2022

GREEN INDIA MISSION THIRD PARTY MONITORING REPORT OF THE STATES

Green India Mission Directorate
Ministry of Environment Forest and Climate change

GREEN INDIA MISSION

Introduction

The National Mission for Green India (GIM) is one of the eight Missions outlined under the National Action Plan on Climate Change (NAPCC). It aims at protecting; restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures. It envisages a holistic view of greening and focuses on multiple ecosystem services, especially, biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration as a co-benefit. This mission has adopted an integrated cross-sectoral approach as it will be implemented on both public as well as private lands with a key role of the local communities in planning, decision making, implementation and monitoring.

Mission Goals

- To increase forest/tree cover to the extent of 5 million hectares (mha) and improve quality of forest/tree cover on another 5 mha of forest/non-forest lands;
- To improve/enhance eco-system services like carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; along with provisioning services like fuel, fodder, and timber and non-timber forest produces (NTFPs); and
- To increase forest based livelihood income of about 3 million households.

Sub-Missions

The following five submissions, integrating adaptation/mitigation measures and one intervention under the National Mission for a Green India are given below:

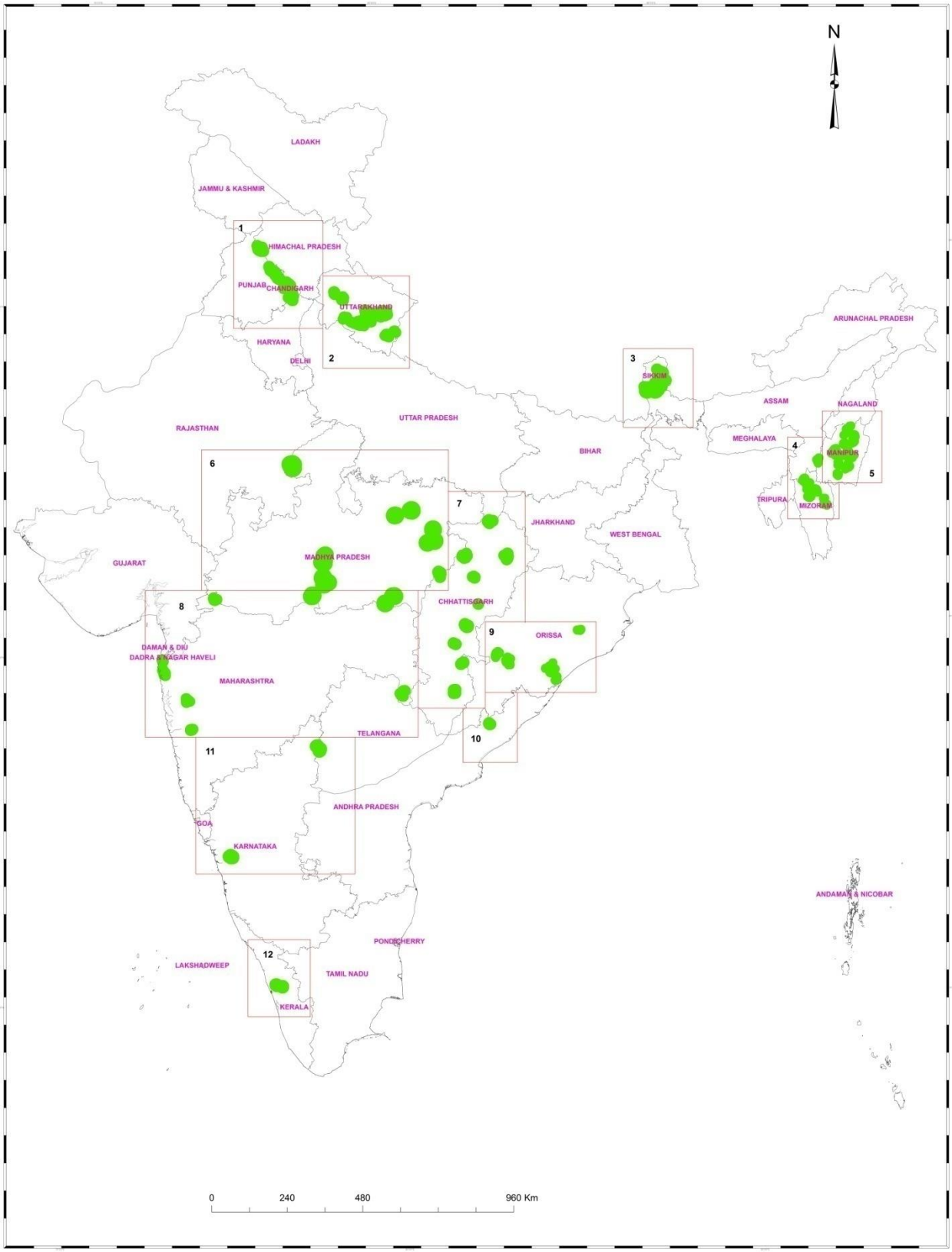
- SM-1: Enhancing quality of forest cover and improving ecosystem services
- SM-2: Ecosystem restoration and increase in forest cover
- SM-3: Enhancing tree cover in Urban & Peri-urban areas (including institutional lands)
- SM-4: Agro-Forestry and Social Forestry (increasing biomass & creating carbon sink)
- SM-5: Restoration of Wetlands
- Intervention: Promoting alternative fuel energy and livelihood support to households (biogas, solar devices, LPG, biomass-based systems, improved stoves)

Convergence

Green India Mission hinges upon convergence with related Missions of the National Action Plan on Climate Change, other complementary National Mission Programmes and schemes for better coordination in developing forests and their fringe areas in a holistic and sustainable manner. The convergence aims at optimizing efficient use of resources and avoidance of contrast activities which can disturb the balance in the ecosystem due to lack of coordination between different schemes.

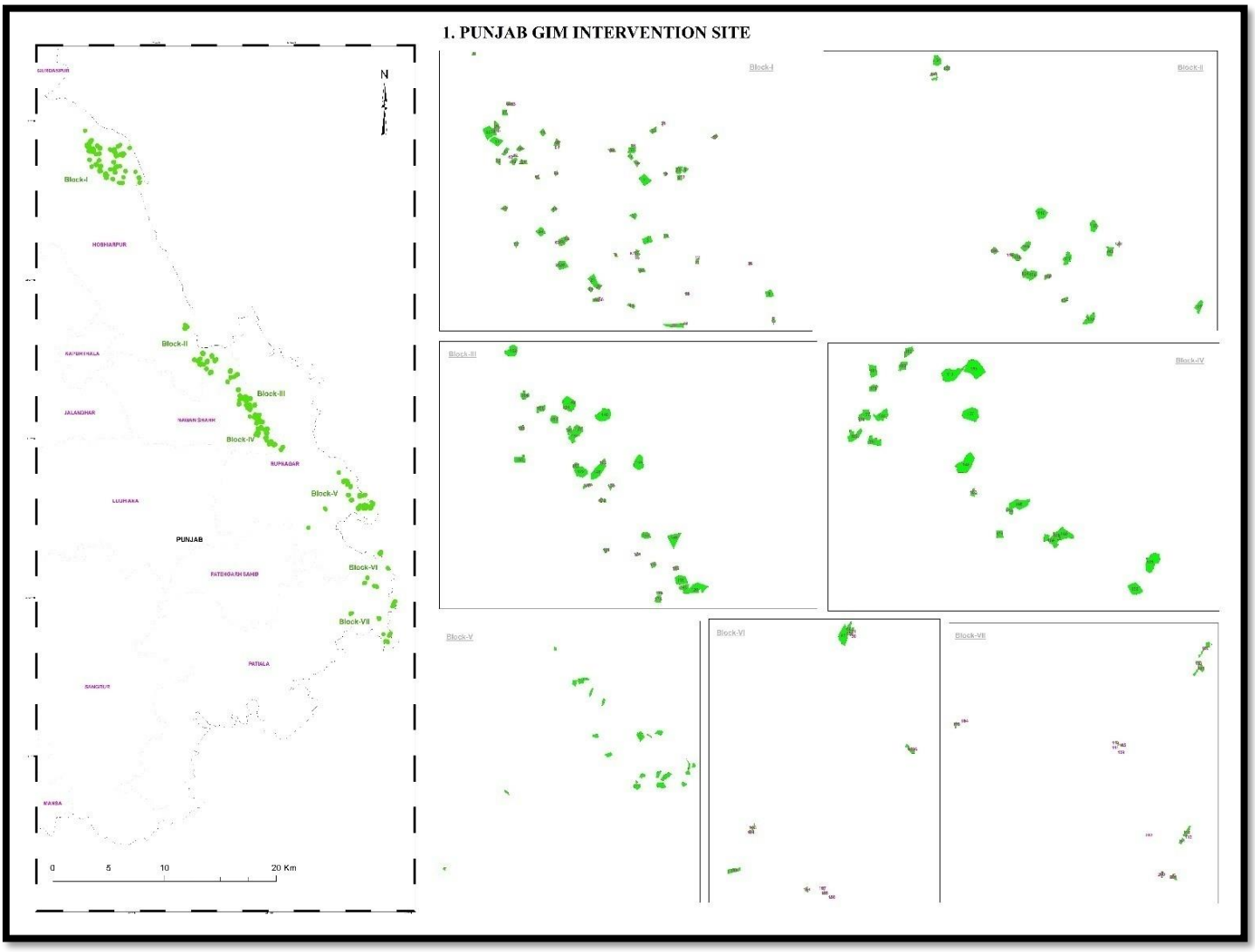
The Convergence Guidelines of GIM with MNREGS and CAMPA have been issued to ensure a synergized approach. Further, the efforts are on to finalize convergence guidelines with other complimentary schemes to set out the approach for coordination at field level and to address the challenges being faced in environment, forest and wildlife sector thereby contributing to ecological security in the context of climate change.

GREEN INDIA MISSION INTERVENTION SITE



PUNJAB MONITORING REPORT

Punjab: Situated in the north-western part of the country, the State of Punjab has an area of 50,362 sq km, which is 1.53% of the geographical area of the country. The GIM Intervention Site lies between 31°00'N to 32°00'N latitude and 76°00'E to 76°30' E longitude.



A report on Monitoring and Evaluation of plantation raised under Green India Mission by Punjab Forest Department

Submitted to

Punjab Forest Department

Submitted by

Forest Research Institute
(Indian Council of Forestry Research & Education)
Dehradun 248006

1.0 Introduction

The National Mission for a Green India or the commonly called Green India Mission (GIM), is one of the eight Missions under the National Action Plan on Climate Change (NAPCC). It was launched in February, 2014 by Ministry of Environment, Forest and Climate Change, Govt. of India. It aim is to expand and improve the forest ecosystems for safeguard of the environment and to mitigate climate change and associated livelihoods security against the peril of adverse climate change. It envisages a holistic view of greening that extends beyond tree planting by way of development of existing forests. GIM focuses on multiple ecosystem services such as biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration.

The Mission would strive for enhancing carbon sinks in sustainably managed forests and other ecosystems, adaptation of vulnerable species/ecosystems to the changing climate and adaptation of forest-dependent communities. The goals include increased forest/tree cover and improved quality of forest cover in millions of hectares of forest/non-forest lands, improved ecosystem services including biodiversity, carbon sequestration and hydrological services along with provisioning services like fuel, fodder, and timber and non-timber forest produces and increased forest-based livelihood income of households living in and around forests. Traditional Ecological Knowledge of communities, along with forestry science and state-of-the-art technology would improve the Mission interventions. The Mission has the potential to develop about one lakh skilled local community youth who would provide support in community based forest conservation, community livelihood enhancement and change monitoring, etc. These youth as Green Volunteers will act as a bridge between the community and the implementing agencies such as Forest Department.

1.1Approach of GIM

It envisages a holistic view of greening (instead of just planting trees or doing plantations) and focuses on multiple ecosystem services, especially, biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration as a co-benefit.

It also aims at convergence with complementary schemes and programmes for better coordination in developing forests and their fringe areas in a holistic and sustainable manner. Green India Mission has issued the Convergence Guidelines with the Rural Employment Guarantee Scheme –Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Convergence guidelines of GIM with Compensatory Afforestation Fund Management and Planning Authority (CAMPA) to ensure a synergized approach thereby contributing to ecological security in the context of climate change, which required to address the challenges being faced in environment, forest and wildlife sectors. Efforts are on to finalize

convergence guidelines with other complimentary schemes to set out the approach for coordination at field level.

This mission has adopted an integrated cross-sectoral approach as it will be implemented on both public as well as private lands with a key role of the local communities in planning, decision making, implementation and monitoring. Thus the mission hinges on decentralized participatory approach, involving grass root level organizations and community in planning, decision making, implementation and monitoring with emphasis on landscape approach.

One of the key differences of the Mission with conventional afforestation program relates to Mission's emphasis on the landscape approach. Landscapes as large contiguous areas of forest /non forest land, at different scale /levels provide unique opportunity to meet targets for both, National and State Forest policy. While the contiguous area of forests in different density class (e.g. moderately dense and open/ scrub) provide opportunity for improving the quality of the forest cover; the non-forest areas provide opportunity for increasing the forest cover.

1.2 Objectives :

Green India Mission was launched in 2014. The primary aim is to **protect, restore and enhance** India's diminishing forest cover and responding to climate change through adaptation and mitigation measures. It envisages a holistic view of greening that extends beyond tree planting.

The Main Objectives are as follows:

- To increase forest/tree covers to the extent of 5 million hectares (m ha) and improve quality of forest/tree cover on another 5 mha of forest/non-forest lands; Separate sub-targets exists for different forest types and ecosystems (e.g. Wetland, grassland, dense forest etc.).
- Improvement in quality of forest cover and ecosystem services of forests /non-forests, including moderately dense, open forests, degraded grassland and wetlands.
- Eco-restoration/afforestation of scrub, shifting cultivation areas, cold deserts, mangroves, ravines and abandoned mining areas.
- Improvement in forest and tree cover in urban/peri-urban lands Improvement in forest and tree cover on marginal agricultural lands/fallows and other non-forest lands under agro-forestry / social forestry.
- To improve/enhance eco-system services like carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; along with provisioning services like fuel, fodder, and timber and non-timber forest produces (Minor forest produces or MFPs) etc.

- To increase forest based livelihood income for about 3 million households in and around these forest areas.

1.3 Introduction of GIM in Punjab: Green India Mission in Punjab was introduced with other ongoing land-based greening/restoration programs and schemes of different agencies as well as with related programs of MoEF&CC. The key programs for convergence as per the EFC include MGNREGS, CAMPA, NAP, GPM and schemes under the 13th Finance Commission. The mission implemented bottom to top approach. It starts from preparation of micro-planning by JFMc with the help of forest department of Punjab for implementation of activities under GIM. The fund is transferred through State Forest Development Agency (SFDA). The fund is utilized in improvement of forest cover by afforestation, Assisted Natural Regeneration (ANR) and Eco-restoration of landscapes. In Punjab, GIM was implemented in 5 forest divisions, Dasuya, Hoshiarpur, Nawashahar, Mohali and Ropar. Forest Research Institute, Dehradun carried out monitoring and evaluation of GIM by conducting survey in different GIM sites in those forest divisions of Punjab. The Monitoring and Evaluation system enables continuous tracking of Mission performance and therefore should enable continuous measurement of expected results i.e. Outputs and Outcomes. The concurrent Monitoring and Evaluation of GIM would facilitate analysis of information at various levels ensuring timely and continuous feedback for implementation.

Greening India Mission (GIM) was launched in February, 2014 with the objective to safeguard the biological resources of India and associated livelihoods against the peril of adverse climate change and to recognize the vital impact of forestry on ecological sustainability, biodiversity conservation and food, water and livelihood-security. It aims at protecting; restoring and enhancing India's diminishing forest cover and responding to climate change through adaptation and mitigation measures. It envisages a holistic view of greening that extends beyond tree planting. The Mission would strive for enhancing carbon sinks in sustainably managed forests and other ecosystems, adaptation of vulnerable species/ecosystems to the changing climate and adaptation of forest-dependent communities. The goals include increased forest/tree cover and improved quality of forest cover in millions of hectares of forest/non-forest lands, improved ecosystem services including biodiversity, carbon sequestration and hydrological services along with provisioning services like fuel, fodder, and timber and non-timber forest produces and increased forest-based livelihood income of households living in and around forests. Traditional Ecological Knowledge of communities, along with forestry science and state-of-the-art technology would improve the Mission interventions.

The aim of GIM is also convergence with Rural Employment Guarantee Scheme –Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Convergence guidelines of GIM with Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for Compensatory Afforestation have been framed to ensure a synergized approach thereby contributing to ecological security in the context of climate change, which is required to address the challenges being faced in environment, forest and wildlife sectors. This mission has adopted an integrated cross-sectoral approach as it will be implemented on both public as well as private lands with a key role of the local communities in planning, decision making, implementation and monitoring. The programme also envisaged of improving forests through Assisted Natural Regeneration (ANR) wherein species are adopted which are regenerated in the degraded areas. Thus, the mission hinges on decentralized participatory approach, involving grass root level organizations and community in planning, decision making, implementation and monitoring with emphasis on landscape approach.

Green India Mission in Punjab was introduced with other ongoing land-based greening/restoration programs and schemes of different agencies as well as with related programs of MoEF&CC. The key programs for convergence as per the EFC include MGNREGS, CAMPA, NAP, GPM and schemes under the 13th Finance Commission. The mission implemented bottom to top approach. It starts from preparation of micro-planning by JFMc with the help of forest department of Punjab for implementation of activities under GIM. The fund is transferred through State Forest Development Agency (SFDA). The fund is utilized in improvement of forest cover by afforestation, Assisted Natural Regeneration (ANR) and Eco-restoration of landscapes. In Punjab, GIM was implemented in 5 forest divisions, Dasuya, Hoshiarpur, Nawashahar, Mohali and Ropar. The selection was based on enrichment

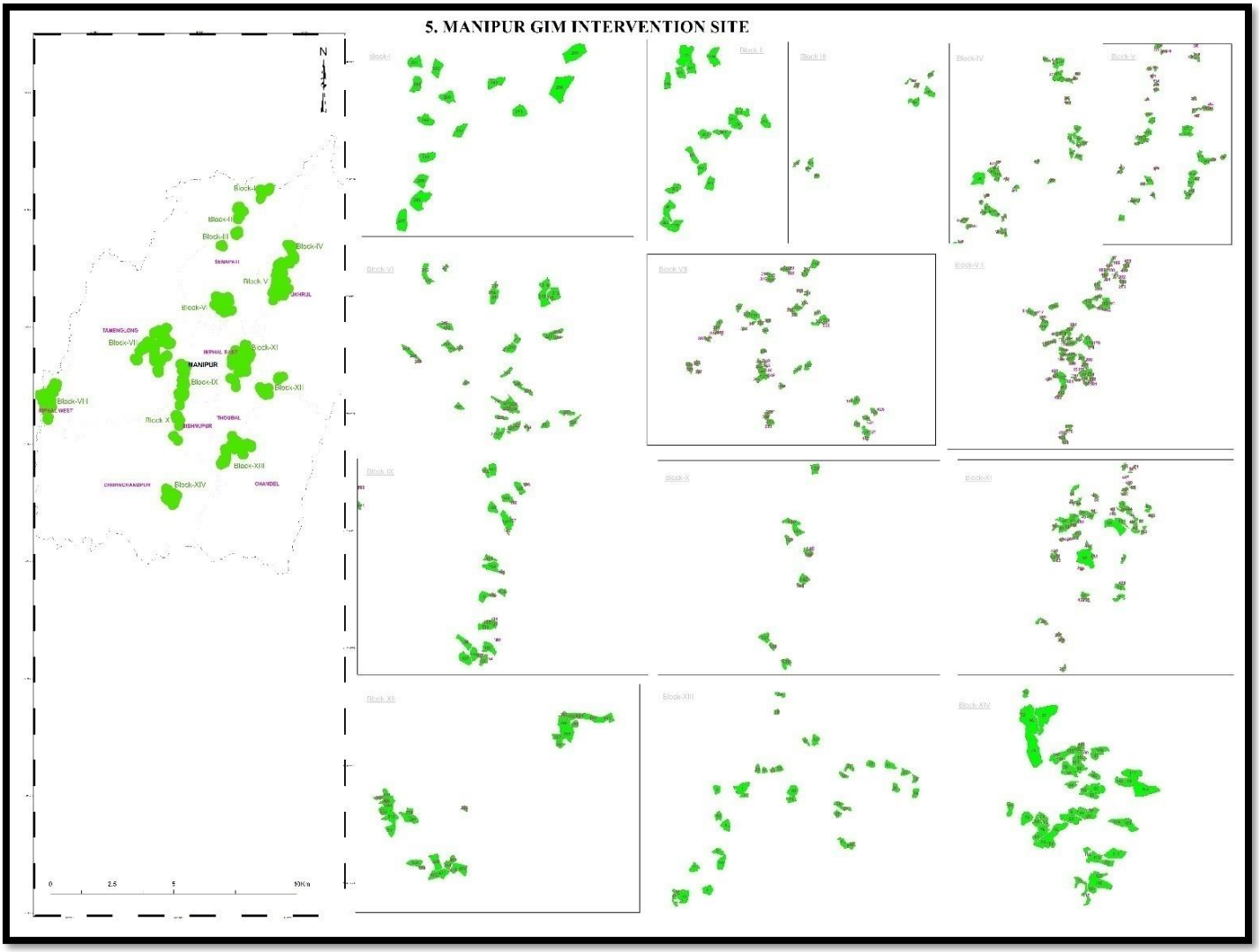
of degraded landscapes of Shiwalik hills. The programme was started in the years 2016 and 2017 -18 in Punjab. The components of the prgramme were ANR, Farmer's lands, Type-B and Type-C landscapes. An area of 2,697 ha was undertaken in GIM with total sites of 302. Monitoring and Evaluation of GIM activities was carried out in 1568 ha of area with 170 sites were sampled for data collection. The survival of plantations in 5 forest division of Punjab is given below:

Sl. No.	Name of Forest Division	Year of plantation	Survival %
1.	Mohali	2016-17	65.00
		2017-18	75.00
2.	Nawashahar	2016-17	71.90
		2017-18	78.07
3.	Hoshiarpur	2016-17	77.50
		2017-18	80.83
4.	Ropar	2016-17	68.44
		2017-18	63.81
5.	Dasuya	2016-17	70.00
		2017-18	70.00

MANIPUR MONITORING REPORT

Manipur:

Situated in the North Eastern part of India, Manipur covers geographical area of 22,327 sq km, which constitutes 0.68% of the geographical area of the country.Manipur GIM Intervention Sites lies between latitude 23°00' N to 26°00'N and longitude 93°30' E to 94°30' E.



MONITORING AND EVALUATION REPORT OF THE ACTIVITIES CARRIED OUT UNDER GREEN INDIA MISSION (GIM) IN MANIPUR

[During 2015-16 to 2018-19]

2022

RAIN FOREST RESEARCH INSTITUTE
Indian Council of Forestry Research & Education
(An Autonomous body of Ministry of Environment, Forest & Climate Change, Govt. of India)
Jorhat, Assam

1.1 Introduction:

It is worthy to say that the forests have major roles in balancing the environment though climate mitigation, biodiversity conservation, providing food and water security as well as livelihood support to the forest dependent communities. Now a day, the impact of climate change has been observed globally which has affected and altered the distribution, type and quality of natural biological resources very seriously. In order to control the same, the need of some mitigation measures was felt for sustainably managed forests and other ecosystems.

Based on the suggestions received during meetings held with the Chief Secretaries of various States & UTs and also with concerned departments under Govt. of India and NGOs, the "National Mission for a Green India (GIM)" was endorsed by the PM Council on Climate Change. Subsequently, the Mission was appraised by Expenditure of Finance Committee and approved by the Cabinet Committee on Econimic Affairs (CCEA) in February, 2014.

As per the "Implementation Guidelines for National Mission for a Green India (GIM)", aim objectives, sailient features and overall Mission targets envisaged in Mission Document are as follows.

1.2 Mission Aim and Objectives:

The National Mission for a Green India (GIM) was announced as one of the eight Missions under the National Action Plan on Climate Change (NAPCC). GIM is based on a holistic view of greening and focuses not on carbon sequestration targets alone, but, on multiple ecosystem services, especially, biodiversity, water, biomass etc. along with climate adaptation and mitigation as a co-benefit. It has the following broad objectives to be covered over next 10 years:

- Increased forest/tree cover to the extent of 5 million hectare (mha) and improved quality of forest/tree cover of another 5 mha of forest/non-forest lands.
- Improved/enhanced eco-system services like carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; along with provisioning services like fuel, fodder, and timber and non-timber forest produces (NTFPs).
- Increased forest based livelihood income of about 3 million households.

1.3 Salient Features:

The Mission is meant to nearly double the ongoing efforts of greening the country and would seek convergence with related Missions of NAPCC, as well as with other National Missions, programs and schemes including Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Compensatory Afforestation Management and Planning Authority (CAMPA), National Afforestation Program (NAP), National Rural Livelihood Mission, Integrated Watershed Management Program, Programs of Ministry of New and Renewable Energy, National Rainfed Area Authority etc. The Mission has the potential to develop about one lakh skilled local community youth who would provide support in community based forest conservation, community livelihood enhancement and change monitoring, etc. These youth as

Green Volunteers will act as a bridge between the community and the implementing agencies such as Forest Department.

One of the key differences of the Mission with conventional afforestation program relates to Mission's emphasis on the landscape approach. Selection of the landscapes therefore assumes critical significance. Landscapes as large contiguous areas of forest /non forest land, at different scale /levels provide unique opportunity to meet targets for both, National and State Forest policy. While the contiguous area of forests in different density class (e.g. moderately dense and open/ scrub) provide opportunity for improving the quality of the forest cover; the non-forest areas provide opportunity for increasing the forest cover.

1.4 Overall Mission Targets Envisaged in Mission Document:

- Enhancing quality of forest cover and improving ecosystem services from 4.9 mha of predominantly forest lands, including 1.5 mha of moderately dense forest cover, 3 mha of open forest cover, 0.4 mha of degraded grass lands.
- Eco-restoration/afforestation to increase forest cover and eco system services from 1.8 m ha forest/non forest lands, including scrub lands, shifting cultivation areas, abandoned mining areas, ravine lands, mangroves and sea-buckthorn areas.
- Enhancing tree cover in 0.2 mha Urban and Peri-Urban areas (including institutional lands).
- Increasing forest cover and eco-system services from Agro-forestry and Social Forestry on 3 mha of non-forest lands.
- Restoration of 0.1 mha of wetlands and the eco system services thereof.
- Improving fuel-use efficiency and promoting alternative energy sources in project area households.
- Enhancing Community livelihood of 3 million households.

1.5 Details of Project Location and Forest Types:

- Manipur is a state in Northeast India which covers total 22,327 km^2 geographical area. It is located between 23°80'N and 25°68'N Latitude and 93°03'E to 94°78'E Longitude. It is bordered by the Indian states of Nagaland to the north, Assam to the west, and Mizoram to the southwest and sharing international border with Myanmar (Burma) to the south and east.According to India State of Forest Report 2019, Recorded Forest Area (RFA) in the State is 17,418 sq km of which 1,467 sq km is Reserved Forest, 4,171 sq km is Protected Forest and 11,780 sq km is Unclassified Forests.

- As per Champion & Seth (1968), Manipur has got 5 major Forest types and sub-types within them, as follows:

S. No	Major Forest Type	Forest Sub-Type	Composition/ Characteristics	Distribution extent
1.	Tropical Semi Evergreen forests	2B/C2 Cachar Tropical Semi Evergreen forests	Main species are *Dipterocarpus turbinatus*, *Artocarpus chaplasha*, *D. tuberculatus*, *Duabanga grandiflora*, *Michelia* spp., *Terminalia chebula*, *Emblica* spp., etc.	Tamenglong, Ukhrul, Chandel, Jiribam, Churachandpur
		2/2S1 Secondary Moist Bamboo brake	Most common species is *Meloccana*, others are *Dendrocalamus* and *Bambusa* spp.	Tamenglong, Churchandpur, Chandel, Ukhrul and Jiribam
		2B/2S1 Pioneer Euphorbiaceous Scrub	Species like *Macaranga*, *Mallotus*, *Trema orientale*, under shade slower and adaptable species come up.	Scattered in all the districts except Senapati.
2.	Tropical Moist deciduous forests	3/3C3b East Himalayan Moistmixed deciduousForest	The main species are *Cedrela toona, Castanopsis, Gmelina, Quercus*, *Oroxylum indicum, Schima wallichi*, *Sterculia villosa*, *Lagrestroemia* spp.	This is found mostly in Senapatidistrict.
3.	Subtropical Broadleaved hill Forests	8B/C1 East Himalayan Subtropical Wet hill Forests	Main species are *Quercus*, *Castanopsis*, *Alnus*, *Phoebe*, *Schima*, *Litsea*, *Machilus*, *Cinnamomum*, *Syzygium*, *Cedrela*, *Dipterocarpus*, etc.	This type cover is scattered throughout Manipur.
		8B/C2 Khasi Subtropical Wet hill Forest	This type is assumed as degradation from above forests and found on hill slopes. The height of the treeis moderate, canopy thinner and second storey is hardly distinguishable.	Senapati and Churachandpur districts
4.	Subtropical Pine Forests	9/C2 Assam Subtropical Pine Forests	*Pinus kesiya* is dominating. Associates of Pine like *Quercus*, *Schima*, *Rhododendron* spp. are also found as undergrowth and regeneration of other species are negligible.	Ukhrul, Imphal, Chandel and Churachandpur.
		8B/2S1 Assam Subtropical Pine Forests	Broad leaved species are slowly replaced by grassland and pine regeneration fromthe surrounding.	Churachandpur and Tamenglong districts.

		9/C2/DS1 Assam Subtropical Pine Savannah	Pine occurs as a scattered tree over grass and is obviously degradation from pine forests due to biotic pressure.	This type is found in Churachandpur districts.
5.	Montane Wet temperate forests	11B/C1b Bur Oak Forests	*Quercus–Magnolia-Acer* and conifer association are common. Other species are *Castanopsis*, *Alnus*, *Betula*, *Michelia*, *Acer, Prunus*, *Rhododendron*, etc.	Ukhrul, Senapati, Tamenglong and scattered in Chandel and Churachandpur.

2. TYPES OF ACTIVITIES CARRIED OUT UNDER GIM

Type of activity	Purpose of plantation / activities
Sub-Mission-1 (SM-1):	**Enhancing quality of forest cover and improving ecosystem services**
SM-1(a)	Moderately dense forest cover but showing degradation
SM-1(b)	Eco-restoration of degraded forests
SM-1(b) - A	Plenty of root stock, with little or no scope for planting
SM-1(b) - B	Open blanks having limited root stock
SM-1(b) - C	Largely open areas with sparse undergrowth
SM-1(c)	Restoration of grasslands
Sub-Mission-2(SM-2):	**Ecosystem restoration and increase in forest cover**
SM-2(a)	Rehabilitation of shifting cultivation area
SM-2(b)	Restoring scrublands
SM-2(c)	Restoring/ planting sea-buckthorn
SM-2(d)	Restoring of mangroves
SM-2(e)	Ravine reclamation
SM-2(f)	Restoration of abandoned mining area
Sub-Mission-3 (SM-3):	**Enhancing tree cover in Urban & Peri-Urban areas (including institutional lands)**
Sub-Mission-4 (SM-4):	**Agroforestry and Social Forestry (increasing biomass & creating carbon sink)**
SM-4 (a)	Farmer's land including current fallows
SM-4 (b)	Shelterbelt plantation
SM-4 (c)	Highway/ Rural roads/ Canals/ Tank Bunds
Sub-Mission-5 (SM-5):	**Restoration of Wetlands**
Promotion of alternative fuel energy	Biogas, Solar device, LPG, Biomass based system, improved stoves

3. ACTIVITIY LIST AS PER FOREST DIVISIONS AND JFMCs

List of Forest Division (s):
An all-inclusive activity list of **Forest Divisions and JFMCs** of Manipur where GIM activities were carried out (as per list provided by Manipur Forest Department) is depicted below for ready reference.

Name of Division	Name of JFMC	Activities	Area (ha.)
Central	Andro	SM-1 (b) Type-A	220
		SM-1 (b) Type-B	30
		SM-2	45
	AndroLeitanpekpham	SM-1 (b) Type-A	150
		SM-1 (b) Type-B	30
		SM-2	48
	Huikap	SM-1 (b) Type-A	36
		SM-2	10
	Heikon	SM-1 (b) Type-A	22
		SM-2	15
	Naharup	SM-1(a)	41
		SM-1 (b) Type-A	31
		SM-1 (b) Type-B	15
		SM-2	15
	KeiraoBitra	SM-1(a)	31
		SM-1 (b) Type-A	5
		SM-2	15
		SM-3	2
	Wakha	SM-1(a)	23
		SM-1 (b) Type-B	60
		SM-2	27
	Kambongput	SM-2	30
		SM-3	5
	SanjenbamKhullen	SM-1(a)	17
		SM-1 (b) Type-A	8
		SM-2	30
		SM-3	5
	SanjenbamKhunou	SM-1 (b) Type-A	40
	Tuisenphai	SM-1 (b) Type-A	36
		SM-1 (b) Type-B	20
		SM-2	10
	New Salem	SM-1 (b) Type-A	7
		SM-1 (b) Type-B	13
		SM-2	15
	Thayong	SM-1(a)	49

		SM-1 (b) Type-A	35
		SM-1 (b) Type-B	10
		SM-2	30
Thoubal	Kaprang	SM-1(b)-C	20
	Lisamlok		
	Poirou-tongba	SM-1(b)-C	20
	Lembakhul (Saman Tangkhul)	SM-1(b)-C	20
	Waithou Chiru		
	Phunal Maring	SM-1(b)-C	40
Bishnupur	Parengba Khunjao	SM-2 (a)	70
		SM-4 (a)	5
	Mongbung Tongneh	SM-2(a)	29
	Maha Kabui	SM-2 (a)	50
		SM-4 (a)	6
	Sadar Joute	SM-1(a)	50
		SM-2(a)	60
		SM-4(a)	10
	Tinkai Khunou	SM-1(a)	34
		SM-2(a)	70
		SM-4(a)	10
	Parengba Khullen	SM-1(a)	60
		SM-1(b)	50
		SM-2(a)	70
		SM-4(a)	9
	Nungsai Chiru	SM-2(a)	21
		SM-4(a)	20
	Khoripok	SM-1(a)	50
		SM-1(b)	30
		SM-2(a)	50
		SM-4(a)	3
	Gothol	SM-2(a)	50
	K KHaotak	SM-2(a)	34
		SM-4(a)	7
	Khoirentak Khuman	SM-2(a)	50
		SM-4(a)	12
	L Semol	SM-2(a)	27
	Laimanai Kabui	SM-1(a)	50
		SM-2(a)	50
	Majuron	SM-2(a)	50
	Nungang	SM-1(a)	20
		SM-1(b)	20

		SM-2(a)	50
		SM-4(a)	5
	Tonghlang	SM-2(a)	50
		SM-1(b)	24
	Wainem	SM-2(a)	50
		SM-1(b)	30
		SM-4(a)	12
Ukhrul	Hoomi	SM-3	5
		SM-4	8
		SM-2(a)	10
		SM-1(A)2	25
	Lamlang	SM-3	5
		SM-1(b)-B	10
		SM-4	15
		SM-1(a)	30
		SM-1(b)-A	30
	Phalee	SM-3	5
		SM-4	5
		SM-5	8
		SM-1(b)-B	10
		SM-1(b)-A	10
		SM-2(a)	10
	Sirarakhong	SM-3	5
		SM-4	5
		SM-5	8
		SM-1(a)	10
		SM-1(b)-B	10
		SM-2(a)	10
	Toloi	SM-3	5
		SM-1(b)-B	10
		SM-2(a)	10
		SM-5	22
		SM-1(a)	30
	Tuinem	SM-3	5
		SM-4	5
		SM-1(a)	10
		SM-1(b)-A	10
		SM-1(b)-B	10
		SM-2	10
	Somdal	SM-3	5
		SM-4	5
		SM-1(a)	10

		SM-1(b)-A	10
		SM-2(a)	10
	Tushar	SM-3	5
		SM-4	15
		SM-5	22
		SM-1(a)	30
		SM-1(b)-A	30
	Tongou	SM-3	5
		SM-4	5
		SM-1(a)	10
		SM-1(b)-A	10
		SM-2(a)	10
	Lungtoram (Reported by DFO, Kamjong FD)	SM-1(a)	30
		SM-1(a)-A	10
		SM-1(b)-B	
		SM-2(a)	10
		SM-3	5
		SM-4(a)	10
		SM-5	6
	Kharam	SM-1(a)	30
		SM-1(b)-A	30
		SM-2(a)	10
		SM-3	5
		SM-4(a)	10
		SM-5	5
	Sada Lungthar	SM-1(a)	25
		SM-1(b)-A	25
		SM-1(b)-B	9
		SM-2(a)	10
		SM-3	5
		SM-4(a)	15
		SM-5	5
	Khoripok		
Tamenglong (Noney)	Noney	SM-1(a)	40
		SM-1(b)-A	40
		SM-1(b)-B	10
		SM-2	60
		SM-2	60
		SM-3	10
		SM-4(a)	30
	Nungtek	SM-1(a)	30
		SM-1(b)-A	40

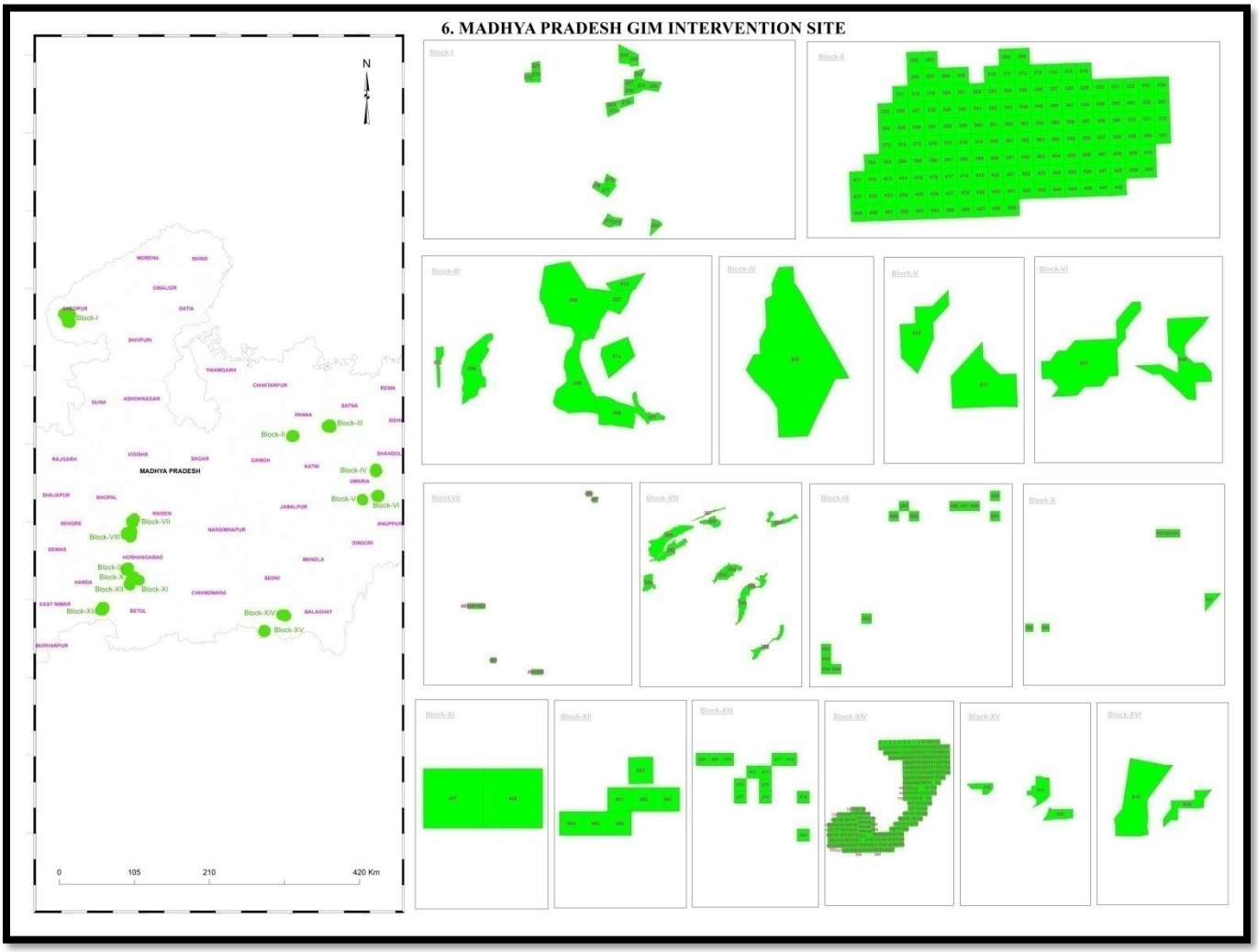
		SM-2(a)	10
	Maranjing	SM-1(b)-A	40
		SM-1(a)	10
		SM-1(b)-B	10
		SM-2(a)	60
		SM-2(a)	70
		SM-4(a)	20
	Haochong	SM-1(a)	30
		SM-1(b)-A	30
		SM-2(a)	70
	Nagaching	SM-1(a)	30
		SM-1(b)-A	30
		SM-1(b)-B	10
		SM-2(a)	10
	Pungmon	SM-1(a)	30
		SM-1(b)-A	40
		SM-1(b)-B	10
		SM-2(a)	100
	Bakwa	SM-1(a)	20
		SM-1(b)-A	20
		SM-2(a)	40
	Charoi	SM-1(a)	40
		SM-1(b)-A	30
		SM-1(b)-B	10
		SM-2(a)	70
	Ijeirong	SM-1(a)	30
		SM-1(b)-A	30
		SM-2(a)	30
	Octan	SM-1(a)	30
		SM-1(b)-A	40
		SM-2(a)	90
	Langkhong	SM-1(a)	30
		SM-1(a)	40
		SM-1(b)-B	14
		SM-2(a)	50
		SM-3	15
		SM-4(a)	10
	Lukhambi (Khumji)	SM-1(a)	50
		SM-1(b)-A	50
		SM-1(b)-B	10
		SM-2(a)	120
		SM-3	10

		SM-4(a)	20
	Luangchunm	SM-1(a)	40
		SM-1(b)-A	40
		SM-2(a)	40
		SM-4(a)	20
Churachandpur	N. Khonom	SM-1(a)	15
		SM-1(b)-A	10
		SM-4(a)	10
	L. Phaimual	SM-1(a)	15
		SM-1(b)-A	19
		SM-2(a)	12
		SM-4(a)	14
	Bongbol	SM-1(a)	50
		SM-1(b)-A	60
		SM-1(c)-B	6
		SM-2(a)	15
		SM-4(a)	45
	B. Tuallian	SM-1(a)	25
		SM-1(b)-A	15
		SM-2(a)	10
		SM-4(a)	10
	M. T. Geltam	SM-1(a)	30
		SM-1(b)-A	10
		SM-1(b)-B	10
		SM-2(a)	10
		SM-4(a)	10
	S. Geltui	SM-1(b)-A	10
		SM-1(c)-B	10
		SM-2(a)	10
		SM-4(a)	10
	Panglian	SM-1(a)	10
		SM-1(b)-A	15
		SM-1(c)-B	10
		SM-4(a)	10
	M. Tanglian	SM-1(a)	44
		SM-1(b)-A	20
		SM-2(a)	15
		SM-4(a)	10
	Belbing	SM-1(a)	20
		SM-1(b)-A	15
	S. Phaiza	SM-1(b) -A	15
		SM-2(a)	10

MADHYA PRADESH MONITORING REPORT

Madhya Pradesh:

Located in Central India, Madhya Pradesh is the second largest State covering an area of 3,08,252 sq km which is 9.38% of the geographical area of the country and is bordered on the west by Gujarat, on the northwest by Rajasthan, on the northeast by Uttar Pradesh, on the east by Chhattisgarh, and on the south by Maharashtra. The GIM Intervention Site lies between 19°00' N to 29°00' N latitude and 77°00' E to 81°00' E longitudes.



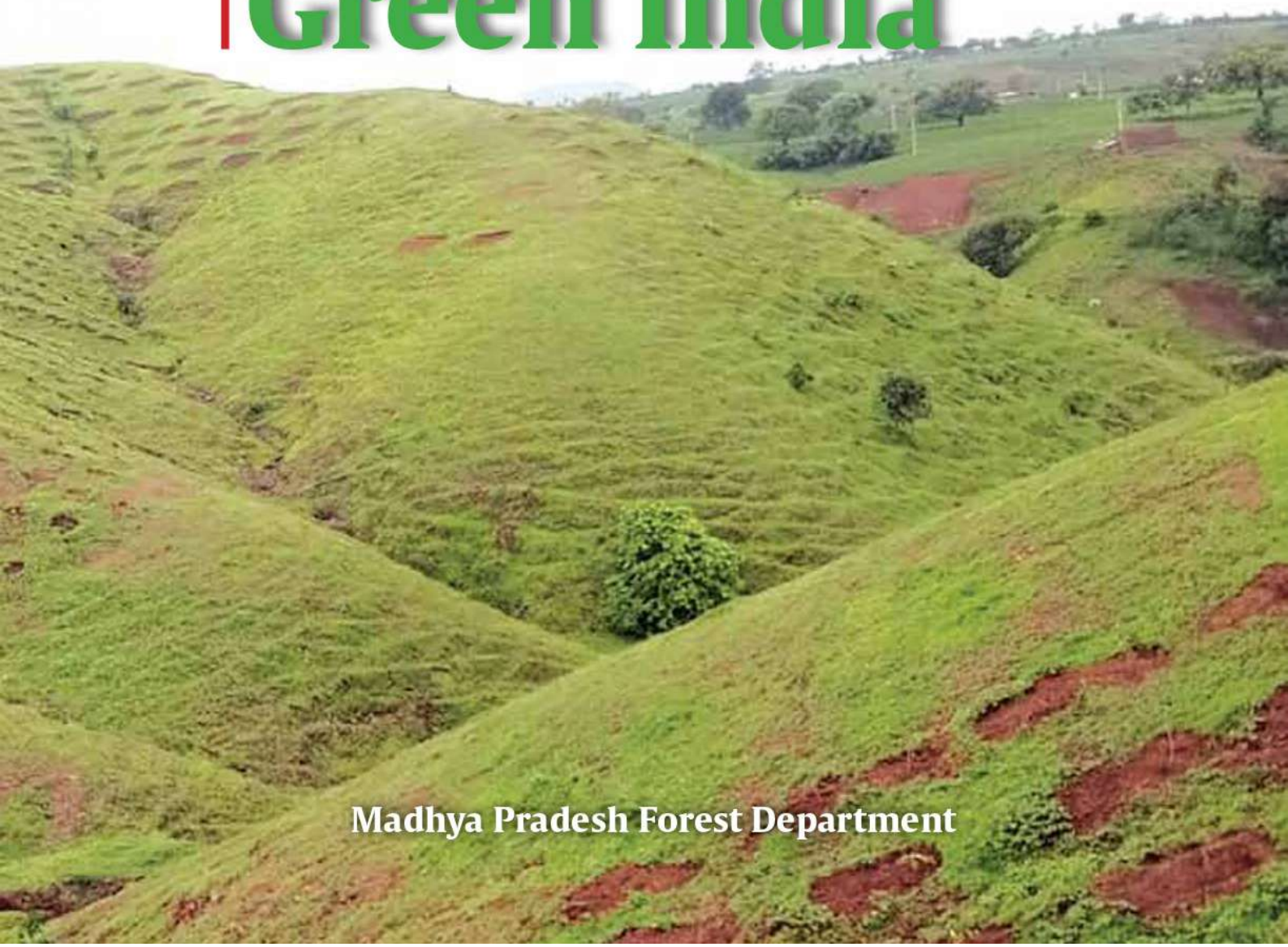
Ministry of Environment, Forest and Climate Change

जहाँ है हरीयाली।
वहाँ है खुशहाली।।

Internal Monitoring Report

2018-19 to 2020-21

National Mission for A Green India



Madhya Pradesh Forest Department

1. Introduction

The National Mission for a Green India (GIM) was announced as one of the eight missions under the National Action Plan on Climate change (NAPCC). It recognizes that Climate Change phenomenon will seriously affect and alter the distribution, type and quality of natural biological resources of the country. The NAPCC addresses the urgent and critical concerns of sustainable development and identifies the close linkage of the economy with its natural resource base.

Mission for a Green India, commonly referred to as the Green India Mission (GIM) which aims to improve the forest cover by integrating the issues of forest quality and ecosystem services. It aims at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures. Green India Mission takes a holistic view of greening and focuses on multiple ecosystem services, especially biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats, and so forth. It also includes carbon sequestration as a co-benefit.

GIM has adopted an integrated cross-sectoral approach to implement programs on public as well as private lands, and to give local communities key roles in planning, decision making, implementation and monitoring.

BOX-1

Broad Objectives of Green India Mission to be covered over next 10 years

i. Increased forest/cover to the extent of 5 million hectare (mha) and improved quality of forest/tree cover of another 5 (mha) of forest/non-forest lands.

ii. Improved/enhanced eco-system services like carbon sequestration and storage in forests and other ecosystems), hydrological services and biodiversity; along with providing services like fuel, fodder, and timber and no-timber forest produces (NTFPs).

iii. Increased forest-based livelihood income of about 3 million households.

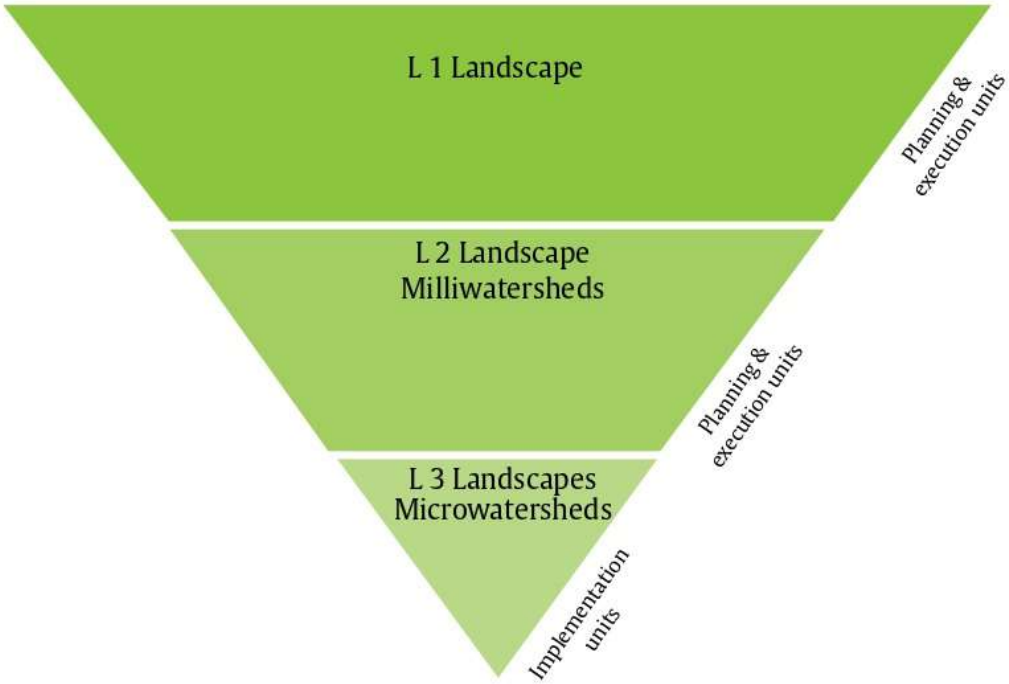
In accordance with the broad objectives of Green India Mission, Madhya Pradesh Forest Department is implementing the activities in ecological importance and vulnerable regions of the state by ensuring the participation of forest dependent communities in its implementations by making them a key stakeholder in mission activities.

2. Selection of Landscapes under Green India Mission

Landscapes need to be identified on the basis of both biophysical and socio-economic parameters, with an operation unit (about 4000-6000 ha) often co-terminus with micro/milli watershed. Landscape level approach was taken for implementation of mission activities which is alien with the Green India Mission guidelines.

The landscapes identified are on the basis of combination of criteria and indicators at multiple levels. The selection process follows a hierarchical approach, and aims to identify broad landscapes of importance.

Figure 1: Multiple level landscape approach for selection of



The selection of L1 landscapes has been done on the basis of Agro-climatic zones. Madhya Pradesh has been divided into 11 Agroclimatic Zones. For the purpose of implementation of Green India Mission some minor changes have been done in the composition of these Agro-climatic zones and the state has been divided into eight L1 landscapes.

The L2 landscape (operational units) were identified on the basis of two major criteria;

i) impact of climate change on forests of MP
ii) Vulnerability profile for the districts of Madhya Pradesh. Based on the ecological importance total 122 milli-watersheds have been selected as L2 landscapes in 18 forest divisions spread over 16 districts.

Each milli watershed comprises of various micro watershed, these 735 micro watersheds have been taken as operational units for implementation, area of these working units have been calculated with the help of Geographical Information System (GIS) and description of different level landscapes is given below :-

Table 1: Madhya Pradesh Landscape of Green India Mission

Sl. No.	L1 Landscape	L2 Divisions	No. of milli watershed as L2 landscape	No. of micro watersheds as L3 landscape	Area (ha.)
1	Kymore plateau	Satna	4	28	33,343.09
2	Northern Hills Plains	Umaria	4	24	31,919.78
		S. Balaghat	12	71	74,703.37
3	Satpura-Narmada	Hoshangabad	5	30	33,355.73
		South Seoni	11	67	75,028.40
		North Betul	4	20	27,860.36
		W. Betul	8	24	29,083.20
4	Vindhya Plateau	Raisen	10	67	51,000.26
		Obedullaganj	10	57	51,350.07
		Sehore	5	28	27,224.82
5	Malwa Plateau	Dhar	3	18	10,794.95
6	Nimar-Jhabua Hills	Jhabua	3	20	20,596.94
		Badwani	3	21	18,218.11
		Sendhwa	2	11	11,708.77
7	Bundelkhand	South Sagar	13	79	71,378.77
		S. Panna	9	64	68,068.78
8	Gird	Sheopur	8	48	50,343.13
		Shivpuri	8	58	49,501.00
TOTAL			**122**	**735**	**735,479.53**

The state of Madhya Pradesh has prepared a perspective plan for the year 2016-17 to 2020-21 meeting the above challenge by identifying areas highly vulnerable to climate change and in the process impacting the climate and are in the need of immediate treatment.The plan proposes to treat 3,40,700 ha of the forest land and address the alternative fuel needs of 114,185 households. The approved perspective plan has an outlay of Rs. 3,157.36 crores for treating the area under various submissions of GIM.

Figure 2: Green India Mission Forest Divisions

Based on the nature of forest and non-forest lands available in a micro watershed various activity have been proposed under different submissions. Five (05) submissions were envisaged for execution of the plan

18 Forest Divisions : Selected For GIM

Divisions Selected For Treatment Green India Mission
Forest Cover Map of Madhya Pradesh
source : Forest Cover Map, FSI,2013

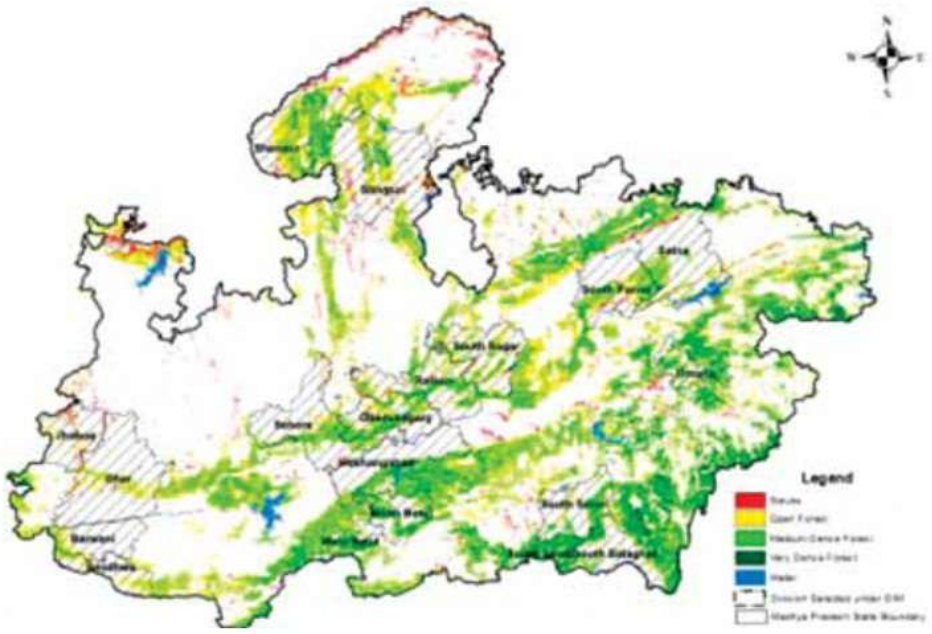
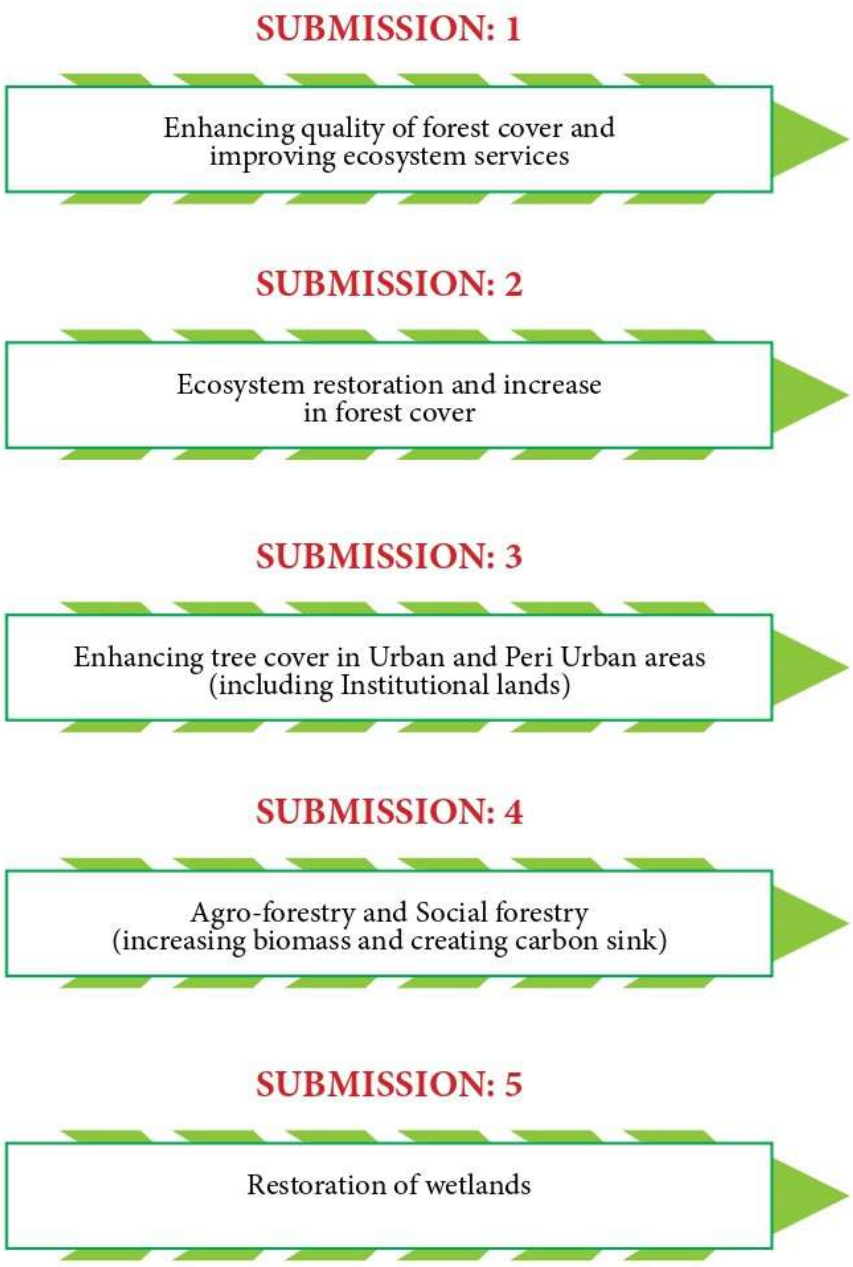


Figure 3 : Green India Mission main five submissions



The Ministry of Environment Forest and Climate Change, while releasing the amount to the state government revised the APO to 11914 ha, 3317 households with a revised outlay of Rs 41.8026 crores. Accordingly, only the 10.54% of the proposed landscapes and sub-missions were taken up for treatment during the year 2018-19. A total of 33 L2 and 79 L3 level landscapes were taken up for treatment in the 18 forest divisions identified under Mission for a Green India in the state of Madhya Pradesh.

Table 2: Submissions and cross cutting interventions under GIM

Sl. No.	SUB-MISSIONS
	COMPONENT A
1	**Enhancing quality of forest cover and improving ecosystem services**
1 a	Moderately dense forest showing degradation
1 b	Eco-restoration of degraded open forest
	Type A- With plenty of root stock
	Type B- With Limited root stock - and open blanks
	Type C- Of largely open areas with sparse growth
1 c	Restoration of Grasslands
2	**Ecosystem restoration and increase in forest cover**
2 f	Restoration of abandoned mining areas
3	**Enhancing tree cover in urban/ peri-urban areas (including institutional lands)**
4	**Agro-forestry and social forestry**
4 a	Farmer's land including current fallows
4 b	Shelterbelt plantation
4 c	Highway/Rural roads/canals/Tank Bunds
5	**Restoration of wetlands**
6	**Improved fuel-use efficiency/ promoting alternative energy sources**
	COMPONENT B
1	Research (2% of A)
2	Publicity/Media/Outreach Activities (1% of A)
3	Monitoring and Evaluation (1% of A)
4	Livelihood Improvement Activities (17% of A)
5	Strengthening local level institutions (5 % of A)
6	Strengthening FDs (5 % of A)
7	Mission organization operation and maintenance,
	Contingencies and overheads (4% A)

3. Possible Solutions to enhance forest cover, improve ecosystem services and address the drivers of degradation

- Plantation activities carried out in the degraded and under stock forest area along with soil and moisture conservation work to improve the area under forest cover.
- Moderately dense forests are treated and protected so as to improve the quality and productivity of the forests.
- Regulation on grazing and to reduce biotic pressure on forests native fodder species are planted.
- Planting of fruits, fodder and small timber species (Agro forestry activities) on non-forest area to reduce the burden on forest land.
- Encouraged use of alternative energy sources by distributing fuel efficient devices among the villagers to reduce fuel wood dependency on forests.
- Capacity building activities of JFMC/ forest department field staff in implementation of GIM activities.
- Training and skill development activities carried out to provide additional source of livelihood to the local community.

4. Physical and Financial Progress

Under the approved APO 2018-19 advance work was carried out in 10,193 ha and 1683 energy saving devices were distributed to households with an expenditure of Rs. 2825 lakhs. Under APO 2019-20, total 10,193 ha. area was treated under forestry operations, and 24,47,193 plants of native species ecologically suitable were planted. To reduce fuel wood pressure on forest nearly 1082 households were identified for alternate fuel energy devices like Biogas, LPG under UjjawalaYojana, Solar cooker, Pressure cookers etc. from seven forest division of GIM landscapes.

Under the approved APO for FY 2020-21, 88 Forest Compartments covered for plantation works in 18 forest divisions 9,854 ha area for creation and 21,19,810 plants of native species ecologically suitable were planted. The species planted are Teak (*Tectona grandis*), Chirol (*Holoptelea integrifolia*), Awala (*Emblica officinalis*), Mahua (*Madhuca longifolia*), Khamer (*Gmelina arborea*), Munga (*Moringa oleifera*), Sitafal (*Annona squamosa*), Arjun (*Terminalia arjuna*), Imli (*Tamarindus indica*) , Kachnar (*Bauhinia variegata*) , Jamun (*Syzygium cumini*), Neem (*Azadirachta indica*), Bahera (*Terminalia bellirica*), Bel(*Aegle marmelos*) , Pipal (*Ficus religiosa*), Mango (*Mangifera indica*) , Kathal (*Artocarpus heterophyllus*), Amrud (*Psidium guajava*), Shisham (*Dalbergia sissoo*), Khair (*Acacia catechu*). No targets were allotted for promoting alternative fuel energy in the GIM landscapes in APO 2020-21.

APO FY 2020-21 was approved for Rs. 3549 lakhs. The APO was approved to treat 10,832 ha. for plantation works and 9861 ha. for maintenance works, i.e., 20,693 ha. under various submissions. No advance work was approved under APO FY 2020-21, Similarly, no funds were allotted for component B (support activities). Total expenditure by the state amounts to Rs. 3551.73 lakhs.
The schedule of release and utilization of funds by GIM M.P. is shown table 3.

Table 3 : Details of funds released by MOEF & CC and expenditure by MP GIM

(Progress as on 31st March 2021)

Year	Sanctioned APO	Released from MoEF& CC		Received from State			Utilized	Remarks
		Instalment	Central Share	Central	State	Total		
2018-19		1	1022.497	1022.5	681.66	1704.16		Rs. 2383.862 (1393.422 central share, 990.44 state share) lakh not transferred to SFDA
		2	1393.422					
Total	4180.26		1022.497	1022.497	681.664	1704.161	1626.04	
2019-20			1532.535					Rs. 2554.225 lakh revalidated for APO 2018-19 on 7th June 2019.
		1	3065.298					Rs. 2600.712 lakh received for APO 2019-20 as 1st instalment
Total	7886.40		4597.833	3092.965	2061.971	5154.936	3293.52	
2020-21								
Total	3549.00			1573.03	1048.69	2621.72	3551.73	Amount of 2621.72 revalidated of APO 2019-20 1st instalment not received for APO 2020-21
Grand Total	15615.66		5620.33	5688.494	3792.323	9480.817	8471.29	

In FY 2020-21, under Budget Head 7488, National Afforestation Programme (Green India), no amount has been released for the sanctioned APO 2020-21. However, an amount of Rs. 2621.72 lakhs were revalidated from the first installment of APO 2019-20, in which, the Central Share was Rs. 1573.032 lakhs and State share is Rs. 1048.688 lakhs.

5. Internal Monitoring and Evaluation Methodology

GIS and Drone based Monitoring for Landscape Restoration

- Madhya Pradesh Forest Department has established a best practice for planning and management of plantation sites.
- STARMAP–Spatial Technology Approach for Restoration Mapping and Planning, is a well-established methodology of online monitoring of treated areas (Landscape restoration) as well as being used to plan the interventions (such as tree planting, fencing, water conservation measures etc.)
- The step wise methodology of STARMAP is given below-

a) GIS based pre-determination of boundaries and treated area (by KML file/shape file)
b) Registering the area proposed for treatment in the Plantation Monitoring System
c) Creating a permanent grid and spot marking for continuous monitoring over the entire treatment area
d) Conducting Regeneration surveys every year and displaying them on independent third-party portal https://geo.mpforest.gov.in/geoportal/apps/webappviewer/index.html?id=42fccb4bf21f47aebadac5cbd4746da8
e) Maintaining geo-coded photographic records of each treatment site and making available at regular intervals photographs of the same site for comparison
f) To make available that boundaries to national body FSI for bi-annual estimation of forest cover and forest density.

- The system was also used to monitor implementation progress as well as analyze the impact of the interventions, such as planting and assisted natural regeneration (ANR) using drone camera and GIS software. The system has been adapted to use drones to take geo-referenced photographs before and after interventions.
- The method is being approved and is now being applied within the state of Madhya Pradesh.

Figure 4 : Online Plantation Monitoring System at MPFD Website

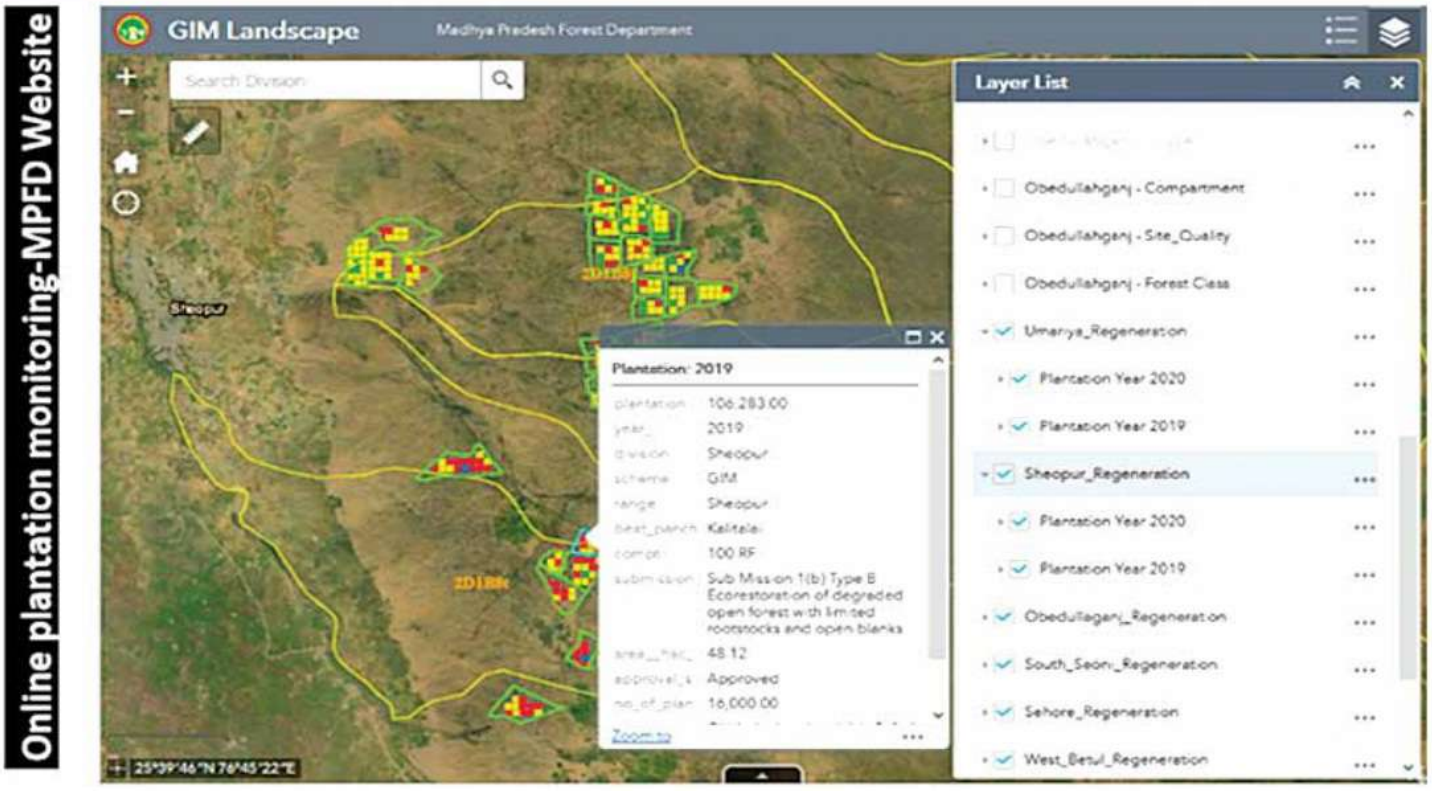
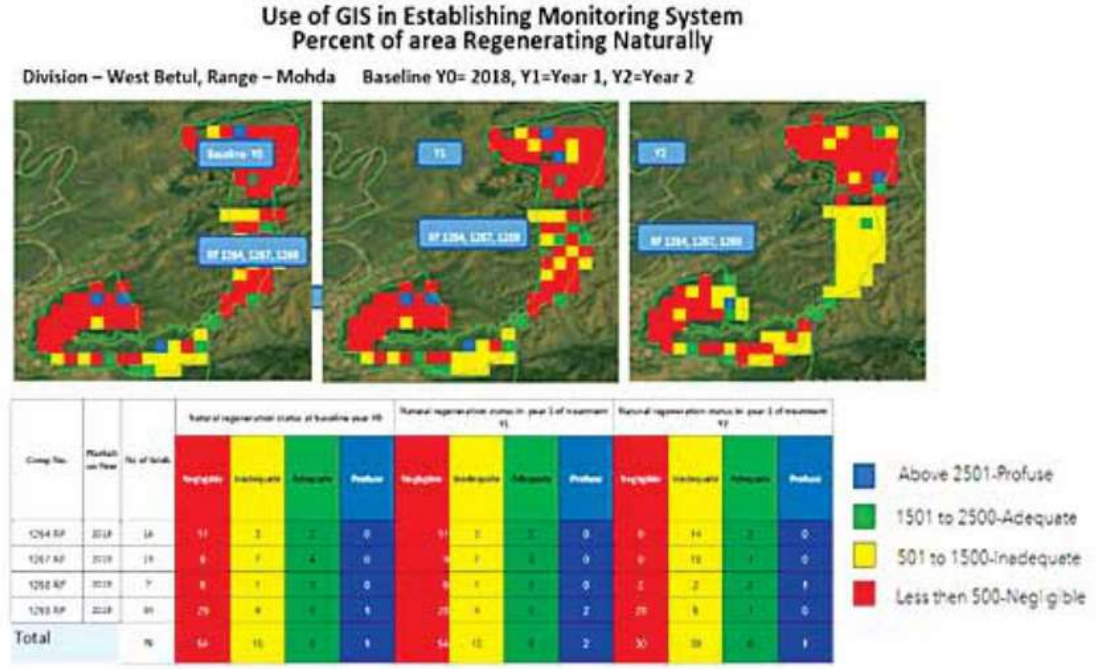


Figure 5 : GIS based regeneration monitoring system



The online plantation monitoring system available on MPFD website also provides the information about number of plants planted under various submission of Green India Mission. The year wise planted are given in Table 4.

Table 4 : Number of Plants Planted under submissions of GIM during year 2019 & 2020

(Based on PMS Portal Data)

Submission	Number of Plants Planted		
	Year 2019	Year 2020	Total
Research High Density Plantation		4140	4140
Sub Mission 1(a) Moderately dense forest cover, but showing degradation	820191	694955	1515146
Sub Mission 1(b) Type A Eco-restoration of degraded open forests with plenty of root stocks	299921	226590	526511
Sub Mission 1(b) Type B Eco-restoration of degraded open forest with limited rootstocks and open blanks	376302	268250	644552
Sub Mission 1(b) Type C Eco-restoration of degraded open forest of large open areas with sparse undergrowth	402130	443250	845380
Sub Mission 1(c) Restoration of grasslands	114946	112400	227346
Sub Mission 2(f) Restoration of abandoned mining area	6750	2000	8750
Sub Mission 3 Plantation in Urban & peri urban areas	125307	20710	146017
Sub Mission 4(a) Agro-Forestry and Social Forestry in Farmer's land including current fallows	187226	283185	470411
Sub Mission 4(b) Agro-Forestry and Social Forestry in Shelterbelt plantation	7500	6340	13840
Sub Mission 4(c) Agro-Forestry and Social Forestry in Highways/ Rural roads /Canals/Tank Bunds	101920	54190	156110
Sub Mission 5 Restoration of wetlands	5000	3800	8800
Total Plants Planted in 18 GIM Divisions	**24,47,193**	**21,19,810**	**45,67,003**

The survival percent survey of the plantations is conducted on semi-annual basis. During year 2019 and 2020 twice found as more than 70 percent. The survival percent for submission 1 (a) moderately dense forest showing degradation was noted between 82.24 to 91.20 percent for two consecutive years. The submission wise details of survival percent are given below in table 5.

Table 5 : Survival Percent of plantations under submissions of GIM during year 2019 & 2020

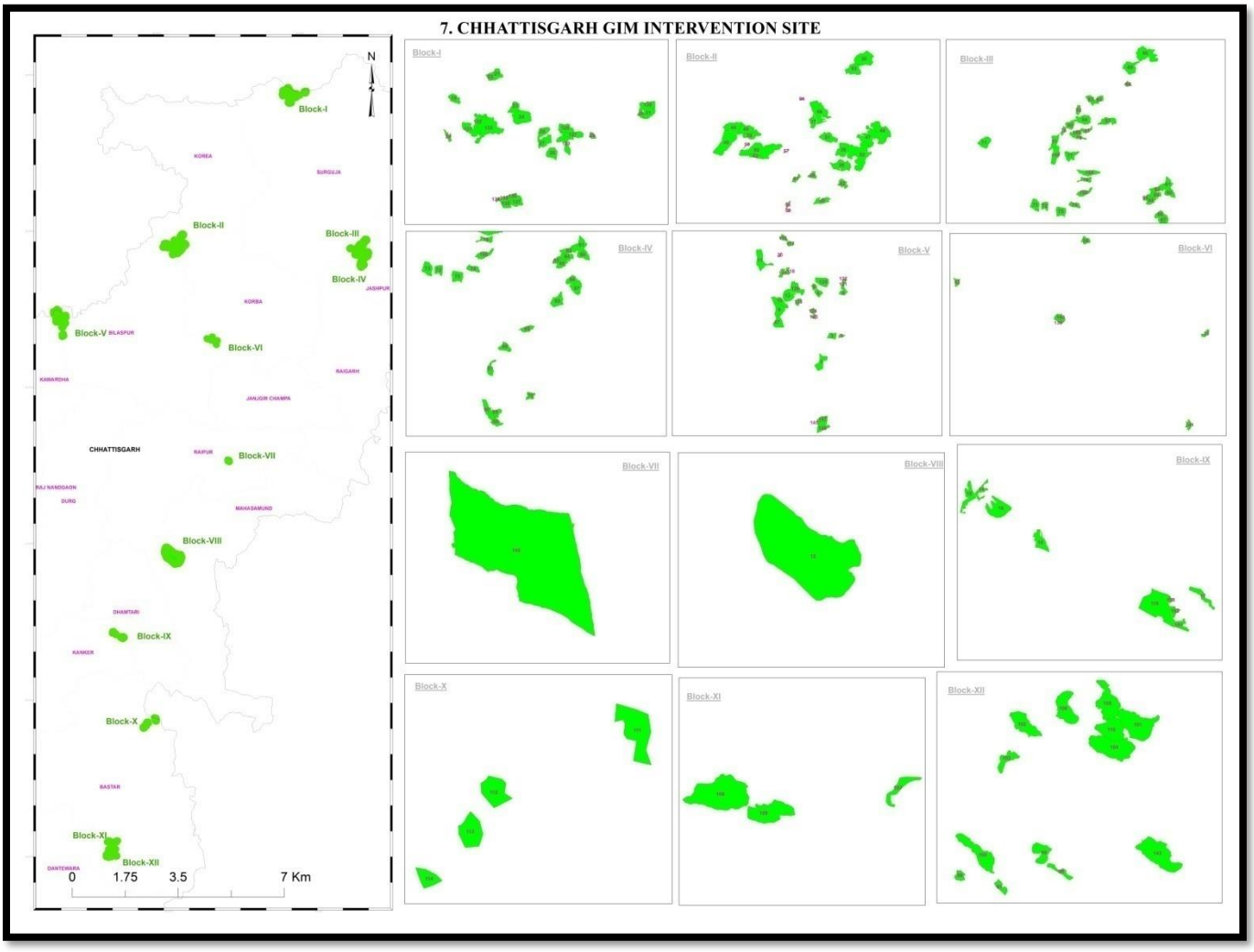
(Based on PMS Portal Data)

Sl. No.	Submission	Plantation Year-2019						Plantation Year-2020			
		Area (Ha)	No. of Plants	Average Survival Percent				Area (Ha)	No. of Plants	Average Survival Percent	
				Oct-19	May-20	Oct-20	May-21			Oct-19	May-20
1	Research High Density Plantation							1	4140	99.42	99.13
2	Sub Mission 1(a) Moderately dense forest cover, but showing degradation	4939	820191	84.18	79.36	83.59	73.49	4809	694955	94.91	83.89
3	Sub Mission 1(b) Type A Ecorestoration of degraded open forests with plenty of root stocks	2077	299921	95.39	88.32	92.59	87.59	1907	226590	96.94	90.73
4	Sub Mission 1(b) Type B Ecorestoration of degraded open forest with limited rootstocks and open blanks	715	376302	96.21	87.71	90.84	87.03	696	268250	98.20	93.10
5	Sub Mission 1(b) Type C Ecorestoration of degraded open forest of largy open areas with sparse undergrowth	514	402130	97.81	93.53	92.85	92.08	542	443250	97.63	89.02
6	Sub Mission 1(c) Restoration of grasslands	780	114946	96.25	92.53	93.64	86.89	835	112400	97.34	95.85
7	Sub Mission 2(f) Restoration of abandoned mining area	14	6750	93.43	85.87	97.34	94.36	19	2000	98.10	87.40
8	Sub Mission 3(a) Plantation in Urban & peri urban areas	122	125307	96.27	88.79	90.51	85.76	36	20710	97.16	87.52
9	Sub Mission 4(a) AgroForestry and Social Forestry in Farmer's land including current fallows	705	187226	96.57	82.67	91.57	53.20	784	283185	92.76	86.00
10	Sub Mission 4(b) AgroForestry and Social Forestry in Shelterbelt plantation	21	7500	98.67	85.69	88.50	88.85	8	6340	97.53	94.35
11	Sub Mission 4(c) AgroForestry and Social Forestry in Highways/ Rural roads /Canals/Tank Bunds	297	101920	95.40	87.89	88.97	81.03	206	54190	95.44	87.51
12	Sub Mission 5 Restoration of wetlands	9	5000	92.00	86.30	90.13	80.20	11	3800	94.83	85.22
	TOTAL	**10,193**	**24,47,193**					**9,854**	**21,19,810**		

CHHATTISGARH MONITORING REPORT

Chhattisgarh:

Chhattisgarh covers an area of 1,35,192 sq km, which is 4.11% of the geographical area of the country. The State is bordered by the Madhya Pradesh in the northwest, Uttar Pradesh in the north, Jharkhand in the northeast, Maharashtra in the southwest, Telangana in the south and Odisha in the southeast. The State falls under East Deccan physiographic zone and can be divided into three agro-climatic zones, viz. the Chhattisgarh Plains, the Northern Hills of Chhattisgarh and the Bastar Plateau. The GIM Intervention Site lies between 19°00' N to 24°00' N latitude and 82°00' E to 83°00' E longitude.



Green India Mission, Chhattisgarh
Monitoring & Evaluation Report

A. General

The National Mission for a Green India or the commonly called Green India Mission (GIM), is one of the eight Missions under the National Action Plan on Climate Change (NAPCC). It was launched in February, 2014 with the objective to safeguard the biological resources of our nation and associated livelihoods against the peril of adverse climate change and to recognize the vital impact of forestry on ecological sustainability, biodiversity conservation and food- water- and livelihood-security. It aims at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change through adaptation and mitigation measures. It envisages a holistic view of greening that extends beyond tree planting. GIM focuses on multiple ecosystem services such as biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration.

The Mission would strive for enhancing carbon sinks in sustainably managed forests and other ecosystems, adaptation of vulnerable species/ecosystems to the changing climate and adaptation of forest-dependent communities. The goals include increased forest/tree cover and improved quality of forest cover in millions of hectares of forest/non-forest lands, improved ecosystem services including biodiversity, carbon sequestration and hydrological services along with provisioning services like fuel, fodder, and timber and non-timber forest produces and increased forest-based livelihood income of households living in and around forests. Traditional Ecological Knowledge of communities, along with forestry science and state-of-the-art technology would improve the Mission interventions.

GIM also aims at convergence with complementary schemes and programmes for better coordination in developing forests and their fringe areas in a holistic and sustainable way, which is required to address the challenges being faced in environment, forest and wildlife sectors. A multidisciplinary team, both from Govt.

and NGOs will be mandated to facilitate planning and implementation at cluster/landscape unit level. The Mission's emphasis on the landscape approach i.e. landscapes as large contiguous areas of forest/ non forest land, at different scale/levels provide better opportunity to meet targets for both National and State Forest policy. An integrated cross-sectoral approach would be implemented on both public as well as private lands with the involvement of grass root level organizations and local communities in planning, decision making, implementation and monitoring. Moreover, GIM would take into account the forces of de-greening operating across the country and thereby give special emphasis to relate to processes that halt 'de-greening'.

A.1 Objectives of Green India Mission (GIM)

1. Growth in forest or tree cover and increase the quality of forest cover of forest or non-forest lands. There are separate sub-targets for a variety of forests and their ecosystems namely, grassland, dense forest, wetland etc.
2. Increase the quality of degrading moderately dense forests.
3. Ecologically restore open forests which are being degraded.
4. Grasslands revival.
5. Wetlands revival.
6. Ecological restoration of shifting cultivation areas, mangroves, scrub, ravines, cold deserts, & abandoned mining areas.
7. Increase in forest cover in urban areas and its outskirts.
8. Increase in forest and tree cover on marginal agricultural lands/fallows and other non-forest lands which comes under agroforestry – 3 million hectares.
9. Increase forest-based livelihood income for about 3 million households in and around these forest areas.
10. Increase Carbon Dioxide sequestration.

A.2 Implementation of Green India Mission (GIM)

The Mission was started with the objective to increase forest/tree cover of forest/non-forest lands and improved quality of forest cover. The mission also

targeted improvement of ecosystem services including biodiversity, hydrological services and carbon sequestration, enhanced annual carbon sequestration and increased forest-based livelihood income of households.

The Mission's interventions were started in the year 2015-16 with the collaborative effort of Central and the State governments. The various afforestation activities including tree plantation were taken up under the Green India Mission, State plan schemes and also the plantation taken up by the NGOs, Civil Societies and corporate houses as reported under the Twenty Point Program.

The State Governments have prepared the five years State Perspective Plan for implementation of GIM activities in accordance with Implementation Guidelines of GIM. The Perspective Plan under Green India Mission was prepared by the State Forest development Agency through consultations of various stakeholders, Forest Department, other Department of the State Govt., Gram Panchayat/Gram Sabha/ Municipalities, community groups etc. These Perspective Plan are provide a clear roadmap for implementation of GIM activities and measurable indicators and outcome. The State Governments dovetail the Perspective Plan with State Action Plan on Climate Change and other Central and State Governments sponsored schemes/programme like CAMPA, MGNREGA, Agriculture Department, Water Resources Department, National Highway Authority, Railway, etc. in the identified landscapes.

The Implementation Guidelines for GIM was facilitate the State Governments for selection of Landscape by detailing the planning process for implementation of various activities and interventions under different sub-missions. Implementation guidelines is clearly spell the site-specific bottom- up planning process at the level of SFDA, FDA and Gram Sabha/Municipalities and various Committees under the Mission. It has provided the linkage between the traditional knowledge and scientific forest management to ensure sustainable management of both forests and natural resources. Mission is implemented through following levels:-

1. At the national level implementation is done by the Ministry of Environment and Forests.
2. The State Forest Development Agency to guide the mission at the State level.

3. To avoid multiplicity of agencies, a revamped State Forest Development Agency (SFDA) was act as the State Mission Directorate. States are advised to revisit the constitution of the SFDA.
4. At the District level, the implementation done by the Forest Development Agency (FDA).
5. The gram sabha and various committees are the key institutions for planning and implementation at the village level.
6. In urban areas, the ward level committees like Residents Welfare Association (RWA) linked to the municipality/municipal corporations facilitate planning and implementation under the mission.
7. Potential to develop skilled local community youth who would provide support in community-based forest conservation. They would act as a bridge between the community and implementing agencies such as the forest department.

State Forest Development Agency (SFDA), constituted at the State/UT level and registered society under the Societies Registration Act, and function as a federation of Forest Development Agencies (FDAs) in the State.

Forest Development Agency (FDA), constituted at the territorial/ wildlife forest division level and registered society under the Societies Registration Act, and function as a federation of all JFMCs and EDCs in that forest division. The concerned forest division has strived to constitute JFMC/ EDC in each potential forest-fringe village, and federate them into FDA, preferably during the Eleventh Five Year Plan period.

JFMC will be the implementing agency at the village level. The composition and functions of the JFMCs are governed by the JFM order adopted in the Chhattisgarh State, however, the JFMCs executing this Scheme may be reconstituted to have minimum representation of the marginalized groups. The JFMCs are registered as per the provisions of the JFM resolution with the concerned Divisional Forest Office.

FDAs are signing a Memorandum of Understanding (MoU) with the JFMCs implementing the Scheme indicating mutual obligations, rights and roles. The MoU is *inter alia*, include the right of FDAs to stop and withdraw funding from a JFMC if their performance is found to be unsatisfactory, along with the procedure to be adopted in such cases. The FDAs, are also sign a similar MoU with the SFDA.

A.3 Green India Mission in Chhattisgarh

The GIM planning relates to landscapes at different levels i.e. L1 landscapes to L3 Landscapes. In the planning process, the L2 level landscapes and L3 level units remain the key focus. The L3 level landscape i.e. micro watershed and village level planning will relate to L2 level landscape i.e. milli watershed /cluster and vice versa. The Planning process will foster key tenets of landscape approach

The L1 Landscapes: L1 Landscape/landscapes in the State have been selected, it will require describing the landscape in terms of total Geographical Area, the forest area in different density classes, the areas of interest, total number of L2 level landscapes within the L1 etc. State Level landscape plan will also solicit collation of various L2 level Landscape Plans (L2) within a given L1. The State may begin implementation of the Mission with one L1 or multiple L1.

Details of the L1 landscape selected

Name of the L1 landscape	:	Chhattisgarh (CGH)
Location or the Landscapes (State)	:	Chhattisgarh
Extent of the Landscape (area, boundaries, geo references)	:	

Chhattisgarh State is carved out of the erstwhile Madhya Pradesh. It lies between 17°46–24°8 N latitude and 80°15–84°24 E longitude. The State measures 640 km from North to South and 336 km from East to West with a total area of 1,35,194 sq. km. The State shares its boundaries with the 6 Indian States i.e. Madhya Pradesh on the northwest, Uttar Pradesh on the north, Jharkhand on the north-east, Orissa on the south-east, Andhra Pradesh on the south and Maharashtra on the south-west.

The geological structure of Chhattisgarh mainly consists of Achaean and Cudappah rocks but Dharwad, Gondwana, Deccan Trap and old Alluvial Laterite rock systems are also found in some pockets of the State as shown in table.

Table 1 :

Types of soil	Mother rocks	%	Distribution in the State Districts / Region	Main crops
Red-yellow soil (or Matasi)	Gondwana	60-65	Surguja, Koriya, Jashpur, Balrampur Raigarh, Korba, Bilaspur, Kawardha, Bemetara, Mungeli, Durg, Balodabazar, Raipur, Dhamtari, Surguja & Mahasamund districts.	Paddy
Red-sandy soil	Archaean Granite	20-25	Bastar, Dantewara, Kanker, Kondagoan, Narayanpur, Sukma, Durg, Balod, Rajnandgaon, & Dhamtari	Kodo-Kutki, Jwar, Maize, Potato, Coarse grains, etc.
Red-domat	soil	Archaean	Granite	- Dantewada and Konta tehsils. Paddy
Laterite soil Mixed - Bagicha, Samri, Sitapur,	Ambikapur, Kawardha,	Chhui-Khadan, Saja,	Bemetara and Jagdalpur, Sukma	tehsils.
Pulses, Jwar,	Kodo-Kutki,	Oilseeds,	Potato,	Coarse

The Landscapes have been selected in the three agro climatic zones of the State so that due importance is give is to the various ecosystems and the associated flora and fauna in these landscapes it will also ensure due spread of GIM initiatives the state of chhattisgarh.

The GIM efforts will contribute to the conservation and development of the following vast extent of biodiversity of the State. Some silent features of the Biodiversity are given as under:

- 27,000 plant specimens of different plant species.
- Ten dominant families of Chhattisgarh are *Fabaceae, Malvaceae, Asteraceae, Euphorbiaceae Acanthancea, Convolvualaceae, Malvaceae, Scrophulariaceae, Rubiaceae*
- 45 species as Endangered taxa of the State.
- There are 8 Endemic & Rate, 13 Critical & vulnerable flora in the state.
- There are 3 National Parks & 11 Wild Life Sanctuaries in the state having 227 Tigers & 1140 Panthers.

- Probably the largest population of snakes in our state is found in the Farsabahar area of Jaspur district.
- The exclusive survey done by ZSI for Butterflies in Bastar Distt., has revealed 60 species and subspecies belonging to 38 genera under nine families.
- 86 Species of Birds have been identified in the state.
- In Rivers Mahanadi and Hasdeo showed 60 fish species. Later in 1987, recorded Mahasheer in the River Hasdeo Mahanadi, Maniari, Seonath and Indravati, in the Chhattisgarh region. In the River Indravati.
- The State has rich Agriculture Biodiversity with 23250 ascensions of Rice, 8 major species of millets.

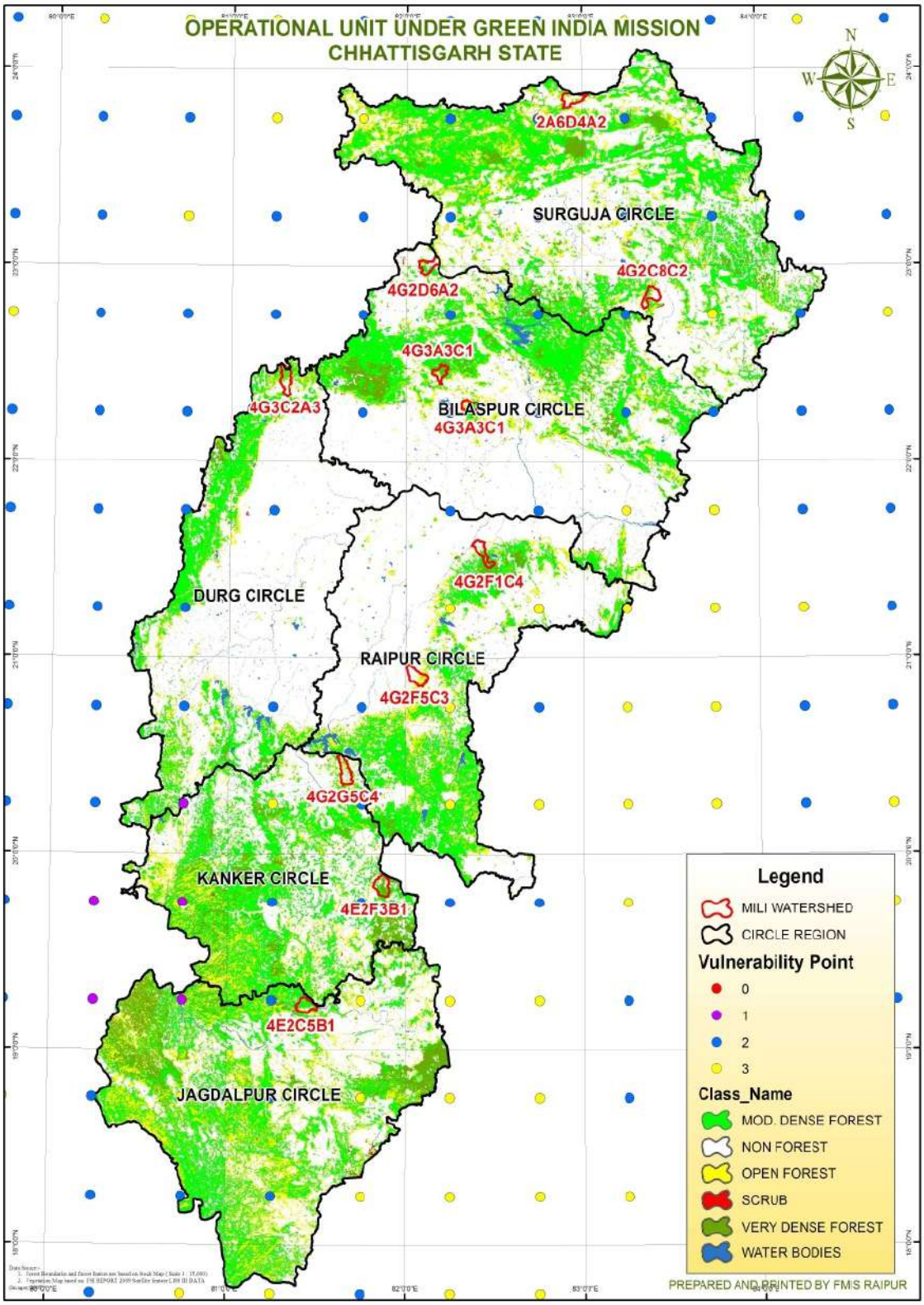
The selected landscapes are chosen because of their susceptibility to Andropgence factors of degradation. There is dine need to treat the watershed in order to ensure better water management and restoration of ground water. The forests need urgent interventions to ensure regeneration and conservation especially of the fast depleting ground flora that is very rich in medicinal and NTFP plants.

The treatment will ensure improvement of water table and assisting of factor of degradation of biodiversity. It will help improve forest cover and productivity of forests. The treatment of the area will also help improve Agricultural yields and improve livelihoods of the dependent population.

Table 2 : Criteria for selection of L1 Landscapes

Criteria	Details of Criteria		Details of the Source of data-Maps,
	Criteria	Details	
1. Forest cover and degradation	1a) Forest cover	Forest Degradation	FSI Maps
	1b) Wastelands	Soil erosion	Wasteland Maps
2. Projected Forest vulnerability to climate change	2a) Vulnerability maps and attribute data	Being made	-
3. Vulnerable Population/ communities	3a) ST/SC, Total population, ratio	Proportion of SC to Total population is 11.60 % Proportion of ST to Total population is 31.80 %	Census-2001
	3b) Scheduled areas	Govt. Notification	Govt. Notification

Green India Mission : L1 landscape



The L2 Landscape: This is the critical level for planning. Each L2 level landscape will bring out situational analysis for the landscape and keeping in view various Sub Missions to which the L2 will relate to. The baselines will need to be set in. The planning for L2 level will also need to map the existing institutions and programs/schemes that are crucial for convergence, and are in conformity with Mission objectives.

Table 3:

SN.	State	District	Forest Division	Range	No. of JFMCs
01.	Chhattisgarh	Kawardha	Kawardha	Pandariya West	08
02.		Bilaspur	Bilaspur	Bilaspur	04
03.		Gariyaband	Gariyaband	Fingeshwar	06
04		Korba	Katghora	Pali	07
05.		Bastar	Bastar	Chirakote	08
06.		Kanker	Kanker	Narharpur	04
07.		Kondagaon	S. Kondagaon	Makri	05
08.		Baloda Bajar	Baloda Bajar	Sonakhan	07
09.		Gariyaband	Gariyaband	Fingeshwar	14
10.		Balrampur	Balrampur	Raghunath Nagar	07
11.		Surguja	Surguja	Sitapur	10

The L3 Landscape: For each constituent unit or village of the L2 level landscape, a Micro Plan needs to be developed in participatory manner. The guideline developed by various States for JFM may be useful in developing village specific micro-plans.

There are 80 Villages in the landscape. almost 90% of the population is of scheduled tribes. They are completely dependent on forest for their livelihood. Females are more than male.

Table 4 : Details of the JFMCs in the L2 Landscape

SN	Name of Division	Name of the Village	Whether there is JFMCs	Population				
				SC	ST	Others	Total	Women
1.	Bastar	Surguda	yes	0	658	0	658	336
2.		Toyar	yes	0	71	1	72	44
3.		Ervar	yes	0	945	211	146	607
4.		Limbupadar	yes	0	340	0	340	183
5.		Sarguda bodenar	yes	0	484	7	491	246
6.		Kilepal	yes	0	1024	240	1264	625
7.		Dulapara	yes	1	146	45	192	90
8.		Lalaguda	yes	68	810	212	1090	561
9.	South	Bagbeda	yes	0	1457	130	1587	801
10.	Kondagaon	Khudi	yes	0	431	60	491	270
11.		Sandasa	yes	0	334	10	344	163
12.		Bhatwa	yes	0	256	16	272	123
13.		Mageda	yes	35	1400	102	1537	770
14.	Kanker	Dumdum bhara	yes	13	347	40	400	185
15.		Gawarsilli	yes	6	484	59	549	264
16.		Dabena	yes	34	834	172	1040	543
17.		Masulpani	yes	0	324	21	345	192
18.	Gariyaband	Deogaon	yes	17	171	170	358	175
19.		Barula	yes	222	154	529	905	445
20.		Charoda	yes	392	315	167	874	469
21.		Charbhatti	yes	14	13	689	716	374
22.		Sendar	yes	239	151	724	1114	550
23.		Parasbhatti	yes	0	26	456	482	231
24.		Tatori	yes	344	83	720	1147	575
25.		Patora	yes	265	412	213	890	454

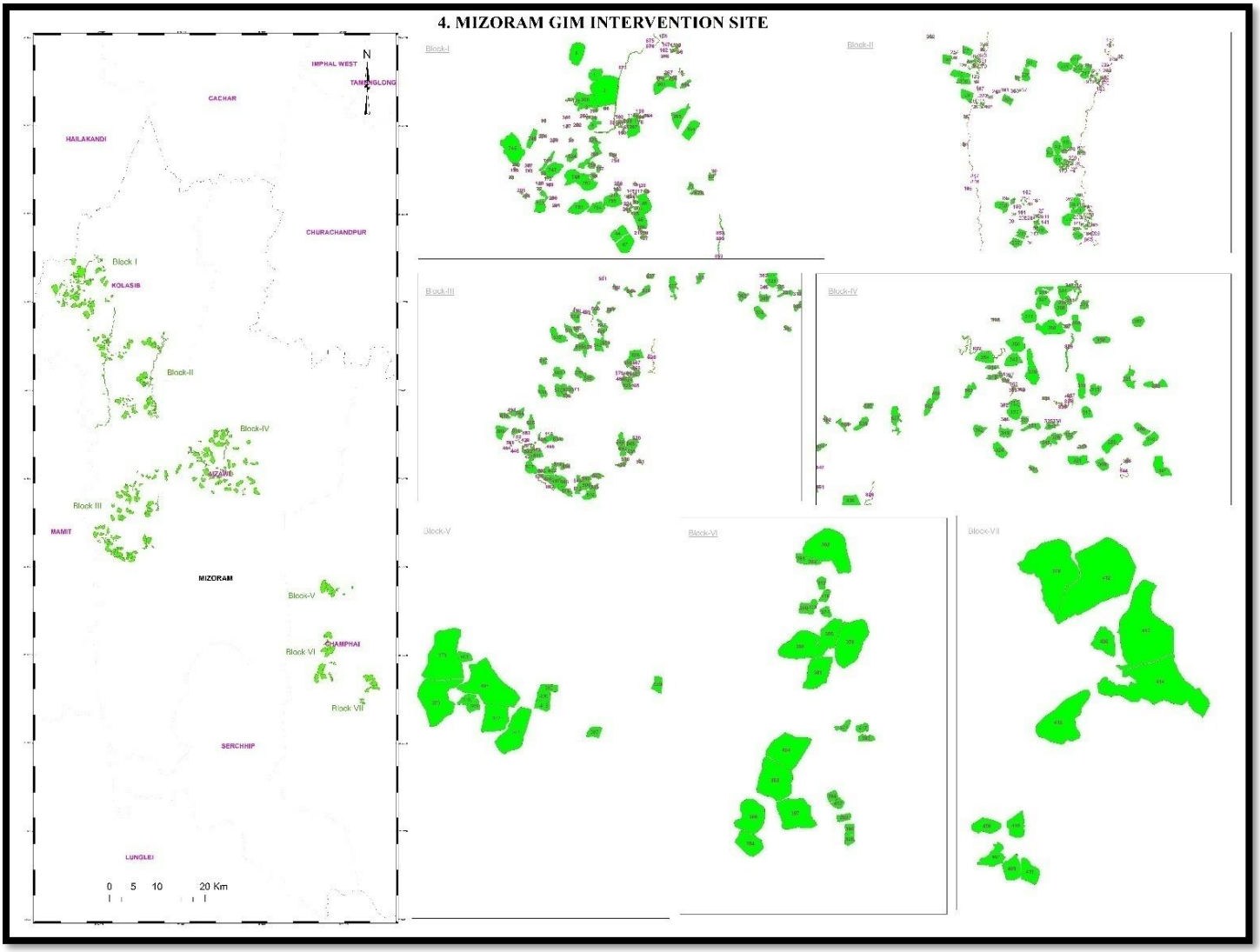
26.		Ghoghara	yes	8	27	228	263	135
27.		Belar	yes	206	120	1419	1745	895
28.		Bodgi	yes	0	190	432	622	312
29.		Jogi depo	yes	6	296	269	571	273
30.		Fhuljhar	yes	0	296	233	529	258
31.		Ganihari	yes	6	127	365	498	233
32.	Baloda	Furfundi	yes	0	247	10	257	130
33.	Bajar	Jhalpani	yes	1	33	114	148	70
34.		Bharka	yes	2	149	67	218	113
35.		Bamhni	yes	0	562	254	816	405
36.		Dhurrabhata	yes	52	56	190	298	150
37.		Kharha	yes	49	265	158	472	251
38.		Hataud	yes	257	599	1105	1961	942
39.	Kawardha	Rukmidadar	yes	0	267	5	272	135
40.		Rahidaand	yes	0	245	126	371	195
41.		Amlitola	yes	120	12	597	729	364
42.		Amania	yes	0	975	43	1018	517
43.		Neyur	yes	7	943	183	1133	510
44.		Mangitola	yes	76	465	852	1393	704
45.		Taitirni	yes	0	246	67	313	156
46.		Rokhani	yes	0	281	9	290	158
47.	Bilaspur	Kanhari	yes	0	233	272	505	238
48.		Khondra	yes	83	463	1256	1802	877
49.		Banka	yes	8	714	137	859	432
50.		Korbi	yes	0	803	92	895	481
51.	Marwahi	Kolbirra	yes	12	366	116	494	235
52.		Moharitola	yes	28	253	83	364	175
53.		Matiadand	yes	547	392	188	1156	576
54.		Rumga	yes	77	1530	317	1924	978
55.		Danikundi	yes	24	308	287	619	310

56.		Bagara	yes	101	516	371	988	492
57.	Katghora	Kodar	yes	172	1009	35	1216	602
58.		Kanhaiyapara	yes	630	131	312	1073	544
59.		Parsapani	yes	65	635	278	978	485
60.		Nawadhi	yes	80	433	162	675	336
61.		Jamnipani	yes	190	468	422	1080	540
62.		Chanwaripara	yes	2	428	233	663	309
63.		Karranwapara	yes	34	886	160	1080	580
64.	Balrampur	Raghunath Nagar	yes	355	628	1407	2390	1141
65.		Rameshpur	yes	158	94	535	787	391
66.		Badhani	yes	51	715	159	925	464
67.		Kesari	yes	142	821	855	1818	891
68.		Manbasa	yes	173	757	296	1226	610
69.		Shankarpur	yes	0	1171	107	1278	655
70.		Nogai	yes	21	1139	253	1413	691
71.	Surguja	Bijalhwa	yes	12	786	175	973	487
72.		Baighwa	yes	38	887	437	1362	688
73.		Udumkela	yes	0	1670	343	2013	984
74.		Vandana	yes	0	488	363	851	420
75.		Kot	yes	96	3253	381	3730	1887
76.		Ratanpur	yes	7	324	28	359	188
77.		Chiparkaya	yes	0	631	381	1012	496
78.		Deogarh	yes	151	2988	717	3856	1963
79.		Pent	yes	140	570	667	1377	678
80		poksari	yes	61	2220	469	2750	1388
Total				5898	46781	24014	75712	38394

MIZORAM MONITORING REPORT

Mizoram:

Situated in the North Eastern part of India, Mizoram covers geographical area of 21,081 sq km, which is 0.64% of the geographical area of the country. The GIM Intervention Site lies between 23°00'N to 24°40'N latitude and 92°10'E to 93°10'E longitude.



REPORT ON MONITORING AND EVALUATION OF PLANTATION WORKS TAKEN UP BY FDAs UNDER GREEN INDIA MISSION (GIM) FOR THE YEAR 2016-17, 2017-18, 2018-19, 2019-2020 AND 2020-21

THENZAWL FDA

MONITORING AGENCY:
THE ASSOCIATION FOR ENVIRONMENTAL PRESERVATION (ASEP)
GENERAL HEADQUARTERS, AIZAWL
REGISTRATION NUMBER – SR/MZ 54 OF 2005-2006

INTRODUCTION:

The National Mission for a Green India or the commonly called Green India Mission (GIM), is one of the eight Missions under the National Action Plan on Climate Change (NAPCC). It was launched in February, 2014 with the objective to safeguard the biological resources of our nation and associated livelihoods against the peril of adverse climate change and to recognize the vital impact of forestry on ecological sustainability, biodiversity conservation and food, water and livelihood-security.

It aims at protecting; restoring and enhancing India's diminishing forest cover and responding to climate change through adaptation and mitigation measures. It envisages a holistic view of greening that extends beyond tree planting. GIM focuses on multiple ecosystem services such as biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration.

The Mission would strive for enhancing carbon sinks in sustainably managed forests and other ecosystems, adaptation of vulnerable species/ecosystems to the changing climate and adaptation of forest-dependent communities.

The goals include increased forest/tree cover and improved quality of forest cover in millions of hectares of forest/non-forest lands, improved ecosystem services including biodiversity, carbon sequestration and hydrological services along with provisioning services like fuel, fodder, and timber and non-timber forest produces and increased forest-based livelihood income of households living in and around forests. Traditional Ecological Knowledge of communities, along with forestry science and state-of-the-art technology would improve the Mission interventions.

GIM also aims at convergence with complementary schemes and programmes for better coordination in developing forests and their fringe areas in a holistic and sustainable way, which is required to address the challenges being faced in environment, forest and wildlife sectors.

A multidisciplinary team, both from Govt. and NGOs will be mandated to facilitate planning and implementation at cluster/landscape unit level. The Mission's emphasis on the landscape approach i.e. landscapes as large contiguous areas of forest/ non forest land, at different scale/levels provide better opportunity to meet targets for both National and State Forest policy.

An integrated cross-sectoral approach would be implemented on both public as well as private lands with the involvement of grass root level organizations and local communities in planning, decision making, implementation and monitoring. Moreover, GIM would take into account the forces of de-greening operating across the country and thereby give special emphasis to relate to processes that halt 'de-greening'.

SUMMARY OF THENZAWL FOREST DIVISION:

Thenzawl Forest Division lies in the Serchhip District. There are nine forest ranges in the division namely Thenzawl, Serchhip, Chhingchhip, Bungtlang, Buarpui, Thenhlum, Bunghmun 'S', Mualthuam & Sialsuk Range. In Thenzawl Forest Division, GIM programme was started from 2017 in two Forest Ranges Thenzawl and Serchhip range. As per the guidelines of the MoEF, GOI and Govt. of Mizoram Gazette Notification dated 13.11.2001, Thenzawl FDA was constituted by a federation of VFDCs under Thenzawl Forest Division, Serchhip District, and Mizoram.

The land covered under the project is mostly community land. The short and long term objectives were set to augment forests resources, enhance livelihood of the community through forests, meet the local demand of fuel wood and fodder, etc. Components of the project are concerned to rehabilitation of degraded forests done through different Sub-missions. The overall survival of the plantations is ranging from 75-85%. There is not much variation in the average growth rate in different types of the plantations.

The account of VFDC is opened in a nationalized bank. One cash book and cheque/payment register is available with the FDA. Plantation journal is an important document for getting feedback for the plantation strategies. Assets register, member register, minute book, nursery records, plantation maps and kml files, etc. are also maintained. The plantation works, people's participation and afforestation, etc. was discussed with the community during the training programmes conducted for the community. CCF and CF had inspected some of the sites of the project area, the forest staffs were appreciating the visits and suggestions made by these officers.

The area covered in the division under the project is thinly populated. Most of the families are dependent on forest produce and resources. Jhumming/Shifting System of Cultivation is practiced in the project area. This system of cultivation is the main cause of the degradation the natural forest. Jhumland are very common in Mizoram. They are classified as current jhumland, old jhumland and abandoned jhumland.

The total forest area covered in the division is 81.75% of the geographical area. According to Champion and Seth classification of forests, forest types are Tropical Wet Evergreen Forests, Semi-Evergreen Forests and Montane sub-tropical Forests.

Project Objectives :

Under this project the entire state of Mizoram is identified as landscape (L-1),though large area is under forest cover but not rich in quality. About 67.70% of the forest cover is open, having very less canopy density. A large extent of open forest, particularly in the hilly terrain can have devastating impacts on the normal structure and delicate interdependencies of diverse flora and fauna in the forest ecosystem. The situation is likely to be further aggravated in Mizoram by the prevalence of shifting cultivation and other biotic interference.

The treatments being done to the landscape coupled with the proposed interventions under Green India Mission (GIM) will save the valuable hilly ecosystem of the state from deterioration. It is expected that implementation of proposed strategies will enhance the quality of existing forests, ecologically re-stock wasteland, improves eco-system services, increase forest based livelihood income and augment annual CO_2 sequestration.

a) Short term Objectives :

i) Identification and arrest of drivers responsible for eco-system degradation.
ii) Water-shed management – ridge to valley approach.
iii) Increase in fuel-wood and fodder availability.
iv) Awareness for sustainable management of natural resources.
v) Employment generation.

b) Long term objectives :

Sustainable livelihood support to the people Ecological stability in the region.

2. Study design and methodology :

2.1 Process documentation: Records maintained by the implementing agency

a) Plantation journal
b) Plantation maps and kml files
c) Nursery records

2.2. Maintenance of plantations :

a) Treatment:-

i) Climber cutting, Weeding, Gap planting and manuring.
ii) Halfmoon terrace,Terrace and moisture conservation pits/trench

b) Protection :-

i) Terrace, Halfmoon terrace and Trench
ii) Control burning in fire prone area, collection of debris with advance burning and construction of fire line cutting.

c) Survival rate of the plantation :-

Sl.No.	Year of Creation	Survival %
1.	2017-2018	79 %
2.	2018-2019	81 %
3.	2019-2020	83 %

d) Average height of plant (in cm) :-

Sl.No.	Year of Creation	Average height (in cm)
1.	2017-2018	304.8 cm
2.	2018-2019	198.12 cm
3.	2019-2020	91.44 cm

3. Objectives of monitoring and evaluation :

i) To make the physical assessment of works done, to judge the quality and standard attained.
ii) To study the limitations and deficiencies in the implementation with a view to suggesting modifications in techniques and financial provisions.
iii) The ultimate objective is to ensure maximum efficiency in the implementation and safeguard against infructuous expenditure and take timely and remedial measures wherever necessary.

4. Field observations :

4.1. Physical and financial targets and achievement as per the sanction order and Sub-mission wise :

Sl. No.	Sub-mission	Physical Target (in Ha)			Financial Target (Rs. in lakh)				Remarks
		2017-18	2018-19	2019-20	2017-18	2018-19	2019-20	2020-21	
1	1(a) ANR: Moderately dense forest cover, but showing degradation	78	248	128	12.528	57.3876	56.7308	2.3712	Achieved
2	1(b) Type A:Eco-restoration of degraded open forest	95	297	180	13.6125	50.394	99.298	6.859	Achieved
3	1(b) type C:Largely open area with sparse undergrowth	70	256	80	32.8255	128.2928	138.876	16.366	Achieved
4	2(a) Rehabilitation of shifting cultivation	70	217.14	110.5	26.2872	82.157	83.75875	6.65	Achieved
5	3(a) Plantation in urban and peri urban area	22	35	8.5	17.499	13.412	27.89512	10.142	Achieved
6	4(a) Farmer's land including current fallows	34	306.2	180	29.1254	71.3586	89.0396	Nil	Achieved
7	4(c) Highway/rural roads etc.	Nil	108.5	30	Nil	83.934	66.27784	9.588	Achieved

4.2. No. of Nurseries upgraded and created under the scheme – 7 Nurseries.

Sl.No	Name of Nursery	Present nos. of seedlings stock.	Remarks
1	Thenzawl 'E' VFDC Nursey	25,000	All these Nurseries under Thenzawl Forest Division are well maintained. All nurseries have good water tank, water distribution point and nursery hut. They have large number of stocks of seedlings at the time of visit. Nurseries are also covered with shade nets.
2	Thenzawl 'W' VFDC Nursey	15,500	
3	Thenzawl 'N' VFDCNursey	35,600	
4	New Serchhip VFDC Nursey	25,000	
5	Chhiahtlang VFDC Nursey	30,000	
6	Thentlang VFDC Nursey	12,000	
7	Vanchengte VFDC Nursey	8,500	

4.3. Diversification of income of households due to various livelihood activities – 3358 Nos.

4.4. Number of Households reported increase in number of days of employment in primary occupation – 3134 families

4.5. Number of households reporting use of alternative energy devices – 2946 families.

4.6. Number of households that use fuel efficient devices – 2946 families.

MONITORING AND EVALUATION REPORT
OF
FOREST DEVELOPMENT AGENCY PROJECTS
SANCTIONED UNDER
NATIONAL MISSION FOR A GREEN INDIA (GIM)
SCHEME

CHAMPHAI FOREST DIVISION

(REPORT PERIOD: 2016-17, 2017-18, 2018-19, 2019-20, 2020-21)

SUBMITTED BY

FOREST RESEARCH CENTRE FOR BAMBOO & RATTAN

BETHLEHEM VENGTHLANG

AIZAWL, MIZORAM-796008

2021

Introduction

A. Background:

The National Mission for Green India (GIM) is one of the eight missions under the National Action Plan on Climate Change (NAPCC) launched in order to safeguard the country's biological resources and associated livelihoods against the perils of climate change, recognizing vital impacts of forestry on ecological sustainability, biodiversity conservation and food, water and livelihood security to the nation.

The Mission envisages taking a holistic view on greening that goes beyond tree planting to achieve carbon sequestration targets, and to take within its ambit a wide spectrum of activities encompassing biodiversity enhancement, ecosystems restoration and economic security of local communities at landscape level in the context of climate change adaptation and mitigation. The overarching objective of the mission is to increase forest/tree cover in 5m ha of land and improve quality of forest cover in another 5 milion ha of lands. Thus, the mission will help in improving ecosystem services from 10 million ha of these lands, increase forest based livelihood income of about 3 million forest dependent households and enhance CO2 sequestration by 50 to 60 MT in the year 2020. The mission proposes to have a decentralized participatory approach with involvement of grass root level organizations in planning, decision making, implementation and monitoring.

GIM puts *greening* in the context of climate change adaptation and mitigation. Greening is meant to enhance ecosystem services such as carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; as well as other provisioning services such as fuel, fodder, small timber and non timber forest products (NTFPs).
The Mission aims at responding to climate change by a combination of adaptation and mitigation measures, which would help:

- Enhancing carbon sinks in sustainably managed forests and other ecosystems;
- Adaptation of vulnerable species/ecosystems to the changing climate; and
- Adaptation of forest-dependant communities.

B. Mission Objectives:

The objectives of the Mission are:

1) Increased forest/tree cover on 5 m ha of forest/non-forest lands and improved quality of forest cover on another 5 m ha (a total of 10 m ha).
2) Improved ecosystem services including biodiversity, hydrological services and carbon sequestration as a result of treatment of 10 m ha.

3) Increased forest-based livelihood income of about 3 million households living in and around the forests.
4) Enhanced annual CO_2 sequestration by 50 to 60 million tonnes in the year 2020.

C. Mission Targets:

The Mission will have clear targets for different forest types and ecosystems which will enable achievement of the overall objectives of the Mission. The Mission targets10 m ha of forest/non-forest lands and includes:

1) Qualitative improvement of forest cover/ecosystem in moderately dense forests (1.5 m ha), open degraded forests (3 m ha), degraded grassland (0.4 m ha) and wetlands (0.1 m ha);
2) Eco-restoration/afforestation of scrub, shifting cultivation areas, cold deserts, mangroves, ravines and abandoned mining areas (1.8 m ha);
3) Bringing urban/peri-urban lands under forest and tree cover (0.20 m ha); and
4) Agro-forestry/social forestry (3 m ha). The Mission also targets improvement of forest-based livelihoods for about three million households living in and around forests.

An area of 19,643 hectares has been targeted under GIM in Mizoram wherein more than 3000 hectares have been encompassed under the intervention in Champhai Forest Division. Local communities played a key role in project governance and implementation in the field. The GIM has brought primacy to Village Councils in the village areas, and Local Councils in the municipal area, as overarching institutions to oversee GIM implementation at the village/local level. The village council/local council set up the revamped village forest development committees (VFDCs) as the primary institutions on the ground for nested decentralized forest governance. The GIM has also supported revamping/strengthening of the Forest Development Agency to support the field institutions. The independent evaluation of works was carried out by Forest Research Centre for Bamboo & Rattan (FRC-BR), Aizawl Mizoram (A Unit of RFRI, Jorhat Assam) under GIM in Champhai Forest Division and has encompassed various activities implemented during the year 2016-17,2017-18, 2018-19, 2019-20 and 2020-21.

Project area and locations:

The details of Project area and locations in 13 different JFMCs under the Champhai Forest Division under the different Sub Missions (SM) for the year 2016-17,2017-18, 2018-19, 2019-20 and 2020-21 are as below:

Table1. Detailed information of Seedling raised under Champhai Forest Division during the Financial Year-2016-17 (Advance Work) under different submission

Financial Year	Name of Landscape	Name of JFMC	Name of Submission	Name of Plantation site (Location)	No of seedling raised
	L-2	Chawngtlai	1(a)	Hruipui Ngaw	

REPORT ON MONITORING AND EVALUATION OF PLANTATION WORKS TAKEN UP BY FDAs UNDER GREEN INDIA MISSION (GIM) FOR THE YEAR

2016-17, 2017-18, 2018-19, 2019-2020 AND 2020-21

KOLASIB FDA (GIM)

MONITORING AGENCY:

BIODIVERSITY AND NATURE CONSERVATION NETWORK (BIOCONE)

GENERAL HEADQUARTERS, AIZAWL

REGISTRATION NUMBER – MSR 340 of 30.7.2010

INTRODUCTION

The National Mission for a Green India or the commonly called Green India Mission (GIM), is one of the eight Missions under the National Action Plan on Climate Change (NAPCC). It was launched in February, 2014 with the objective to safeguard the biological resources of our nation and associated livelihoods against the peril of adverse climate change and to recognize the vital impact of forestry on ecological sustainability, biodiversity conservation and food, water and livelihood-security.

It aims at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change through adaptation and mitigation measures. It envisages a holistic view of greening that extends beyond tree planting. GIM focusses on multiple ecosystem services such as biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration.

The Mission would strive for enhancing carbon sinks in sustainably managed forests and other ecosystems, adaptation of vulnerable species/ecosystems to the changing climate and adaptation of forest-dependent communities.

The goals include increased forest/tree cover and improved quality of forest cover in millions of hectares of forest/non-forest lands, improved ecosystem services including biodiversity, carbon sequestration and hydrological services along with provisioning services like fuel, fodder, and timber and non-timber forest produces and increased forest-based livelihood income of households living in and around forests. Traditional Ecological Knowledge of communities, along with forestry science and state-of-the-art technology would improve the Mission interventions.

GIM also aims at convergence with complementary schemes and programmes for better coordination in developing forests and their fringe areas in a holistic and sustainable way, which is required to address the challenges being faced in environment, forest and wildlife sectors.

A multidisciplinary team, both from Govt. and NGOs will be mandated to facilitate planning and implementation at cluster/landscape unit level. The Mission's emphasis on the landscape approach i.e. landscapes as large contiguous areas of forest/ non forest land, at different scale/levels provide better opportunity to meet targets for both National and State Forest policy.

An integrated cross-sectoral approach would be implemented on both public as well as private lands with the involvement of grass root level organizations and local communities in planning, decision making, implementation and monitoring. Moreover, GIM would take into account the forces of de-greening operating across the country and thereby give special emphasis to relate to processes that halt 'de-greening'.

SUMMARY OF KOLASIB FOREST DIVISION:

Kolasib Forest Division forms the nothernmost forest division of the state, bordering Assam.The division headquarters is located at Kolasib, the Administrative headquarters of the Kolasib District. The division comprises of 9 Forest Ranges namely Vairengte, Bilkhawthlir, Saipum, Buhchang, N Hlimen, Bairabi, Kolasib, Kawnpui, Bukpui.

The Green India Mission was initially started at four Forest Ranges of the Division in the year 2017 viz., Bairabi, Kolasib, Kawnpui, Bukpui range. As per the guidelines of the MoEF, GOI and Govt. of Mizoram Gazette Notification dated 13.11.2001, Kolasib FDA was constituted by a federation of VFDCs under Kolasib Forest Division, Kolasib District, and Mizoram.

Community land with certain characters, as per the allocation of the VFDC are considered for the establishment of plantation under the project. The short and long term objectives were set to augment forests resources, enhance livelihood of the community through forests, meet the local demand of fuel wood and fodder, etc. Components of the project are concerned to rehabilitation of degraded forests through different Sub-missions. The overall survival rates of the plantations are in the ranges of 80-85%. There is not much variation in the average growth rate in different types of the plantations.

Each VFDC opened bank account in a nationalized bank. One cash book and cheque/payment registers are maintained by the FDA. Assets register, member register, minute book, nursery records, plantation maps and kml files, etc. are also maintained. Plantation journal is also well maintained by each VFDC.

Most of the families within the project area are more or less dependent on forest produce and resources. Majority of them practiced the tradition ***lo neih*** system for their sustenance.

Report on

The Monitoring & Evaluation of Plantations works taken up by The Darlawn FDA Under the Green India Mission (GIM) For the Year 2017 – 2018, 2018 – 2019 and 2019 – 2020

Report Submitted by,

The Department of Forestry,
School of Earth Sciences & Natural Resources Management,
Mizoram University,
Aizawl, Mizoram
Pin 796004

INTRODUCTION:

Green India Mission (GIM) is one of the eight National Missions under the National Action Plan on Climate Change (NAPCC) which aims at not only increasing forest/green cover, improve the quality of forest and tree cover, but also to improve the ecosystem services such as carbon storage and sequestration, biodiversity, water services and sustainable supply of various non-timber forest products to the rural poor, and increase income from the forest-based livelihoods.

The Mission seeks convergence with other related missions of NAPCC, and other existing national missions at the project implementation sites such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Compensatory Afforestation Management and Planning Authority (CAMPA), National Afforestation Program (NAP), National Rural Livelihood Mission (NRLM), Integrated Watershed Management Program (IWMP), National Bamboo Mission (NBM) etc. to provide support base to the community based forest conservation and/or management, and in improving the livelihood of the community and their empowerment.

Mission Objectives

1. Increased forest/tree cover on 5 m ha of forest/non- forest lands and improved quality of forest cover on another 5 m ha of non-forest/ forest lands (a total of 10 m ha).
2. Improved ecosystem services including biodiversity, hydrological services, carbon Sequestration from the 10 m ha of forest/non-forest lands.
3. Increased forest-based livelihood income of about 3 million households, living in and around the forests.
4. Enhanced annual CO_2 sequestration by 50 to 60 million tonnes in the year 2022.

The Mission envisages taking a holistic view of greening that goes beyond tree planting to achieve carbon sequestration targets, contribute to nationally determined carbon (iNDC) contributions to climate change, and increase biodiversity, ecosystem restoration and provide economic security to the local communities at land scape level. The mission is expected to contribute substantially to other missions of NAPCC by ameliorating climate, proving food, water and livelihood security, and reducing vulnerability of forest-depended communities. For the state of Mizoram, GIM is implemented with the following 5 Sub-Missions (SM):

SM-1: Enhancing quality of forest cover and improving ecosystem services by bringing the following land use:

(a) Moderately dense forest cover showing degradation (ANR without plantation)

(b) Eco-restoration of degraded open forests (i) 200 plants/ha (ii) 1100 plants/ha (iii) 2500 plants/ha.

SM-2: Ecosystem restoration and increase in forest cover (through rehabilitation of shifting cultivation areas- with enrichment planting @1100 trees/ha).

SM-3: Enhancing tree cover in urban & peri-urban areas (including institutional lands)- 2500 plants/ha.

SM-4: Agroforestry and Social Forestry (increasing biomass & creating carbon sink) in the following types of lands:

(a) Farmers land including current fallows.

(b) Highways/Rural Road/Canals/Tank Bunds.

SM-5 Promotion of alternate fuel energy (Biogas/solar device, LPG, biomass based systems).

SUMMARY OF DARLAWN FOREST DIVISION:

Darlawn Forest Division cover parts of Aizawl and Saitual District. There are six forest ranges in the division namely – Darlawn, Khawruhlian, Phuaibuang, Ratu, Suangpuilawn and Zohmun Range. In Darlawn Forest Division, GIM programme was started from 2017 in the Khawruhlian Forest Range. The land covered under the project is mostly community land comprising seven JFMC such as: Buhban, E. Phaileng, Hmunnghak, Khanpui, Khawruhlian, Lailak and Pehlawn. The objectives of the project are set to augment forests resources, enhance livelihood of the community through forests, meet the local demand of fuel wood and fodder, etc. Components of the project are concerned to rehabilitation of degraded forests done through different Sub-missions. The overall survival of the plantations is ranging from 70 – 80%. Most of the families are dependent on forest produce and resources. The traditional 'lo neih' system of Cultivation is the major land use system in the project area.

The bank account of each VFDC is opened in a nationalized bank. One cash book and cheque/payment register is available with the FDA. Plantation journal is an important document for getting feedback for the plantation strategies, which is also well maintained. Assets register, member register, minute book, nursery records, plantation maps and kml files, etc. are also maintained. The plantation works, people's participation and afforestation, etc. was discussed with the community during the training programmes conducted for the community.

MONITORING REPORT
ON NATIONAL MISSION FOR A GREEN INDIA (GIM)

AIZAWL FOREST DIVISION

2021

Centre for Environment Protection (Cep),
B-27/1, Tuikual South, Aizawl – 796001, Mizoram.

GIM MONITORING REPORT

Introduction

A. Background:

The National Mission for a Green India (GIM), 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 biological resources of the country and the associated livelihoods of the people. Mission for a Green India (henceforth referred to as Mission) acknowledges the influences that the forestry sector has on environmental amelioration though climate mitigation, food security, water security, biodiversity conservation and livelihood security of forest dependant communities.

GIM puts *greening* in the context of climate change adaptation and mitigation. Greening is meant to enhance ecosystem services such as carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; as well as other provisioning services such as fuel, fodder, small timber and non timber forest products (NTFPs).

The Mission aims at responding to climate change by a combination of adaptation and mitigation measures, which would help:

- enhancing carbon sinks in sustainably managed forests and other ecosystems;
- adaptation of vulnerable species/ecosystems to the changing climate; and
- adaptation of forest-dependant communities.

B. Mission Objectives:

The objectives of the Mission are:

1) Increased forest/tree cover on 5 m ha of forest/non-forest lands and improved quality of forest cover on another 5 m ha (a total of 10 m ha).
2) Improved ecosystem services including biodiversity, hydrological services and carbon sequestration as a result of treatment of 10 m ha.
3) Increased forest-based livelihood income of about 3 million households living in and around the forests.
4) Enhanced annual CO_2 sequestration by 50 to 60 million tonnes in the year 2020.

C. Mission Targets:

The Mission will have clear targets for different forest types and ecosystems which will enable achievement of the overall objectives of the Mission. The Mission targets 10 m ha of forest/non-forest lands and includes:

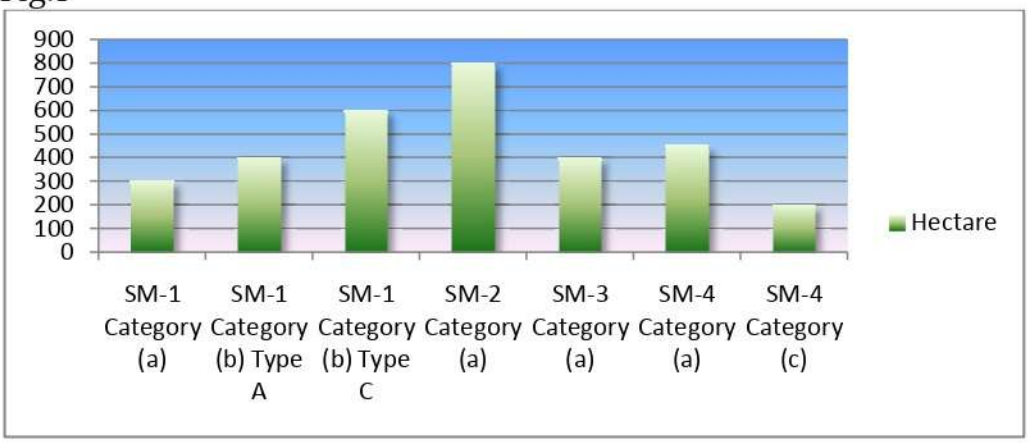
1) Qualitative improvement of forest cover/ecosystem in moderately dense forests (1.5 m ha), open degraded forests (3 m ha), degraded grassland (0.4 m ha) and wetlands (0.1 m ha);
2) Eco-restoration/afforestation of scrub, shifting cultivation areas, cold deserts, mangroves, ravines and abandoned mining areas (1.8 m ha);
3) Bringing urban/peri-urban lands under forest and tree cover (0.20 m ha); and
4) Agro-forestry/social forestry (3 m ha). The Mission also targets improvement of forest-based livelihoods for about three million households living in and around forests.

An area of 19,643 hectares has been targeted under GIM in Mizoram wherein 3150 hectares have been encompassed under the intervention in **Aizawl Forest Division**. Local communities have played a key role in project governance and implementation. The GIM has brought primacy to Village Councils in the village areas, and Local Councils in the municipal area, as overarching institutions to oversee GIM implementation at the village/local level. The village council/local council set up the revamped village forest development committees (VFDCs) as the primary institutions on the ground for nested decentralized forest governance. The GIM has also supported revamping/strengthening of the Forest Development Agency to support the field institutions. The independent evaluation of works carried out by Centre for Environment Protection (CEP) under GIM in Aizawl Forest Division has encompassed various activities implemented during the year 2016-17, 2017-18, 2018-19, 2019-20 and 2020-21.

Project area and locations:

The FDA/Aizawl Forest Division has taken up seven components under the Sub Missions (SM) and intervention of GIM as area of component-wise delineated below:

Fig.1



Sub Missions and intervention-wise project locations:

The Mission envisages a new approach in forest management i.e. through strengthening institutions for decentralized forest governance. Hence the revamped 12 Village Forest Development Committees (VFDCs) have implemented the Mission activities at the village/local level in Aizawl Forest Division. The intervention-wise project locations in the FDA are as given under.

S.No	VFDC	Sub-Mission/Intervention						
		SM-1 Category (a)	SM-1 Category (b) Type A	SM-1 Category (b) Type C	SM-2 Category (a)	SM-3 Category (a)	SM-4 Category (a)	SM-4 Category (c)
		Location	Location	Location	Location	Location	Location	Location
1	Sihphir	Herhse ngaw	Rawhak & Sethup kawn	Lungsâng ram	Sihpui & Sarep kawn	Sunhlu tlang, Sawirem tlang, Park, Thlanmual, School	Dâklalui zau, Neihbawih, Tuilut zau	NH-54 (Sihphir area)
2	Sihphir Venghlun	Keite tlak	Tuirini kam	Puansen, Chhura riah hmun	Nausel phai	Ramrilui leh tuipawl lui inkar	Ropûk zau	Puansen/Nausel road
3	Durtlang North	Saphal Mualbem	Saphal ram	Lungtat par ram	Lungtat par zau	Field area, ICFAI tlang, Thlanmual area, Hriang tlang zau	Saphal ram, Melriat, Bengbawng zau	Vety Collage to Lungtat par zau
4	Durtlang	Bengbawng hnar	Bengbawng hnar	Synod hospital complex	Bengbawng zau	Arbai zau & Bungmual	Bengbawng ram & Mualbem	Zuangtui road, Dawrkawn to Bengbawng field area
5	Muthi	Lungrang ngaw leh Bellei kawn ngaw	Muthi Bungtlang ram	Muthi Kawnpui ram leh Thing thlâwk ram	Muthi Bakpui Ram	Muthi Park & Village area	Phul chhuah, ManaPa ram, Zo kawng	Selesih road to Muthi
6	Zemabawk	Sanga bâwk ngaw	Bukpui zau	Zokhawsang	Assam Rifles hospital bul	Kel farm kawn to Chân kahna	Har ram, Pachuau mual & Bukpui zau	Assam Rifles complex
7	Chaltlang	Hawngtial ram	Hnimthei zau	Ngawimual ram	Bungmual ram	Maumual ram	Maumual, Hawngtial & Ngawimual ram	NH-54, Sairang, Zatuikawr to Bungmual road
8	Tanhril	Sihhâk & Setlâk ram	Thlanmual Park	Ramkhêk zau & Lawipu ram	Mualkhang ram	Zawngbete zau & MZU campus	Maute ram	MZU campus road & Khaw chhûng
9	Maubâwk	Bunglui ram	Chuan chung, Maubâwk	Thlanmual ram	Nghaltan ram	Tuithum zau	Ropûk zau	Maubâwk Tlawng road
10	Tlangnuam	Field thlang	Mauhak	Pengpui mual	Pharbawk tlang	Thlanmual ram	Phaizau	Agriculture link road

11	Melthum	Thlihiau sir	Thlihiau hnuai	Thlihiau hnuai	Chhêkhmun	World Bank road hnuai	Thlihiau sir	World Bank kawng sir
12	Hlimen	Rawthing hmun	Rawthing zau	Rawthing hmun	Daihnai	Quarry area, Thlanmual (inside village)	Daihnai, Ramri luikam, Tuikhur luikam	Zophei ram, Tuilut kawng

Physical and financial targets:

S.No.	Item of Works	2016-17		2017-18		2018-19		2019-20		2020-21	
		Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.	Phy.	Fin.
1	Sub-Mission 1 Category (a)										
	a) Advance Work (balance)			300	2025000						
	b) Advance Work	300	810000								
	c) Creation					113.8	1782000	41.4	912000		
	d) Maintenance										
	I Year							105.6	1442040		
	Sub-Total	**300**	**810000**	**300**	**2025000**	**113.8**	**1782000**	**147**	**2354040**		
2	Sub-Mission 1 Category (b) Type A										
	a) Advance Work (balance)			80	388800						
	b) Advance Work	400	1296000	320	1555200						
	c) Creation			80	1015200	129.1	1987200	56.16	1216000		
	d) Creation (2017-18 balance)					80	108000				
	e) Maintenance										
	I Year					80	648000	129.1	1470760		
	II Year							80	729600		
	III Year									80	577600
	Sub-Total	**400**	**1296000**	**400**	**2959200**	**209.1**	**2743200**	**265.3**	**3416360**	**80**	**577600**
3	Sub-Mission 1 Category (b) Type C										
	a) Advance Work (balance)			42	771120						
	b) Advance Work	600	4374000	558	10244880						
	c) Creation			42	1009260	211.3	11299500	50.9	3660480		
	d) Creation (2017-18 balance)					42	113400				
	e) Maintenance										
	I Year					42	850500	114.36	2982960		
	II Year							42	1004640		
	III Year									40	981960
	Sub-Total	**600**	**4374000**	**600**	**12025260**	**253.3**	**12263400**	**207.2**	**7648080**	**40**	**981960**
4	Sub-Mission 2 Category (a)										
	a) Advance Work (balance)			114	1508220						
	b) Advance	800	4104000	686	9075780						

	Work										
	c) Creation			114	2493180	269.3	9816660	103.96	5103840		
	d) Creation (2017-18 balance)					114	307800				
	e) Maintenance										
	I Year					114	1292760	244.2	3891920		
	II Year							114	1299600		
	III Year									114	1083000
	Sub-Total	**800**	**4104000**	**800**	**13077180**	**383.3**	**11417220**	**462.2**	**10295360**	**114**	**1083000**
5	Sub-Mission 3 Category (a)										
	a) Advance Work (balance)			51	1438965						
	b) Advance Work	400	5994000	349	9847035						
	c) Creation			51	1748790	145.3	11773166	19.36	2121920		
	d) Creation (2017-18 balance)					51	3029400				
	e) Maintenance										
	I Year					51	275400	41.4	3315500		
	II Year							51	2351100		
	III Year									51	2351100
	Sub-Total	**400**	**5994000**	**400**	**13034790**	**196.3**	**15077966**	**111.8**	**7788520**	**51**	**2351100**
6	Sub-Mission 4 Category (a)										
	a) Advance Work (balance)			97	901615	400	6480000				
	b) Advance Work	450	1892250	353	3281135						
	c) Creation			97	1126170	145.9	2954610	61.19	1743820		
	d) Creation (2017-18 balance)					97	680940				
	e) Maintenance										
	I Year					97	261900	145.9	1442240		
	II Year							97	921500		
	Sub-Total	**450**	**1892250**	**450**	**5308920**	**242.9**	**10377450**	**304.1**	**4107560**		
7	Sub-Mission 4 Category (c)										
	a) Advance Work (balance)			27	458676						
	b) Advance Work	200	2542400	173	2938924						
	c) Creation			27	838350	66.4	5558490	14.73	1477420		
	d) Creation (2017-18 balance)					27	874800				
	e) Maintenance										
	I Year					27	72900	54.7	2246127		
	II Year							27	761400		
	III Year									27	761400
	Sub-Total	**200**	**2542400**	**200**	**4235950**	**93.4**	**6506190**	**96.43**	**4484947**	**27**	**761400**
8	M & E				50000				800000		
9	Strengthening local level		36000		100000						

	institutions										
10	Strengthening of FDs				100000						
11	Mission organization, operation and maintenance, contingencies and overheads				132788				2100000		200000
Grand Total		**3150**	**21048650**	**3150**	**53049088**	**1492**	**60167426**	**1594**	**42994867**	**312**	**5955060**

Year-wise creation of plantation:

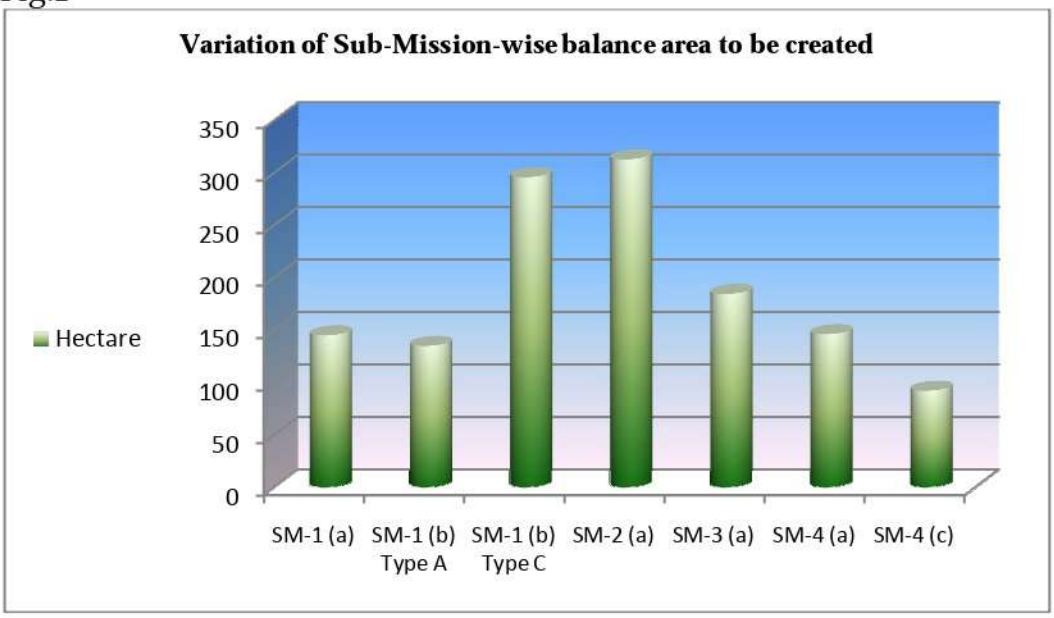
S.No	Sub-Mission	Category	Type	Target	2017 – 2018 (Area in hectare)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM-1	(a)		300	-	-	-	-	-	-	-	-	-	-	-	-	0	300
		(b)	A	400	6	7	6	6	7	7	7	7	7	7	7	6	80	320
		(b)	C	600	4	3	4	4	4	4	3	3	4	3	3	3	42	558
2	SM-2	(a)		800	10	10	9	9	9	9	10	10	9	10	10	9	114	686
3	SM-3	(a)		400	4	4	4	4	5	4	4	5	5	4	4	4	51	349
4	SM-4	(a)		450	8	9	8	8	8	8	8	8	8	8	8	8	97	353
		(c)		200	2	2	2	2	3	3	2	2	2	3	2	2	27	173
Grand Total				**3150**	**34**	**35**	**33**	**33**	**36**	**35**	**34**	**35**	**35**	**35**	**34**	**32**	**411**	**2739**

S.No	Sub-Mission	Category	Type	Target	2018 – 2019 (Area in hectare)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM-1	(a)		300	9.48	9.48	9.48	9.48	9.48	9.48	9.48	9.48	9.48	9.48	9.48	9.48	113.8	186.2
		(b)	A	320	9.65	13.3	9.65	9.65	13.3	9.3	9.3	13.3	9.3	9.3	9.3	13.7	129.1	190.9
		(b)	C	558	17.4	17.8	17.4	17.4	17.4	17.4	17.8	17.8	17.4	17.8	17.8	17.8	211.4	346.6
2	SM-2	(a)		686	15.7	27.6	20	20	31.8	20	23.5	27.6	20	23.5	23.5	16.1	269.3	416.7
3	SM-3	(a)		349	10.8	12.9	10.8	10.8	10.4	19.2	12.9	12.5	12.5	10.8	10.8	10.8	145.3	203.7
4	SM-4	(a)		353	9.1	12.8	9.1	9.1	13.2	9.1	13.2	11.2	17.4	11.2	13.2	17.4	145.9	207.1
		(c)		173	5	5	5	5	4.6	4.6	5	6.9	6.9	4.6	6.9	6.9	66.4	106.6
Grand Total				**2739**	**77.2**	**98.9**	**81.5**	**81.5**	**100**	**89.1**	**91.2**	**98.8**	**93**	**86.7**	**91**	**92.2**	**1081**	**1657.82**

S.No	Sub-Mission	Category	Type	Target	2019 – 2020 (Area in hectare)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM1	(a)		186.2	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	41.4	144.8
		(b)	A	190.9	4.21	5.79	4.21	4.21	5.79	4.04	4.04	5.79	4.04	4.04	4.04	5.96	56.2	134.7
		(b)	C	346.62	4.19	4.29	4.19	4.19	4.19	4.19	4.29	4.29	4.19	4.29	4.29	4.29	50.9	295.7
2	SM2	(a)		416.7	6.06	10.6	7.72	7.72	12.3	7.72	9.1	10.6	7.72	9.1	9.1	6.21	103.9	312.8
3	SM3	(a)		203.68	1.44	1.72	1.44	1.44	1.39	2.55	1.72	1.67	1.67	1.44	1.44	1.44	19.4	184.3
4	SM4	(a)		207.08	3.81	5.38	3.81	3.81	5.55	3.81	5.55	4.68	7.28	4.68	5.55	7.28	61.2	145.9
		(c)		106.6	1.11	1.11	1.11	1.11	1.02	1.02	1.11	1.53	1.53	1.02	1.53	1.53	14.7	91.9
Grand Total				**1657.8**	**24.3**	**32.3**	**25.9**	**25.9**	**33.7**	**26.8**	**29.3**	**32**	**29.9**	**28**	**29.4**	**30.2**	**347.6**	**1310.18**

In order to fulfil the various objectives of GIM under the National Action Plan on Climate Change (NAPCC) for long term conservation outcomes, the FDA has targeted an area of 3150 hectares wherein creation of forest for multiple ecosystem services has been started in 1839.82 hectares, and the remaining balance of 1310.18 hectares is yet to be created as and when fund is available. Sub-Mission-wise balance for creation out of the targeted 3150 hectares is as given below.

Fig.2



Year-wise maintenance of plantation:

The Mission was started in the project area in 2016-17 along with Advance Work and creation of plantation was initiated from 2017-18 onwards. Fund for maintenance has been received from the financial year of 2018-19 and vice versa.

S.No	Sub-Mission	Category	Type	Target	2018 – 2019 (1st Year Maintenance)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM-1	(a)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(b)	A	80	6	7	6	6	7	7	7	7	7	7	7	6	80	0
		(b)	C	42	4	3	4	4	4	4	3	3	4	3	3	3	42	0
2	SM-2	(a)		114	10	10	9	9	9	9	10	10	9	10	10	9	114	0
3	SM-3	(a)		51	4	4	4	4	5	4	4	5	5	4	4	4	51	0
4	SM-4	(a)		97	8	9	8	8	8	8	8	8	8	8	8	8	97	0
		(c)		27	2	2	2	2	3	3	2	2	2	3	2	2	27	0
Grand Total				**411**	**34**	**35**	**33**	**33**	**36**	**35**	**34**	**35**	**35**	**35**	**34**	**32**	**411**	**0**

S.No	Sub-Mission	Category	Type	Target	2019 – 2020 (1st Year Maintenance)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM1	(a)		113.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	105.6	8.2
		(b)	A	129.1	9.6	13.5	9.6	9.6	13.5	9.2	9.2	13.5	9.2	9.2	9.2	13.9	129.1	0
		(b)	C	211.4	9.4	9.63	9.43	9.43	9.43	9.43	9.63	9.63	9.43	9.63	9.63	9.63	114.4	97
2	SM2	(a)		269.3	14.6	24.5	18.3	18.3	28.3	18.3	21.3	24.5	18.3	21.3	21.3	15	244	25.3
3	SM3	(a)		145.3	3.1	3.7	3.1	3.1	3	5.3	3.7	3.5	3.5	3.1	3.1	3.1	41.3	104
4	SM4	(a)		145.9	8.2	13	8.2	8.2	13.5	8.2	13.5	10.9	18.9	10.9	13.5	18.9	145.9	0
		(c)		66.4	4.1	4.1	4.1	4.1	3.8	3.8	4.1	5.7	5.7	3.8	5.7	5.7	54.7	11.7
Grand Total				**1081.2**	**57.8**	**77.2**	**61.5**	**61.5**	**80.3**	**63**	**70.2**	**76.5**	**73.8**	**66.7**	**71.2**	**75**	**835**	**246.24**

S.No	Sub-Mission	Category	Type	Target	2019 – 2020 (2nd Year Maintenance)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM1	(a)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(b)	A	80	6	7	6	6	7	7	7	7	7	7	7	6	80	0
		(b)	C	42	4	3	4	4	4	4	3	3	4	3	3	3	42	0
2	SM2	(a)		114	10	10	9	9	9	9	10	10	9	10	10	9	114	0
3	SM3	(a)		51	4	4	4	4	5	4	4	5	5	4	4	4	51	0
4	SM4	(a)		97	8	9	8	8	8	8	8	8	8	8	8	8	97	0
		(c)		27	2	2	2	2	3	3	2	2	2	3	2	2	27	0
Grand Total				**411**	**34**	**35**	**33**	**33**	**36**	**35**	**34**	**35**	**35**	**35**	**34**	**32**	**411**	**0**

S.No	Sub-Mission	Category	Type	Target	2020 – 2021 (3rd Year Maintenance)												Total	Balance
					Sihphir	Sihphir Venghlun	Durtlang North	Durtlang	Muthi	Zemabawk	Chaltlang	Tanhril	Maubawk	Tlangnuam	Melthum	Hlimen		
1	SM1	(a)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		(b)	A	80	6	7	6	6	7	7	7	7	7	7	7	6	80	0
		(b)	C	42	4	3	4	4	4	4	3	3	4	3	3	3	42	0
2	SM2	(a)		114	10	10	9	9	9	9	10	10	9	10	10	9	114	0
3	SM3	(a)		51	4	4	4	4	5	4	4	5	5	4	4	4	51	0
4	SM4	(a)		97	0	0	0	0	0	0	0	0	0	0	0	0	0	97
		(c)		27	2	2	2	2	3	3	2	2	2	3	2	2	27	0
Grand Total				**411**	**26**	**26**	**25**	**25**	**28**	**27**	**26**	**27**	**27**	**27**	**26**	**24**	**314**	**97**

Annexure –A

Third Party Monitoring Report Status

Sno	State	Executive Summary	Assessment Year	Location of Forest Division	Survival Percentage	Status
1	Chhattisgarh	Green India Mission, Monitoring & Evaluation Report	2015-16 upto 2020-21	Kawardha, Bilaspur, Gariyaband, Katghora , Bastar, Kanker , S. Kondagaon, Baloda Bajar, Balrampur, Surguja	60 to 75%	Received Third Party Monitoring Report
2	Mizoram	Submission of Monitorring report of works under GIM	2016-17 upto 2020-21	1. Aizawal , 2.Champhai 3. Darlawn 4. Kolasib, 5. Thenzawl	80 to 85%	Received Third Party Monitoring Report
3	Manipur	MONITORING AND EVALUATION REPORT OF THE ACTIVITIES CARRIED OUT UNDER GREEN INDIA MISSION (GIM) IN MANIPUR	2015-16 to 2018-19	Central , Thoubal , Bishnupur, Ukhrul, Tamenglong, Churachandpur,Senapati ,Jiribam,Kangpokpi	65 to 80%	Received Third Party Monitoring Report
4	MP	Internal Monitoring Report including Division wise Survival Percentage	2018-19 to 2020-21	Satna Umaria S. Balaghat Hoshangabad South Seoni North Betul W. Betul Raisen Obedullaganj Sehore Dhar Jhabua Badwani Sendhwa South Sagar S. Panna Sheopur Shivpuri	60 to 75%	Received Third Party Monitoring Report
5	Punjab	A report on Monitoring and Evaluation of plantation raised under Green India Mission by Punjab Forest Department	2016-17 & 2017-18	Hoshiarpur, Dasuya, Ropar, Mohali and Nawashahr	65 to 80%	Received Third Party Monitoring Report
6	Odisha	Submission of Survival percentage of plantation under green india mission scheme	2016-17 upto 2020-21	Ghnumsur south, Kalahandi North, Bonai, Sundargarh, Balliguda, Bolangir, Angul, Rairangur	85 to 95%	1. Received one internal Monitoring Report of Survival Percentage 2. Third Party Appointed and Work Under Progress