste needs to be compiled properly by the States. Recycling of E-waste to be shifted from unorganized sector to registered professional recyclers.

**(c) Establishment of Common Treatment and Disposal Facilities:**

**1.3.10** In order to control industrial pollution it is essential that States promote more number of Common Effluent Treatment Plants( CETPs). Existing CETPs have to qualitatively improve their performance for ensuring compliance with prescribed standards. It may be noted that proposals for establishing new CETPs are not forthcoming from majority of the States. Exceptions include Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu.

**1.3.11** Many State Pollution Control Boards (SPCBs) are not enforcing the proper incineration of medical bio-wastes by the concerned establishments. MoEF is actively promoting a central scheme for providing financial assistance for setting up Common Biomedical Waste Treatment and Disposal Facilities (CBMWTDFs). With the exception of West Bengal other States have not submitted any proposal so far.

**1.3.12** There is a need for every major State to set up at least one TSDF for Managing hazardous wastes in an environmentally sound manner. States like Chattisgarh, Jharkhand, Haryana, Uttarakhand, Orissa and Assam have not set up any TSDF.

**(d) Enforcement Mechanism:**

**1.3.13** The monitoring of the implementation of the Action Plans for the identified critically polluted areas (CPAs) has to be done by the States regularly. The same should be periodically reviewed at higher levels for a time bound implementation of the Action Plan.

**1.3.14** Preparation of On-site Emergency plan by the industries and Off-site emergency Plans by the district authorities under the Manufacture, Storage, and Import of Hazardous Chemicals Rules 1989, along with flow of information from the States to the Centre regarding the chemical accidents have to be strengthened.

**1.3.15** The web-based Chemical Accident Information and Reporting System

(CAIRS) developed by the Ministry of Environment & Forests (MoEF) has to be properly utilized by the States.

**1.3.16** Importers and recyclers/preprocessors/re-users of hazardous wastes have to be closely monitored by the SPCBs/PCCs and the reports to be submitted regularly to the Ministry. There is a need for SPCBs/PCCs to coordinate more effectively with the ports and customs authorities to check illegal traffic of hazardous wastes.

**1.3.17** For appraisal of projects under CRZ, the State Coastal Zone Management Authorities (SCZMAs) are constituted by MoEF in exercise of power conferred by sub section (1) and (3) of Section 3 of the Environment (Protection) Act, 1986. These State level Authorities should upload information regarding Environmental Clearances on their websites for use of various stakeholders. The Ministry has also been insisting on the transparency of clearance process by putting in public domain the details relating to consideration of projects, minutes of the meeting by various committees etc.

**1.3.18** To check the violation to CRZ notification, the use of improved space technology-enabled enforcement should be considered along with the strengthening of institutions and regulatory & legal framework. Satellite imageries could be studied on weekly basis to check the changes in the land use due to construction and other developmental activities. The State Governments may consider using this technology for controlling violations particularly under CRZ.

**1.3.19** For the management of solid waste, the State Governments should take advantage of the existing Central Scheme for financial assistance for establishment of demonstration projects for solid waste. The States should coordinate with the urban local bodies to speed up the strengthening of the solid waste management system in urban areas under the exclusive devolution of grants to the tune of Rs. 2500 crore for the period 2005-10 as per the recommendations of the 12<sup>th</sup> Finance Commission.



**1.3.20** The States/UTs may give their views regarding the feasibility of uniform thickness norms for plastic carry bags for the entire country. The States/UTs also need to consider a ban on plastics in the eco-sensitive hilly areas.

## **1.4. Issues of forest related compliance**

### **(a) Institutional Strengthening**

**1.4.1** The Ministry has 6 Regional Offices where designated officers are empowered under the Forest Conservation Act, 1980. These offices are at Bhubaneswar, Bangalore, Bhopal, Chandigarh, Lucknow and Shilong. For improving monitoring and evaluation of compliance of prescribed conditions, the services of reputed institutions may be taken on contractual basis. We could think of a system of registration which is transparent. State Governments may take steps for improving frequency and quality of monitoring.

**1.4.2** States must provide adequate financial resources for ensuring proper monitoring and compliance of the conditions imposed by MoEF when forest clearance is granted. States may consider strengthening the institution of nodal officers under the Forest (Conservation) Act, 1980 for preventing adverse impact on ecology whenever forest lands are diverted for non-forestry purposes.

### **(b) Operational Issues**

**1.4.3** The Central Government while approving proposals under the Forest (Conservation) Act, 1980 stipulates certain conditions including compensatory afforestation, maintenance of safety zone, Catchments Area Treatment (CAT) plan, implementation of wildlife management plan and rehabilitation plan to mitigate the likely adverse impact on the environment due to the proposed diversion of forest areas for non forestry purposes. Monitoring of these stipulations by officials of the Regional

Offices of this Ministry reveals that in large number of cases the mitigative measures are not being properly implemented.

**1.4.4** In cases of diversion of forest land to the defence forces, it has come to notice that the diverted areas have been put to uses other than the purposes for which these were diverted.

**1.4.5** In some cases after mining is over, the land has either not been reclaimed, or if it has been reclaimed, the area has not been handed back to the concerned State Forest Department, as required under Rules.

**1.4.6** Large forest areas are acquired for coal mining under the Coal Bearing Areas (Acquisition & Development) Act, 1957. As per the provisions of this Act, the area is with CIL for mining in perpetuity. On account of this fact the user agencies are neither obtaining the environmental clearance nor getting the lease renewed under the Forest (Conservation) Act, 1980. The concerned State Governments may be advised to treat 12.12.1996 (the date on which the Supreme Court modified the definition of forests for the purpose of Forest (Conservation) Act, 1980) as the cut off date beyond which all the concerned mines would require the clearance under the Forest (Conservation) Act, 1980. Accordingly, the user agency shall move proposals for obtaining prior approval of the Central Government.

**1.4.7** There is need for uniformity and standardization in the variable rates for compensatory afforestation currently ranging from Rs. 0.50 lakh to Rs. 4.00 lakh per hectare.

**1.4.8** It is suggested that State/UTs should not impose additional conditions over and above the mitigative measures prescribed by MoEF. If conditionalities are required, prior concurrence of MoEF should be obtained.

## **1.5. Issues of wildlife related compliance:**

### **(a) Institutional Strengthening**

**1.5.1** India has elaborate legal and institutional arrangements for the conservation of wildlife resources. The Central Government supports the efforts of the State/UT Governments by providing financial and technical assistance for conservation programmes through various Centrally Sponsored Scheme such as – ‘Integrated Development of Wildlife Habitats’, ‘Project Tiger’ and ‘Project Elephant’. The Central Zoo Authority assists the recognized Zoos in the country in their management. India has also set up the National Tiger Conservation Authority and Wildlife Crime Control Bureau for strengthening tiger conservation and combating wildlife crimes, respectively. The need of the hour is to strengthen these institutions and programmes, and the processes envisaged therein.

### **(b) Operational Issues:**

**1.5.2** Special emphasis is being given to the conservation of important/prioritized PAs, Community Reserves, Conservation Reserves and other non conventional high value bio-formations, trans-boundary PAs, etc. Better protection of highly endangered and flagship species like Snow Leopard, Great Indian Bustard, Hangul, marine turtles, Nilgiri Tahr, etc., is being done by adopting the strategy of special species/habitat recovery programmes.

**1.5.3** The States have to delineate critical wildlife habitats particularly with reference to the enactment of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Right) Act, 2006. The States/UTs where the State Wildlife Boards have not been constituted or where the terms of the Boards have expired have to take necessary action for constitution/reconstitution.

**1.5.4** In several PAs and Tiger Reserves, the final notification under the Wildlife Protection Act, 1972 on the constitution of the PAs/Tiger Reserves has not been issued

and the rights of the community have not been settled. The States and UTs have to take expeditious action in this regard and should also furnish the status to MoEF. The States/UTs have to take concerted efforts for creating more community reserves and conservation reserves.

**1.5.5** Out of 173 zoos in the country, only 70 zoos have submitted their Master Plans for approval of Central Zoo Authority (CZA) so far. States/UTs are requested to submit Master Plans for the remaining zoos at the earliest. No developmental work can be taken up in the zoos till the approval of the Master Plans from the CZA.

**1.5.6** The States have to prepare an updated management plans for the PAs and strictly implement the provisions of the Wildlife National Action Plan including settlement of the rights of community.

## **1.6. Other issues**

### **(a) The proposed National Green Tribunal**

**1.6.1** The Government of India is envisaging the setting up of the National Green Tribunal. The Tribunal shall have jurisdiction over civil cases pertaining to various environment and forest related statutes where a substantial question relating to environment is involved. The Tribunal will primarily be an adjudicatory body which will also hear appeals under the Water Act, 1974, Water Cess Act, 1977, Air Act, 1981, Environment (Protection) Act, 1986, Forest Conservation Act, 1980 and the Bio Diversity Act, 2002. The States may provide their views on this issue.

### **(b) Co-ordination between States & MoEF**

**1.6.2** The mechanism for co-ordination between States and MoEF needs to be improved by regular interaction with the States through letters, meetings, visits, etc. to assess the progress made by the States. The requirements/ gaps will have to be identified for strengthening of institutions operating at the State level. Chairman of SPCB/PCC should actively collaborate with MoEF for resolving serious pollution related issues.

**1.6.3** In the forestry and wildlife sector there is need for improved communications between the States & MoEF to facilitate resolution of problems especially at State level.

**(b) Budgetary Support:**

**1.6.4** Adequate financial support to CPCB/SPCBs/PCCs has to be provided by the Central and State Governments in order to equip them to manage the environmental challenges.

**1.6.5** Keeping in view the importance of strengthening infrastructure relating to treatment and disposal facilities for sewage, common effluent treatment plants, disposal of solid wastes and safe disposal and handling of hazardous wastes it is imperative to substantially enhance Central budgetary allocations for MoEF and States/UTs.

**1.6.6** Government of India should reimburse water cess strictly according to the provisions of the Water (Prevention and Control of Pollution) Cess Act, 1977. Efforts are under way to resolve this issue with Ministry of Finance.

**1.6.7** For combating climate change, controlling deforestation and protecting wildlife there has to be a massive increase in financial provisions for the forestry sector in the States/UTs. Forests are important carbon sinks and increasing green cover is a compelling necessity. At present less than 1% of the plan allocation is earmarked for forestry sector in States/UTs.

**(d) Environmental Corporate Reform:**

**1.6.8** To ensure that concerns of environment are properly addressed by the industry, it would be imperative that every corporate Board must have one director having expertise in the field of environment. This matter can be taken up with the Registrar of Companies/industrial associations/federations, by the Union Government and States. Disclosure of information with respect to environmental audit (energy, raw material, re-cycling of waste water etc.) should be mandatorily reflected in the annual reports of Companies.

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## **Agenda II**

### **IMPROVING OUR APPROACH TO RIVER CLEANING USING INNOVATIVE MODELS AND ENHANCED COORDINATION BETWEEN CENTRE, STATE AND LOCAL BODIES**

#### **2.1 Introduction**

The strategy for river conservation so far has been piecemeal with the focus being on tackling point sources of pollution by interception, diversion and treatment of municipal sewage. This approach yielded mixed results.

Meanwhile, the demand for river water has been growing, for irrigation, drinking water, industrial use and power. The increasing pollution load due to rapid industrialization and exponential growth of urbanisation, on the one hand and diminishing flows due to melting glaciers, and abstraction of water for a variety of competing demands on the other compound the challenge.

Many lessons have been learnt from the experience of river conservations plans so far which could be the basis for initiatives for a comprehensive new approach to river cleaning and ensuring minimum ecological flows.

#### **2.2 Basic principles of river conservation**

The following basic principles are integral to river conservation:

- ‘River is not a drain’ - It supports life. Biodiversity is important to the existence of a river. Biological parameters need to be maintained and monitored for sustained life of rivers.
- ‘River must flow’ - There should be minimum human intervention. The cities must become water prudent and water conservation must be ensured at all levels. Cities must be encouraged to be more responsible to the rivers.

- ‘River must have space’ - It should not be channelized and floodplain area should be properly managed as floods cannot be controlled completely.
- ‘River needs ecological flow’ – Besides dilution, ecological flow is required to sustain aquatic life system in the rivers.

## **2.3 Relevant Issues**

The relevant issues which may need to be addressed to achieve the desired results in terms of cleaning the major rivers and the recent initiatives undertaken in this regard are :

- 2.3.1** A new holistic approach for river conservation, with river basin as the unit of planning.
- 2.3.2** Including emphasis on minimum ecological flows, besides pollution abatement.
- 2.3.3** Redesigning institutional arrangements; Setting up empowered State River Conservation Authorities for comprehensively tackling the problem of pollution of rivers and effective implementation of the River Conservation Programmes.
- 2.3.4** Measures for improving implementation -
  - i) Memorandum of Agreement with States/Urban Local Bodies (ULBs) for enhanced coordination.
  - ii) Adopting Special Purpose Vehicles as an implementation mechanism.
  - iii) Fast Track Approval and Independent Appraisal of Projects.
  - iv) Concurrent evaluation
- 2.3.5** Mobilizing Resources for River Conservation.

## **2.4 River Conservation Plans**

The river conservation programme was initiated in 1985 with the launching of the Ganga Action Plan (GAP). This was expanded to cover major rivers of the country through the Centrally Sponsored Scheme of National River Conservation Plan

(NRCP). NRCP is being implemented by the Central Government jointly with the State Governments on a 70:30 cost-sharing basis. The objective of the Plan is to undertake pollution abatement works for improving water quality in the river to acceptable standards. The pollution abatement works under NRCP presently cover identified polluted stretches of 37 major rivers in 166 towns spread over 20 States in the country. These include schemes for interception and diversion of sewage, setting up of sewage treatment plants (STPs), river front development, crematoria, low cost sanitation works etc

The pollution abatement works are taken up on the basis of polluted water stretches identified by Central Pollution Control Board (CPCB) from time to time. Based on water quality data for seven years from 2000 to 2006, CPCB has identified 178 polluted water bodies/stretchers which include 139 river, 33 lakes, tanks & ponds, 3 creeks & 3 canals. As per the CPCB survey, the estimated wastewater generation in Class I & II towns in the country is around 33000 million litres per day (mld), against which treatment capacity of only 7000 mld exists at present. Sewage treatment capacity of 3927 mld has so far been created under the River Action Plans. The problem of pollution in rivers would have been worse in the absence of these pollution abatement works.

However, the river conservation strategy adopted so far has tackled the problem of pollution in rivers in a piecemeal manner and it has become necessary to strengthen the present approach. There is a need for mobilizing additional resources to address comprehensively the entire quantity of sewage being generated in cities, effectively enforce the laws to check the discharge of industrial effluents into the rivers, improve implementation through better management practices, and to ensure full utilization of the assets created.

#### **2.4.1 River basin based planning**

The River Basin approach has been tried in several major river systems viz. Danube (Europe, 2850 km), Rhine (Europe, 1320 km), Tennessee (USA, 1049 kms). This



approach assesses the requirements of the entire river basin, taking into consideration all future challenges. River basin based planning has been found to be an internationally accepted strategy and a successful model for integrated management of rivers.

In the town-centric approach adopted so far, pollution abatement works were taken up without taking into consideration the quantity of flow in the river. Our rivers face multiple challenges on account of rising water demand for irrigation, urban water, industrial use and power generation. A large volume of untreated wastewater in Ganga Basin is also discharged into the rivers due to non-availability of treatment facilities. Construction of hydro-electric power plants and climate impacts have added to the challenge.

The basin approach includes, besides abatement of pollution from point as well as non-point sources, catchment area treatment, protection of flood plains, water quality monitoring, public participation & awareness, etc. It also takes into account the demands on water and measures to augment availability of water in the river to ensure minimum ecological flows. STPs reduce the pollution load only to discharge standards of BOD 30 mg/litre. This would suffice only if adequate water is available for dilution to achieve water quality having BOD of 3 mg/litre. Flow is, therefore, an important issue. Sustenance of species like dolphin, turtles, fishes, other native and endangered species in the river is also important. The basin approach aims at restoration of living parts of the river ecosystem by adopting holistic treatment.

#### **2.4.2 Shortcomings in implementation- experience so far**

The implementation of River Conservation Plans so far has brought out a number of constraints which need to be addressed. These are:-

- i. Increasing gap between requirement of Sewage treatment infrastructure and actual pollution load being tackled due to continuous increase in population in towns along the river banks and inadequate financial resources invested in river cleaning.

- ii. Delays in completion of schemes due to lack of inter-agency coordination at the field level, delays in acquisition of land for STPs & Pumping stations, contractual problems, court cases, etc. leading to cost overruns.
- iii. Shortage of skilled manpower and regular staff and inadequate provision of funds by the States and ULBs for O&M of the sewage treatment infrastructure.
- iv. Erratic/ non-availability of power supply for operation of assets, under-utilization of STPs, in some cases, due to non-conveyance of sewage generated in the absence of upstream systems such as branch sewers & house connections.
- v. Lack of involvement of civil society in the programme.

### **2.4.3 Ecological Flow**

Each river supports a living system, essential for providing vital economic resources and services for the human society, besides maintaining biodiversity and supporting flora and fauna. It has a natural flow regime, disturbing which can adversely affect many living creatures as they need different flow regimes for different stages of life.

In the past, rivers used to have a minimum flow to support aquatic life. However, due to heavy abstraction of surface and groundwater in the catchment area over the years, rivers remain dry for a substantial part of the year. There is an urgent need for steps to maintain minimum flows in the rivers for ecological purposes.

The scope of factors determining the minimum flow has been expanding. Starting with the basic objective of maintaining a reasonably good water quality and protection of fish, the scope has slowly moved to cover all aquatic life, riparian vegetation, sediment transport, nutrients transport, river morphology, flood plains, wet lands, wild life habitats, estuaries, mangroves etc. and even the cultural, spiritual and aesthetic aspects. India's National Water Policy (NWP) of 2002 places ecology as the fourth priority for uses of water, after drinking water, irrigation and hydropower.

To achieve minimum flows, it is imperative to intensify the efforts for conservation of water and to prevent ground water depletion. Incentives to conserve water and appropriate pricing of water are required to reduce water demand in the household sector. There is need to develop surface irrigation sources and to take measures for rainwater harvesting and preventing water run-off.

In order to maintain the environmental flows in the river, it is important that water resources are augmented in the entire basin in a big way, including by groundwater recharging, village ponds, water conservation, recycling of wastewater and economy in water use.

#### **2.4.4 Industrial pollution**

Out of the total measurable pollution in the rivers from various point sources, 75% is accounted for by municipal sewage from towns located along the banks of the river. The remaining 25% is due to industrial effluents. However, industrial pollution constitutes a much greater threat to the rivers in view of its higher concentration of pollutants and complex profile due to the presence of chemicals, metals and other toxic materials. It is, therefore, essential that the industrial pollution from Grossly Polluted Industries (GPIs) is intensively monitored and necessary remedial/legal measure are taken in a timely and forceful manner. The GPIs are industries which (i) discharge their effluents into a water course including rivers and lakes, and (ii) are either involved in manufacture & use of hazardous substances or discharge effluents with a BOD load of 100kg/day or more, or both.

The State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) in Union Territories are required to take effective action against the defaulting units. The SPCBs should ;

- i. Regularly monitor the Effluent Treatment Plants (ETPs) in Grossly Polluting Industries.

- ii. Draw up action plans for monitoring and treatment of effluents from small scale industries.
- iii. Take prompt action against the defaulting units by invoking the powers vested in the provisions under the Environment (Protection) Act, 1986 and the Water (Prevention and Control of Pollution) Act, 1974.

## **2.5 The National Ganga River Basin Authority: A holistic river basin approach**

In the light of experience with the ongoing schemes, the strategy for river cleaning has been reviewed by the Central Government. It has been decided to adopt a holistic approach with the river basin as the unit of planning. It has also been decided that the focus would be not only on tackling the pollution discharged into the river but also on ensuring minimum ecological flows. The implementation of the new approach has been initiated by setting up the National Ganga River Basin Authority (NGRBA) under the Environment (Protection) Act, 1986.

The Authority is chaired by the Prime Minister and has as its members, the Union Ministers concerned, the Chief Ministers of the States through which Ganga flows, viz., Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal, among others. This initiative is expected to rejuvenate the collective efforts of the Centre and the States for cleaning the river Ganga.

Besides setting up of the NGRBA, it is proposed to strengthen the ongoing National River Conservation Programme (NRCP) for tackling the grossly polluted stretches of other major rivers in the country. Over time, the NGRBA model could be adapted for other rivers in the country, based on the experience gained.

The objective of this institutional redesign and new approach is to ensure effective abatement of pollution and conservation of the river by comprehensive planning and management, and through an empowered, planning, financing, monitoring and coordinating mechanism. Similar empowered institutional structures

could be set up by the States to synergise the river conservation efforts at the State level with this national endeavour.

### **2.5.1 State River Conservation Authorities**

The States have to be at the forefront of implementation of the river conservation programme. The notification constituting NGBRA, provides that the State Government concerned may constitute a State River Conservation Authority under the chairmanship of the Chief Minister for coordinating and implementing the river conservation activities at the State level.

The States may set up the State River Conservation Authorities through a separate legislation or an executive order, or through a notification under the Environment (Protection) Act, 1986. A model notification has been circulated by the NRCB to the State Governments in the Ganga river basin for their consideration, in case the States concerned opt to constitute the SRCA under the Environment (Protection) Act, 1986. Other States may also establish similar institutional mechanisms for comprehensive planning and implementation of river conservation programmes.

The key functions of SRCAs will include; coordination and implementation of the river conservation activities, implementation of the river basin management plans, maintenance of minimum ecological flows etc.

### **2.5.2 Activities to be taken up by NGRBA/SRCAs**

The NGRBA/SRCAs should combine regulatory and developmental functions. The important activities to be undertaken by these authorities could include :

- a) Carrying out detailed studies and surveys for development of a river basin management plan, including determination of pollution loads and minimum ecological flows.
- b) Taking up priority river conservation works in pollution hotspots.

- c) Planning, financing and execution of programmes for abatement of pollution in the rivers, including augmentation of sewerage infrastructure, catchment area treatment, creating public awareness and other measures for promoting environmentally sustainable river conservation;
- d) Taking effective measures to check discharge of industrial pollutants in the rivers.
- e) promotion of water conservation practices including recycling and reuse, rain water harvesting, and decentralized sewage treatment systems;

## **2.6 Measures for improved implementation**

As part of the new approach, several measures are proposed to ensure better coordination between Centre, States and ULBs, augment financial resources, adopt innovative models like SPVs to mobilize private sector resources and achieve improved efficiencies, streamline procedures for approval and introduce concurrent evaluation and monitoring mechanism for the projects.

### **2.6.1 Enhanced Coordination between Centre, State and Local Bodies-Memorandum of Agreement with the States:**

During implementation of the ongoing river cleaning programme, certain shortcomings like inadequate Operation & Maintenance by States/ULBs, non-levying of user charges, insufficient provisioning of funds by Urban Local Bodies (ULBs)/ State Governments, etc., have been noted. The fiscal flows to the sector have been utilized only on creation of physical assets and in spite of commitments made, adequate provisions could not be generally made by the State Governments or the ULBs, to operate and maintain these assets efficiently or to achieve their self-sustainability.

In order to ensure better implementation of the programme and to overcome the aforesaid shortcomings, it has been decided to have a Memorandum of Agreement (MoA) between the MoEF, State Governments, and the ULBs concerned for the new

projects. The National Institute of Urban Affairs (NIUA), under the MoUD, has prepared a model MoA for the purpose, linking sanction of projects and release of funds to achievement of milestones such as satisfactory progress of projects, meeting of O&M commitments by ULBs, implementation of pre-determined reform measures for user charges, etc. The States are also required to indicate timelines for preparation of comprehensive sewage disposal and storm water drainage plans.

### **2.6.2 Innovative models- Special Purpose Vehicles (SPVs)**

The notification constituting the NGRBA provides for ‘creation of Special Purpose Vehicles (SPVs), as appropriate, for implementation of works vested with the Authority. The Ganga Basin States have been asked to prepare Action Plans on priority for comprehensively tackling the untreated municipal sewage falling into the river at the pollution hotspots such as Haridwar, Kanpur, Allahabad, Varanasi, Patna and Howrah. Innovative and viable Public-Private-Partnership (PPP) models could be considered at appropriate locations. This will help in timely implementation of projects, bridge the gap in resources, ensure self sustainability of the assets created and improved efficiencies. In this regard, the process of consultations with the State Governments, Implementing Agencies and independent experts has been initiated.

The SPV model could be adopted for other major rivers by the States for mobilization of resources as well as for improved implementation of river conservation infrastructure and better maintenance of assets.

### **2.6.3 Fast track approval mechanism and independent appraisal of projects**

The existing system of clearance of proposals under the NRCP follows the conventional system of delegation of financial powers prescribed by the Ministry of Finance where all projects are appraised and then approved by the Ministry/ SFC/ EFC/ CCEA, as the case may be, depending upon the project costs. Following this normal approval procedure for projects would be time consuming. Therefore, a fast

track approval mechanism with inter-ministerial representation for sanction of projects of NGRBA is being put in place.

The individual DPRs would be appraised by independent agencies appointed for this purpose and cleared by an empowered Central Sanctioning and Monitoring Committee (CSMC). These streamlined procedures are proposed to be adopted for NRCP as well.

States may revisit the existing arrangements and streamline sanctioning, monitoring and implementation of river conservation works at the State level.

#### **2.6.4 Concurrent evaluation:**

The experience of implementation of the river conservation programmes has been that the schemes/projects often face problems with regard to implementation, time and cost overruns, operation and maintenance, performance, infrastructural defects etc. To address these constraints, it is imperative to carry out concurrent evaluation of the projects so that policy and procedure related changes and other corrective measures can be taken in a timely manner. NRCD has entrusted independent concurrent evaluation of operational and technical aspects of schemes in the Eastern and Central regions to an independent agency. These two regions cover Madhya Pradesh, Bihar, Jharkhand, West Bengal and Orissa. Process is underway to appoint agencies for concurrent evaluation of schemes in other regions also.

### **2.7 Resources for the River Conservation Programmes**

Substantial resources would be required for tackling the problem of pollution comprehensively and to achieve the objective of conservation of rivers in a time-bound manner. Given the magnitude of the task, normal budgetary sources alone may not be adequate. State Governments/ULBs should explore the possibilities of raising additional revenues through taxes, levies, cess, user charges etc. State Governments



should also consider making greater provisions in the budgets for river conservation activities.

The following measures could be considered ;

- a) Dovetailing the existing schemes like Jawaharlal Nehru National Urban Renewal Mission (JNNURM), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), etc and other Central and State Government Schemes to promote optimum utilization of Central and State budgetary resources.
- b) Larger allocation of funds for river conservation programmes in the State Budgets.
- c) Generation of additional resources by the State Governments and the Urban Local Bodies through taxes, levies, cess, user charges etc.
- d) Creating Special Purpose Vehicles (SPVs) as appropriate in order to mobilize resources from the private sector and the financial institutions.

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## Agenda III

### STRATEGIES FOR INCREASING FOREST COVER AND ENHANCING SYNERGIES BETWEEN 'GREEN INDIA MISSION', NATIONAL AFFORESTATION PROGRAMME AND CAMPA FUNDS

#### 3.1 Background

The National Forest Policy underlines conservation of forests for environmental stability and ecological balance. The policy strives to achieve conservation of biological diversity, checking soils erosion in the catchment of rivers, lakes for water conservation, checking extension of sand dunes, meeting fuel wood, fodder, minor forest produce and small timber requirement of the rural and tribal populations and to increase the productivity of forests to meet the essential national needs. It aims to achieve one third of the land area of the country under Forest or Tree Cover (FTC) for this.

There has been increasing emphasis on sustainable livelihood, ecological security and people's participation. The recent initiatives i.e., National Mission for a 'Green India' under National Action Plan on Climate Change, CAMPA Funds, National Afforestation Programme, Convergence efforts of NREGA with National Afforestation Programme, introduction of a new State Plan Scheme in the Union budget, 2009-10-Additional Central Assistance for Accelerated Programme of Restoration and Regeneration of Forest Cover and an attempt to formulate new Centrally Sponsored Scheme for meeting rural forage-forestry, energy and livelihood needs by tree planting on non forest lands through PRIs are illustrative of the above.

The reasons for increasing FTC can be further elaborated as follows:

**a. Livelihood linkage:** About 300 million rural poor including about fifty percent of Tribals depend on forests for subsistence and livelihoods. More than 70 percent of

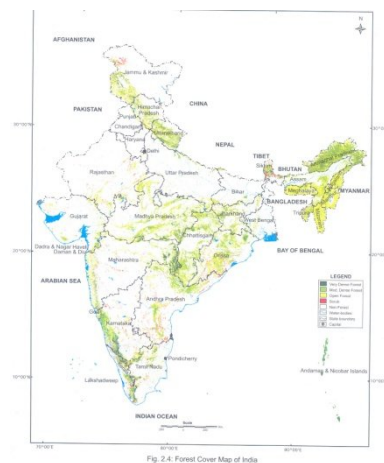
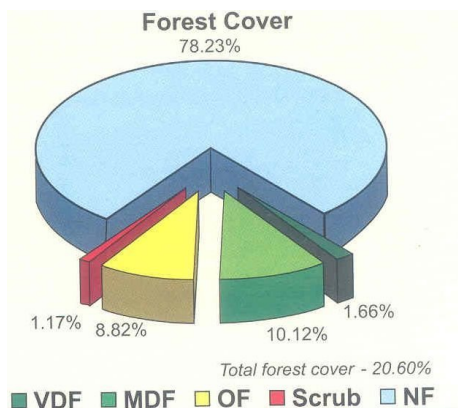
rural population depends on fuel wood for domestic energy needs and a significant percentage of India's 495 million livestock is sustained by forest grazing or fodder collected from forests. About 100 million people depend on Non-Timber Forest Products (NTFP) for meeting part of their subsistence and income needs. In this context, enhancing/restoring the FTC is vital for providing sustainable livelihoods to the dependent communities.

**b. Ecological Security:** The forested watersheds in the mountains are ecologically important for the national economy. It has impacts on the productive sectors like agriculture, fishery and livestock. Forests also sequester atmospheric carbon, conserve biodiversity and maintain the habitats for wildlife. Some of the other known environmental services provided by the forests are soil and water conservation, abatement of noise, and containment of SO<sub>x</sub>, NO<sub>x</sub> etc. All these services are necessary for the environmental security of the country.

**c. Response to Climate Change:** Expansion and improvement in forest cover can considerably ameliorate and negate the intensity and impacts of climate change through the process of carbon capture and sequestration. Deforestation and forest degradation have significant impacts on the accumulation of carbon in the atmosphere. Climate change consequences would be detrimental, affecting the livelihoods of rural people who mainly depend on natural resources. Increasing the forest cover and improving its quality has the elements of both mitigation and adaptation built into it and is perhaps, the least expensive among other options to address climate change. Hence, conservation of the biological diversity, reinvigoration of the productive and protective functions of the forests and increasing the green cover has been identified as one of the strategies for addressing the challenges of climate change in the 'National Action Plan on Climate Change' through the *National Mission for a "Green India"*.

### 3.2. Status of Forest and Tree Cover: Analysis

The National Forest Policy, 1988 aims to achieve one third of the land area of the country under Forest/Tree Cover (FTC). As per the State of Forest Report 2005, published by the Forest Survey of India, the forest and tree cover is 76.87 m ha i.e. 23.39 percent of the geographical area leaving a gap of about 31 m ha to achieve the national goal. Of this, about 5-6 m ha would be available for afforestation within the recorded forests and the balance area has to be located on non forest lands. Although the forest cover has stabilized during the last two decades, change in the quality of



forests is a matter of concern. The area under Very Dense Forests (VDF), Moderately Dense Forests (MDF) and Open Forests (OF) constitute 1.66, 10.12 and 8.82 percent respectively.

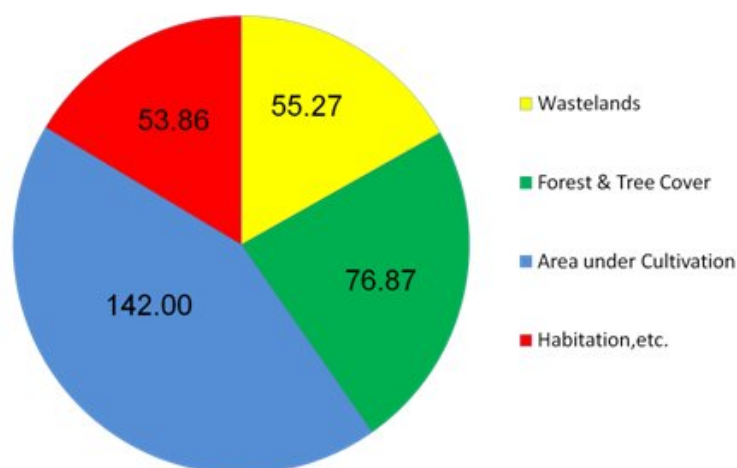
#### 3.2.1 Current Initiatives

**National Afforestation Programme:** The major afforestation programme of the Central Government is the National Afforestation Programme which supports regeneration of degraded forests through people's participation. The scheme is attempting inclusive forest management wherein the Joint Forest Management

Committees (JFMC) are implementing agencies and this process links livelihoods with the resource regeneration as strategy for conservation and development of forests. However, the means available and the spread of the programme mainly in degraded forests limit its utility for achieving the targeted increase in FTC. The embedded activities of afforestation in the schemes of the M/o Agriculture and M/o Rural Development do facilitate the process but the focus of those programmes is not enhancing FTC.

**Convergence of NREGA and NAP:** NREGA while augmenting wage employment strengthens natural resource management through works that address causes of chronic poverty like drought and so encourage sustainable development. The enormous task of achieving the goal of one third land area under tree planting can not be achieved by the Ministry of Environment and Forests alone. Hence, the recent attempt of **convergence between NREGA with Afforestation** programmes in general and NAP in particular would bring in synergy in governmental efforts in enhancing FTC. The convergence initiative is being implemented in 18 pilot Districts across various bio-geographic zones **Annexure- III (i)**.

**National Mission for a “Green India”:** Yet another initiative of the government in the context of Climate Change threat is greening under the National Action Plan on Climate Change and mooted the National Mission for a ‘Green India’. About 6 m ha of degraded forests are to be treated under the mission.



Source :- Wasteland Atlas 2005, SFR, 2005, DAC Website

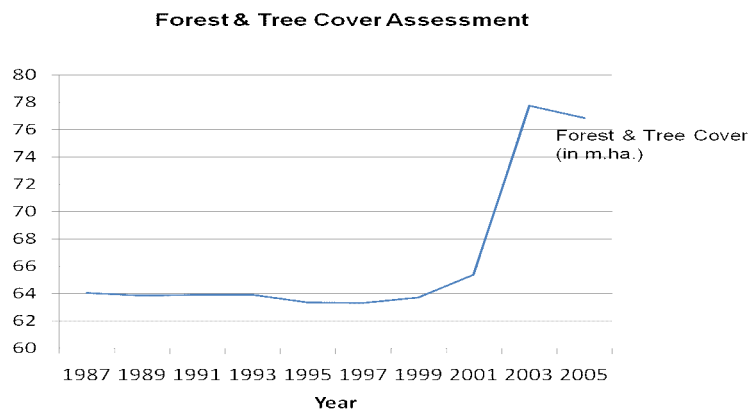
**CAMPA Funds:** Further the monies received under the compensatory mechanism for diversion of forest land and NPV etc collected thereon under the Forest (Conservation) Act, 1980 would be utilized for protection and regeneration of forests of the country. Guidelines for forming the State CAMPA Authority and modalities of utilizing the funds have been recently issued **Annexure III (ii)**.

**Gram/Panchayat Van Yojana:** A new scheme, Gram/Panchayat Van Yojana, is being formulated to put unutilized non forest land under temporary tree planting through PRIs. This aims to meet forage, energy, and other livelihood needs of the rural community. It would not only enable achieving the task of afforestation but also build capacity of these institutions and integrate these to livelihood of dependent community through developing Small and Micro Forest Enterprises.

**ACA for Accelerated Programme of Restoration and Regeneration of Forest Cover:** The Union Budget has introduced a new scheme under the State Plan for restoration and regeneration of the forests. An allocation of Rs 500 crore has been made during the CFY.

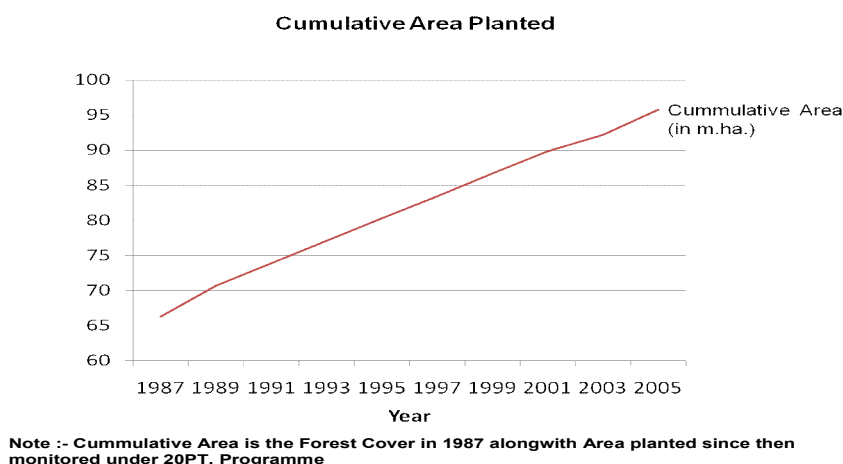
### 3.2.2 Past Analysis:

The past efforts along with current initiatives have helped in stabilizing the forest cover in the country around 20% despite the ever increasing demand on the forestry resources. India is the one of the very few countries in Asia to have stabilized/increased the FTC during the last decade. Even though the achievement



**Note :-** The sudden increase in the cover between 2001 and 2003 is on account of change in technology to capture even one ha forest patches and initiation of Tree cover assessment in 2003.

of afforestation in the country since the Xth Plan is about 1.50 m ha per year as monitored under the Twenty Point Programme, the extent of afforestation done is not reflected in the FTC assessment by the FSI. This is partly due to younger plantations not being accounted in the assessment but mainly on account of large scale recorded/



unrecorded removal from the forests for consumption. Hence, the interlinked issues need to be addressed and a significant push given for afforestation to stop deterioration in the quality of forests as well as the cover.

### **3.3. Strategy**

There are five interlinked issues with regard to sustainable forestry development. They are:

- a. Protection of Existing Forests
- b. Improving their Productivity
- c. Demand Management- especially that of rural energy and fodder
- d. Strengthening Institutions and Policy
- e. Enhancing Forest Cover.

Without addressing all the interlinked issues attempting just enhancement of FTC would not be successful.

### **3.4. Synergies**

The Green India mission document identifies these strategic and interrelated issues and hence, provides comprehensive interventions. The interventions are based on a landscape approach and site specific micro plans. It takes in to account the resources available under CAMPA fund, convergence with other sectoral programmes especially with NREGS and institution building and democratic decentralization envisaged under the National Afforestation Programme.

### **3.5. Issues for Discussion:**

**3.5.1 Institutional:** Even though JFMC or equivalent would be the implementation agency at the village level, putting in place institutional arrangement for synergy amongst CAMPA, NAP, Green Mission at the State and intermediary level would be required. Similarly, mechanism for JFMC or equivalent institution within the PRI regime as a Common Interest Group would be essential for non forest areas.

*Can JFMC be the mechanism for the Common Interest Group for managing Natural Resources in general and Forests in particular within the PRIs?*

**3.5.2 Policy:** Major disincentive in agro forestry and farm forestry has been the regulatory regime on felling, transit and sale of trees planted by the farmers. Unless the required deregulation on select species on private land is undertaken there could be status quo, even when agro forestry is more remunerative than agriculture. Further there is a need for providing incentives to tree planting in private lands like input subsidies, crop insurance and price support as given to agriculture. Yet another disincentive with regard to plantation owners is the land ceiling restriction for forestry crops.

*Why State Forest Departments are not deregulating the laws on felling, transit and sale of common tree species grown on the farm or private lands? What could the other incentive mechanisms to encourage Agro-Forestry/Farm Forestry?*

**3.5.3 Land:** With competing demand for land in the country, the need to find additional 31 m ha of land for afforestation would be challenging, especially, when only 5-6 m ha would be from the recorded forest area. The agriculture bunds, absentee



lands etc for agro forestry and farm forestry can have potential of about additional 7.5 m ha. Similarly, unutilized common lands available with Panchayats and underutilized land can be put to temporary tree planting use. The convergence efforts and the synergy amongst institutions can release substantial unutilized or underutilized land.

*What is the potential area for Agro-Forestry/Farm Forestry and unutilised Common and Private land that can be put under temporary tree cover? What would be the extent of land suitable and available for Afforestation in non forest areas? Whether private lands in large extents would be available for tree planting?*

**3.5.4 Finance:** It is estimated that comprehensive treatment of the land including tree planting and ancillary activities required for sustainable natural resource management would entail nearly Rs 50,000 as the unit cost per ha. So, the funding required for adding 31 m ha would be approximately, Rs 155,000 crores. Hence, there is a necessity for attracting private investment in forestry. This could be through Multi Stake Holder Partnerships/ PPPs involving the community, land owning agency, Forest Department and a financing sponsor and safeguarding the interests of the dependent communities.

*What could the collaborative processes for raising financial resources for investment on afforestation/tree planting? Is management contract / Special Purpose Vehicle the way for collaborative forestry?*

**3.5.5 Climate Change:** The new opportunities available under the Climate Change initiatives for tree planting need to be fully realized. Developing capacities in forestry institutions and communities to reap the benefits through various carbon sequestration projects need to be built up.

*Do the State Forest Departments have the required capacity for developing projects for realizing the benefits of afforestation and sustainable forest management under CDM? What facilitation the States require from GOI for this?*

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## **Agenda IV**

### **STRENGTHENING OF STATE FOREST DEPARTMENTS BY MODERNIZATION/ INFRASTRUCTURE DEVELOPMENT AND CAPACITY BUILDING OF FOREST OFFICIALS.**

#### **4.1 Introduction:**

Taking into account the expanding mandate, increasing inter-disciplinarity and the technologies available, the State Forest Departments (SFDs) need strengthening. Broadly three aspects need to be addressed:

- i. modernizing governance by use of appropriate technologies and methods.
- ii. improvement in infrastructure specially at Range and subordinate levels
- iii. training and capacity building of the frontline personnel.

**4.1.2.** A need is felt to strengthen linkages of the SFDs with the apex research and training institutes. The Indian Council of Forestry Research & Education (ICFRE) and its institutes, the Wildlife Institute of India, the Indian Institute of Forest Management, The Indian Plywood Industries Research & Training Institute, and many other institutes have been generating a host of useful information and technology which need to be made use of by the SFDs.

The Van Vigyan Kendras proposed to be set up by the ICFRE in each State can play a crucial role in this direction.

**4.1.3.** Extraordinary efforts are needed to improve effectiveness of management of the Protected Areas in the country. Modernization of wildlife sector is also required to be taken up systematically. Application of new scientific methods and Infusion of new research findings in wildlife management is important. There is also a need to build capacities of the frontline personnel and other stake holders.

**4.1.4.** The ecological soundness of the forests is intricately linked to the economic soundness of the people living in and around it. The rural development and watershed management initiatives offer enormous opportunities for augmentation of forestry activities. Conversions between NREGS and NAP guidelines is one example. Such opportunities need to be explored and exploited.

**4.1.5.** On the Personnel front there is a need to streamline cadre management of the forestry force at all levels( IFS, SFS , RFO, Foresters and Forest Guards) . The main ingredients of such cadre management would require:

(i) **Recruitment Plan:** Depending upon not just the retirement vacancies but also the expending mandate of the department and

(ii) **Training & Capacity Building Plan:** Keeping in mind the technical requirements and the multifarious roles that a forester is required to play in the ever changing situations.

(iii) **Career Progression Plan:** Assured career progression is key to keeping the morale of the force high. The entire forestry force at all levels is facing acute stagnation. Immediate interventions are required starting from timely cadre reviews of the IFS to time bound promotion of the Foresters.

(iv) The State Governments need to make full use of existing provisions of Central Deputation Reserves (20% of cadre strength) and State Deputation Reserves (25% of cadre strength).

## **4.2 Present GOI Support:**

Strengthening of SFDs, has been supported by the Ministry through various development schemes such as Integrated Forest Protection Scheme (renamed as Intensification of Forest Management Scheme) and Assistance for Development of National Parks and Sanctuaries Scheme (renamed as Integrated Development of Wildlife Habitats). Similarly, training and capacity building for the IFS, SFS and

Range Forest Officers is being addressed by different schemes of the Ministry. Recently, the Ministry has formulated a comprehensive scheme “Capacity Building in Forestry Sector” by merging the existing three schemes and introducing four new components. A brief write up on this scheme is at *Annexure – IV (i)*.

### **4.3 Some Examples of Modernization:**

The Ministry has been receiving inputs from certain SFDs about the modernization that has been successfully attempted by them. Reorganization of field-unit into *Forest Thanas* and *Forest Outposts*, improvement of field infrastructure, improved mobility of patrolling staff, use of modern techniques such as GPS and PDA for forest-fire control and management and for surveillance, digitization of forest boundaries and use of satellite data for Working Plan preparation, improved methods of census, effective anti-poaching activities through strike forces and may exemplary cases of involvement of local people through JFMCs and EDCs in forest and wildlife management and eco-tourism are some of the dimensions of strengthening and modernization reported by the SFDs. Such examples need to be shared for replication.

### **4.4 Points for consideration:**

On the basis of feedback received from different SFDs during various discussions and meetings following action points have emerged:

#### **4.4.1 On the technology front:**

- a. Introduction of advanced methods of surveillance and reporting: digitization of forest boundaries, use of GIS based resource mapping, use of GPS and PDA by frontline staff.
- b. Strong data base: creation of online data base on a uniform platform, incorporation of day-to-day field inputs (fires, illegal felling, poaching, other forest offences, departmental extraction etc.) and multilayered report generation.

- c. Interactive websites with updates on research, economic and social interventions

#### 4.4.2 On the Infrastructure front:

- a. Strengthening of Range Office Complex (Refer to the note at **Annexure- IV (ii)**)
- b. Establishment of Forest Stations [Refer to the note at **Annexure- IV (iii)**]
- c. Establishment of a network of out-posts (anti-poaching, anti-smuggling camps)
- d. Rapid Action Mobile Squads in each Division/ Protected Areas
- e. Modern communication and other equipments (Cell phones/ PDA/ VHF Sets/ Binoculars/ Night Vision Facility.
- f. Arms and ammunition
- g. Housing Facilities on the lines of Police Department at each major HQs.
- h. Access to medical and education facilities for the family members of the frontline personnel.

#### 4.4.3 Training and capacity building frontline personnel:

- a. Uniform and mandatory induction training for all directly recruited personnel
- b. Skill up-gradation courses for all promoted personnel
- c. Exposure visits to areas of excellence
- d. Promoting higher studies and specialization amongst frontline personnel

#### 4.4.4 On administrative and policy front:

- a. A long term consistent policy on direct recruitments
  - i. Immediate measure for filling up of all frontline positions
  - ii. Rationalization of recruitment and training rules.

- b. An HR Policy with transparent and explicit procedures for transfers and promotion. Minimum assured tenure and rotation.
- c. Reorganization of field units of different wings ( territorial, wildlife, social forestry etc.) for synergy and effectiveness and rationalization of sanctioned strength. Creation of Forest Stations / Outposts.
- d. Incentives for difficult jobs,
  - i. Remote area allowances
  - ii. Facilities for residence. Education and health care of the family members.
  - iii. Intelligence gathering
  - iv. Motivation (awards and reward) Strong e-governance approach with least dependency on paper-work.

#### **4.4.5 SFDs to diversify:**

- a. To cater to basic needs of local people for fuel-wood, fodder, construction timber. Promoting Agro-forestry
- b. To provide livelihood opportunities ( NTFPs – value addition, marketing)
- c. To encourage eco-tourism.

### **4.5 Input solicited from the State Forest Departments**

#### **4.5.1 Is there a plan to reorganize / strengthen field units ( Beat Offices / Camps / Range HQs / Divisions / Circle level)**

- a. Has it been done already, if so, major features of reorganization.
- b. Has it been planned, if so, details thereof.
- c. Constraints, if any, in such reorganization / strengthening.

**4.5.2** How is the infrastructure / communication at field level in the entire State/UT: (indicate in % satisfaction terms viz: <25%= poor; 25-50%= Average; 50-75% Good; >75%=Very good:

		Range Level	Beat level	Sub-beat level
Office buildings				
Residential facility				
Mobility ( specify type and average number/ unit)				
Communication	Land line Phone			
	Cell Phones			
	Wireless			
	Others(internet )			
Computer and internet facilities/				
Use of GPS / PDF				
Data base				
E-governance initiatives				

Status on strength of frontline forestry personnel

		ACFs	Range Officers	Deputy Rangers	Foresters and equivalent	Forest Guards equivalent
1	Pay scale					
2	Status (group- A/B/C/D) Gazetted/ non- Gazetted					
3	Sanctioned strength					
4	In position					
5	Vacant positions					
6	% of row-3 that are imparted induction training					
7	Duration of induction training					
8	Minimum qualification for DR					
9	Refresher courses (yes/no) & frequency					
10	Average time taken for promotion to next rank					
11	Counterpart in Police Depart. (designation & scale					



#### 4.5.3 Input on IFS Deputation status/RR requirement

##### Utilization status of IFS Deputation Posts

Table -1

Total number of CDR Posts in the Cadre	Total number of SDR Posts in the Cadre	Number of Officers on CDR (as on 1.4.09)	No.of Officers on SDR as on 01.04.2009

##### Recruitment proposal for IFS

Table - 2

Total Cadre Strength of the State	Total number of Senior Duty Posts	Total retirement till 01.01.2014	Proposed intake of IFS direct recruits year-wise till 2014
			2009 2010 2011 2012 2013 2014

#### 4.5.4 Budget position:

- a. Average annual budgetary requirement for the entire Forest Department (Rs in lakh)
- b. Average annual allotment of funds (Rs in lakh)
- c. Average % of budget used for :
  - i. Infrastructure development ( including maintenance) of field units
  - ii. Training of frontline personnel

**4.5.5 Modernization Plan:**

- a. Whether the State has prepared a modernization Plan
- b. What are major proposals for the next five years (beginning 2010-11)
- c. What is the financial requirement for the plan ( year-wise break-up)
- d. Whether the State-share will be available to the extent planned for modernization
- e. Funds received from GOI under IFPS during last 5 years and the major infrastructure related activities undertaken (**appx. proportion wise**)

	Rs in Lakh	Buildings		Roads	Vehicles	Equipments
		Off.	Resi.			
2008-09						
2007-08						
2006-07						
2005-06						
2004-05						
total						

\*Computers, Cell phones /VHFs / GPS PDA etc.

- f. Tentative requirement for next five years :

	Rs in Lakh	Buildings		Roads	Vehicles	Equipments*
		Off.	Resi.			
2009-10						
2010-11						
2011-12						
2012-13						
2013-14						
total						

\*Computers, Cell phones /VHFs / GPS PDA etc.

#### 4.5.6 Details of the Joint Forest management Committees (JFMCs) in the State / UTs

- i. Number of JFMCs covered by NAP (FDA):=
- ii. Number of JFMCs not covered under NAP:=

**Total Number of JFMCs in State (i+ii) =**

- iii. Forest area under JFM:
  1. Through NAP
  2. outside NAP

**Total are under JFM (1+2)=**

- iv. Do the micro-plans exist for those JFMCs that are not part of FDAs
- v. Major activities of JFMCs that are supported by IFPS funds

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## **Agenda V**

### **PROTECTION OF FORESTS IN THE CONTEXT OF THE IMPLEMENTATION OF “THE SCHEDULED TRIBES AND OTHER TRADITIONAL FOREST DWELLERS (RECOGNITION OF FOREST RIGHTS) ACT, 2006”**

#### **5.1 The Act**

“The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, while recognizing the traditional life styles of forest dwelling communities, empowers them for the sustainable utilization and management of forests, wildlife and environment, in their respective forest areas of habitation/ livelihood. The recognition and vesting of secured rights to the Forest Dwelling Scheduled Tribes and Other Traditional Forest Dwellers, regarding land and /or livelihood related traditional rights, will not only give them sustainable livelihood opportunities but will also motivate and involve them for sustainable use of natural resources including conservation of bio-diversity leading ultimately in strengthening the conservation regime of the forests. There are considerable expectations from the Act. Its speedy implementation will stabilize the relevant administrative mechanisms for ensuring Forest Protection.

#### **5.2 The implementation of the Act**

Ever since the Act was notified for operation, with effect from 31/12/2007, many States are enthusiastically implementing the provisions of the Act and the Rules framed there under and are at various stages of implementation.

*At the central government level, the Ministry of Tribal Affairs (MOTA) is the nodal Ministry to facilitate the implementation of the Act. The MOTA has institutionalized a Web-based Management Information System (M.I.S.) for online monitoring of the implementation of the Act on website <http://forestrights.gov.in>. As per the*

information collected from the States till 30<sup>th</sup> June, 2009, more than 21.48 lakh claims have been filed and more than 2.70 lakh titles have been distributed. More than 1.35 lakh titles are ready for distribution. Most of the States hope to complete the process in 2009.

*The Ministry of Environment and Forests (MOEF) is involved in the facilitative mechanism for the implementation of the Act, with respect to the following aspects, up-to-date, details of which are available as **Annexure – V (i)**.*

- Identification and declaration of the critical wildlife habitats in national parks and Wildlife Sanctuaries.
- Institutionalization of a mechanism and issue of orders for setting up a simplified procedure for diversion of forest land up to one hectare for undertaking developmental activities as provided under section 3 (2) of the Act.
- Initiating action with State Governments, after individual rights have been vested, for conversion of forest villages/ habitations into revenue villages.
- Processing for giving access to such villages under Forest conservation Act, 1980.
- Number of persons/area/in districts/in States likely to be re-settled under section 4 (2) of the Forest Rights Act
- Holding of National Workshops on the progress on implementation.
- Establish a mechanism for quickly responding to court petitions/stays regarding the Act.
- Establish an on-line monitoring format.

### **5.3 Queries related to Implementation:**

The Ministry alongwith the MOTA and Ministry of Law & Justice has been trying to address the queries and confusions concerning the field level implementation problems of the Act. Some major queries and the decisions regarding each issue are tabulated in **Annexure – V (ii)**.

## **5.4 Implementation Issues:**

### **5.4.1 The issue of shifting Cultivators:**

The conferment of Forests Rights to the individuals/ communities practicing shifting cultivation is a highly complicated issue due to the very nature of cultivation and considerable socio-economic variations in the concerned states.

As per the draft report of Inter-Ministerial National Task Force on Rehabilitation of Shifting Cultivation Areas constituted by MoEF, the trend appears to indicate decrease in area under Shifting Cultivation specially where investments have been made in the Social Sectors and for settled cultivation.

There is no specific mention of shifting cultivation under the Act, i.e. it is not specifically recognized as a Forest Right.

The issue of recognition and vesting of rights of STs and OTFDs practicing shifting cultivation under the Act was considered in the meeting of Core Group held on 24.3.2009 in the Ministry of Tribal Affairs, wherein it was decided that, on a formal reference from any State, the view of the Government should be as under:

“In the context of the preamble of the Forest Rights Act, shifting cultivation, considered to be environmentally unfriendly, should not be encouraged. So, if there are any claims filed by shifting cultivators, either individually or as a community, our aim should be to settle these rights as per the provisions of the Act. The specific local circumstances would be relevant for Gram Sabhas to recommend or not to recommend vesting of these rights. Simultaneously, it would be necessary for State Governments to focus existing programmes on these, “to be settled” shifting cultivators so that they are able to optimize their investments and minimize the adverse impacts of such cultivation on soil and water”.

### **5.4.2 Fool-proof systems of Rights Recognition :**

Use of modern technological support i.e. satellite imageries etc. The state of Maharashtra has established systems, worth re-looking at!

#### **5.4.3 Real time help to the STs and OTFDs:**

Through system of social modulators to facilitate in their application process, etc. – the Andhra Pradesh Model!

#### **5.4.4 Post Right Conferment, Long-term issues regarding Forest Protection:**

*The bigger role and challenge for this Ministry and the State Forest Departments will come, once the Forest Rights have been conferred. The challenge will be how to institutionalize the systems and how to involve the right holder individuals and communities in the task of Sustainable Utilization of available forestry resources and protection of forests. This issue is dwelt upon, in the perspective of each individual Forest Right intended to be conferred, in the following paras:*

- **Land Rights:**

While, the Act envisages responsibilities for the forest right holders and the forest village communities for the protection and conservation of the bio-diversity in the village and the surrounding forests, the Act also confers the **right for conversion of forest villages into revenue villages**. This dichotomy, once the status of forest villages gets converted into revenue villages and in effect the land within a village ceases to remain the forest land, may lead to highly conflicting situation to the detriment of forests in the area. This is specially true about the Western Ghat States, the Himalayan States and the North-Eastern States where the Forest Dwelling communities occur in a mosaic pattern i.e. are intermixed with the well preserved forest areas and do not occupy contiguous patches of Forest Lands. This issue needs deliberations.

- **Right of MFP Ownership, Collection, Use and Disposal and other Community Rights like Fishing Grazing etc.:**

The role of the forest department regarding forestry resources including land, water bodies, plant/ animal diversity and MFPs has been as a

custodian, in the spirit of Public Trust Doctrine. However, the Act, transfers the ownership of MFPs, from the realm of Public goods, to the individual properties. The Act also assumes that the MFPs and other community forestry resources will be sustainably used by the right holders through their traditional practices. This paradigm shift in the field of MFPs/ other natural forest resources etc. will need considerable thought process and management guidance from the side of forest departments so that the sustainable upkeep of MFPs/ other natural forest resources becomes ingrained among the new institutions and systems to be established/ evolved.

Similarly, the Right given to the local forest communities to protect the community forest resources which they have been traditionally protecting, admits that these communities have a fundamental responsibility towards forest protection. Forest Departments have to realize that, with this provision, their duties of forest protection now get shared by legislatively empowered bodies of local communities. Due to this the Participatory Forest Management Models, can really mature into independent and empowered institutions in the long run.

As such, Speedy evolution of State/UT specific models for capacity development of the communities as well as government functionaries is called for so that by the time the rights are settled, secure systems to ensure protection and conservation of forest in the area are in place. *Convergence of forest villages/forest right holders with the Institution of Forest Development Agencies (FDA) / Joint Forest Management Committees (JFMCs), which will in effect bring necessary heterogeneity among stakeholder community, has to be the approach to initiate the forest protection and sustainable resource utilization responsibilities among the forest right holders.*

- **The need for speedy completion of the procedures with regards to the “Critical Wildlife Habitats”**

The Rights Act provides that no resettlement in context of the areas identified as “Critical Wildlife Habitats” shall takes place until facilities and land allocation at the resettlement location as per the promised package are completed. In order to safe guard the inviolate nature of these areas, therefore, it is highly necessary that the identification and notification of the Critical Wildlife Habitats and the resettlement proceduralities for the same are taken up by the States/UTs on a war footing.

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## **Agenda VI**

### **WILDLIFE MANAGEMENT INCLUDING TIGER CONSERVATION AND ISSUES RELATED TO MAN-ANIMAL CONFLICT.**

#### **6.1 Background:**

India has taken a number of initiatives for wildlife conservation. The enactment of the Wildlife (Protection) Act, 1972, launching of Project Tiger, Project Elephant, constitution of Central Zoo Authority, National Tiger Conservation Authority, National Wildlife Crime Control Bureau and establishment of Protected Areas (PAs) are notable among these. India currently has 661 Protected Areas (99 National Parks, 515 Wildlife Sanctuaries, 43 Conservation Reserves and 4 Community Reserves) covering around 4.8 % of the geographical area of the country. The State-wise list of PAs is at **Annexure VI (i)**. Flagship programmes for the conservation of Tiger and Elephants have been initiated. There are at present 37 Tiger Reserves and 26 Elephant Reserves. The Wildlife Crime Control Bureau was established in 2007 to combat wildlife crime. Further, India has a National Wildlife Action Plan (2002-16), which provides policy directives for wildlife conservation in the country.

Despite these initiatives, wildlife conservation faces several challenges. A good number of our PAs are small, fragmented and surrounded by human inhabited areas. Significant part of wildlife resources lay outside the PA network. At many places, there is conflict between wildlife rich areas and forest dependent communities over issues of access and utilization of bio-resources. Man-animal conflicts are on the rise, causing hardships to people. As a result, retaliatory action against wildlife has become rampant. In addition, wildlife crime and illegal trade in wildlife also continue to be a cause of concern.

Following the enactment of the Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, it is statutorily required to delineate Critical Wildlife Habitats. Besides, preparation and updation of Management Plans for the PAs, implementation of the National Wildlife Action Plan (2002-16), etc need priority and focused attention.

Thus, it is necessary to strengthen the existing wildlife conservation/enforcement efforts, habitat improvement practices, and infrastructure development. Major initiatives are also required for the protection of wildlife outside PAs, saving critically endangered species and habitats, rationalization of PA boundaries, final notification and settlement of rights, relocation of villages from crucial wildlife habitats, securing critical wildlife corridors, mitigation of wildlife-human conflicts, initiating ecodevelopment programmes, rehabilitation of hunting communities, capacity building activities for frontline staff and local communities, integrating research with wildlife management, etc.

Keeping these in view, during the 11<sup>th</sup> Plan period, a comprehensive Centrally Sponsored Scheme titled 'Integrated Development of Wildlife Habitats' has been made operational by the Central Government. Similarly, the Project Tiger has been revamped with focus on creating inviolate areas for tiger conservation. Project Elephant continues to support the State/ UT Governments for the conservation of elephant population in the country. With this background, the following issues are highlighted for the immediate attention of the State/ UT Governments for further strengthening the wildlife conservation in India.

## **6.2 Items for consideration:**

### **6.2.1 CSS -Integrated Development of Wildlife Habitats:**

The Central Government in December 2008 has approved the Centrally Sponsored Scheme - **“Integrated Development of Wildlife Habitats”** by adding new components/ activities in the erstwhile Centrally Sponsored Scheme- “Assistance for

the Development of National Parks & Sanctuaries”. The modified Scheme with an outlay of Rs. 800.00 crores during the 11<sup>th</sup> Plan period has the following components:

- a. Support to Protected Areas;
- b. Protection of Wildlife Outside Protected Areas; and
- c. Recovery programmes for critically endangered species and their habitats.

The financial allocation provided to State/ UT Governments during the last five years under the erstwhile and present Schemes are at **Annexure VI (ii)**. During the financial year 2008-09, the allocation under the Scheme was Rs.80.00 crore, of which Rs.79.47 crore was released. Similarly, during the current financial year, an amount of Rs.80.00 crore has been earmarked under the Scheme.

### **6.2.2 Preparation of Management Plans in PAs:**

Management Plans are the foundation of the scientific management of PAs. However, only about less than 50 % of the PAs in the country have operational Management Plans. Many PAs, either do not have Management Plans or have Plans already expired. This is a serious lacuna in the scientific management of PAs. It is necessary to prepare and operationalize Management Plans in all the PAs on a priority basis.

### **6.2.3 Mitigating man-animal conflicts:**

Man-animal conflict is seen across the country in a variety of forms, including monkey menace of the urban centers, crop raiding by ungulates and wild pigs, depredation by elephants, and cattle and human lifting by tigers and leopards. Damage to agricultural crops & property, killing of livestock and human beings are some of the worst manifested forms of man-animal conflict. Various reasons have been attributed to this including the degradation of habitats, depletion of the natural prey base, changing crop patterns, greater adaptability of wild animals, suitability of man modified habitats to wild animals, presence of stray dogs and cattle in forest fringe

areas etc are some of them. Crops like sugarcane and tea estates are reported to provide excellent cover for wild animals.

Under the various Centrally Sponsored Schemes, MoEF has been providing financial and technical assistance to the State/UT Governments for the conservation and management of wildlife including those activities aimed at mitigating man-animal conflicts.

#### **6.2.4 Wildlife Crime Control Bureau**

Government of India has established the Wildlife Crime Control Bureau in June 2007. The erstwhile Regional Offices of Wildlife Preservation located at Delhi, Chennai, Mumbai, and Kolkata and the Sub Regional Offices at Cochin, Guwahati and Amritsar have been made part of the Bureau and a new regional office has also been set up at Jabalpur. The main objectives of the Bureau are to collect and collate intelligence related to organized wildlife crime and to disseminate the same to State/UTs and other enforcement agencies, co-ordination among various agencies on the enforcement of the provisions of the Wildlife (Protection) Act, implementation of obligations under the various International Conventions and Protocols relating to wildlife etc.

#### **6.2.5 Project Elephant**

Government of India launched Project Elephant in 1991-92 with the objectives of protecting elephants, their habitat & corridors, addressing issues of man-animal conflict and welfare of domesticated elephants. The details of Elephant Reserves in the country and the estimated elephant population are at **Annexure VI (iii) and Annexure VI(iv)** respectively. The financial assistance provided under Project Elephant Scheme is at **Annexure VI (v)**.

#### **6.2.6 Tiger Conservation**

Conserving the tiger is a collective responsibility between the Centre, States and civil society institutions. We have a unique, rather unparalleled experience of

implementing Project Tiger since 1973. Project Tiger has resurrected the endangered tiger from the brink of extinction. Since the early years of its formation, the Project Tiger coverage has expanded from 9 to 37 reserves spread over 17 States. The recent All India Tiger Estimation released last year has revealed that we are left with only 1411 tigers. Though this estimation, based on sampling, cannot be compared with the earlier pugmark count, nevertheless, it has sounded an alarm regarding the status of tiger and its habitat. The details are at **Annexure VI (vi)**. The tiger status, perhaps satisfactory in many of the reserves, requires ongoing managerial inputs to face challenges like poaching, man-animal conflicts and loss of habitat. The forests outside tiger reserves and some protected areas hardly have any viable population of tiger or its prey base.

There are several causative factors for tiger decline in the country. The most important amongst these are: tiger deaths due to poaching and man-animal conflicts, degradation of forests due to human/livestock pressure, presence of ecologically unsustainable land uses leading to habitat fragmentation, poor quality of forests to support natural prey animals for tiger, insurgency/law and order problems.

The above list is by no means exhaustive. Many administrative bottlenecks also dampen our efforts, like lack of capacity building need for improving field delivery, release of central assistance by States to field units, filling up of field vacancies, and above all ensuring reciprocal commitments from States to strengthen our efforts to save the tiger.

Government of India constituted the Tiger Task Force under Ms. Sunita Narain, in the wake of tigers becoming locally extinct from Sariska. The urgent recommendations of the said Task Force gave us an opportunity to bring in several institutional changes. The Wildlife Act was amended to create the National Tiger Conservation Authority and the Wildlife Crime Control Bureau. Other milestone initiatives include revising the Project Tiger Scheme to bring in more components. The details of financial assistance provided under the Project tiger Scheme is at **Annexure VI (vii)**. The village relocation package has been increased from Rs. 1 lakh to Rs.10 lakhs per family to create inviolate space for tiger. Tigers

have been reintroduced in Sariska and Panna with central assistance. The Special Tiger Protection Force has been approved for 13 tiger reserves, and 100% central assistance has been provided recently to 3 reserves for raising the same.

However, the battle is far from won. The recorded mortality of tigers during the year (till 1st July 2009) amounts to 38, which includes 10 deaths on account of poaching. Further the incidents of tigers straying into human landscapes are becoming more common, as seen in UP, Uttarakhand, Karnataka and West Bengal. Several of our reserves are suffering because of insurgency or left wing extremism. The recent problems in Simlipal are a case in point. We have lost several tigers from our prime areas like Kanha and Kaziranga. The situation is far from satisfactory and calls for more action on our part.

We must dispassionately examine some key issues like: are we prioritizing our items? Is the local leadership waning in some tiger reserves? Whether field officers and their team are adequately touring their area and making supervisory checks? Do we have adequate frontline staff in the right age group to do patrolling? Are we actively managing the buffer areas to address man – tiger problems? Is there a vision and time-bound action for restoring corridors? Are we utilising the available opportunity for putting in place the statutory processes to get due support? Do we require more intense monitoring and evaluation? How best can we improve our relations with NGOs, Panchayati Raj institutions, MPs and MLAs? Are there enough initiatives to foster awareness? Are we building up our capacity to foster professionalism? Are we doing enough to tap resources from important schemes like NREGA?

The urgency of saving the tiger enjoins on the Centre, State and tiger reserve management with many responsibilities. In the light of such responsibilities, it is essential to ensure reciprocal commitments linked to fund flows between the Centre, States and the tiger reserve management.

### **6.3 Issues for discussion:**

- 6.3.1** The scope and mandate of the CSS – ‘Integrated Development of Wildlife Habitats’ have been expanded considerably to support activities such as protection of wildlife outside the PAs and initiating recovery programmes for critically endangered species, apart from supporting the Protected Areas. The State/ UT Governments are requested to submit appropriate proposals for availing central assistance under these components.
- 6.3.2** The State/ UT Governments are requested to scale up financial allocation for wildlife conservation in State Plans.
- 6.3.3** The State/ UT Governments are requested to expeditiously prepare and operationalize the Management Plans for PAs in a given time framework, wherever these are non operational.
- 6.3.4** The State/ UT Governments are requested to develop an action plan for tackling man-animal conflict and to augment mitigatory measures for tackling man-animal conflict. They are also requested to revise the rates of compensation and also ensure the speedy dispensation of compensation.
- 6.3.5** The State/UT Governments are requested to appoint Nodal Officer in Forest and Police Departments for coordination on matters related to wildlife crime and also to establish a 24 X 7 Control Room/ Node at the State Head Quarters for intelligence exchange. The State/UT Governments are also requested to inform the Wildlife Crime Bureau Bureau on the occurrence of major crimes in a format already circulated and also to give details of wildlife crimes during the last 10 years to facilitate the establishment of wildlife crime data base (formats already circulated).
- 6.3.6** Further, the views of the State/ UT Governments are also sought on the desirability of taking up investigation by WCCB into cases of serious wildlife crime in State/ UTs and, if so, the mechanism thereof.

- 6.3.7** The State/UT Governments are requested to appoint independent Field Coordinators for each Elephant Reserve in elephant range states.
- 6.3.8** The State/ UT Governments are requested for the Implementation of tripartite MOU between the MoEF (through the NTCA), tiger States and Field Directors of Tiger Reserve. They may inform the progress regarding raising, arming and deploying of the Special Tiger Protection Force (STPF).
- 6.3.9** The State/ UT Governments are requested to comply with the statutory provisions as contained in the Wildlife (Protection) Act, 1972 such as:
- (a) Constituting the buffer zone around the core/critical tiger habitat
  - (b) Constitution of Steering Committee under the Chairmanship of the Chief Minister
  - (c)Preparation of reserve specific Tiger Conservation Plan
  - (d) Creation of reserve specific Tiger Conservation Foundation
- 6.3.10** The State/ UT Governments are requested to take actions for restoring the corridors identified in the All India tiger estimation using the refined methodology (February, 2008), conducting capacity building programmes for staff, addressing interstate coordination issues for tiger protection and also prepare for the forthcoming All India tiger estimation using the new methodology.
- 6.3.11** The State/ UT Governments are requested to take actions for managing tigers in man modified landscapes: handling strayed out tigers, landscape level planning, and mainstreaming tiger concerns at landscape level.

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## Important Environmental Acts

**(i) The Water (Prevention and Control of Pollution) Act, 1974:** This Act represented India's first attempts to comprehensively deal with water pollution issues and creation of institutional set in the country. The Act prohibits the discharge of pollutants into water bodies beyond a given standard, and lays down penalties for non-compliance. The Act was amended in 1988 to conform closely to the provisions of the EPA, 1986. It set up the CPCB (Central Pollution Control Board), which lays down standards for the prevention and control of water pollution. At the State level, the SPCBs (State Pollution Control Board) function under the direction of the CPCB and the state government.

**(ii) The Water (Prevention and Control of Pollution) Cess Act, 1977:** This Act provides for a levy and collection of a cess on water consumed by industries and local authorities. It aims at augmenting the resources of the central and state boards for prevention and control of water pollution. Following this Act, The Water (Prevention and Control of Pollution) Cess Rules were formulated in 1978 for defining standards and indications for the kind of and location of meters that every consumer of water is required to install.

**(iii) The Air (Prevention and Control of Pollution) Act, 1981:** To counter the problems associated with air pollution, ambient air quality standards were notified under the 1981 Act. The Act seeks to combat air pollution by prohibiting the use of polluting fuels and substances, as well as by regulating appliances that give rise to air pollution. Under the Act, establishing or operating of any industrial plant in the pollution control area requires consent from state boards. The boards are also expected to test the air in air pollution control areas, inspect pollution control equipment, and manufacturing processes. The power to cancel consent for non-fulfilment of the conditions prescribed has also been emphasized in the Air Act Amendment.

**(iv) The Environment (Protection) Act, 1986:** This Act is an umbrella legislation designed to provide a framework for the co-ordination of central and state authorities established under the Water (Prevention and Control) Act, 1974 and Air (Prevention and Control) Act, 1981. Under this Act, the central government is empowered to take measures necessary to protect and improve the quality of the environment by setting standards for emissions and discharges; regulating the location of industries; management of hazardous wastes, and protection of public health and welfare. From time to time the central government issues notifications under the EPA for the protection of ecologically-sensitive areas or issues guidelines for matters under the EPA.

**(v) The Public Liability Insurance Act, 1991:** The Act covers accidents involving hazardous substances and insurance coverage for these. Where death or injury results from an accident, this Act makes the owner liable to provide relief as is specified in the Schedule of the Act. The PLIA was amended in 1992, and the Central

Government was authorized to establish the Environmental Relief Fund, for making relief payments.

**(vi) The National Environment Appellate Authority Act, 1997:** This Act provided for the establishment of a National Environment Appellate Authority to hear appeals with respect to restriction of areas in which any industry operation or process or class of industries, operations or processes could not carry out or would be allowed to carry out subject to certain safeguards under the Environment (Protection) Act, 1986.

**(vii) The Biological Diversity Act, 2002:** The Ministry of Environment and Forests has enacted the Biological Diversity Act, 2002 under the United Nations Convention on Biological Diversity signed at Rio de Janeiro on the 5th day of June, 1992 of which India is also a party. This Act is to “provide for the conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.” As per the provision of act certain areas, which are rich in biodiversity and encompasses unique and representative ecosystems are identified and designated as biosphere reserve to facilitate its conservation. All restrictions applicable to protected areas like National Park & Sanctuaries are also applicable to these reserves.

**(viii) The Wildlife (Protection) Act, 1972:** The Wildlife Protection Act, 1972 provides for protection to listed species of flora and fauna and establishes a network of ecologically-important protected areas. The WPA empowers the central and state governments to declare any area a wildlife sanctuary, national park or closed area. There is a blanket ban on carrying out any industrial activity inside these protected areas. It provides for authorities to administer and implement the Act; regulate the hunting of wild animals; protect specified plants, sanctuaries, national parks and closed areas; restrict trade or commerce in wild animals or animal articles; and miscellaneous matters. The Act prohibits hunting of animals except with permission of authorized officer when an animal has become dangerous to human life or property or so disabled or diseased as to be beyond recovery.

**(ix) The Forest (Conservation) Act, 1980:** This Act was adopted to protect and conserve forests. The Act restricts the powers of the state in respect of de-reservation of forests and use of forestland for non-forest purposes (the term ‘non-forest purpose’ includes clearing any forestland for cultivation of cash crops, plantation crops, horticulture or any purpose other than re-afforestation).

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## Major Sub-ordinate Legislation and Notifications

**(i) The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989:** The MSIHC Rules, inter-alia, stipulate preparation of On-site plan by the occupier and Off-site Emergency Plan by the District Authorities. As per the MSIHC Rules, the State Labour Departments are required to forward the report of major chemical accidents occurred, to the Ministry. The flow of information from the States to the Center regarding the chemical accidents, is weak. The Ministry receives the information in most of the cases either thorough print or electronic media.

**(ii) The Chemical Accidents (Emergency, Planning, Preparedness, and Response) Rules, 1996:** The Chemical Accidents (EPPR) Rules, 1996 envisage a Four-tier Crisis Management System in the country at the Central, State, District and Local levels. As per the Chemical Accidents (EPPR) Rules, the States are required to constitute State, District and Local level Crisis Groups for management of chemical accidents.

**(iii) Hazardous Wastes (Management, handling and Transboundary Movement) Rules 2008:** To regulate management of Hazardous Waste generated within the country as well as export/import of such wastes, the Hazardous Wastes (Management and Handling) Rules, 1989 were notified under the Environment (Protection) Act, 1986. New Rules titled 'Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008' have been notified superseding the earlier regulation, the Hazardous Wastes (Management & Handling) Rules, 1989. The recycling of e-waste and the requirement of registration for recyclers has been included under these Rules.

**(iv) Bio-Medical Waste (Handling and Management) Rules, 1998:** With the objective of proper management and handling of BMW generated in the country, the Government of India have notified the Bio-Medical Waste (Management & Handling) Rules, 1998 under the provisions of Environment (Protection) act, 1986.

**(v) E-Waste Management:** The Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 includes the wastes generated from Electronic Industry. These industries are required to obtain authorization from the State Pollution Control Boards (SPCBs).

**(vi) The Batteries [Management & Handling] Rules, 2001:** The Ministry notified the Batteries [Management & Handling] Rules, 2001 on 16<sup>th</sup> May, 2001. These Rules provide a system to regulate the manufacture, import, reconditioning, recycling of the lead acid batteries in the country. The Rules cover both the new and used batteries. It is mandatory for the consumer to return the used batteries on purchase of new battery so as to ensure the environmentally sound recycling of the

batteries. Further, the battery manufacturers, importers, retailers and dealers are required to set-up collection centres for used batteries, whereas the bulk consumers namely – Defence, Transport, Railway Sectors are allowed to auction the batteries.

**(vii) Municipal Solid Wastes (Management and Handling) Rules 2000:** The MoEF had notified the Municipal Solid Waste (Management and Handling) Rules, 2000 with a view to manage and handle the municipal solid wastes in an environmentally sound manner. These rules are applicable to every municipal authority responsible for collection, segregation, storage, transportation, processing and disposal of municipal solid wastes. The State/UT Governments need to ensure proper monitoring and enforcement of MSW Rules by the Implementing agencies (Municipalities, Urban Local Bodies, and State Pollution Control Boards/Pollution Control Committees).

**(viii) Recycled Plastics Manufacture and Usage Rules 1999:** The said rules specify standards and specifications for manufacture of Plastic carry bags and containers. A minimum thickness of 20 microns has been prescribed for plastic carry bags and a size of not less than 12x80 inches has been prescribed. Further, carry bags and containers have to meet manufacturing specification of IAS Code 9833 (1981) for using pigments and colorants.

However, there are variations in the minimum thickness of plastic carry bags stipulated under various State Rules. Some States/UTs have notified higher minimum thickness of plastic carry bags. These States/UTs are: Goa (40 microns), Himachal Pradesh (70 microns) (All types of plastic carry bags are to be banned in the entire State w.e.f. 15.08.2009; notification is awaited), Maharashtra (50 microns), Meghalaya (40 microns), Punjab (30 microns), Chandigarh (30 microns), West Bengal (40 microns) and Kerala (30 microns).

**(ix) Environmental Impact Assessment (EIA) Notification:** Introduction and objective Environmental Impact Assessment is a process by which the developmental activities are appraised by the Ministry. This is to ensure that environmental activities in order to achieve sustainable development. The process of EIA which was started in 1978-79 with five valley projects has now extended to about 39 activities. The major statutory regulations governing EIA are EIA Notification on 2006.

As per the EIA Notification, 2006, developmental projects / activities requiring prior environmental clearance under the provisions thereof have been identified based on their impact potential. These projects have been categorized broadly into two categories i.e. Category 'A' and Category 'B' The Category 'A' projects are those whose impact potential is large and such projects require environmental clearance from the Central Government in the Ministry of Environment & Forests. Category 'B' projects have comparatively Impact Assessment Authority (SEIAA) to be notified under the EP Act in consultation with the respective State / UT Government. A time limit of 105 days has been prescribed for environmental appraisal of project and taking a decision regarding grant of environmental clearance or otherwise. After the issuance of EIA Notification, 2006, there has been considerable increase in the number of projects received for environmental clearance.

**(x) Coastal Regulation Zone (CRZ) Notification:** For the purpose of conserving and protection the coastal environment, the Ministry has issued the Coastal Regulation Zone Notification 1991 under Environment protection Act 1986. The Notification regulates all developmental activities in the Coastal Regulation Zone. Under the Notification, the Coastal Regulation Zone are categorized as Coastal Regulation Zone I (Ecologically Sensitive), Coastal Regulation Zone II (Urban Areas), Coastal Regulation Zone III (rural areas) and Coastal Regulation Zone IV (The Islands of Andaman & Nicobar and Lakshadweep).

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**Annexure III (i)**



**Convergence Guideline**

**National Rural Employment Guarantee Act (NREGA)  
And  
National Afforestation Programme (NAP)**



**Ministry of Rural Development**



**Ministry of Environment and Forests**

## **1. NREGA: Introduction**

1.1 The National Rural Employment Guarantee Act (NREGA), notified on September 7, 2005, marked a paradigm shift from the previous wage employment programmes with its rights-based approach that makes the Government legally accountable for providing employment to those who demand it. The Act aims at enhancing livelihood security of households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

1.2 The primary objective of the Act is augmenting wage employment. Its auxiliary objective is strengthening natural resource management through works that address causes of chronic poverty like drought and so encourage sustainable development. Further, NREGA by encouraging works on water harvesting, soil conservation, flood protection, afforestation and plantation, helps to insulate local community from adverse effects of climate change. The process, outcomes include strengthening grass root processes of democracy and infusing transparency and accountability in governance.

1.3 Under NREGA large sums of public investments are made. Leveraging these investments towards sustainable livelihood requires inter-sectoral convergence. Since NREGA planning is decentralized and funds transferred are untied, works can be planned/ structured and executed as per local specific requirements. NREGA thus becomes a significant entry point for convergence with other development programmes.

1.4 Such inter sectoral convergence becomes instrumental towards:

- ❖ Establishing synergy among different government programmes in planning & implementation to optimize use of public investments
- ❖ Enhancing economic Opportunities
- ❖ Strengthening Democratic Processes
- ❖ Mitigating the effects of Climate Change
- ❖ Creating conditions for sustainable Development

## **2. Convergence:**

2.1 Convergence is an evolving process and while broad principles can be laid out at the Centre, the actual contours of convergence will be determined by the resources at the district and the field context. Also, to fully identify the possibilities of convergence, it may be necessary to make a beginning with select programmes, so that the experience of implementation may further inform and refine strategies for convergence.

2.2 With this perspective, a Task force on convergence with NREGA was set up with representatives from different Ministries and Departments, implementing programmes with complementarities with NREGA. The Task Force recommended beginning with select programmes of select Ministries. The Ministry of Forest and

Environment which was represented on the Task force was identified as an important partner to NREGA, as afforestation and plantation are permissible activities under NREGA. Possibilities of convergence between NREGA and the programmes of MoEF were discussed between the two Ministries and based on these discussions, convergence areas and modalities were identified and the following guidelines for convergence of afforestation/plantation works taken up under NREGA and under the programmes of the Mo EF.

### **3. Convergence between NREGA and NAP:**

3.1 Convergence between NREGA and NAP is mutually beneficial. Ministry of Environment and Forests has the task of achieving one third of the land area under forest and tree plantation as envisaged in the National Forest Policy, 1988. This cannot be accomplished by the MOE&F alone due to enormity of the task. Convergence with NREGS will provide additional resources. Operational guidelines of NAP also suggest co-ordination with rural development programmes so that the Forest Fringe areas and community/private owned forests can be developed on watershed approach in a holistic manner. The integrated area development approach with ecological concerns will benefit NREGA leading to better quality planning and selection of works capable of generating sustainable employment.

### **4. National Afforestation Programme Scheme (NAP)**

4.1 NAP is being operated as a 100% Central Sector Scheme. The overall objective of the scheme is to develop the forest resources with people's participation, with focus on improvement in livelihoods of the forest-fringe communities, especially the poor. NAP Scheme aims to support and accelerate the ongoing process of devolving forest protection, management and development functions to decentralized institutions of Joint Forest Management Committee (JFMC) at the village level, and Forest Development Agency (FDA) at the forest division level. Financial support under NAP Scheme is for afforestation. For its success, ancillary activities are supported as well. The financial support is available for:

(a) Afforestation – following models:

- Aided Natural Regeneration
- Artificial Regeneration
- Bamboo plantation
- Cane Plantation
- Mixed Plantation of trees having MFP & medicinal value
- Regeneration of perennial herbs & shrubs of medicine value
- Pasture Development/ Silviculture

(b) Mobilisation of village JFMC, and Micro-planning in project villages

(c) Soil & Moisture Conservation

(d) Entry Point Activity (for village development; average assistance Rs. 4000 per ha of afforestation)



(e) Fencing, Monitoring & Evaluation, Training, Awareness raising

4.2 NAP is implemented through a 2-tier structure of Forest Development Agency (FDA) at the forest division level and Joint Forest Management Committee (JFMC) at the village level.

4.3 The decentralized, participatory management and the nature of works of NAP are both complementary to NREGA. NREGS is implemented by the PRIs with about 50% to be executed by gram panchayats. Line departments like the Forest department are also included among the implementing agencies and the norms are followed as of Forest department. The project area under NAP are forest area and adjoining land areas including village common lands, community lands, revenue waste lands, Jhum lands and private lands, which are also covered under NREGA.

## **5. Parameters of Convergence:**

5.1 Works identified under NREGA for convergence will be planned and executed within the parameters of NREGA i.e.

- a) The cost of material component of projects including the wages of the skilled and semi-skilled workers taken up under the scheme shall not exceed forty percent of the total project costs.
- b) As far as practicable, a task funded under the scheme shall be performed by using manual labor and not machines.
- c) No Contractors

## **6. Modalities for Convergence between NREGS with NAP**

In operational terms, convergence of activities under NREGS and NAP will require coordination between these two programmes at the levels of

- I. Management
- II. Planning
- III. Works

### **6.1 Management**

1. The DPC NREGA (Collector/CEO) will constitute a District Resource Group (DRG) at the district level with representatives from the Forest Department (FDA CEO) and the department of Rural Development( NREGA and SGSY) and Panchayati Raj and a similar resource group at the Block level (BRG)
2. The group will facilitate:

- a. **Knowledge sharing.** Familiarisation of all the members of the group on guidelines of NAP and NREGA. This will clarify the programme parameters for what can be converged and what cannot.
- b. **Planning.** Since under both programmes, there are ongoing activities as well as those that have to be planned afresh, the group will have to determine the nature of interventions in the ongoing works and lay down a planning process that conforms to the guidelines of both programmes for the activities that have to be planned anew.
- c. **Communication.** Since both programmes aim at participatory processes effective IEC with the local community, user groups, workers, forest dwellers, will have to be planned and implemented.
- d. **Training:** Training of personnel/agencies responsible for NREGS and NAP implementation must be planned and implemented
- e. **Technical Support:** Techno-feasible norms for works selection, technical designs and appropriate technologies for afforestation and plantation projects will have to be formulated by technical expertise available for NAP. NAP should provide technical support for the supervision and evaluation of NREGA works so that they conform to appropriate designs and technologies.
- f. **Resource Pooling:**
  - i. **Human:** Under NREGA dedicated personnel is to be deployed. In intensive afforestation/plantation works districts, some of the personnel could come on deputation from the forest department or some personnel with suitable qualifications for afforestation/plantation could be taken on contract.
  - ii. **Financial:** Sharing of information on financial resources available and expected to be made available in the ensuing years. This will determine the quantum of works/activities that can be taken up and indicate where activity convergence will enable gap-filling or augmentation in scale/value, and which activity is to be funded under which programme.
  - iii. **Informational:** Data management could be converged through the use of NREGA MIS which provides work wise/ beneficiary wise details. Any additional feature required by the NAP may be incorporated in the NREGA MIS after discussion with the Ministry of RD.

**g Monitoring and evaluation.** Joint monitoring and supervision of activities should be planned. Baseline assessment, Concurrent appraisal and documentation and evaluation of impact of NAP and NREGA on a set of indicators for eco restoration as well as for local community needs could be initiated. Quantification of benefits of works undertaken could also be taken up.

**7. Processes for convergence in planning and through works are elaborated below:**

**7.1 Planning**

7.1.1 Convergence of NAP with NREGS planning will have to be both for preparing perspective plans and annual plans. Guidelines of NREGS stipulate the formulation of perspective plan to facilitate advance planning and to provide a development perspective for the district. The aim is to identify the types of NREGA works that should be encouraged in the district and the potential linkages between these works and long term employment generation and sustained development. The NREGA perspective plans identify the needs and gaps in the district in all sectors, not just related to works permissible under NREGA. Thus, afforestation/ plantation needs are to be factored in the NREGA perspective plan. Multiyear planning of afforestation would be dovetailed in the NREGA perspective plan.

7.1.2 The Annual work plan (AWP) of NREGA lists the shelf of projects recommended by the gram sabha and finalised by the Gram Panchayat/IP/ZP. If the perspective plan has been made then the AWP will be broadly based on the perspective plan but must be endorsed by the Gram Sabha/PRI as per the Act. The NREGA plan will be based on the permissible works under schedule one, NREGA.

7.1.3 Micro plans would be prepared by the JFMC/EDCs as per NAP guidelines for NAP assistance and consolidated/vetted through FDAs for NAP funding.

**7.1.4 A list of project activities to be planned for under NAP includes inter alia**

- i) In situ soil and moisture conservation measures,
- ii) Soil and moisture conservation by constructing small scale engineering structures.
- iii) Planting and sowing of multi-purpose trees, shrubs, grasses and legumes, as well as non-timber species.
- iv) Fuel wood & fodder plantation including pasture development for meeting biomass needs of the rural communities.
- v) Conservation in situ of medicinal plant species and augmenting their plant population by under taking plantation in the watershed.
- vi) Raising of Bamboo, cane plantation and medicinal plants.
- vii) Raising of coastal shelterbelts in the problem areas.
- viii) Cultural operations.

- ix) Promotion of agro-forestry and sericulture etc., as appropriate.
- x) Wood substitution and fuel wood conservation measures such as distribution of fuel efficient stoves.
- xi) Measures needed to disseminate new technology.

All the activities /works listed above at serial number i) to ix) are also allowed/covered under NREGA. Therefore, a project covering forest area and adjoining land areas including village common lands, community lands, revenue waste lands, Jhum lands and private lands with watershed approach, will be prepared. Works required and covered under NREGA will be selected under NREGS. Works not allowed under NREGA but permissible under NAP will be selected under NAP.

7.1.5 The micro planning of NAP by the JFMs can be coordinated with the AWP planning of NREGA, so that selection of works under the NAP plan and under the NREGA AWP complement with each other.

7.1.6 For this purpose, Block level resource persons may be trained on the programmes and the methodology of convergence between NAP and NREGA. They will guide the Gram Sabha in preparing the village plan, so that the micro plans of NAP and the AWP of NREGA complement each other and the selection of works, and their sequence is dovetailed into a well-linked programme.

7.1.7 The institutional platform for such dovetailing will be the Gram Sabha at the village level, and then the Gram Panchayat. The Programme Officer and the BRG at the Block level and the DPC and the DRG at the district level will ensure that the selection of works under NREGS and NAP are in mutual coordination. The DRG will ensure that in converging the plans of both the programmes, the technical quality of the plan is maintained as per the norms of NAP as for example in the selection of tree/plant species, area of plantation/afforestation, (work location) technology and season of work. The Department of Forest database of forest resource mapping for that district will be shared with the group to enable the formulation of feasible afforestation/plantation plans as the result of NREGA and NAP planning process.

## **7.2 Works**

7.2.1 Works under NREGA may be at three levels: (i) Works approved in the current shelf but not yet started (ii) Ongoing works and (iii) . Works completed. (iv) Works yet to be selected for the next financial year ( as part of the annual planning process). Therefore, convergence would need to be planned, keeping these varying stages of works.

7.2.2 The operation may be undertaken at three levels. In case of the first scenario, where works have been included in the shelf of projects, but not started yet, the Shelf of projects formulated under NREGA may be re-scrutinized to assess the feasibility of works selected. The forest department may share their data base on natural resources in that area/district specially on forest over and so that it may be assessed that the selection of works is appropriate. If any correction is required it may be done. In case of the second and third scenarios, the expertise of the forest department should be marshaled for quality supervision, and in planning the next set of activities. In case, land development has been undertaken (on individual/community land) plantation agro forestry projects may be taken up. The technical advise of the Forest Department may be considered for planning the next set of activities. The List of works completed/taken up will be shared with Dept. of Forests which will indicate appropriate activities/technologies for each work for value addition. In case of planning new works the suggestions given above in para 3.1 on the planning process may be considered.

**7.2.3 Convergence** through works may be effected in some of the following ways:

- A. Gap filling through NREGS for similar work under NAP
- B. Dovetailing inputs into a common Project
- C. Area Approach
- D. Value addition through NREGA to NAP works
- E. Technical support for ensuring quality in planning, selection and execution of NREGA works

**A) Gap Filling/ Enhancing scale**

Under this permissible works may be converged for Gap Filling/ Enhancing scale, mutually supplementing resources for common needs and inputs.

**i Afforestation and tree plantation**

The activities which can be covered under afforestation and tree plantation under NAP are

a). Afforestation:

To cover degraded forest and barren land under afforestation.

b). Reforestation & Tree plantation:

- Eco restoration,
- Avenue plantation,
- Road, Rail, Canal and Boundary plantation,
- Shelter belt plantation,
- Block plantation,
- Agro forestry.

c) Grass land Development and Silviculture

Root stock regeneration, new plantation and Silviculture can be executed on common/ panchayat/ revenue/ forest land under NREGS. Some forms of fencing like dry stone, ditch, organic fencing can also be taken up under NREGA. Activities relating to cut back, coppice, singling, requires semi skilled or skilled labour. Skilled labour can be used for these activities and can be funded under NREGA provided that the 60:40 ratio ( wage –material) is maintained since skilled labour is costed under material head.

Boundary plantation and Agro forestry on the land of SC, ST, BPL and beneficiary of LR and IAY can be taken up under NREGS and on individual land other than these categories, these activities can be taken up under NAP.

## **ii Water conservation/ harvesting**

Creation/rejuvenation of traditional water harvesting structures under NREGA should be taken up near plantations under taken by NAP for additional watering of plantations/afforestation in the arid and semi arid areas. This will help in creating vegetation that conserve water/act as sponge in medium to long term. Similar, contour trenches, check dams in the degraded forest lands in the vicinity of the habitations would help the biomass regeneration and part recharge water bodies.

Works on water conservation/harvesting which can be taken up under NREGA and also under NAP are:

- a) Catchment area treatment,
- b) Check dam,
- c) Ponds,
- d) Any other Water conservation/ harvesting structure as per local requirement.

**a) Catchment area treatment:** As per Para 3.4 of operational guidelines of NAP, the project area should be confined to recorded forest and adjoining land areas including village common lands, community lands, revenue wastelands, Jhum lands and private lands.

To conserve rain water in situ and check soil erosion, treatment of catchment area falling in forest and surrounding area, be taken up on watershed approach by constructing contour furrows, continuous contour trenches, staggered trenches, box trenches, bunding, bench terracing and vegetative barriers etc. as per site requirement. Under this activity, the work on forest/ village common/ community/ revenue waste lands and on the individual land of SC/ ST/ BPL/ Beneficiary of land reform and IAY can be carried out under

NREGS and in addition, supplement these works in FDA Project area under NAP.

**b) Check dam:** Different types of temporary and permanent check dams in the drainage lines, falling in the area may be taken up on a watershed approach i.e. starting from ridge to valley. On forest/ village common/ community/ revenue waste lands and on the individual land of SC/ ST/ BPL/ Beneficiary of land reform and IAY these can be constructed under NREGS and in addition, supplement these works in FDA Project area under NAP.

**c) Ponds:** Similarly the construction of different type of ponds i.e. Dugout ponds, Sunken ponds, Farm ponds and Village ponds etc. for storage of rain water and recharge ground water in the catchment area as per requirement and feasibility on forest/ village common/ community/ revenue waste lands and on the individual land of SC/ ST/ BPL/ Beneficiary of land reform and IAY be carried out under NREGS and in addition, supplement these works in FDA Project area under NAP.

**iii) Land Development:** Land development activities may be taken up under NREGA to rehabilitate degraded forest and wasteland. The entire activity of land development should be conceived of as a project, with a clearly laid out plan for land use after land development. If plantation/ afforestation is planned, then the kind of plantation species to be used, the source of irrigation, protection can be taken up under NREGS and afforestation and plantation can be under NAP.

**iv) Roads:** Maintenance of Forest roads may be taken up under NREGA.

#### **B).Dovetailing inputs into a common Project:**

Under this, certain basic activities of a project may be through activities under NREGA.

The activities that can be done under NREGS are:

- i) Closure by Dry stone wall, Ditch cum bund fencing,
- ii) Constructing Soil and water conservation structures,
- iii) Soil work for Contour trenches, V ditches, digging of pits,
- iv) Seeding through NREGS labour,
- v) Weeding and Hoeing can be done through NREGS labour.

Following works may be carried out under NAP

- i) Raising Nursery
- ii) Transportation of plants to the planting site,
- vi) Application of Manure/ Insecticides
- vii) Protection from
  - Frost
  - Hot winds
  - Grazing
- viii) Barbed wire fencing where other fencing not possible
- ix) Watch & Ward

### **(C) Area Approach**

Certain activities required for integrated development of area (but permitted under NREGA) may also be taken up in the fringe area, through Forest Department as it will ensure uniformity and quality of approach guided ecological concerns. These include activities like irrigation facilities, land development, renovation of traditional water bodies, drainage and water logged areas.

D) **Value Addition** through back-forward linkages for sustainable development NREGA can provide the primary input into natural resource generation. For it to become the basis of sustainable development **back-forward linkages** have to be worked out and the entire work be conceptualized as a project. The project approach must have a two fold objective: (i) ensuring that the work under NREGA is made durable through appropriate inputs (such as technologies not permitted under NREGA). This may normally imply moving from kuccha to pukka, (ii) Using the physical asset created under NREGA for economic activities in a way that the labour that has worked on that asset is able to earn an income from it.

#### **Examples of this approach are**

- Land development (individual land of eligible categories under NREGA) and Agro-forestry on that land under NAP
- Plantation
- Minor Forest Produce (MFP) based activities- for MFP primary collectors- skill up gradation for primary processing of MFP, micro financing through SHGs, ware housing/cold storage facility of MFPs, common facility hubs-lathe machine/bamboo splitting machine etc

### **8.Implementation agencies:**

Beside the Forest Department and the gram Panchayat, Joint Forest Management Committees may also be the implementation agencies.

### **9.Non -Negotiables in work execution:**

- a. Only Job Card holders to be employed for NREGA component.
- b. Muster rolls to be maintained on work site, with copies in the Gram Panchayat and to be electronically maintained on nrega.nic.in
- c. Social Audits to be done through Gram Sabhas.
- d. Wage payments will be through no frills accounts in banks/post office
- e. Financial assistance under NAP for ancillary activity can be provided only when afforestation under NAP is carried out.



**10. Pilots for convergence of programmes:**

In selected districts representing bio-geographic zones pilot projects on convergence may be taken up. These will be operationalised in accordance with the processes suggested above. The pilots will be like action research and will be concurrently evaluated for identifying further possibilities and up scaling.

**11. Funding will be through NREGS and NAP.**

**12. These guidelines would be subject to existing forestry legislations/regulations.**

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## **Guidelines on State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA)**

*Guidelines for establishing CAMPAs in the States/UTs and putting in place a funding mechanism for enhancing forest and tree cover and conservation and management of wildlife by utilising funds received towards Compensatory Afforestation, Net Present Value (NPV), etc., currently available with the Adhoc CAMPA.*

*The guidelines, prepared are, by and large, in line with the discussions held in the meeting of the Chief Secretaries, have the objective to assist the States/UT's for setting up the requisite mechanism and are in consonance with the directions issued from time to time by the Hon'ble Supreme Court.*

*These guidelines have desired flexibility; therefore the States/UTs would be able to notify the State level CAMPAs keeping in view specific conditions prevailing there.*

## Overarching Objectives and Core Principles

1. An Authority to be known as the “State Compensatory Afforestation Fund Management and Planning Authority” (State CAMPA) is intended as an instrument to accelerate activities for preservation of natural forests, management of wildlife, infrastructure development in the sector and other allied works.

2. The State CAMPA would presently receive monies collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA.

3. The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the monies collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife conservation and protection and other related activities and for matters connected therewith or incidental thereto.

4. State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats.

**5. State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). The amount received by it will also be utilized for providing residential accommodation to the field staff and necessary machines and equipments to them. These include appropriate arrangement for their conveyance during inspections and protection duty. In short, the department would be modernized to protect and regenerate the forests and wildlife habitat.**

6. The State CAMPA may decide to utilize a minor part of its funds for contractual engagement of personnel wherever there is shortage of personnel. This should be done cautiously to avoid recurring revenue expenditure on the State Government. It may also take up State-specific activity relevant to the State, in keeping with the core objectives.

7. The State CAMPA would also promote a voluntary movement of youth and students for supporting conservation activities initiated/ongoing in the State Forest Department.

## 8. Aims and Objectives

State CAMPA shall seek to promote:

- (a) conservation, protection, regeneration and management of existing natural forests;
- (b) conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
- (c) compensatory afforestation;
- (d) environmental services, which include:-
  - (i) **provision of goods** such as wood, non-timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
  - (ii) **regulating services** such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;
  - (iii) **non-material benefits** obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and
  - (iv) **supporting such other services** necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.
- (e) Research, training and capacity building.

## 9. The functions of State CAMPA shall include, *inter alia*–

- (i) funding, overseeing and promoting compensatory afforestation done in lieu of diversion of forest land for non-forestry use under the Forest (Conservation) Act, 1980
- (ii) overseeing forest and wildlife conservation and protection works within forest areas undertaken and financed under the programme.
- (iii) maintaining a separate account in respect of the funds received for conservation and protection of Protected Areas.

- (iv) creating transparency for the programme and mobilizing citizen support; and
- (v) earmarking up to two percent of the funds for monitoring and evaluation.

#### 10. **Establishment of a State CAMPA**

- (1) The State Government may establish the Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) in the State. There shall be credited into the account of State CAMPA–
  - (i) Amount transferred to it by the ad-hoc CAMPA.
  - (ii) receipt of all monies from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV), Catchment Area Treatment Plan or any money for compliance of conditions stipulated by the Central Government while according approval under the provisions of the Forest (Conservation) Act, 1980;
  - (iii) the unspent funds already realized by States from user agencies and not transferred yet to the Adhoc Compensatory Afforestation Fund Management and Planning Authority for crediting into the Fund by respective States;
  - (iv) the funds recoverable from user agencies in cases where forest land diverted falls within the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife (Protection) Act, 1972 for undertaking activities relating to the protection of biodiversity and wildlife, which would be maintained under a separate head; and
  - (v) Net Present Value of the forest land diverted for non-forestry purposes, collected under the Forest (Conservation) Act, 1980 and the rules and the guidelines made thereunder and in pursuance of the judgment of the Supreme Court dated the 29<sup>th</sup> October 2002 from user agencies. And
- (2) The State Government may also credit to the State CAMPA–
  - (a) grants or aid received if any;
  - (b) any loan taken by the Authority or any borrowings made by it; and
  - (c) any other sums received by the Authority by way of benefaction, gift or donations.
- (3) The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

**11. Utilization of the money:** The money available with the state CAMPA shall be utilized for meeting—

- (i) expenditure towards the development, maintenance and protection of forests and wildlife management as per the approved APO;
- (ii) the non-recurring as well as recurring expenditure for the management of the State CAMPA, including the salary and allowances payable to its officers and other employees, by utilizing a part of the income from interest received by on funds invested by State CAMPA, but excluding income from funds recoverable from the user agencies in cases where forest land diverted falls within the protected areas, that is, areas notified under sections 18, 26A or 35 of the Wildlife (Protection) Act, 1972 for undertaking activities related to protection of biodiversity and wildlife;
- (iii) the expenditure incurred on monitoring and evaluation subject to overall ceiling of 2% of the amount to be spent every year; and
- (iv) disbursement on such other projects related to forest conservation.

**12. Disbursement of funds:**

- (1) The money received for compensatory Afforestation, additional compensatory afforestation, penal compensatory afforestation, Catchment Area Treatment Plan and for any other site specific scheme may be used as per site-specific schemes submitted by the State along with the approved proposals for diversion of forest land under the Forest (Conservation) Act, 1980.
- (2) After receipt of the money, State CAMPA shall accomplish the afforestation for which money is deposited in the Compensatory Afforestation Fund within a period of one year or two growing seasons after project completion, as may be appropriate.
- (3) The money received on account of Net Present Value (NPV) shall be used for natural assisted regeneration, forest management, protection, infrastructure development, wildlife protection and management, supply of wood and other forest produce saving devices and other allied activities.
- (4) Monies realized from the user agencies in pursuance of the Hon'ble Supreme Court's orders or decision taken by the National Board for Wildlife involving cases of diversion of forest land in protected areas shall form a distinct corpus and shall be used exclusively for undertaking protection and conservation activities in protected areas of the State.
- (5) State CAMPA shall release monies to the field officers in predetermined installments as per the Annual Plan of Operation (APO) finalized.

13. State CAMPA shall consist of a Governing Body, a Steering Committee and an Executive Committee.

14(1) The Governing body of the state CAMPA shall consist of the following:

- |        |  |   |                  |
|--------|--|---|------------------|
| (i)    | Chief Minister                         | - | Chairperson      |
| (ii)   | Minister of Forests                    | - | Member           |
| (iii)  | Minister of Finance                    | - | Member;          |
| (iii)  | Minister of Planning                   | - | Member;          |
| (v)    | Chief Secretary                        | - | Member           |
| (vi)   | Principal Secretary (Finance)          | - | Member           |
| (vii)  | Principal Secretary (Planning)         | - | Member           |
| (viii) | Principal Chief Conservator of Forests | - | Member           |
| (ix)   | Chief Wildlife Warden                  | - | Member           |
| (x)    | Secretary (Forests)                    | - | Member Secretary |

The Governing Body shall lay down the broad policy framework for the functioning of State level CAMPA and review its working from time to time.

14(2). The **Steering Committee** of State CAMPA shall consist of the following:

- |        |  |   |                  |
|--------|--|---|------------------|
| (i)    | Chief Secretary  | - | Chairperson      |
| (ii)   | Principal Chief Conservator of Forests   | - | Member           |
| (iii)  | Principal Secretary (Forests)  | - | Member           |
| (iv)   | Principal Secretary (Finance)  | - | Member           |
| (v)    | Principal Secretary (Planning)   | - | Member           |
| (vi)   | Chief Wildlife Warden  | - | Member           |
| (vii)  | Nodal Officer  | - | Member           |
| (viii) | A representative of the Ministry of<br>Environment & Forests   | - | Member           |
| (ix)   | Two eminent NGO's to be nominated<br>by the State Government for a period of<br>2 years at a time who shall be eligible<br>for re-nomination | - | Member           |
| (x)    | Chief Conservator of Forests (Plan/Schemes)  | - | Member Secretary |

14(3) The Steering Committee shall–

- (i) lay down and / or approve rules and procedures for the functioning of the body and its Executive Committee, subject to the overarching objectives and core principles of State CAMPA;
- (ii) monitor the progress of the utilization of funds released by the State CAMPA;
- (iii) approve the Annual Plan of Operation (APO) prepared by the Executive Committee;
- (iv) approve the annual reports and audited accounts of the State CAMPA;
- (vi) ensure inter-departmental coordination;
- (vii) meet at least once in six months.

15(1) The **Executive Committee** shall consist of the following:

- (i) Principal Chief Conservator of Forests - Chairperson
- (ii) Chief Wildlife Warden – - Member
- (iii) Chief Conservator of Forests (Plan/Schemes) - Member
- (iv) Financial Controller/Financial Adviser in the  
O/o the Principal Chief Conservator of Forests - Member
- (v) Two eminent NGO’s to be nominated by the State  
Government for a period of 2 years at a time  
who shall be eligible for re-nomination - Member
- (vi) Nodal Officer - Member Secretary

(2) The State level Executive Committee shall –

- (i) take all steps for giving effect to the State CAMPA and overarching objectives and core principles, in accordance with rules and procedures approved by the Steering Committee and the approved APO;
- (ii) prepare the APO of the State for various activities, submit it to the Steering Committee before end of December for each financial year, and obtain the Steering Committee’s concurrence for release of funds, while giving break-up of the proposed activities and estimated costs;
- (iii) supervise the works being implemented in the State out of the funds released from the State CAMPA;
- (iv) be responsible for proper auditing of both receipt and expenditure of funds;
- (v) develop the code for maintenance of the account at the implementing agency level;
- (vi) submit reports to the Steering Committee for review / consideration; and
- (vii) prepare Annual Report by end-June for each financial year.



## 16. **Accounting Procedure**

- (1) State CAMPA shall prepare, in such form and at such time in each financial year as may be prescribed, its budget for the next financial year, showing the estimated receipts and expenditure of the State CAMPA.
- (2) State CAMPA shall adopt financial regulations and procedures, in particular the procedure for approval and implementing the APO.
- (3) State CAMPA shall maintain proper accounts and other relevant records and prepare an annual statement of accounts in such form as may be prescribed in consultation with the Accountant General concerned.
- (4) The accounts of the State CAMPA shall be audited by the Accountant General at such intervals as may be specified by him and any expenditure incurred in connection with such audit shall be payable by the Authority to the Accountant General.
- (5) The Accountant General and any other person appointed by him in connection with the audit of the accounts of the State CAMPA shall have the same rights and privileges and authority in connection with such audit as the Accountant General generally has in connection with the audit of the Government accounts and, in particular, shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers and to inspect the office of the State CAMPA.
- (6) The accounts of the State CAMPA as certified by the Accountant General or any other person appointed by him in this behalf together with the audit report thereon and annual report, shall be forwarded annually to the State Government, the MoEF and the Adhoc CAMPA by the State CAMPA.
- (7) The State Government and the MoEF shall have the power to conduct special audit or performance audit of the State CAMPA.
- (8) The Annual Report shall provide, *inter alia*, for--
  - (i) the details of various works done and the amount spent;
  - (ii) the details of the amount received by the State CAMPA from various sources; and
  - (iii) the observations made in the audit report.

## 17. **Monitoring and evaluation of the works**

- (1) An independent system for concurrent monitoring and evaluation of the works implemented in the States utilizing the funds available shall be evolved and implemented to ensure effective and proper utilization of funds.
- (2) The National CAMPA advisory council shall have the powers to order special inspection and financial audit of works executed by the State CAMPA with utilizing CAMPA money.
- (3) If satisfied that the funds released are not being utilized properly, the National CAMPA advisory council as well as the State level Steering

Committee shall have the power to withhold or suspend the release of remaining funds or part thereof.

**18. National CAMPA Advisory Council**

A National CAMPA Advisory Council shall be established. It will

- (i) Lay down broad guidelines for State CAMPA;
- (ii) Regularly monitor and evaluate, in consultation with states, projects being undertaken by state CAMPAs.
- (iii) Facilitate scientific, technological and other assistance that may be required by state CAMPAs
- (iv) Make recommendations to state CAMPAs based on a review of their plans and programmes.
- (v) Provide a mechanism to state CAMPAs to resolve issues of an inter-state or Centre-state character.

The composition of the Council shall be as follows:

- (i) Minister of Environment and Forests : Chairperson
- (ii) Three PCCF's by rotation with a term of one: Member  
year each.
- (iii) two environmentalist / conservationists / : Member  
scientists / economists / social scientists  
with a non-renewable term of two years.
- (iv) Director General Forests & : Member  
Special Secretary, MoEF
- (v) IG (Forest Conservation), MoEF : Member Secretary

The existing establishment of adhoc CAMPA would be utilized as secretariat to the National CAMPA Advisory Council. The expenditure will be met out of the provision kept for Monitoring and Evaluation of the programme.

19. In addition to the above, out of the interest received / accrued so far with the Ad hoc CAMPA, a suitable amount, with the permission of the Supreme Court, will be retained by the Adhoc CAMPA and will be utilized as per the specific schemes as approved by the National CAMPA Advisory Council. These will include monitoring and evaluation of schemes implemented in the States or the UTs utilizing CAMPA money, setting up of institutes, societies, center of excellence in the field of forest and wildlife, pilot schemes, standardization of codes/ guidelines, etc., for the sector.

**HRD related new initiative at GOI level**  
**A New Composite Central Sector Scheme “Capacity Building in Forestry Sector” During the 11<sup>th</sup> Five Year Plan Period.**

1. In the 10<sup>th</sup> Five Year Plan, there were three Central Sector Schemes viz **Indira Gandhi National Forest Academy (IGNFA), Directorate of Forest Education (DFE) & Training of IFS Officers** to meet overall training needs for human resource development of forestry personals at various levels in the country. These individual schemes are being merged into a single umbrella scheme titled **“Capacity Building in Forestry Sector”**. During this exercise, apart from expansion of the type of activities carried out, inclusion of four new components is envisaged.

2. The scheme **“Capacity Building in Forestry Sector”** as proposed now will have the following components:-

S. No.	Component	Amount for the 11 <sup>th</sup> Five Year Plan (Rs. in crore)
<b>A. Existing Programmes</b>		
<b>1</b>	Training of IFS Officers	13.80
<b>2</b>	Directorate of Forest Education (DFE)	25.86
<b>3</b>	Indira Gandhi National Forest Academy (IGNFA)	66.95
<b>B. New Programmes</b>		
<b>4</b>	Training of Personnel of other services	8.13
<b>5</b>	Foreign Training of Forestry Personnel	25.00
<b>6</b>	Training of other Stakeholders	4.00
<b>7</b>	Capacity Development for Forest Management and Training of Personnel	225.00
<b>Total</b>		<b>368.74</b>

3. A gist of the activities proposed to be carried out through each component of the proposed scheme in brief is given below:-

**(a) Indira Gandhi National Forest Academy (IGNFA):- (Existing Component)**

Through this component professional induction training of directly recruited IFS officers, skill up-gradation of officers promoted to IFS, Advanced Forest Management Courses / Mandatory Mid-Career Trainings, refresher courses/seminars/workshops for IFS officers and sponsored courses

for personnel of other services are organized. The IGNFA, Dehradun implements this component

**(b) Directorate of Forest Education (DFE):- (Existing Component)**

This component, earlier named as State Forest Service and Rangers Colleges, supports professional induction courses for the directly recruited SFS officers and ROs, their in service trainings, theme based seminars and workshops. The DFE, Dehradun implements this component.

**(c) Training of IFS Officers: - (Existing Component)**

This component one-week compulsory trainings and thematic workshops are organized providing opportunities of vertical interaction amongst IFS officers. Officers are also sponsored for long-term training course. The RT-Division, MoEF implements this component.

**(d) Training of Personnel of Other Services: - (New Component)**

Awareness programmes would be undertaken through short-term trainings, workshops and study tour for the personnel of various Departments such as Police, Revenue, Customs, etc. About 30 one-week courses and 20 workshops are proposed to train about 1500-2000 personnel per year. This component will be implemented through IGNFA, Dehradun & DFE, Dehradun.

**(e) Training of Other Stakeholders:- (New Component)**

The other stake holders include Panchayat members, elected representatives, teachers, nature clubs/eco-clubs, social activists, NGOs, and media persons. It is proposed to organize study tours, workshops and seminars for these stakeholders. Approximately 70 Training Programmes /Visits for 1500-2000 persons are proposed per year. This component will be implemented through DFE, Dehradun.

**(f) Foreign Training of Forestry Personnel:- (New Component)**

This component is aimed at encouraging specialization amongst the forestry personnel by sponsoring them for various short-term and long-term training courses at various Institutions overseas. Approximately 60 officers are proposed to be sponsored every year. This component will be implemented by Research & Training Division of MoEF with the help of IGNFA, Dehradun.

**(g) Capacity Development for Forest Management & Training of Personnel :- (Externally Aided component)**

(i) This is an externally aided component aimed at improving training of frontline forestry force. The proposal has two major objectives:

- To strengthen infrastructure of the forestry training schools of SFDs by:
  - a. Improving existing State Forest Training Schools (SFTS)
  - b. Establishing new training Schools in those States that do not have one.
- To strengthen training of frontline forestry personnel through:
  - a. Syllabus revision.
  - b. Building up a pool of Master Trainers / Trainers.
  - c. Training of frontline forest force in the States

(ii) This component will be in a project mode with financial support from JICA. The total cost of the component is Rs. 225.00 crore for a period of five years. The loan component is of Rs. 206.00 crore and the rest is Central Plan component. The Project will be initially implemented in ten States namely Assam, Bihar, Chhattisgarh, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Sikkim, Uttarakhand, and West Bengal. There are three buffer states namely Mizoram, Arunachal Pradesh and Manipur. The states have been selected based on certain criteria, including non-existence of any external aided project in the forestry sector in the concerned state and paucity of training infrastructure, during the project development stage.

(iii) For implementing this component there will be a Steering Committee and a Central Project Monitoring Unit (CPMU) in the Ministry and a State Project Monitoring Unit (SPMU), one in each implementing State. The central PMU would release / reimburse funds to implementing States for their Annual Plans of Operation. The CPMU would utilize funds for activities such as Master trainings, consultancies and monitoring, etc.

**4. The scheme “Capacity Building in Forestry Sector” as formulated now, cover the whole gamut of the Forestry Sector Training needs and attempts to address the HRD needs at all levels of the forestry administration. In addition the components “Training of Personnel of other Services” and “Training of other Stakeholders” aim to expose the members of the civil society and the non-forestry service who have an interface with the forestry sector, to the realities, needs and challenges of the forestry & wildlife sector.**

### **Improvement of Range Office complexes**

The Range Offices to be upgraded like Police Thana and to have proper facilities for the entire strength of staff, strong room for arms and valuable seizures, lock-up's for detention of forest offenders with provision for expenditure at the time of detention, record room, computer lab. with internet facility, and residential facility for the entire sanctioned strength of frontline positions. Basic education facilities up till the primary level as well medical facilities or conveyance facilities to the nearest Educational institutions /Medical facilities should also be provided.

Each Range Office to have at least one four-wheeled field vehicle and a vehicle for mobile squad, communication facilities such as landline phones, wireless sets, mobile phones.

The Range Officers to also have computer based (web based) data management system for compiling day-to-day data transmitted from field stations.

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### **Establishment of Forest Stations**

As is being done in the State of Kerala and Madhya Pradesh, the Range jurisdiction may be divided into Forest Stations, each manned by an In-charge (in the rank of Deputy Ranger), 3-4 Foresters and 10-15 Forest Guards. The Station should have residence for the In-charge and barracks for the staff. Mess and other facilities to be provided at each Station. One jeep and 4-5 motor cycles and lock-up's for detention of forest offenders, with provision for expenditure at the time of detention strong room for arms and valuable seizures. Adequate arms and ammunition should be provided. Medical facilities or conveyance facilities to the nearest Medical facilities should also be provided.

The Staff to be trained on use of GPS and PDA, online reporting, disaster preparedness and management, participatory rural appraisal and micro-planning etc.

*(As in the Police Stations, there would be a Duty Register and the Station In-charge would assign duties to the Staff everyday at 8.00 AM and the staff would make entries on their field duty every evening.)*

**Forest Out Posts / Anti Poaching Camps** etc ( both temporary and permanent) to be put in place as per the requirements of the Division / Protected Area / Range / Forest Stations.

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## Annexure V (i)

### Facilitative Roles of MoEF In The Forest Rights Act, 2006

- a) **Identification and declaration of the critical wildlife habitats in national parks and Wildlife Sanctuaries**
- The Chief Secretaries of all the State/UT Governments were requested during August, 2007 for constitution of State Level Committees.
  - Guidelines for identification and declaration of critical wildlife habitats have been circulated to all the States/UTs
  - Representatives of Ministry of Environment & Forests to the State Level Committees have been nominated and communicated to the State Governments.
  - Nodal officers of the Ministry have been nominated to oversee the identification of ‘critical wildlife habitats’ by the State Governments.
  - As on date Sixteen States, viz, Andhra Pradesh, Arunachal Pradesh, Himachal Pradesh, Madhya Pradesh, Gujarat, Jharkhand, Karnataka, Kerala, Tamil Nadu, Orissa, Maharashtra, Manipur, Mizoram, Tripura, Uttarakhand and West Bengal and Two Union Territories, viz Andaman & Nicobar Islands and Dadra & Nagar Haveli have constituted State Level Committees. The Union Territory of Chandigarh and Lakshadweep have mentioned that there was no need to constitute State Level Committees.
  - **In the “Project Tiger” areas in the country**, the concept similar to the concept of Critical Wildlife Habitats in the Rights Act has already been operational under provisions under section 38V of the Wildlife (Protection) Act, 1972, as amended in 2006 and is called **core or critical tiger habitats**. The progress achieved under the provisions of wildlife Act in the Project Tiger areas is given below:
    - i. An area of 29484.752 sq. km. has been notified by 15 Tiger States (out of 17) as **core or critical tiger habitat** (Andhra Pradesh, Arunachal, Assam, Karnataka, Kerala, Jharkhand, Madhya Pradesh, Maharashtra, Mizoram, Rajasthan, Tamil Nadu, Uttarakhand, Orissa, Chhattisgarh and West Bengal).
    - ii. Two tiger States (Bihar and UP) have taken a decision for notifying the core or critical tiger habitats (1528.627 sq.km.).



iii. The State of Madhya Pradesh has not identified / notified the core /critical tiger habitat in its newly constituted tiger reserve (Sanjay - Dubri Tiger Reserve).

iv. Relocation of people has to be done in accordance with the provisions under section 38V of the Wildlife (Protection) Act, 1972 as amended in 2006 read with the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

v. Identification of core/critical tiger habitats in new tiger reserves, after the coming into force of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 would involve action as contained in the section 38V of the Wildlife (Protection) Act, 1972, as amended in 2006 read with the provisions contained in the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

**b) Institutionalization of a mechanism and issue of orders for setting up a simplified procedure for diversion of forest land up to one hectare for undertaking developmental activities as provided under section 3 (2) of the Act**

The Ministry of Tribal Affairs, in consultation with this Ministry has very recently issued the guidelines specifying a simplified procedure to be followed for diversion of forest land for undertaking developmental projects in the forest areas where forest rights are to be conferred.

**c) Initiating action with State Governments, after individual rights have been vested, for conversion of forest villages/ habitations into revenue villages**

Rights of settlement and conversion of all forest villages, old habitation, unsurveyed villages and other villages in forests, whether recorded, notified or not, into revenue villages is one of the forest rights of forest dwelling Scheduled Tribes and other traditional forest dwellers recognized under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. The conversion of forests villages into revenue villages involves the de-reservation/ de-notification of forests which may involve proceduralities under Forest Conservation Act, and is at present banned by the Hon'ble Supreme Court. The Ministry is studying the implications of this issue.

**d) Processing for giving access to such villages under Forest conservation Act, 1980**

This Ministry would issue guidelines to the States/UTs to facilitate access to the revenue villages created under the Act, with regards to the simplified procedures under the forest conservation Act.

**e) Number of persons/area/in districts/in States likely to be re-settled under section 4 (2) of the Forest Rights Act**

Under Section 4 (2) of the Act read with section 2 (b), there is provision for modification/settlement of the Forest Rights in the critical wildlife habitats of National parks and sanctuaries. The modification/resettlement of Rights is to be an activity subsequent to the recognition of Forest Rights. Since the implementation of the Act, is in the various stages of Rights recognition, the real course of action regarding this actionable point will commence after the stage of recognition of Rights is completed. In the meanwhile, critical wildlife habitats in National parks and sanctuaries would be identified. The notification of critical wildlife habitats will, however, be made only after the completion of the process of recognition and vesting of forest rights in such critical wildlife habitats.

**f) Holding of National Workshops on the progress on implementation**

Apart from regular internal meetings under the Chairmanship of DGF&SS to oversee the implementation of the Act, a National Level Workshop of the Forest Secretaries/PCCFs/CWLWs was held on 13.02.2008 to discuss the implementation of the Rights Act. Similarly, a meeting, involving representatives of organizations working in the field of Human Resource Development in the country, was held on 17.07.2008 to discuss the modalities of carrying out Capacity Building activities to facilitate the implementation of provisions of Section 5 of the Act. The Ministry is organizing a Capacity Building workshop for the State/UT nodal officers of the forest departments during September, 2009 through Tribal Research & Training Institute, Pune and such workshop if found useful, can be organized on a frequent and regular basis, in future, for the field officers.

**g) Establish a mechanism for quickly responding to court petitions/stays regarding the Act**

This Ministry, is extending support to the nodal Ministry of Tribal Affairs and Ministry of Law & Justice in taking timely steps to defend the Act in various courts in the country as 12 cases have been filed challenging the vires of the Act of which 10 are in different High Courts and 2 in the Supreme Court.

**h) Establish an on-line monitoring format**

The monitoring formats for quarterly reporting from the States/UTs have been finalized and communicated to the States. An online procedure for this reporting is being developed with the help of NIC.

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### Queries Related to Implementation of Forest Rights Act

Issue	Action Taken	Remarks
<p>Implications of the phrase “primarily reside in and who depend on the forests or forest land for bona fide livelihood needs” appearing in sections 2 (c) and 2 (o) of the Act.</p>	<p>The clarification letter has been issued by MOTA on 09.06.2008 and operative part reads as ‘The implication of using the word “primarily” is to include the Schedule Tribes (ST) and Other Traditional Forest Dwellers (OTFD) who have either habitation or patches of land for self cultivation for livelihood and would, therefore, be primarily spending most of their time in temporary make shift structures or working on patches of land in such areas in respective of whether their dwelling houses are outside the forest or forest land’. Therefore, such STs and OTFDs who are not necessarily residing inside the forests but are depending on the forests for their bonafide livelihood needs would be covered under the definition of “forest dwelling Scheduled Tribes” and “other traditional forest dweller” as given in Sections 2 (c) and 2 (o) of the Act.</p>	
<p>Procedure for seeking prior approval for diversion of forest land for non-forest purposes for facilities managed by the Government under Section 3 (2) of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.</p>	<p>The procedural guidelines have been issued by MOTA, in consultation with this Ministry on 18.05.2009. wherein, the process has been simplified and the divisional forest officer has been given power to approve the diversion proposals and where the proposals are not approved by the DFO, the same are to be</p>	

	submitted to the District Level Committee constituted under the Rules of this Act for final decision.	
Conversion of the status of forest villages into revenue villages as provided in section 3 (1) (h) of the Act.	The conversion of forests villages into revenue villages involves the de-reservation/ de-notification of forests which may involve proceduralities under Forest (Conservation) Act, and is at present banned by the Hon'ble Supreme Court. The Ministry is studying the implications of this issue.	
How to settle the rights of shifting cultivators	<ul style="list-style-type: none"> <li>• The conferment of Forests Rights to the individuals/ communities practicing shifting cultivation is a highly complicated issue due to the very nature of cultivation and considerable socio-economic variations in the concerned states.</li> <li>• As per the draft report of Inter-Ministerial National Task Force on Rehabilitation of Shifting Cultivation Areas constituted by MoEF, the trend appears to indicate decrease in area under Shifting Cultivation specially where investments have been made in the Social Sectors and for settled cultivation.</li> <li>• There is no specific mention of shifting cultivation under the Act, i.e. it is not specifically recognized as a Forest Right.</li> <li>• The states where shifting cultivation is prevalent – North Eastern States, Chhattisgarh,</li> </ul>	<ul style="list-style-type: none"> <li>• The state of Orissa is of the view that 'As shifting cultivation is a highly pernicious land use practice which has rendered thousands of hectares of hill slopes in our forest barren and devoid of soil mantle; no special dispensation should be made', further 'The objective should be to wean those shifting cultivators away from this unsustainable method of growing food crops. The ceiling of four hectares prescribed under section -4 (6) of the Act should also be made</li> </ul>

	<p>Madhya Pradesh, Andhra Pradesh and Orissa were requested to convey their views on the subject.</p>	<p>applicable in such cases and any shifting cultivator should be motivated to confine his activities to the piece of land to be settled in his favour under this Act’.</p> <ul style="list-style-type: none"> <li>• Sikkim has informed that the shifting cultivation is not prevalent in the State.</li> <li>• Assam has informed that as far as the shifting cultivators in the State are concerned, the size of the community practicing the same is very small and far in between. They are not localized in their practice nor do they venture far beyond. As a result, the cutting and clearance cycle been somewhat reduced. Due to upliftment of education facilities the younger generation has weaned away from the traditional practice. In such</li> </ul>
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		<p>areas transfer of rights become virtually non functional.</p> <ul style="list-style-type: none"> <li>• The state of Arunachal Pradesh has conveyed that the provisions of section 4 (3) and 4 (6) need to be examined in detail because the area subjected to shifting cultivation changes every 2-3 years.</li> <li>• The State of Meghalaya has informed that the shifting cultivators keep on changing their plots every year, making it difficult to get these lands identified towards any single owner. It will not be, therefore, possible to delineate any area of land for vesting of forest rights. Unless the shifting cultivators change their lifestyle and practice sedentary methods of cultivation, the issue of conferring of</li> </ul>
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		<p>forest rights with identified forest lands will not be possible.</p> <ul style="list-style-type: none"> <li>• Madhya Pradesh has stated that ‘As regards to shifting cultivation in the State of present M.P. it is nowhere recognized as a right of the communities’.</li> <li>• <b>The issue of recognition and vesting of rights of STs and OTFDs practicing shifting cultivation under the Act was considered in the meeting of Core Group held on 24.3.2009 in the Ministry of Tribal Affairs, wherein it was decided that, on a formal reference from any State, the view of the Government should be as under:</b>  <b>“In the context of the preamble of the Forest Rights Act, shifting cultivation, considered to</b></li> </ul>
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		<p>be environmentally unfriendly, should not be encouraged. So, if there are any claims filed by shifting cultivators, either individually or as a community, our aim should be to <u>settle</u> these rights as per the provisions of the Act. The specific local circumstances would be relevant for Gram Sabhas to recommend or not to recommend vesting of these rights. Simultaneously, it would be necessary for State Governments to focus existing programmes on these, “to be settled” shifting cultivators so that they are able to optimize their investments</p>
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		<b>and minimize the adverse impacts of such cultivation on soil and water”.</b>
The implementation of the Act in the North-Eastern States		Act has not yet been implemented in the state of Mizoram and Nagaland due to provisions enshrined under Article – 371 G of the Constitution of India.

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## Annexure VI (i)

**State-wise details of the Protected Area Network of the country**

S.No.	States/UTs	No. of National Parks	No. of Wildlife Sanctuaries	No. of Conservation Reserves	No. of Community Reserves
1	Andhra Pradesh	5	22	0	0
2	Arunachal Pradesh	2	11	0	0
3	Assam	5	18	0	0
4	Bihar	1	13	0	0
5	Chhatisgarh	3	11	0	0
6	Goa	1	6	0	0
7	Gujarat	4	22	0	0
8	Haryana	2	8	2	0
9	Himachal Pradesh	2	32	0	0
10	Jammu & Kashmir	4	15	34	0
11	Jharkhand	1	11	0	0
12	Karnataka	5	21	2	1
13	Kerala	6	15	0	1
14	Madhya Pradesh	9	25	0	0
15	Maharashtra	6	35	1	0
16	Manipur	2	5	0	0
17	Meghalaya	2	3	0	0
18	Mizoram	2	7	0	0
19	Nagaland	1	3	0	0
20	Orissa	2	18	0	0
21	Punjab	0	12	0	2
22	Rajasthan	5	23	1	0
23	Sikkim	1	7	0	0
24	Tamil Nadu	5	21	1	0
25	Tripura	2	4	0	0
26	Uttar Pradesh	1	23	0	0
27	Uttaranchal	6	6	2	0
28	West Bengal	5	15	0	0
29	Andaman & Nicobar	9	96	0	0
30	Chandigarh	0	2	0	0
31	Dadar & Nagar Haveli	0	1	0	0
32	Lakshadweep	0	1	0	0
33	Daman & Diu	0	1	0	0
34	Delhi	0	2	0	0
35	Pondicherry	0	0	0	0
	<b>TOTAL</b>	<b>99</b>	<b>515</b>	<b>43</b>	<b>4</b>

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## Annexure VI (ii)

**Funds Released under the CSS- “Integrated Development of Wildlife Habitats”**

(Rs. in lakhs)

S. No	Name of the State/UTs	2004-05	2005-06	2006-07	2007-08	2008-09
1.	A& N Islands	69.40	63.55	57.75	82.86	73.48
2.	Andhra Pradesh	71.70	104.245	143.238	168.06	92.378
3.	Arunachal Pradesh	111.086	144.845	78.602	125.05	193.31
4.	Assam	213.45	193.205	161.79	81.78	161.095
5.	Bihar	-	-	10.50	4.00	37.558
7.	Chhattisgarh	227.29	359.817	377.863	379.20	323.235
8.	Dadra & Nagar Haveli	20.00	20.00	14.50	11.78	15.62
9.	Goa	37.50	14.40	5.00	31.59	41.94
10.	Gujarat	223.93	275.93	328.675	332.08	318.52
11.	Haryana	45.10	24.20	60.45	70.03	86.02
12.	Himachal Pradesh	343.52	283.83806	261.56	233.32	241.983
13.	Jammu & Kashmir	63.20	113.50	173.68	221.54	470.87
14.	Jharkhand	77.59	124.90	98.54	98.13	99.753
15.	Karnataka	546.24	474.9931	490.582	630.64	625.1501
16.	Kerala	238.7887	284.5412	362.115	493.57	864.96
17.	Madhya Pradesh	268.4755	613.553	759.46	800.92	613.34
18.	Maharashtra	108.05	241.68	223.855	331.33	390.22
19.	Manipur	110.588	101.03	96.986	105.89	100.095
20.	Meghalaya	84.82	59.30	38.20	64.88	58.007
21.	Mizoram	315.0412	221.28	136.066	169.46	289.09
22.	Nagaland	32.32	1.50	16.38	19.11	28.415
23.	Orissa	370.27	325.649	340.855	357.08	576.88
24.	Punjab	-	-	3.00	0.00	40.29
25.	Rajashthan	246.62	192.62	207.665	347.24	414.58
26.	Sikkim	74.40	118.84	140.376	159.22	187.73
27.	Tamil Nadu	158.75	197.20	205.24	274.64	727.91
28.	Tripura	49.125	-	31.60	36.00	00
29.	Uttar Pradesh	287.53	345.63	290.38	332.36	307.173
30.	Uttarakhand	68.20	85.65	100.12	76.67	216.09
31.	West Bengal	317.24	313.9437	357.225	356.22	345.78
32.	Delhi	-	19.50	-	0.00	00
33.	Daman & Diu				4.721	6.12
	<b>TOTAL</b>	<b>4780.224</b>	<b>5319.34</b>	<b>5572.252</b>	<b>6399.36</b>	<b>7947.5921</b>

## Annexure VI (iii)

## Elephant Reserves in India

Sl. No.	Elephant Range	Elephant Reserve	State	Total Area (Sq. Km)	P.A. in ER (Sq. Km.)
I	Eastern India (South West Bengal- Jharkhand-Orissa)	1. Mayurbhanj ER(24.10.02)	W. Bengal	414	-
		2. Singhbhum ER (26.9.01)	Jharkhand	4530	193
		3. Mayurbhanj ER (29.9.01)	Orissa	3214	1309
		4. Mahanadi ER (20.7.02)♣	Orissa	1038	964
		5. Sambalpur ER (27.3.02)♣	Orissa	427	427
		6. Baitarni ER#	Orissa	1755	-
		7. South Orissa ER#	Orissa	4216	750
		8. Lemru #	Chattisgarh	450	-
		9. Badalkhol-Tamorpingla- #	Chattisgarh	1048.30	1154.93
II	North Brahmaputra (Arunachal – Assam)	10. Kameng ER (19.6.02)	Arunachal	1892	748
		11. Sonitpur ER (6.3.03)	Assam	1420	420
III	South Brahmaputra (Assam- Arunachal)	12. Dihing-Patkai ER (17.4.03)	Assam	937	345
		13. South Arunachal ER (29-2-08)	Arunachal	1957.50	378.13
IV	Kaziranga (Assam- Nagaland)	14. Kaziranga – Karbi Anglong ER (17.4.03)	Assam	3270	1073
		15. Dhansiri-Lungding ER (19.4.03)	Assam	2740	
		16. Intanki ER (28.2.05)	Nagaland	202	202
V	Eastern Dooars (Assam- W. Bengal)	17. Chirang-Ripu ER (7.3.03)	Assam	2600	526+
		18. Eastern Dooars ER (28.8.02)	W. Bengal	978	484
	<b>Total</b>			<b>3578</b>	<b>1010</b>
VI	E. Himalayas (Meghalaya)	19 Garo Hills ER (31.10.01)	Meghalaya	<b>3,500</b>	<b>402</b>
		20. Khasi Hills ER#	Meghalaya	<b>1331</b>	-
VII	Nilgiri –Eastern Ghat (Karnataka- Kerala- Tamilnadu-Andhra)	21. Mysore ER (25.11.02)	Karnataka,	6724	3103
		22. Wayanad ER (2.4.02)	Kerala	1200	394
		23. Nilgiri ER (19.9.03)	Tamilnadu	4663	716
		24. Rayala ER (9.12.03)	Andhra	766	525
VII I	South Nilgiri (Kerala- Tamilnadu)	25. Nilambur ER (2.4.02)	Kerala	1419	90
		26. Coimbatore ER (19.9.03)	Tamilnadu	566	482
IX	Western Ghat (Tamilnadu- Kerala)	27. Anamalai ER (19.9.03)	Tamilnadu	1457	300
		28. Anamudi ER (2.4.02)	Kerala	3728	780
X	Periyar (Kerala- Tamilnadu)	29. Periyar (2.4.02)	Kerala	3742	1058
		30. Srivilliputtur ER(19.9.03)	Tamilnadu	1249	568
XI	Northern India (Uttaranchal-U.P.)	31. Shivalik ER (28.10.02)	Uttarakhand	5405	1340
		32. Ganga-Jamuna ER#	U.P.	744	-

# Approved by Govt. of India, but not yet notified by the State Government.

♣ Proposal for extension approved by GOI , but not yet notified by the State.

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## Annexure VI (iv)

## Estimated population of wild elephants

Region	State	Elephant Population			
		1993	1997	2002	2007
North-East	Arunachal	2102	1800	1607	1690
	Assam	5524	5312	5246	5281
	Meghalaya	2872	1840	1868	1811
	Nagaland	178	158	145	152
	Mizoram	15	22	33	12
	Manipur	50	30	12	Nil
	Tripura	100	70	40	59
	West Bengal (North)	186	250	292	300-350
<b>Total for North-East</b>		<b>11027</b>	<b>9482</b>	<b>9243</b>	<b>9305-9355</b>
East	West Bengal (South)	14	26	36	25
	Jharkhand	550	618	772	624
	Orissa	1750	1800	1841	1862
	Chattisgarh	-	-	-	122
<b>Total for East</b>		<b>2314</b>	<b>2444</b>	<b>2649</b>	<b>2633</b>
North	Uttarakhand	828*	1130*	1582	1346
	U.P.	47	70	85	380
<b>Total for North</b>		<b>875</b>	<b>1200</b>	<b>1667</b>	<b>1726</b>
South	Tamilnadu	2307	2971	3052	3867
	Karnataka	5500	6088	5838	4035
	Kerala	3500	3600	3850	6068
	Andhra Pradesh	46	57	74	28
	Maharashtra	-	-	-	7
<b>Total for South</b>		<b>11353</b>	<b>12716</b>	<b>12814</b>	<b>14005</b>
Islands	Andaman & Nicobar	35	35	40	NA
<b>Grand Total</b>		<b>25604</b>	<b>25877</b>	<b>26413</b>	<b>27669-27719</b>

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## Annexure VI (v)

**Details of Funds Released under the Centrally Sponsored Scheme  
“Project Elephant”**

(Rs. in lakhs)

States	2004-05	2005-06	2006-07	2007-08	2008-09
Andhra Pradesh	48.00	60.00	64.774	60.00	45.00
Arunachal Pradesh	59.00	71.50	61.00	54.50	65.00
Assam	130.00	40.00	75.00	144.00	175.19
Chhatisgarh	00	00	80.00	83.77	60.43
Haryana	00	00	50.00	00	00
Jharkhand	105.96	75.00	74.446	132.17	80.00
Karnataka	186.22	168.00	167.82	212.65	249.00
Kerala	167.40	170.00	169.40	147.70	356.80
Maharashtra	00	00	25.00	56.86	77.76
Meghalaya	70.00	30.00	61.55	68.39	50.00
Mizoram	00	00	00	1.33	00
Nagaland	29.00	48.00	52.45	26.60	17.45
Orissa	137.96	114.00	153.94	148.50	180.60
Tamilnadu	84.00	112.00	153.41	124.978	269.163
Tripura	17.00	00	00	12.00	28.96
U.P.	12.00	00	6.20	55.33	58.24
Uttarakhand	138.90	137.70	153.12	126.46	209.45
W. Bengal	148.54	181.00	160.89	185.725	176.096
<b>Total</b>	<b>1333.98</b>	<b>1207.2</b>	<b>1509.00</b>	<b>1640.963</b>	<b>2099.139</b>

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## Annexure VI(vi)

### Forest occupancy of Tigers, Co-Predators, Prey and population estimates of tigers

State	Tiger km <sup>2</sup>	Leopard km <sup>2</sup>	Dhole km <sup>2</sup>	Sloth Bear km <sup>2</sup>	Chital km <sup>2</sup>	Sambar km <sup>2</sup>	Wild Pig km <sup>2</sup>	Nilgai km <sup>2</sup>	Tiger Numbers		
									No.	Lower limit	Upper limit
<b>Shivalik-Gangetic Plain Landscape Complex</b>											
Uttarakhand	1901	3683	-	853	2161	2756	3214	422	178	161	195
Uttar Pradesh	2766	2936	190	3130	5537	2641	7761	8375	109	91	127
Bihar	510	552	323	532	576	321	570	494	10	7	13
Shivalik-Gangetic	5177	7171	513	4515	8274	5718	11545	9291	297	259	335
<b>Central Indian Landscape Complex and Eastern Ghats Landscape Complex</b>											
Andhra Pradesh	14126	37609	41093	54673	37814	33159	58336	26526	95	84	107
Chattisgarh	3609	14939	3794	20951	18540	7604	25058	9250	26	23	28
Madhya Pradesh	15614	34736	28508	40959	41509	33551	599033	41704	300	236	364
Maharashtra	4273	4982	4352	6557	5970	5730	7370	4754	103	76	131
Orissa	9144	25516	8215	43236	6040	6112	21525	711	45	37	53
Rajasthan	356	-	-	-	-	-	-	-	32	30	35
Jharkhand**	1488	131	-	2640	721	721	6226	1108	Not Assessed		
Central Indian	48610	131	85962	2640	721	721	6226	1108	601	486	718
<b>Western Ghats Landscape Complex</b>											
Karnataka	18715	20506	15862	20749	42349	43412	21999	-	290	241	339
Kerala	6168	8363	10801	6904	2931	10469	8809	-	46	39	53
Tamil Nadu	9211	14484	19658	13224	13567	15909	19768	2505	76	56	95
Western Ghats	34094	43353	46321	40877	58847	69790	50576	2505	402	336	487
<b>North East Hills and Brahmaputra Flood Plains</b>											
Assam*	1164	1500	285	380	-	270	2047	-	70	60	80
Arunachal Pradesh*	1685	670	675	199	-	353	412	-	14	12	18
Mizoram*	785	2324	776	479	-	1700	1489	-	6	4	8
Northern West Bengal*	596	1135	301	-	280	309	491	-	10	8	12
North East Hills & Brahmaputra	4230	5629	2037	1058	280	2632	4439	-	100	84	118
Sunderbans	1586	-	-	-	1184	-	1591	-	Not Assessed		
<b>Total Tiger Population</b>									<b>1411</b>	<b>1165</b>	<b>1657</b>

\* Population estimates are based on possible density of tiger occupied landscape in the area, not assessed by double sampling.

\*\* Data was not amenable to population estimation of tiger. However, available information about the landscape indicates low densities of tiger in the area ranging from 0.5 to 1.5 per 100 km<sup>2</sup>.

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## Annexure VI (vii)

**Funds Released under the Centrally Sponsored Scheme “Project Tiger”**

(Rs. in Lakhs)

Sl. No	Name of Tiger Reserve Range State	2004-05	2005-06	2006-07	2007-08	2008-09
1	Andhra Pradesh	15.00	68.7926	46.675	73.92	56.983
2	Arunachal Pradesh	35.00	172.418	237.3725	110.25	246.171
3	Assam	-	86.4896	87.431	95.61	1092.379
<b>4</b>	<b>Bihar</b>	<b>85.00</b>	<b>6.4918</b>	<b>69.9554</b>	<b>98.32</b>	<b>49.673</b>
5	<b>Chhattisgarh</b>	27.75	24.3343	10.00	35.23	169.87
6	<b>Karnataka</b>	486.292	453.2246	286.277	1159.71	689.839
7	<b>Kerala</b>	105.75	116.1708	109.00	153.24	267.09
8	Jharkhand	72.5005	164.1784	155.967	45.16	115.377
9	Madhya Pradesh	609.93	777.2676	197.942	2975.94	6998.542
10	Maharashtra	255.953	334.19	238.56	295.72	411.1250
11	Mizoram	94.34	65.156	115.16	82.90	241.4500
12	Orissa	116.4395	107.0024	183.8717	43.28	625.9900
13	Rajasthan	79.00	281.2458	176.541	410.68	2708.9500
14	Tamil Nadu	80.00	136.9528	108.535	45.40	690.8060
15	Tripura	--	0.50	--	0.00	462.8500
16	Uttaranchal	200.12	159.9212	192.78	202.005	462.8500
17	Uttar Pradesh	175.215	162.8782	183.265	134.89	417.5130
18	West Bengal	325.49	228.2935	190.5283	308.67	228.3940
	<b>Total</b>	<b>2763.78</b>	<b>3345.507</b>	<b>3289.860</b>	<b>6270.94</b>	<b>15,473.002</b>

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