



Ecosystem Services Improvement Project

a strategy for climate change mitigation

enhancement of forest cover

improvement of ecosystem services

livelihood opportunities for forest dependent communities

Fifth Support Mission, World Bank

28th October 2020

State- Madhya Pradesh

K. Raman, IFS, APCCF, Green India Mission, MP



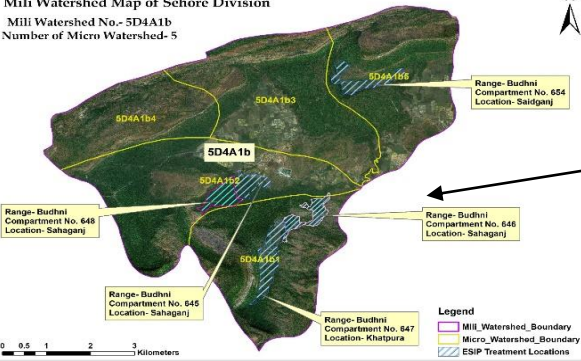
LOCATION MAP OF SELECTED LANDSCAPE UNDER ESIP

Madhya Pradesh



Mili Watershed Map of Sehore Division

Mili Watershed No.- 5D4A1b
Number of Micro Watershed- 5



Sehore
Budhni: 5D4A1b

Mili Watershed Map of Hoshangabad Division

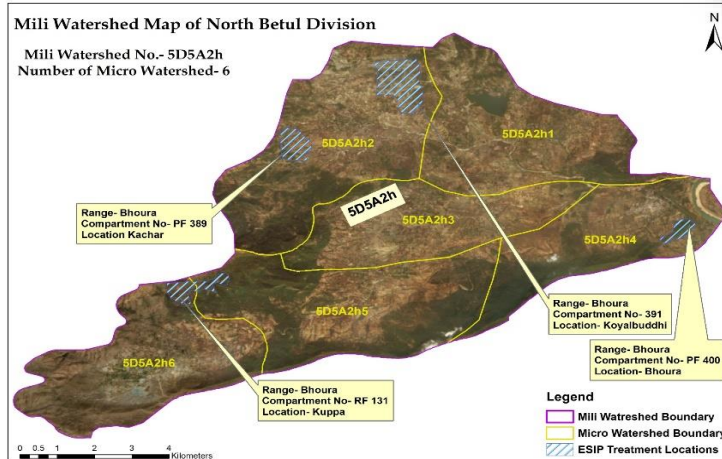
Mili Watershed No.- 5D3D6k
Number of Micro Watershed- 6



Hoshangabad
Kesla: 5D3D6k

Mili Watershed Map of North Betul Division

Mili Watershed No.- 5D5A2h
Number of Micro Watershed- 6



Betul
Bhaunra: 5D5A2h



demographic details of project areas

Division	villages	male	female	total	HH	Sex ratio	sc	st	sc %	ST %	literacy %
Hoshangabad	20	5616	5233	10849	2135	932	586	7630	5.40	70.33	47.92
Sehore	8	2381	2059	4440	921	865	921	1540	20.74	34.68	55.58
Betul	8	2819	2710	5529	1162	961	424	4241	7.67	76.70	50.12
total of project	36	10816	10002	20818	4218	925	1931	13411	9.28	64.42	51.20

S.No.	L1 Level Landscapes	L2 Level Landscapes		L3 Level Landscapes	Forest Area (ha)				Non Forest Area (ha)	Total Area (ha)
		Division	Milli-watershed		Micro Watershed	Dense Forest	Open Forest	Blank		
1	Satpura-Narmada	Hoshangabad	5D3D6k	7(5D3D6k1-7)	5,947.25	128.93	491.61	6,567.80	63.85	6,631.64
2		North Betul	5D5A2h	6(5D5A2h1-6)	3,622.99	1,063.96	754.28	5,441.23	4,139.34	9,580.58
	Satpura-Narmada Total				9,570.24	1,192.89	1,245.89	12,009.03	4,203.19	16,212.22
3	Vindhya Plateau	Sehore	5D4A1b	5(5D4A1b1-5)	1,187.83	1,443.48	98.19	2,729.50	1,676.75	4,406.25
Total	2	3	3	18	10,758.08	2,636.37	1,344.08	14,738.53	5,879.94	20,618.47



Cumulative Progress (as on 30 sept 2020)

1.Expenditure (Rs Lakh)	2448.30
2.Site preparation (ha.) -	2424
3. Plantation created (ha.) -	2424
4.Exposure visit organised (nos)-	17
5.Workshop conducted (nos)-	40
6.Capacity building (No. of Forest Staff trained)-	573
7.Trainings (No. of JFMCs members trained)-	5569
8.Livelihood ensured (nos)-	2475
9.Reimbursement claimed (Rs Lakh)	2026.37
10.Reimbursement claim settled (Rs Lakh)	2021.11



Socio Economic House Hold Survey

- A SES household survey questionnaire has been developed using the result framework indicators.
- Training to 21 forest department field staff from North Betul and Sehore forest divisions were trained to administer the questionnaire in the field and collect the data from the households of ESIP milliwatershed villages.
- Sample size for data collection – 5 % of the total household in the village
- Data collection from 64 hhs from N. Betul (Range- Bhaura) and 48 hhs from Sehore (Range- Budhni) landscapes has been collected.
- Online google spreadsheet has been created to enter the data as per the pre-designed questionnaire.
- N. Betul Bhaura has started entering the data

Cumulative Progress Component wise (2017-21)



S.No	Project Component	Financial Achievement (Rs Lakh)
1	Strengthening Capacity of Government Institutions in Forestry and Land Management Programs	183.24
2	Investments for Improving Forest Quality in Selected Landscapes-	2013.92
3	Scaling up SLEM in selected landscapes	83.03
4	Project Management and Coordination	168.09
5	Total	2448.28



1. Four consultants working for the project.
 - (i) Procurement cum Financial Management specialist
 - (ii) Social Dev. & Community Mobilization specialist
 - (iii) Forestry, Ecosystem services & Knowledge Management specialist
 - (iv) GIS and Database Expert: resigned in March 2020. New consultant recruited, joined on 12th October

Procurement Progress : SPIU MP



Description	INR in Rs. Lakh			Comments/remarks
	Total Value	Committed	Amt in Reporting Period	
RFQ	662.48	662.48	662.31	Procurement by operational units
Direct	38.89	38.89	38.89	GIS software Payment made
CQS	125.80	125.80	0	Government approval of RFP awaited
Indv	106.08	106.08	41.85	Remunerations to SPIU consultants
Total	933.25	933.25	743.05	

Problems faced in STEP submission of new activities-

- 2020-21 APO based 33 new activities submitted to Bank vide STEP
- STEP technical issue failed to generate the proposal
- On Bank's advise recalled the fresh procurement proposal
- Bank requested for further resolving the issue
- Above activities pertains to 4 nurseries in separate landscapes thus submitted separately for concurrence from Bank

SPIU M.P. STEP Status of Activities



Activity Summary

140 Activities in 1 Projects



- Pending & Under Implementation activities post pandemic under completion
- Mostly affected due to constraints in timely supply
- Pending activities expected to be completed by Dec. 2020
- Random post review exercise of completed activities carried out in Sept. 2020 by Bank

Monitoring & Evaluation: ESIP Result Framework & Monitoring



Indicators	PDO Level Results indicators	Cumulative Target year 2020	Achievement till June 2020	Remarks
Indicator One	People in targeted forest and adjacent communities with increase monetary or non-monetary benefits from forests (disaggregated by: Female; ethnic minority/indigenous people)	1500	996	
	Females		243	
	Ethnic minority/ Indigenous people		873	
Indicator Four	Targeted beneficiary groups engaged in participatory planning under the project	100	359	Households (out of 359 HHs 54.63% belongs to ST caste group)
Indicator Five	Direct Project beneficiaries of which female (Nos)	5000	7265	
Intermediate results 1.3	Government institutions provided with capacity building support to improve management of forest resources (No. of workshops)	8	19	7 in North Betul , Sehore & 5 in Hoshangabad Division
Intermediate Results 3.2	SLEM best practices disseminated on ICFRE knowledge platform (Nos)	3	0	Report of ESIP landscape of MP received. No suggested SLEM best

Monitoring & Evaluation: ESIP Result Framework & Monitoring



Intermediate Result (Component 2): Investments for improving forest quality in selected landscapes

Intermediate Result Indicators	Unit of Measure	Baseline 2015	Cumulative Target Value					End Target	Frequency	Description/ Definition
			2017	2018	2019	2020	2021			
Intermediate Results 2.2: Landscape area restored through treatment of 10,000 ha through project support	Ha	0	0	1079	2424				Annual	Details of plantation is uploaded on plantation monitoring system. Regeneration status of restored area is published on GIM landscape portal.

Livelihood activities in ESIP



Activities Livelihood	Total						
	Male	Female	Total	ST	SC	OBC	GEN
Mahua Collection and net distribution	698	225	923	767	74	56	26
Bee Keeping	28	0	28	28	0	0	0
Donapattal making	0	10	10	10	0	0	0
Sericulture	27	8	35	32	3	0	0
Vermicompost	259	2	261	203	20	33	5
Poultry	110	260	370	272	54	5	39
Dairy Farming	258	22	280	142	37	77	24
Mushroom cultivation	54	54	108	98	0	0	10
Fish farming	69	60	129	124	0	0	5
Light motor driving	5	0	5	3	2	0	0
Tailoring	0	231	231	148	38	34	11
Security guard	21	0	21	6	1	14	0
Computer training	32	30	62	39	23	0	0
Sanatry Unit	0	12	12	12	0	0	0
Grand Total	1561	914	2475	1884	252	219	120

Livelihood activities in ESIP



Mahua Net Distribution and Mahua Collection in ESIP Landscapes Hoshangabad & N. Betul

Mahua Net Distributed	763
Number of beneficiaries	610
Mahua Quantity Collected in quintals	272.44
Average earning per household	2000/-

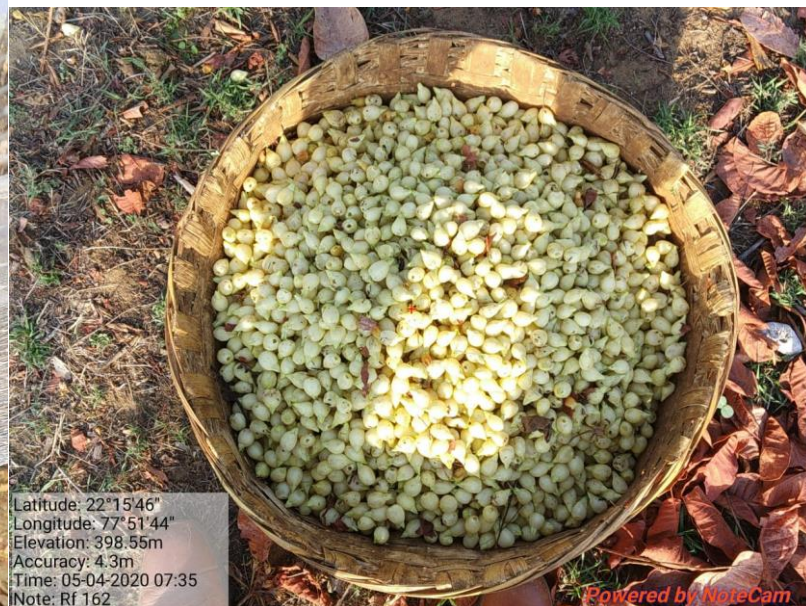


Figure 1: 2017, 2018-18 Fire Points of GIM Landscape in Hoshangabad

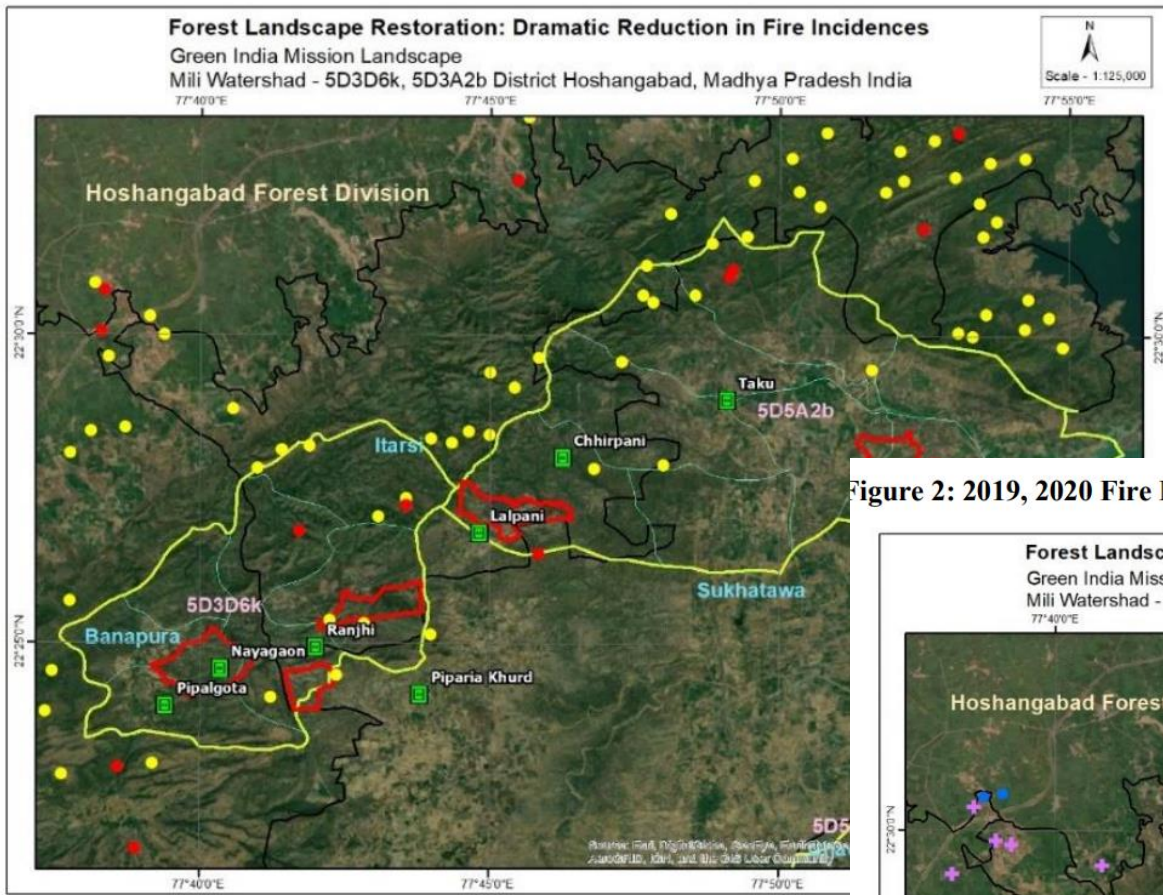
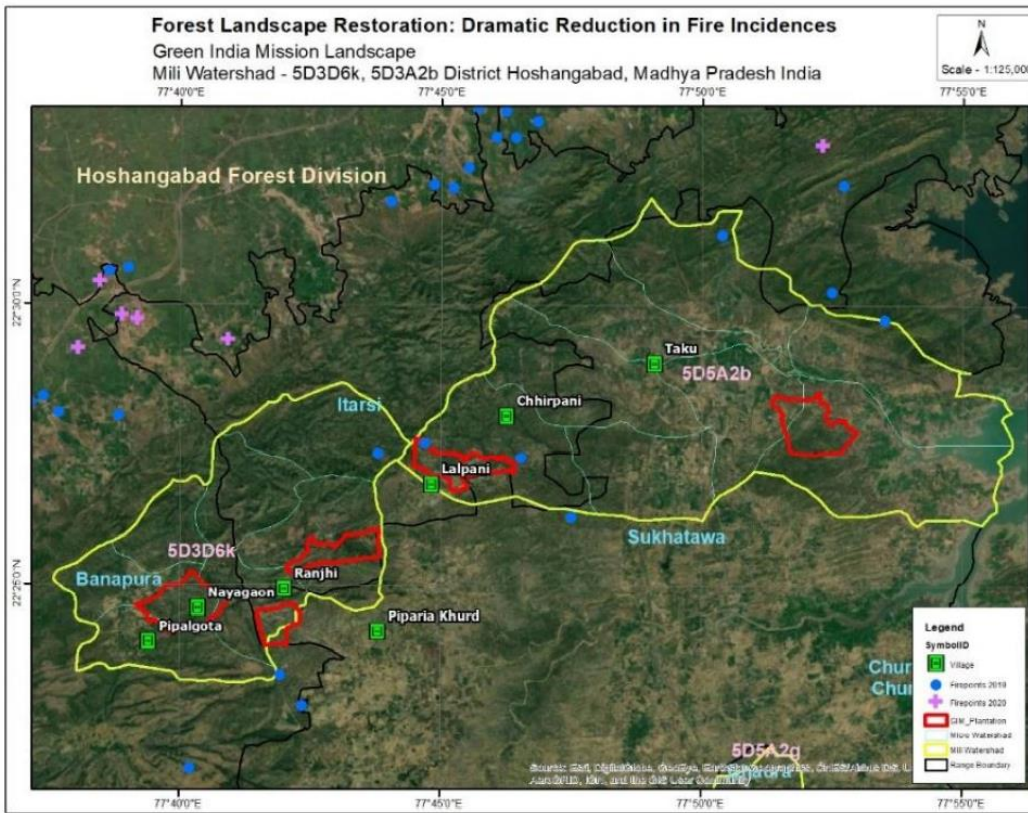


Figure 2: 2019, 2020 Fire Points of GIM Landscape in Hoshangabad Division



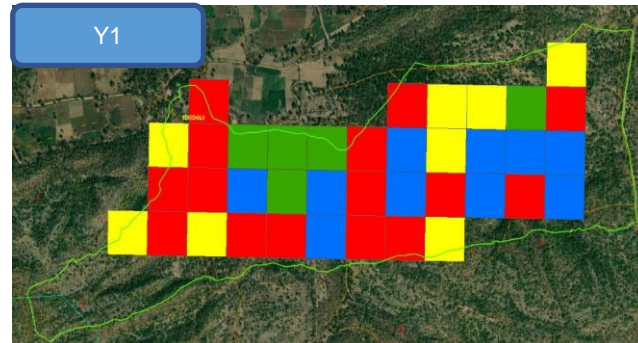
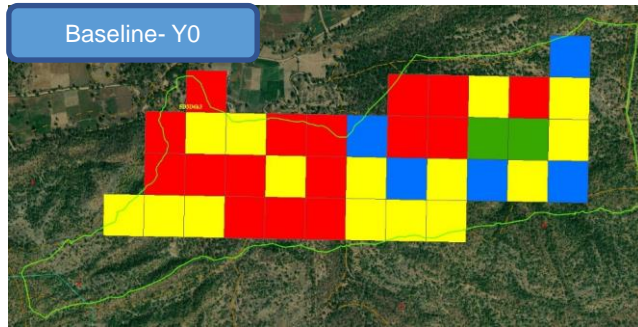
Impact of community participation: Dramatic reduction in Fire in two GIM landscapes

Table 4a: Mahua flower collected across forest ranges of Hoshangabad Division

S.No.	Range	Mahua Collection in quintals (n=348)							
		2018		2019		2020		Total	
		With net	Without net	With net	Without net	With net	Without net	With net	Without net
1	Sukhtawa	No Net distributed	110	25	30	40.41	209.59	65.41	349.59
2	Itarsi	No Net distributed	572	200	390	540	300	740	1262
3	Banapura	No Net distributed	173	14	50	110	401	124	624
Grand Total		0	855	239	470	690.41	910.59	929.41	2235.59

Livelihood of Forest dependent Communities
Case: Hoshangabad

Use of GIS in establishing Monitoring system Percent of area regenerating naturally



Division	Range	Comp No	No of Grids	Natural regeneration status at baseline Y0				Natural regeneration status year 1 of treatment Y1				Change %
				Negligible	Inadequate	Adequate	Profuse	Negligible	Inadequate	Adequate	Profuse	
Hoshangabad	Itarsi	RF 165	21	5	9	2	5	8	5	1	7	
		RF 166	17	11	6	0	0	7	3	4	3	
Total			38	16	15	2	5	15	8	5	10	
Percent of area regenerating naturally				18.42				39.47				21.1

- Above 2501-Profuse
- 1501 to 2500-Adequate
- 501 to 1500-Inadequate
- Less then 500-Negligible

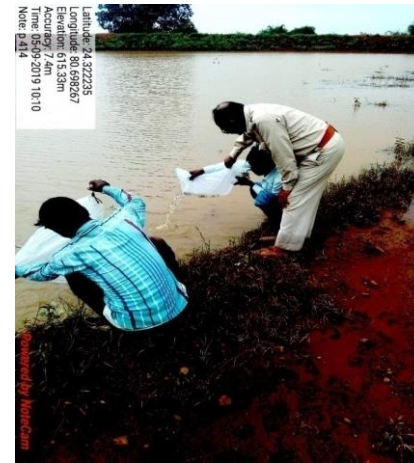
Division- Hoshangabad
 Range- Itarsi
 Compartment No- RF 165 and 166
 Y0= Baseline Year (2018)
 Y1= Year 1 (2019)

Community participation in Forest Management
Livelihood of forest Dependent Communities
Case: Hoshangabad

Livelihood activities in ESIP



Fish farming (Pisciculture) in ESIP landscape N.Betul and Sehore	
No. of Persons Trained	129
Seeds (baby fish)	2,25000
No. of persons started earning	59
No. of fish sold	697
Profit earned in INR	87,300/-



Livelihood activities in ESIP



Mask Making Livelihood Activity by Women SHGs in ESIP Landscapes Hoshangabad, N. Betul and Sehore

Number of SHGs involved in Mask making	13
Total Women involved	123
Total Mask Manufactured	More than 1.5 lakh
Total mask distributed to Health workers	13,450
Average income earned by one SHG member	3489/-



Livelihood activities in ESIP



Rakhi Making by "Arayana" SHG members in ESIP Landscapes N. Betul

Number of members trained	12
Raw material cost	2,500/-
Total Rakhi Made	400
Rakhi Sold	325
Profit earned in INR	2,200/-



Livelihood activities in ESIP



Poultry Farming livelihood activity in ESIP landscapes N. Betul and Sehore	
Number of beneficiaries	370
Chicks distributed	18,500
Number of beneficiaries started earning	145
Average earning per household (INR)	4000/-



ARIAL VIEW OF INFRASTRUCTURE BANSAPUR NURSARY

Green House

Poly-House

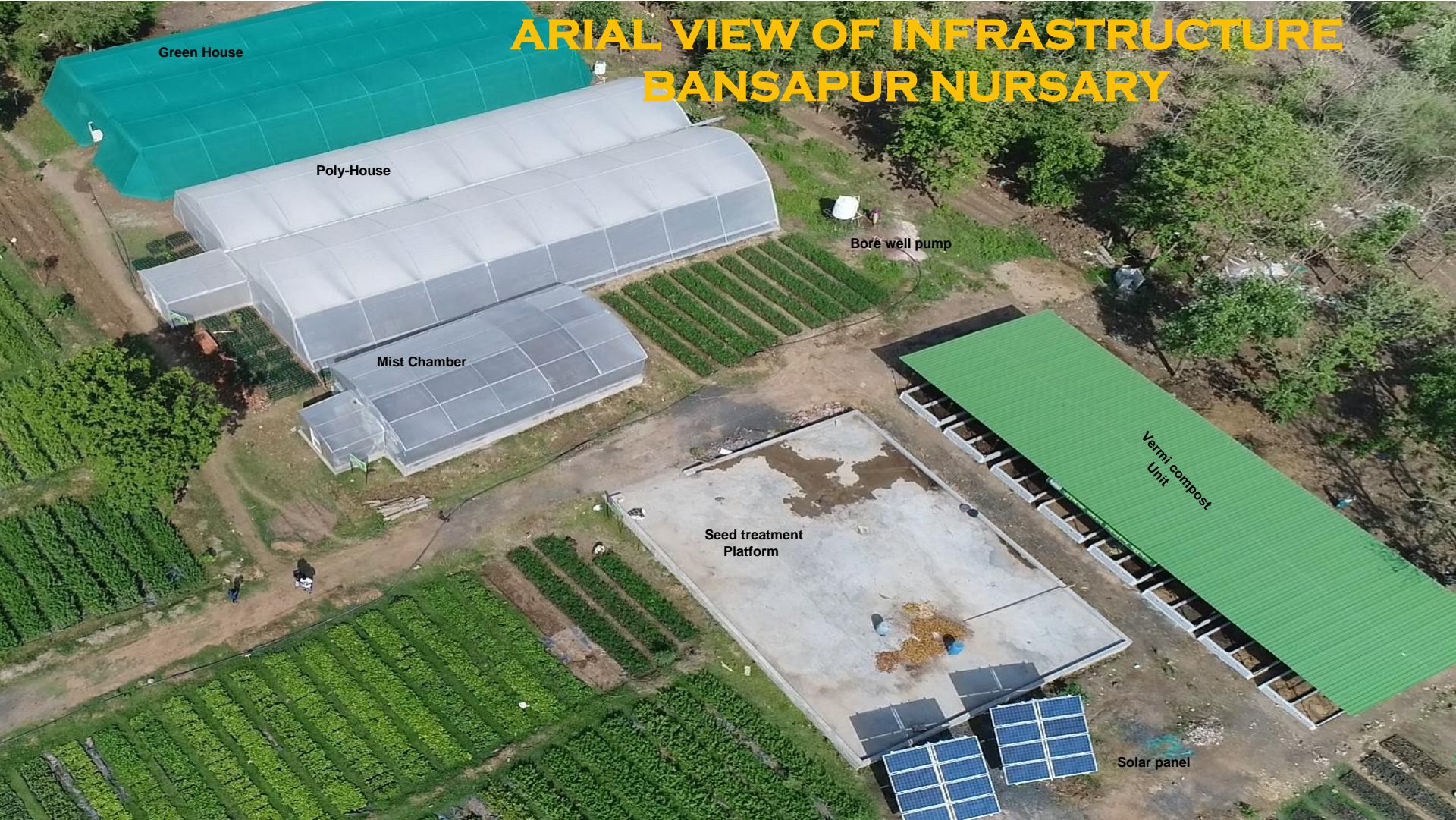
Mist Chamber

Bore well pump

Seed treatment
Platform

Vermi compost
Unit

Solar panel



GIS Training

GIS training Manual

=Resource Material

Ministry of Environment, Forest and Climate Change
Government of India

gef GLOBAL ENVIRONMENT FACILITY
INVESTING IN PEOPLE AND PLANETS

Capacity Building Program on

USE OF GEOGRAPHICAL INFORMATION SYSTEM (GIS)

Under
Ecosystem Services Improvement Project
Green India Mission
2019-2020

Training by :
INFORMATION TECHNOLOGY WING
Forest Department, Satpura Bhawan, Bhopal

Latitude: 23°49'19"N
Longitude: 78°48'34"E
Elevation: 556.27m
Accuracy: 3.8m
Time: 19-07-2019 12:32
Note: IT field training GIM sironja

Powered by NoteCam

Capacity Building- Training on Carbon Measurement Techniques

30th January to 1st February 2019



Sr. No.	Designation	Number of participants
1.	Addl. PCCF	3
2.	CCF	3
3.	DFO's	2
4.	SDO's	7
5.	RO's	14
	Total	29



Itarasi, Hoshangabad (MP)

17th June to 18th June 2019



Sr. No.	Designation	Number of participants
1.	Addl. PCCF	1
2.	CCF	1
3.	DFO's	6
4.	SDO's	17
5.	RO's	19
	Total	44

Brief Progress continued...



TALLY Accounting Training & support –

- SPIU MP to establish TALLY based financial management & accounting for GIM & ESIP
- Training carried out – 1st Phase: Hoshangabad (28-29 May), N. Betul (1– 4 June) & Sehore (11-14 June).
- 04 day training (2nd Phase) for division level participants in progress. H.O., H'bad, Betul, O'gunj, Sehore, Raisen, Balaghat, S. Seoni, Umaria, Satna, Dhar, Jhabua completed.
- Accountants/Comp. Operators, from 18 Divisions of GIM attending training.
- Installation of TALLY software in 11 Divisions and renewal of licenses in rest 07 Div.
- The SPIU & 18 Divisions online synchronization of TALLY for financial monitoring.

Use of GIS in establishing Monitoring system

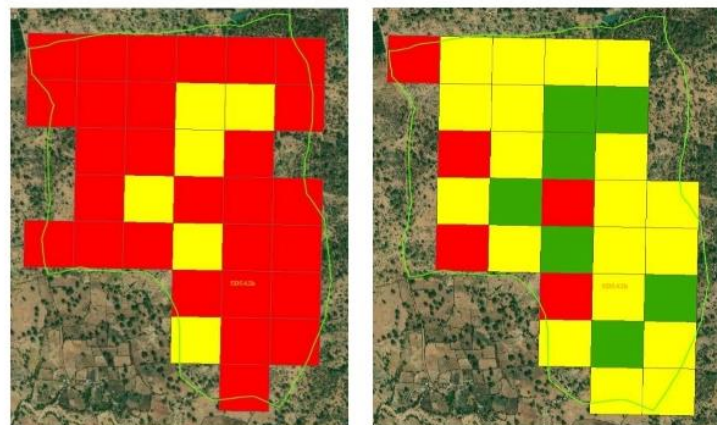
Percent of area regenerating naturally

Sl no	Division	Range	Comp No	No of Grids	Natural regeneration status at baseline year Y0				Natural regeneration status in year 1 of treatment Y1				Change % in area under natural regeneration
					Negligible	Inadequate	Adequate	Profuse	Negligible	Inadequate	Adequate	Profuse	
1	Hoshangabad	Itarsi	RF 165	21	5	9	2	5	8	5	1	7	
		Itarsi	RF 166	17	11	6	0	0	7	3	4	3	
2		Itarsi	RF 156	53	35	7	8	3	33	12	6	2	
3		Sukhatawa	PF 32	25	25	0	0	0	8	13	2	2	
			72 PF	31	31	0	0	0	14	13	1	3	
4		75 PF	40	40	40	0	0	0	7	24	8	1	
5	Banapura	RF 4&5	70	35	21	10	4	19	35	8	8		
Total				257	182	43	20	12	96	105	30	26	
percent of area naturally regenerating					12.45				21.8				9.3
6	North Betul	Bhoura South	PF 391	34	28	6	0	0	5	22	7	0	
7			P 400	4	4	0	0	0	2	2	0	0	
8			RF 131	11	5	6	0	0	4	6	1	0	
9			PF 389	9	2	7	0	0	0	9	0	0	
Total				58	39	19	0	0	11	39	8	0	
percent of area naturally regenerating					0.00				13.8				13.8
10	West Betul (T)	Mohda	PF 1487,88	41	26	13	0	2	29	13	3	2	
			RF 1268	14	14	0	0	0	22	1	0	0	
			RF 1269	36	3	33	0	0	37	3			
			RF 1264, 67	37	24	12	1	0	23	13	1		
Total				128	67	58	1	2	111	30	4	2	
percent of area naturally regenerating					2.34				4.69				2.3
11	South balaghat	Waraseoni	RF 483	13	7	3	3	0	2	0	11	0	
			RF 480	17	10	3	4	0	9	3	5	0	
			RF 481	31	19	8	4	0	11	10	10	0	
		Katangi	RF 567, 794, 570	27	10	9	8	0	3	12	12	0	
			RF 567	17	2	5	10	0	0	2	17	0	
			RF 756	9	4	3	2	0	4	1	3	0	
Total				114	52	31	31	0	29	28	58	0	
percent of area naturally regenerating					27.19				50.88				23.7

Above 2501-Profuse
1501 to 2500-Adequate
Inadequate
Negligible

Landscape	Satpura Narmada
Division	North Betul
Mili-watershed	5D5A2h
Range	Bhaura
compartment	PF 391
Beat	Koyalari
JFMC	Koyalbuddi
Scheme	ESIP
Project Duration	2018-2022
Submission	2.1.3 Investments in restoration works on degraded forestlands
project cost	192.58 lakhs
Area	75 ha
Planting Year	2019
soil organic carbon Yo	0.330 %
Plants Planted	75000
species	Teak, Karanj, Aonla, Shisoo, Bans, Baheda, Neem, Khamer
Survival %	97.12% (as on May 2020)

Status of Natural Regeneration		
	Baseline Year Y0	First Year Y1
No of Grids	34	34
Survey period	May 2019	October 2019
Regeneration per ha	231.61	1080.88
Area under Natural Regeneration (%)	0	20.59

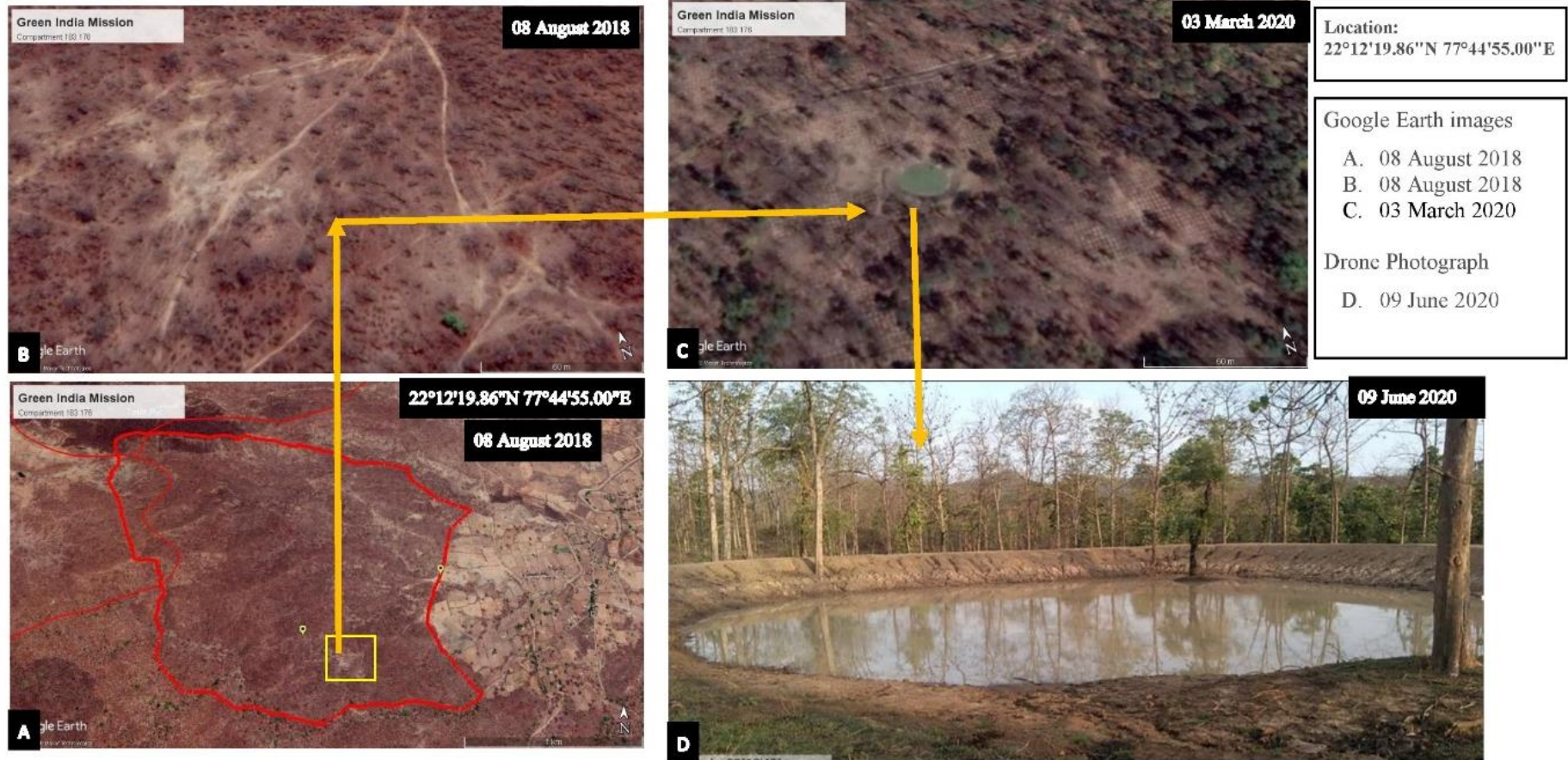


The Ground Reality



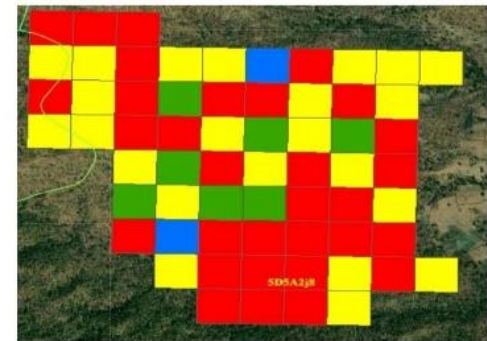
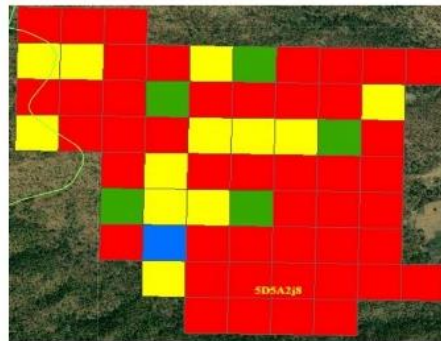
Case 2: Division- North Betul (Ecosystem Services Improvement Project)

2.1.3 Investments in restoration works on degraded forestlands



Landscape	Satpura Narmada
Division	North Betul
Mili-watershed	5D5A2j
Range	Shahpur
compartment	RF 183 & 176
Beat	West Mudha
JFMC	Muda & Kotha
Scheme	GIM
Project Duration	2018-2022
Submission	Sub Mission 1 (a) Moderately dense forest cover, but showing degradation
project cost	48.64 lakhs
Area	335
Planting Year	2019
Plants Planted	67000
species	Teak
Survival %	95.4 (as on October 2019)

Status of Natural Regeneration		
	Baseline Year Y0	First Year Y1
No of Grids	63	63
Survey period	June 2019	October 2019
Regeneration per ha	442.46	736.00
Area under Natural Regeneration (%)	9.52	14.29



The Ground Reality





Request for Post Facto Approval-

- i) Approval of 72 GNSS handsets procured for Rs. 33.05 lakh
 - APO FY 2018-19 had provisions of 62 handsets
 - In 2019-20 revised to 72 with approval from Bank
 - Handsets equally distributed to 18 GIM Forest Divisions

- ii) Approval of expenditure of Rs. 14,73, 880=00 in 2020-21 under Component 3: Scaling up SLEM in selected landscapes.

The expenditure is reported in April-June 2020 IUFR

Shortfalls & Challenges



- ✓ *Problems in STEP: Difficulty in uploading documents, lack of clarity in uploading documents to complete STEP procedures, need intensive training to understand the STEP procedures.*
- ✓ *Specialized agencies for focused M&E need to be clarified*
- ✓ *State wise project fund allocation details not provided in PAD, PIP or the cost table for the components 1 and 2 of the project*
- ✓ *Total project cost mentioned in PAD in USD where as State Share is in INR (1 USD=55INR) The USD rate to be considered now?*
- ✓ *Van Vigyan Kendra is proposed in Bansapur nursery. ICFRE has assigned TFRI, Jabalpur to prepare and provide detail plan for the Van Vigyan Kendra.*
- ✓ *Exposure visit of project team ???*



Thanks

71 KALA BAI कलाबाई F 61 SC
मोहन लाल मल्लो 4 D1,--,D3,--,D5,D6,-- 3
Khatpura, Budhni, Sehore with Mahua Laddoo in
Palash Dona Pattal,

D1: Households with one or less room, kuccha walls and kuccha roof

D3: Female headed household with no adult male member between 16 and 59

D5: SC/ST Households

D6: Landless households deriving a major part of their income from manual labour