



सत्यमेव जयते

Ministry of Environment and Forests  
GOVERNMENT OF INDIA

# NATIONAL MISSION FOR A GREEN INDIA

## National Consultations

### Comments sent by :

Name : \_\_\_\_\_

Organization : \_\_\_\_\_

Address : \_\_\_\_\_

Email: \_\_\_\_\_



Government of India  
Ministry of Environment & Forests

## CEE

Centre for Environment Education

Consultation Organised by Centre for Environment Education





सत्यमेव जयते

**Ministry of Environment and Forests**  
GOVERNMENT OF INDIA

# **NATIONAL MISSION FOR A GREEN INDIA**

**National Consultations**



Government of India  
Ministry of Environment & Forests

**CEE**

Centre for Environment Education

**Consultation Organised by Centre for Environment Education**



जयराम रमेश  
JAIRAM RAMESH



राज्य मंत्री (स्वतंत्र प्रभार)  
पर्यावरण एवं वन  
भारत सरकार  
नई दिल्ली-110003  
MINISTER OF STATE (INDEPENDENT CHARGE)  
ENVIRONMENT & FORESTS  
GOVERNMENT OF INDIA  
NEW DELHI - 110 003

### Foreword

I am pleased to introduce the draft mission document for the **National Mission for a Green India**. This document, prepared by a team of experts from both within and outside the government, lays out the approach we wish to pursue to fast track our efforts in the forestry sector, with the overarching **target of doubling the area to be taken up for afforestation/eco-restoration in India in the next 10 years, taking the total area to be afforested or eco-restored to 20 million ha.**

The National Mission for a Green India, or the Green India Mission (GIM), is one of the eight National Missions under India's National Action Plan on Climate Change, announced by the Hon'ble Prime Minister in June 2008.

I believe this Mission document envisages an approach that is innovative in several ways:

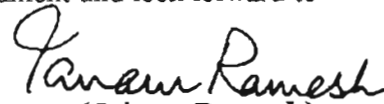
**First, it proposes a fundamental shift in mindset from our traditional focus of increasing the *quantity* of forest cover, to increasing the *quality* of our forest cover.** Hence, a major focus is to increase cover and density of our medium density forests and degraded forests.

**Second, the Mission proposes to take a *holistic view of forestry, and not merely focus on plantations to meet carbon sequestration targets.*** There is a clear focus on preserving and enhancing biodiversity, and restoring other ecosystems and habitats including grasslands/scrub, mangrove forests, and the wetlands. The Mission has deliberately stayed away from focusing on the traditional plantation forestry model and looks at forestry in the widest context.

**Third, there is a deliberate and major focus on decentralization, and a conscious attempt to involve local governance institutions in the implementation of the Mission.** We cannot forget that forests are the main source of livelihood to over 200 million people in our country, and hence any initiative to conserve our forests and improve their quality cannot succeed without the active participation of local communities.

**Fourth, we plan to engage the public citizens and civil society in the design of the Mission itself.** It is with this aim that we are conducting a series of public consultations on the draft mission document across the country over the next few weeks. I am looking forward to personally engaging in these discussions and enhancing the Mission structure at the initial stage based on the inputs that we receive.

I thank our team who has been working on the Mission document and look forward to your inputs on this critical national endeavour.

  
(Jairam Ramesh)  
2.6.2010

### **How to use this book**

1. This is a draft mission document of the “National Mission for a Green India (or Green India Mission – GIM)” for public discussion and feedback.
2. It is also available at the website, (<http://moef.nic.in/downloads/public-information/green-india-mission.pdf>). You may send your feedback to [greenindiamission@ceeindia.org](mailto:greenindiamission@ceeindia.org).
3. All participating stakeholder groups are requested to write their collated comments and feedback in the space provided in the book and return the copy to CEE staff at respective Consultation venues. Kindly write the names and contact details of participants from your group, on the page provided.
4. In case you provide comments on a separate sheet/email please refer to section numbers on which you are commenting.
5. CEE will consolidate all comments received, and submit to the Ministry of Environment and Forests for finalization.



सत्यमेव जयते

# **NATIONAL MISSION FOR A GREEN INDIA**

---

**DRAFT MISSION DOCUMENT  
VERSION 1.0**

**24<sup>TH</sup> MAY, 2010**

*This Draft Mission Document has been prepared as a basis for discussion and feedback from all stakeholders.*

*The Mission document will be finalized after a series of public consultations across the country.*

*We welcome feedback on this document by email. Kindly send your comments to: **greenindiamission@ceeindia.org***

## Executive Summary

### A. Background

The National Mission for a Green India, as one of the eight Missions under the National Action Plan on Climate Change (NAPCC), recognizes that climate change phenomena will seriously affect and alter the distribution, type and quality of natural resources of the country and the associated livelihoods of the people. The Mission (henceforth referred to as GIM) acknowledges the influences that the forestry sector has on environmental amelioration through climate mitigation, food security, water security, biodiversity conservation and livelihood security of forest dependant communities.

GIM puts the “greening” in the context of climate change adaptation and mitigation meant to enhance ecosystem services like carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; along with provisioning services like fuel, fodder, small timber and NTFPs.

The Mission aims at addressing climate change by:

- enhancing carbon sinks in sustainably managed forests and other ecosystems;
- enhancing the resilience and ability of vulnerable species/ecosystems to adapt to the changing climate; and
- enabling adaptation of forest dependant local communities in the face of climatic variability.

### B. Mission Objectives

The objectives of the mission are three-fold:

- **Double the area to be taken up for afforestation /eco-restoration in India in the next 10 years, taking the total area to be afforested or eco-restored to 20 million ha.** (i.e., 10 million ha of additional forest/non forest area to be treated by the Mission, in addition to the 10 million ha which is likely to be treated by Forest Department and other agencies through other interventions).
- **Increase the GHG removals by India's forests to 6.35% of India's annual total GHG emissions by the year 2020** (an increase of 1.5% over what it would be in the absence of the Mission). This would require an increase in above and below ground biomass in 10 million ha of forests/ecosystems, resulting in increased carbon sequestration of 43 million tons CO<sub>2</sub>-e annually<sup>1</sup>.
- **Enhance the resilience of forests/ecosystems being treated under the Mission** – enhance infiltration, groundwater recharge, stream and spring flows, biodiversity value, provisioning of services (fuel wood, fodder, timber, NTFPs, etc.) to help local communities adapt to climatic variability.

### C. Mission Targets (Outputs)

The Mission will have clear targets for different forest types and ecosystems which will enable achieving the overall objectives of the Mission. The Mission targets can be classified into the following:

- 2.0 m ha of moderately dense forests show increased cover and density
- 4.0 m ha of degraded forests are regenerated/afforested and sustainably managed

- 2.0 m ha of degraded scrub/grasslands are restored and put under sustainable multiple uses
- 0.10 m ha of mangroves restored/established
- 0.10 m ha of wetlands show enhanced conservation status
- 0.20 m ha of urban/peri urban forest lands and institutional lands are under tree cover
- 1.50 m ha of degraded agricultural lands and fallows are brought under agro-forestry
- 0.10 m ha of corridor areas, critical to wildlife migration are secured
- Improved fuel wood use efficiency devices adopted in about 10 million households (along with alternative energy devices)
- Biomass/NTFP based community livelihoods are enhanced that lead to reduced vulnerability

#### **D. Key Elements of Mission Strategy**

Some key highlights of the Mission strategy are listed below:

- **Holistic view to “greening” (broader than plantations):** The scope of greening will not be limited to just trees and plantations. Emphasis will be placed on restoration of ecosystems and habitat diversity e.g. grassland and pastures (more so in arid/semi-arid regions), mangroves, wetlands and other critical ecosystems. It will not only strive to restore degraded forests, but would also contribute in protection/enhancement of forests with relatively dense forest cover.
- **Integrated cross-sectoral approach to implementation:** The Mission would foster an integrated approach that treats forests and non forest public lands as well as private lands simultaneously, in project units/ sub-landscapes/sub-watersheds. Drivers of degradation e.g. firewood needs and livestock grazing will be addressed using inter sectoral convergence (e.g. livestock, forest, agriculture, rural development, energy etc.)
- **Key role for local communities and decentralized governance:** Local communities will be required to play a key role in project governance and implementation. Gram Sabha and its various committees/groups including JFMCs, CFM groups, Van Panchayats, etc. would be strengthened as institutions of decentralized forest governance. Likewise, the Mission would support revamping/strengthening of the Forest Development Agencies. The Mission would support secured community tenure, capacity building for adaptive forest management and livelihood support activities e.g. community based NTFP enterprises.
- **'Vulnerability' and 'Potential' as criteria for intervention:** An overarching criterion for selection of project areas/sub-landscapes/sub-watersheds under the Mission would include vulnerability to climatic change projections and potential of areas for enhancing carbon sinks.
- **Robust and effective monitoring framework:** A comprehensive monitoring framework at four different levels is proposed. In addition to on-ground self- monitoring by multiple agencies, the Mission would support use of modern technology like Remote Sensing with GPS mapping of plot boundaries for monitoring at output/ outcome level. A few identified sites within the project area will be selected for intensive monitoring using additional parameters like ground cover, soil condition, erosion and infiltration, run-off, ground water levels to develop water budgets as well as biomass monitoring indicators. The Mission would also commission a comprehensive research needs assessment in support of Mission aim and objectives. The Mission would set up a cell within Mission Directorate to coordinate REDD Plus activities in the country.

The Mission will implement its strategy through a set of 9 sub-missions and cross-cutting initiatives.

**E. Mission Organisation**

An Advisory Council chaired by the Minister for Environment and Forests, Govt. of India will provide overall guidance to the Mission. A National Steering Committee will provide necessary direction and support to the Mission activities. The Mission will be serviced by a Mission Directorate at MoEF to be housed in the National Afforestation and Eco-development Board (NAEB). At State level, the Mission will be housed within the State Forest Development Agency in the Forest Department and will have a State Steering Committee and an Executive Committee to help the Mission achieve its aims and objectives. At District level, the Mission activities will be coordinated through the existing mechanism of District Planning Committees and FDAs. The Gram Sabhas and the various Committees set up by them, including JFMCs, CFM groups, Van Panchayats, Village Council etc., will be the key vehicle for planning and implementation at the village level.

**F. Timeframe**

The implementation period of the Mission would be 10 years, i.e., from FY 2010-2011 to FY 2019-2020. The first year of the Mission would be utilized in institution building, sensitization, capacity building and baseline research etc. Actual field operations will commence from the second year of the Mission.

**G. Resources**

Total mission cost is estimated to be Rs 44,000 crores.

**TABLE OF CONTENTS**

1.0	Context	1
2.0	Significance of forests in relation to climate change	1
2.1	The Green India Mission	1
2.2	Forests and climate change: Key challenges	2
3.0	Mission goal, outcomes and targets	3
3.1	Overall Goal	3
3.2	Mission Objectives	3
3.3	Mission Targets (Outputs)	4
4.0	Green India Mission: The core principles	5
5.0	Mission Strategy	6
5.1	Overall Strategy	6
5.2	Sub Missions	7
5.3	Cross cutting interventions	13
5.4	Means to achieve Mission targets	14
5.5	Improving the investment climate to help engagement of multiple stakeholders/ agencies	17
5.6	Research and Development	18
5.7	Monitoring the Greening Mission	19
5.8	Making Green India Mission a people's program	20
6.0	Mission Organization	20
7.0	Time frame	22
8.0	Resources	22
	Annex-1	23
	Annex-2	25
	Annex-3	26
	END NOTES	26







*Comments*

its existing location by 2085, making it more vulnerable to the adverse climatic conditions as well as to the increased biotic stresses of already challenged forest ecosystems. The forests would be vulnerable on account of the altitudinal and latitudinal shift of the species of the forest ecosystems and also on account of increased occurrences of fire, pest /diseases, invasive species, change in species assemblage/forest type, forest die-back and loss of biodiversity.<sup>4</sup>

Forest dependant livelihoods may get severely affected, enhancing vulnerability of local communities.<sup>5</sup>

**3.0 Mission Goal, Objectives and Outputs**

**3.1 Overall Goal:**

The Mission aims at addressing climate change by enhancing carbon sinks in sustainably managed forests and other ecosystems, enhancing the resilience and ability of vulnerable species/ecosystems to adapt to the changing climate, and enabling the adaptation of forest dependant local communities in the face of climatic variability.

**3.2 Mission Objectives:**

*3.2.1 The Mission would double the area taken up under afforestation /eco-restoration. 10 million ha of forest/non forest area would be treated during the Mission, which would equal the area to be treated by Forest Department and other agencies over next 10 years through existing schemes/programmes.*

*3.2.2 The Mission would contribute to enhanced resilience of the forests and other ecosystems, being treated under the Mission. The Mission interventions would enhance infiltration and groundwater recharge as well as stream and spring flows. Significant benefits would accrue in terms of biodiversity values, as well as enhanced provisioning services (fuel wood, fodder, timber, NTFPs, medicinal plants etc.) to help local communities adapt to climatic variability. Suitable indicators would be identified to monitor the changes.*

*3.2.3 The Mission would increase above and below ground biomass in 10 million ha of forests and other ecosystems, resulting in increased carbon sequestration of 43 million tons CO<sub>2</sub>-e annually, in year 2020. This will neutralize an additional 1.5 % of annual GHG emissions in 2020, taking GHG removal by India's forests to 6.35 %. (The GHG removal by India's forests in 2020 is projected at 4.87 % of total GHG emissions in year 2020).<sup>6</sup>*

4 Ravindranath et al 2006,

5 Stern 2007

6 Source: India's Forests and Tree Cover : Contribution as a carbon sink , Technical paper, ICFRE,2009; page 10

Comments section with horizontal lines for input.

*Comments*

**GREEN INDIA MISSION**

**3.3 Mission Targets (Outputs)**

3.3.1 The following targets will contribute towards the over all goal/outcomes of the Mission:

- 2.0 m ha of moderately dense forests show increased cover and density.
- 4.0 m ha of degraded forests are regenerated/afforested and sustainably managed.
- 2.0 m ha of degraded scrub/grasslands are restored and put under sustainable multiple use.
- 0.10 m ha of mangroves restored/established.
- 0.10 m ha of wetlands show enhanced conservation status.
- 0.20 m ha of urban/peri urban forest lands and institutional lands are under tree cover.
- 1.50 m ha of degraded agricultural lands and fallows are brought under agro-forestry.
- 0.10 m ha of corridor areas, critical to wildlife migration are secured.
- Improved fuel wood use efficiency devices adopted in about 10 million households (along with alternative energy devices).
- Biomass/NTFP based community livelihoods are enhanced that lead to reduced vulnerability.

The Mission interventions would double the current rate of afforestation and regeneration being undertaken in forest/non forest areas. (Ref: Annex-3)

**3.3.2 Means to achieve the Mission targets/outcomes:**

- Strengthening local community institutions for decentralized forest governance through secure tenure and capacity enhancement
- Strengthening capacity of forest department and other line agencies
- Improving investment climate for tree planting and forest conservation
- Improved monitoring at planning, input, outcome, and impact level
- Commissioning Research in support of the Mission aim
- Making the Mission a people's program











*Comments*

as deferred/ rotational grazing (within carrying capacity) would be of great value in restoration of such ecosystems, supported by improved animal health services and, where feasible, improvement of quality and reduction in number of animals, improvement in marketing of animal products etc.

The Sub Mission has the potential to enhance carbon stocks by 1.4 million tons of carbon or 5.10 mt of CO<sub>2</sub>-e per year. (Ref: Table. 2).

**5.2.4 Sub Mission 4: Restoration of new mangroves 0.10m ha**

Mangrove vegetation is spread over an area of 4,639 sq km or around 0.4 m ha, of which 30% is categorized as very dense; 35% as dense and 34% as open mangrove forests.

Mangrove and coastal ecosystems deserve special conservation efforts as these ecosystems save lives and properties from natural calamities such as cyclones, storm surges and erosion, and are the breeding, feeding and nursery grounds for many estuarine and marine organisms. Unfortunately, these areas are used for captive and culture fisheries often to the detriment of the mangrove ecosystem.

Target of 0.10 mha of mangrove planting would involve lands which were mangroves historically but are not under mangrove vegetation now. Along with protection of mangroves, patches of biodiversity rich habitats in the coastal, riverine and deltaic belt would also get protection.

The Sub Mission has the potential of enhancement of carbon stocks by 0.25 million tons of carbon or 0.91 million tons of CO<sub>2</sub>-e per year. (Ref: Table. 2).

**5.2.5 Sub Mission 5: Restoration of Wetlands: 0.10m ha**

India has a total of 67,429 wetlands, covering an area of about 4.1 million hectares<sup>8</sup>. Out of these, 2,175 are natural and 65,254, man made. Of the total 1,712 wetlands declared the world over as protected Ramsar sites, 25 are in India covering around 677,131 hectares and involving 14 states.

Wetlands provide livelihoods to local communities; more importantly, the ecosystem services like recharge of ground water provided by wetlands are of great significance to local communities. Wetlands host hundreds of species of migratory and local birds, fish, amphibians, insects, plants and trees. With the capacity of wetlands to store large quantities of water after heavy rainfall and release this gradually in a stable flow, wetlands like marshes and lakes have proved to be key areas to help the world to adapt to climate change impacts. Moreover, they help control floods, stabilize shorelines and mitigate climate change.

Wetlands today are a threatened ecosystem due chiefly to encroachments; change of land use, infrastructure development, pollution, growth of invasive species and over-fishing.

Comments section with multiple horizontal lines for text input.

8 Ministry of Environment and Forests (MoEF), 1990.





**Ministry of Environment and Forests**  
GOVERNMENT OF INDIA

*Comments*

against 17.11 tons carbon/ha from overall forest and tree cover<sup>9</sup>. Thus, there is an ample scope to increase contribution of urban forests to overall carbon stocks.

The Mission would support urban greening by various interventions, categorising urban forests in following broad categories:

- i. **Recorded or notified forest patches** which are threatened by expanding urban/industrial development - such notified forest patches in urban and especially in peri- urban zones will be secured by appropriate fencing ( wall or a combination of half wall and wire mesh) ; restoration of representative ecosystems and plantation of bio-diverse species mix to supplement natural regeneration. Special care would be taken to retain the natural local mix of grasses, herbs and shrubs along with tree species.
- ii. **Open spaces/green spaces like parks/wood** lots set up on municipal lands would be established to enhance biodiversity status.
- iii. **Diffused planting like avenues / households:** The Mission would support plantation of multiple species for multiple values.
- iv. **Institutional lands**, especially lands belonging to or allotted to business/industrial houses and educational institutions.

An overall strategy cutting across the above classifications would include: securing patches under high threat and vulnerability; encouraging setting up of local users or citizen's groups to oversee maintenance, regulation of access for walking ,etc.; linking green spaces with conservation education programs and environment education initiatives by development of outreach initiatives, nature trails and interpretation activities wherever possible; making development of additional green spaces an essential and integral component of programs and schemes aimed at urban renewal and redevelopment; increasing manpower for watch and ward, setting up of mobile forces and legal services to combat encroachments, waste dumping, land grab and other threats.

Mission would solicit engagement of an array of institutions to support greening in urban/peri urban areas. Corporate sector/Business houses would be encouraged to support such endeavor. Detailed guidelines will be developed to this effect. The activities that change the natural ecosystem will be prohibited such as construction of hard surface facilities like paved yard, food courts, rest houses etc.

Improved amenity for urban dwellers, soil and water conservation, biodiversity conservation and improved habitats for resident and migratory wildlife would be some of the significant benefits.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

<sup>9</sup> Urban Trees for Combating Climate Change ; Das Gupta , Kumar, & Lakhchaura ,2008

















*Comments*

**5.6.2 REDD Plus Cell**

The Mission would set up a cell within the Mission directorate under the overall guidance and supervision of the Ministry of Environment and Forests to coordinate REDD Plus activities. The cell will have the task of creating awareness /capacity building on the REDD Plus process for all stakeholders, including the community institutions. A comprehensive REDD Plus strategy would be worked out through an inclusive process. The Cell will design and formulate appropriate REDD Plus projects/strategy as consistent with the objectives of this Mission and propose, as necessary , for implementation/funding support to the designated bodies in accordance with the policies and decisions of the relevant authorities/bodies at the national and international level. Consistent with the architecture and rules agreed under UNFCCC for setting up REDD Plus mechanism, the Cell may also be required to provide technical advice to the appropriate national authorities on development and implementation of Monitoring Reporting and Verification (MRV) protocols and fair benefit sharing mechanisms in the forestry sector. This would be done through improved capacity and comprehensive methodology design for forest carbon inventory as per internationally and domestically agreed rules for Measurement, Reporting and Verification System (MRV).

The Mission would improve capacity of multiple stakeholders, particularly forest dependant communities, to implement REDD Plus at decentralized levels. A majority of interventions under the Mission have potential to qualify under the REDD / REDD Plus.

**5.7 Monitoring the Greening Mission**

The Mission would focus beyond input level/activity to outcome level over time by a combination of impact assessment at the field unit level and application of modern technology like Remote Sensing and GIS.

Monitoring under the Mission will help in timely information for planning and feedback to multiple agencies/stakeholders. In addition to on-ground self-monitoring by multiple agencies and communities, the Mission would support use of Geomatics (remote sensing with GPS mapping of boundaries), for monitoring at output/ outcome level. This service will be available for both Mission financed activities as well as those undertaken and financed by other agencies/ stakeholders.

Monitoring is proposed at four levels-

**Level 1:** On ground self-monitoring of the region by the local community, implementing organization and the FD. Building community capacity to monitor carbon and other services is envisaged using lessons from pilot projects.

**Level 2:** Field review by an external agency of both random and selected sites. This will be primarily for Mission financed activities.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---





**Ministry of Environment and Forests**  
GOVERNMENT OF INDIA

Council will have representation from relevant sectoral line agencies at Secretary level. It will have representation of research institutions, civil society organisations and corporate sector. The Mission Director will be Member-Secretary of the Council.

A National Steering Committee will be constituted to provide direction and management to the Mission. The Secretary/DGF, of the Department of Forest and Wildlife, Government of India will be the Chair. Members would include certain of the State Principal Chief Conservators of Forests (PCCFs) by rotation, representatives from related divisions in MoEF and related Ministries, eminent experts and representation of civil society organisations. The Mission Director will be the Member-Secretary of this body as well.

The National Mission Directorate will be serviced by the National Afforestation and Eco-Development Board. NAEB will house the secretariat for the Mission. IGF NAEB would be the Mission Director and will function as Member Secretary of both the National Advisory Council and the National Steering Committee. The Mission Director will be provided with required staff/experts and infrastructure for carrying out the Mission activities. A clear devolution of financial powers would be made for the Mission Directorate to facilitate smooth and timely implementation of action plans.

A similar set up will be created at each State. A State Steering Committee chaired by Chief Secretary/Additional Chief Secretary, would be set up in every State/UT to provide overall guidance to the Mission. The Steering committee would have sectoral representation at Principal Secretary/Secretary level. It will have representation of research/academic institutions, civil society organisations, communities and corporate sector. The State PCCF will be Member-Secretary

State Forest Department level will be responsible for operationalising the Mission activities at the state level. An Executive Committee chaired by PCCF will be set up for directing the Mission and overseeing implementation. To avoid multiplicity of agencies, State Forest Development Agency would act the State Mission Directorate.

The Mission activities at the district level will be coordinated by District Planning Committee and Forest Development Agency.

At the village level, planning and implementation will be vested with the local level institutions of Gram Sabha, i.e. JFMCs, CFM groups, Van Panchayats, Village council, Biodiversity Management Committees, or any new institution set up by Gram Sabha for CFR provisions under Forest Rights Act,2006. It would link to the cluster level, sub-watershed/sub-landscape level/ federation of village level institutions.

In urban areas, it will be the ward level committees /RWAs linked to Municipality/Municipal Corporations that will facilitate planning and implementation under the Mission.

*Comments*

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---





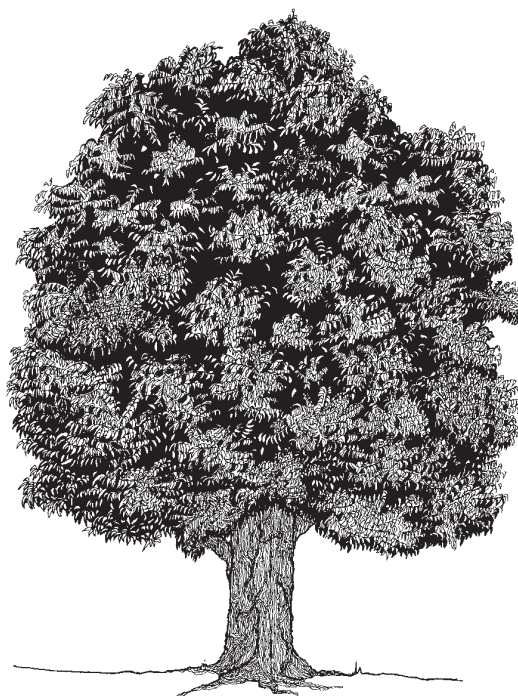
*Comments*

**GREEN INDIA MISSION**

**B. For Support Activities**

Activities	Cost
Research (5% of A )	1600
Publicity/Media/outreach activities(1% of A )	320
GIS/Monitoring and Evaluation (2%of A )	640
Livelihood improvement activities , (5 %f A )	1600
Strengthening local level institutions (5%)	1600
Strengthening FDs (10% )	3200
Overheads, Mission Directorate (10% )	3200
<b>Total</b>	<b>12,160 or say 12,000</b>

**Total 32000 + 12000= 44,000**





**Comments****GREEN INDIA MISSION****Annex3****Forest/Non Forest areas to be treated over next 10 years +**

Type of area and the density class	Extent of area (in Million ha)	Area likely to be treated under existing program schemes till 2020 (Million ha)	Areas to be treated under the Green India Mission (Million ha)
Moderately dense forest (4070%)	31.90	2.0	2.0
Open Forests* (1040 %)	28.84	6.0	4.00
Scrub/Grasslands	4.15		2.0
Non Forests land	255.49	2.0	2.0
		10.0	10.0

**END NOTES:**

<sup>i</sup>The landscapes can be defined, based on a range of attributes from bio-physical to cultural attributes. The landscape from species conservation point of view may mean contiguity of the habitat to meet need of species / populations. For instance, Tadoba – Andheri landscape of 2000 sq km , including PA, buffers , corridors , non forests that may meet requirement of viable tiger population. From Livelihood-Conservation point of view , Buchnanian –Terminalia dominated NTFP landscape of 70 sq km (including forest and non forest lands) in Seoni district in MP that provides livelihood incomes from NTFP to over a dozen villages. The landforms like Satpura make a very large landscape that provide catchments of many rivers and are house to rich biodiversity and cultural diversity .

<sup>ii</sup>Vulnerability assessment done at IISc Bangalore using HadRM3 using A2/B2 scenario and global vegetation response model IBIS. The assessment has looked at forest grids projected to undergo change in different states.

<sup>iii</sup>As per the latest Forest Survey of India report (2009), total area of very dense/dense forests including PAs is 40.25 million ha. Of these, about 15 million ha is under protected area network (National Parks and Wildlife Sanctuaries), thus leaving 25 mha of the remaining very dense/dense forests.

<sup>iv</sup>According to one of the estimates put up by TERI (2009) there is huge potential of 85 million ICs in the country, which could save 17 MT of fuel wood every year.

<sup>v</sup>There were about 106,482 JFM committees protecting about 22.01 million hectare of forests—approximately a third of the land with the forest departments in the country. (MoEF,2006)

<sup>vi</sup>The Gram Sabha has same meaning as specified in 73<sup>rd</sup> Constitutional amendment and Panchayat Raj Extension in Scheduled Area,1996

<sup>vii</sup>Adaptive Silviculture: A few key elements

- The management unit is JFMC /CFM/ /Community Forest Resource or a cluster of such units.
- Participatory assessment of forests condition including growing stock/carbon stock enumeration and regeneration survey



**Ministry of Environment and Forests**  
GOVERNMENT OF INDIA

of both timber and non-timber species is done at local level by community, supported by frontline forest staff, using both traditional ecological knowledge as well as scientific measurements. Similarly, community need assessment with regards to range of forest goods and services is done using participatory methodology.

- Micro-plan is governed by participatory objective setting, to meet the need of all sections of the society. Prioritisation across range of goods and services addresses intra-community, inter-community as well as inter-generational needs vis-à-vis forest goods and services. For instance, balancing needs of village poor for fuel wood and poles verses need of relatively well to do farmers for timber. Micro-plans to dwell both at supply as well as demand management of forest produce and services.
- Silvicultural tools like cut back operations, singling, thinning, gap planting and regulated harvesting of NTFPs are applied innovatively, taking JFMC/CFR forests as unit, but option of federating at higher level for inventory, planning and monitoring.
- Provides for impact monitoring on periodic basis to modify practices as and when required to ensure regular and sustained provisioning of forest goods and services (including carbon, water, biodiversity) along with continuous improvement of forests.

<sup>viii</sup>Simplification of rules governing the harvest, sale and transit of short rotation trees on private lands such as eucalyptus and popular and on NTFPs occurring on all lands has helped, though long rotation tree species such as teak are still highly regulated, as are high value NTFPs such as Tendu (Saigal, 2002, Agarwal 2003). There is considerable scope for regulatory changes and institutional and market development that can empower and incentivise low income producers and collectors. Changes in the legislation and regulations that govern this public-private interaction would reduce the regulatory burden on producers, the implementation burden on the regulating agency and thereby likely increase the incentives for small-scale private participation in generating forest based incomes, as well as free up scarce (and expensive and valuable) forest department resources for more productive use

<sup>ix</sup>Lok Vaniki in MP

Recognizing the constraints to private forestry, an attempt was made in state of Madhya Pradesh to deregulate for long rotation species as well, for farmers willing to get management plans in place for their forests prepared by a chartered forester. Lok Vaniki or Peoples Forestry is governed by the Madhya Pradesh Lok Vaniki Rules 2002, issued under Section 11 of the Madhya Pradesh Lok Vaniki Adhinyam, 2001. The rules provide requirements for managing “tree clad” areas on private lands and revenue lands. A key provision of the rules is that farmers who develop management plans to manage their forests under Lok Vaniki are provided a regulatory waiver from the web of pre-existing rules governing harvesting of trees on private lands. Lok Vaniki is designed to motivate farmers to think of long term forest management and not one time harvest and conversion of land use. In Dewas, on private forests –mean annual increments (MAI) can reportedly be increased from 0.46 to 1.5 m<sup>3</sup>/ha with scientific management. In the few districts in MP where several hundred forests have been brought under management, farmers have benefited from harvesting their long standing trees, predominantly of teak. The real policy attractiveness of the Lok Vaniki program is that it has the potential to double state timber output without any investment by the state government and also increase returns to farmers, besides contributing to carbon sequestration and other local environmental benefits. Large-scale implementation would also free up scarce government resources as less regulatory oversight would be required. Little streamlining, the Lok Vaniki program can dramatically enhance the investment climate for small scale private forestry, lead to an increase in planting, sustainable management, and increased supply of timber from extensive forests outside FD forest land.

<sup>x</sup>REDD Plus: India advocates a comprehensive approach to REDD (Reduced Emissions from Deforestation and Degradation) which has been termed as REDD Plus approach. The approach argues for compensating countries not only for reducing deforestation but also for conservation and, sustainable management of forests and increase in forest cover (ICFRE, 2007). In its submission to UNFCCC in August 2009, India has elaborated REDD as Reducing Emissions from Deforestation in Developing countries, Sustainable Management of Forests (SFM) and Afforestation and Reforestation (A/R) which further substantiates its comprehensive approach. (MoEF,2009)

<sup>xi</sup>Project, Think Global Act Local; Singh 2009; and other such project using community youths to measure ecosystem services

<sup>xii</sup>The average value of carbon sequestration for open forests has been considered: a) based on the estimates shown in Technical paper of ICFRE India's Forest and Tree Cover : Contribution as Carbon Sink, page 10 and b) personal communication Kant, Pramode.







### Contact Details

Sr. No	Dates of Consultation *	Location of Consultation	CEE Office Address
1	11.6.2010	Guwahati	<b>CEE North East</b> K.K. Bhatta Road, Chenikuthi, Guwahati 781 003, Assam Tel:0361-2667382 Fax:0361-2665914 E-mail:ceenortheast@ceeindia.org
2	16.6.2010	Visakhapatnam	<b>CEE Andhra Pradesh</b> Door No.: 6-3-348/2 Dwarakapuri Colony, Panjagutta Hyderabad - 500 482, Andhara Pradesh Telefax: (040) 23352586 Phone: (040) 23352596, 65883100 E-mail: ceehandhrapradesh@ceeindia.org
3	19.6.2010	Pune	<b>CEE Central</b> A 10 Garden Estate, 167/1 & 168/1, New D P Road, Aundh, Pune - 411 007 Maharashtra Telefax: 020-25898447 Tel:020-25887009 Email: ceecentral@ceeindia.org
4	22.6.2010	Deharadun	<b>CEE North</b> 19/323, Indira Nagar Lucknow - 226 016, Uttar Pradesh Telefax: 0522-2716570 Tel: 0522-2716628 E-mail: ceenorth@ceeindia.org
5	30.6.2010	Bhopal	<b>CEE Madhya Pradesh</b> B- 11, Chanakyapuri, Chunna Bhatti, Bhopal - 462 016, Madhya Pradesh Tel: 0755-6537682 Fax : 0755 - 2420295 E-mail: ceemadhyapradesh@ceeindia.org
6	2.7.2010	Jaipur	<b>CEE Jaipur</b> 73/86, Paramhans Marg Near K.V. No. 5, Mansarovar Jaipur - 302 020, Rajasthan Tel: 0141-2781989 E-mail: ceerjaipur@ceeindia.org
7	5.7.2010	Mysore	<b>CEE South</b> 2nd Floor, Kamala Mansion No. 143 Infantry Road Bangalore - 560 001, Karnataka Tel:080-22869094/22869907 Fax:080-22868209 E-mail: ceesouth@ceeindia.org

\* Dates of consultations are subject to change, kindly confirm with Ministry of Environment and Forests website.

# CEE

Centre for Environment Education

Nehru Foundation for Development,  
Thaltej Tekra, Ahmedabad 380 054 India

Phone: (079) 2685 8002 - 05 Fax: (079) 2685 8010  
Email: [cee@ceeindia.org](mailto:cee@ceeindia.org) Website: [www.ceeindia.org](http://www.ceeindia.org)