



MONITORING & EVALUATION OF COMPENSATORY AFFORESTATION FUND MANAGEMENT AND PLANNING AUTHORITY (CAMPA) APO 2019-2020 STATE LEVEL REPORT



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Preface

India is endowed with a rich diversity of forest types and protected areas, including national parks and wildlife sanctuaries, which collectively cover 24.62% of the country's land. These forests are not only vital ecosystems but also support the livelihoods of approximately 173,000 communities, providing them with essential resources. Beyond their economic importance, forests act as critical carbon sinks and play a significant role in regulating water cycles.

Chhattisgarh is blessed with some of the most pristine and diverse natural resources in India. The state's landscape, comprising mountains, plateaus, and plains, supports a rich variety of ecosystems. The vast, undisturbed forests are the sources of major river systems such as the Mahanadi, Narmada, and Indravati, and they harbor a distinct array of flora and fauna. Forests cover 44.21% of the state's total land area, equivalent to 59,772 km², with reserved, protected, and unclassified forests making up 43.13%, 40.21%, and 16.65% of the total forest area, respectively. The state is also home to three national parks and eleven wildlife sanctuaries, which together cover 0.65 million acres, preserving 4.79% of the state's surface area as part of a reserve network.

Chhattisgarh's forests and wetlands face serious challenges. Both natural and human-induced factors have led to the depletion and degradation of the state's biological resources. Deforestation to expand agricultural lands has been a primary driver of biodiversity loss in wild areas. Additionally, the over-exploitation of bio-resources through firewood collection, uncontrolled grazing, and a rapidly growing population has further strained these ecosystems.

However, the pressure of industrialization and development—through projects such as dams, mines, roads, and other infrastructure—often necessitates the diversion of forest land. To mitigate these impacts, the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) is tasked with promoting afforestation and regeneration activities to compensate for the loss of forest cover.

The Union Minister of Environment, Forests, and Climate Change chairs CAMPA, which was established on July 10, 2009, by the Supreme Court of India. CAMPA's mission is to monitor, provide technical support, and assess compensatory afforestation efforts nationwide. The guidelines for state-level CAMPA bodies, including that of Chhattisgarh, were also laid out by the court. In Chhattisgarh, the State CAMPA was officially established under the State Forest Department on July 24, 2009, following directives from the Ministry of Environment and Forests. The primary responsibilities of the State CAMPA include restoring natural forests and enhancing the capacities of the state's forest departments involved in these efforts. In view of the above, this Monitoring and Evaluation was conducted for the projects of APO 2019-2020.

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LIST OF ABBREVIATIONS

CA	Compensatory Afforestation
CAMPA	Compensatory Afforestation fund Management and Planning Authority
MoEFCC	Ministry of Environment, Forests and Climate Change
FCA	Forest Conservation Act 1980
WPA	Wildlife Protection Act 1972
IFA	Indian Forest Act 1927
CSFD	Chhattisgarh State Forest Department
PCCF	Principal Chief Conservator of Forests
CCF	Chief Conservator of Forests
CF	Conservator of Forests
DFO	Divisional Forest Officer
RFO	Range Forest Officer
RF	Reserve Forest
RKM	Running Kilometer
NPV	Net Present Value
SMC	Soil and Moisture Conservation
PA	Protected Areas
APO	Annual Plan of Operations
SO	Silvicultural Operations
FDA	Forest Development Agency
NAP	National Afforestation Programme
NTFP	Non-timber Forest Produce
CFD	Chhattisgarh Forest Division
ToF	Trees outside Forests
WL	Wildlife
WMP	Wildlife Management Plan
GPS	Global Positioning System
CMFA	Construction & Maintenance of Forest Assets
GCP	Green Cover Plantation
OA	Orange Area

JFMC	Joint Forest Management Committees
EDC	Eco-Development Committees
NTFP	Non-Timber Forest Products
BWCD	Brush Wood Check Dam
LBCD	Loose Boulder Check Dam
EGP	Earthen Gully Plug
ECD	Earthen Check Dam
SMCD	Stone Machinery Check Dam
MPT	Mini-Percolation Tank
SCT	Staggered Contour Trench
SD	Stop Dam
CT	Contour Trenches
GS	Gabion Structures
MB	Measurement Book

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Background

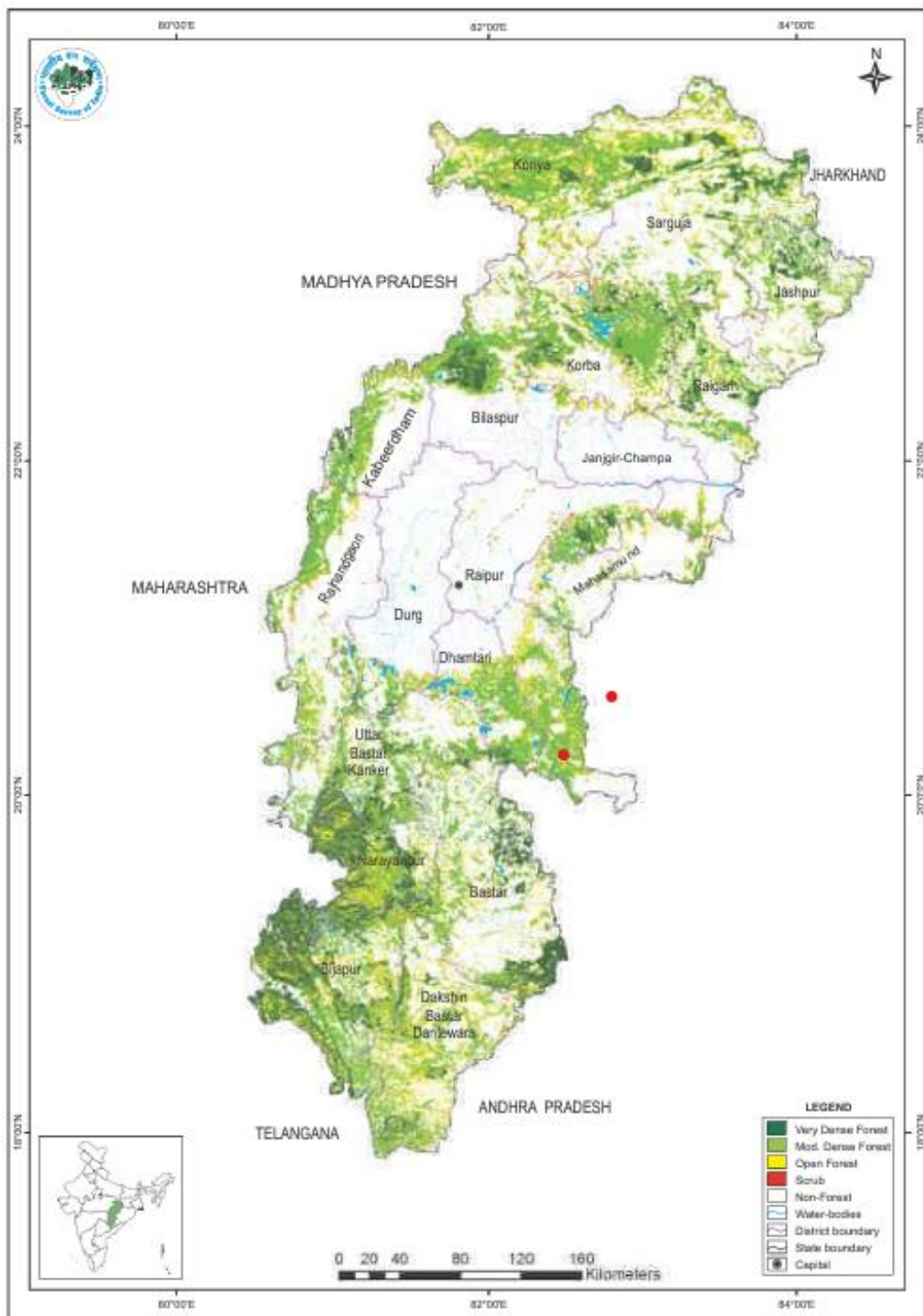
1.1 Overview

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. Chhattisgarh is gifted with the most pristine and abundant set of natural resources in the country. Chhattisgarh has the 3rd largest forest cover in the country. The state is surrounded by the forests in Madhya Pradesh, Odisha, Maharashtra, Jharkhand and Telangana making it India's largest covered forests across state boundaries. The recorded forest area in the state is 55,717 sq. km which is 41.21 percent of its geographical area. Reserved, Protected and Unclassed Forests constitute 43.13 percent, 40.21 percent, and 16.65 percent of the total forest area respectively. The state has three National Parks and eleven Wildlife Sanctuaries covering an area of 0.29 million ha and 0.36 million ha respectively. Though there are number of Protected Areas and Reserves, across the state, Achanakmar-Amarkantak Biosphere Reserve is an UNESCO recognised Biosphere with the total area of 383,551 hectares (3835.51 Sq. km). A total of 0.65 million ha area constituting 4.79 percent of the geographical area of the state is under protected area network. In terms of forest canopy density classes, the state has 7,068 sq. km of very dense forests (VDF), 32,279 sq. km of moderately dense forests (MDF) and 16,370 sq. km of open forests (OF).

There is a net decrease of 106 sq. km in the forest cover from the reported area in FSIR 2019. This has occurred due to refinement of interpretational methodology on the one hand and availability of satellite data of appropriate season with improved quality as compared to previous years. Tree cover of the state has been estimated using trees outside of forests (TOF) inventory data using boundaries of RFA or Green Wash. The extent of forest cover outside the RFA/GW in the state is 13,250 sq. km and tree cover is about 5355 sq. km. The total Carbon Stock of forests in the state including the ToF patches which are more than 1 ha in size is 496.44 million tonnes (1820.28 million tonnes of CO₂ equivalent), which is 6.89% of total forest Carbon of the country. Six districts of the state namely Bijapur, Surguja, Dantewada, Bastar, Koriya, Narayanpur and Korba hold large areas as forests.

The area estimates of various wetland categories for Chhattisgarh have been carried out using GIS layers of wetland boundary, water-spread, aquatic vegetation, and turbidity. Total 7711 wetlands have been mapped at 1:50,000 scale in the state. In addition, 27823 wetlands (smaller than 2.25 ha) have also been identified and delineated as point feature. Total wetland area estimated is 337966 ha that is around 2.5 percent of the geographic area. The major wetland types are River/Stream accounting for about 53 percent of the wetlands (179088 ha), Reservoirs (90389 ha), and Tanks/Ponds (40226 ha). The small wetlands (< 2.25 ha) accounts for about 8.2 percent assuming that each is of one ha.

Forest cover map of Chhattisgarh state



District-wise Forest cover in Chhattisgarh

District	Geo-graphical Area (GA)	2021 Assessment				%of GA	Change wrt 2019 assessment	Scrub
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total			
Bastar ^T	10,470	937.72	2,104.39	1,190.24	4,232.35	40.42	-0.51	41.52
Bijapur ^T	8,530	2,047.13	2,991.56	1,499.57	6,538.26	76.65	26.11	4.47
Bilaspur ^T	8,272	399.22	1,569.99	491.59	2,460.80	29.75	3.91	46.12
Dantewada ^T	8,298	250.57	2,325.76	1,896.47	4,472.80	53.90	9.65	39.28
Dhamtari	4,084	49.00	1,384.66	426.29	1,859.95	45.54	0.83	10.66
Durg ^T	8,535	44.00	511.74	221.41	777.15	9.11	0.76	20.86
Janjgir-Champa	3,853	2.00	22.25	127.17	151.42	3.93	1.53	13.93
Jashpur ^T	5,838	225.31	1,316.76	576.56	2,118.63	36.29	2.86	21.52
Kabeerddham	4,235	80.61	1,077.87	389.40	1,547.88	36.55	-0.84	12.58
Korba	6,598	203.00	2,313.03	884.90	3,400.93	51.54	7.23	91.02
Koriya	6,604	80.88	2,580.69	1,443.80	4,105.37	62.16	8.76	60.20
Mahasamund	4,790	4.00	515.34	428.90	948.24	19.80	3.27	29.75
Narayanpur ^T	4,653	1,126.69	1,688.70	982.04	3,797.43	81.61	1.13	19.64
Raigarh ^T	7,086	237.96	1,590.95	794.54	2,623.45	37.02	3.12	27.70
Raipur	12,383	146.00	2,402.93	1,086.92	3,635.85	29.36	5.93	53.83
Rajnandgaon ^T	8,070	31.00	1,755.64	752.81	2,539.45	31.47	4.27	46.81
Surguja ^T	15,732	714.29	3,923.54	2,471.93	7,109.76	45.19	27.15	67.27
Uttar BastarKanker ^T	7,161	488.83	2,202.79	705.26	3,396.88	47.44	0.87	8.10
Grand Total	1,35,192	7,068.21	32,278.59	16,369.80	55,716.60	41.21	106.03	615.26

The area under different forest types of Chhattisgarh as per the Champion & Seth Classification (1968), according to the Atlas Forest Types of India 2020 are presented in the following Table (FSI, report).

SL. No.	Forest Type	Area	% of the total mapped area*
1.	3B/C1c Slightly moist teak forest	3,619.06	6.44
2.	3B/C2 Southern moist mixed deciduous forest	8,778.21	15.61
3.	3C/C2e (i) Moist peninsular high level sal	843.59	1.50
4.	3C/C2e (ii) Moist peninsular low level sal	9,350.91	16.63
5.	3/E1 <i>Terminalia tomentosa</i> forest	11.92	0.02
6.	3/2S1 Dry bamboo brakes	0.76	0.00
7.	5A/C1b Dry teak forest	242.52	0.43
8.	5A/C3 Southern dry mixed deciduous forest	15,315.84	27.24
9.	5B/C1c Dry peninsular sal forest	8,591.22	15.28
10.	5B/C2 Northern dry mixed deciduous forest	7,388.21	13.14
11.	5/D51 Dry deciduous scrub	627.82	1.12
12.	5/E9 Dry bamboo brakes	840.04	1.50
	Sub Total	55,610.10	98.91
13.	TOF/Plantation	609.99	1.09
	Total (Forest Cover & Scrub)	56,220.09	100.00

*Forest Types have been assigned to the natural forest formations under forest cover and scrub categories shown in forest cover mapping (ISFR, 2019). The total mapped area, therefore, is sum of forest cover and scrub

Chhattisgarh is possibly the last home of genetically un-swamped and critically endangered wild Buffalo (*Bubalus bubalis*) and Bastar myna (*Gracula religiosa*), and quite rightly the State has declared them as a State Animal and a State bird respectively. Chhattisgarh is a tribal dominated state in the country with extensive forest areas bearing the prints of traditional use. Large forest tracks of the state have been under scientific management for over a century. The landform, the soil and the rainfall attributes of state allow for large biodiversity of crop cultivator and land races. These unique features cause Chhattisgarh to have extremely rich biodiversity within the old growth forest systems, the traditionally influence forest systems, the managed forest systems and the agropastoral systems. On all these considerations Chhattisgarh encompasses highly rich biodiversity of crucial significance at the national level. With its two major most forested water basins; State is one of the biggest carbon sink of the country & strong contributor to soil and water securities of neighboring states also.

The State of Chhattisgarh is served by four river basins namely, Ganga (18600 sq. km), Mahanadi (74997 sq. km), Godawari (39553 sq. km) and Narmada (1950 sq. km). The State has surface water resources available for use around 41720 MCM It is estimated that 43 lakh ha area can be irrigated as against the existing irrigation potential of 13.37 lakh ha. Around 35% of the geographical area of the State (48,23,863 hectares) is net sown area. Janjgir-Champa district has the maximum percentage (71.17%) of net sown area while Dantewada district has the lowest percentage (29.15%). In 8,20,050 hectares i.e., 16.99% land of net sown area, the crops are taken twice or more. Maximum double crop area is observed in Dhamtari district (49.90%) and the least in Dantewada (1.61%).

The following are the major crops cultivated in Chhattisgarh state: food grains, Paddy/Rice, Makka (Maize), Wheat, Jwar, Barley, Pulses, Gram, Arhar, Oil Seeds, Alsi, Mustard, Soya bean, Groundnut, Sugarcane, etc. Chhattisgarh appears to be comfortably placed in terms of Ground Water (GW) potential available for use. Due to rapid urbanization and industrialization the underground water table is decreasing very fast and now people residing in the urban areas are facing problems of drinking water. Geological studies reveal that there are not good aquifers in the upper crust. The upper layer consists of hard impermeable limestone rocks retaining percolation of pond's water. Ponds technology of water harvesting, and utilization is very successful in Chhattisgarh.

The State of Chhattisgarh lies in the Deccan Bio-geographic Area, which houses rich and unique biological diversity. Forests are an important natural resource for Chhattisgarh not only for its environmental importance but also because a significant population lives in close harmony with it. The preservation of this delicate forest-tribal interface is crucial for reasons far beyond ecological, social, cultural, and economic. The State is conspicuously significant with rich endemic fauna and flora especially

herbal plants of medicinal importance. Sal (*Shorea robusta*) and Teak (*Tectona grandis*) are two major tree species in the State. Other notable wood species are Bija (*Pterocarpus marsupium*), Saja (*Terminalia tomentosa*), Dhawra (*Anogeissus latifolia*), Mahua (*Madhuca indica*), and Tendu (*Diospyros melanoxylon*) etc. Aonla (*Emblica officinalis*), Karra (*Cleistanthus collinus*) and Bamboo (*Dendrocalamus strictus*) constitute a significant chunk of middle canopy of State's forests.

The total number of plant species included in this exhaustive inventory of medicinal plants of Chhattisgarh state stands at 1525. The plant entities exhibited in this inventory of medicinal plants of Chhattisgarh state belongs to 911 genera and 196 families. These include 14 taxa at subspecies level. After incorporating the linkages of botanical synonyms, the total number of medicinal plant species (taxa) stand at 1525. As part of forest management, more focus is needed on arresting further degradation and raising quality plantations on them through community participation. New plantations have to be taken up considering the local usufruct needs of neighbouring human and animal populations to compensate for the loss due to land diversion and mining. Adequate incentives can be created for agro-forestry, and funds from carbon trade employed for better maintenance of the forests.

In the management of local community institutions, the skills and capacities of PRIs, JFMCs and Biodiversity Management Committees (BMCs) have to be improved on the following aspects: natural resource management, bio-diversity conservation and protection of conservation concern species, sustainable wild collection, augmented plantations, etc. Such activities can be effectively implemented with funds generated by CAMPA and other externally funded projects.

1.2. CAMPA-Concept and guidelines for states

Many development and industrial projects such as erection of dams, mining, and construction of industries or roads require diversion of forest land. Any project proponent, government or private must apply for forest clearance from Ministry of Environment and Forests & Climate Change (MoEF&CC), before the conversion of land take place. This proposal is to be submitted through the concerned forest department of the state government. If clearance is given, then compensation for the lost forest land is also to be decided by the ministry and the regulators. Due to certain discrepancies in the implementation of compensatory afforestation, some NGOs had approached The Hon'ble Supreme Court for relief. The Hon'ble Supreme Court on 10th July 2009 issued orders that there will be a Compensatory Afforestation Fund Management and Planning Authority (CAMPA) as National Advisory Council under the chairmanship of the Union Minister of Environment & Forests for monitoring, technical assistance and evaluation of compensatory afforestation activities.

The Ministry of Environment and Forests in 2004, in pursuance of the order of the Hon'ble Supreme Court of India dated 30-10-2002, constituted the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) for the purpose of management of money collected towards compensatory afforestation (CA), net present value (NPV) and any other money recoverable from the user agencies for utilizing forest land for non-forest purposes under the Forest (Conservation) Act, 1980. The MOEF, Government of India in 2009 issued guidelines for operating the funds under the CAMPA. Works implemented under the CAMPA include, (a) raising of compensatory plantations, (b) project specific activities in and around the project area for which forest land has been diverted (fencing of safety zone, raising of plantation in safety zone, canal plantation, medicinal plantation, soil and moisture conservation works, supply of energy saving devices to the people living in fringe villages, etc.) and (c) activities for the utilization of NPV (forest consolidation, forest protection, regeneration in natural forests, wildlife protection and management, infrastructure development, etc.).

The Government of India has given detailed guidelines to the state governments regarding management of works under CAMPA. These include constitution of State Government Body, State Steering Committee and State Executive Committee. The Governing Body under the Chairmanship of the hon'ble Chief minister shall lay down the broad policy frame work for the functioning of the State level CAMPA and review its working from time to time. The State Steering Committee under the Chairmanship of the Chief Secretary to Government shall approve the Annual Plan of Operations (APO) and lay down the rules and procedures for the functioning of its Executive Committee and ensure interdepartmental co-ordination. The State Executive Committee under the Chairmanship of the Principal Chief Conservator of Forests shall prepare the Annual Plan of Operations and oversee its implementation after its due approval.

The scope of this evaluation exercise is limited to (1) assess the process of execution of various project activities under CAMPA; (2) assess the utilization of the works carried out and assets created under the CAMPA; (3) assess the impact of generated after the execution of various project activities under CAMPA; (4) prepare the recommendations to improve the effectiveness of project activities under CAMPA.

The State CAMPA would presently receive funds collected from user agencies towards compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, Net Present Value (NPV) and all other amounts recovered from such agencies under the Forest (Conservation) Act, 1980 and presently lying with the Adhoc CAMPA. The State CAMPA would administer the amount received from the Adhoc CAMPA and utilize the funds collected for undertaking compensatory afforestation, assisted natural regeneration, conservation and protection of forests, infrastructure development, wildlife conservation and protection and other related activities and for matters connected therewith or incidental thereto. State CAMPA would serve as a common repository of funds accruing on account of compensatory afforestation and NPV. It would deploy funds as per guidelines governing the use of funds for conservation, protection and management of forests. The amounts would also be deployed for wildlife preservation and enhancement of wildlife habitats. State CAMPA would provide an integrated framework for utilizing multiple sources of funding and activities relating to protection and management of forests and wildlife. Its prime task would be regenerating natural forests and building up the institution engaged in this work in the State Forest Department including training of the forest officials of various levels with an emphasis on training of the staff at cutting edge level (forest range level). In short, the department would be modernized to protect and regenerate the forests and wildlife habitat. The guidelines also mention about establishment of an independent system for concurrent monitoring and evaluation of the works implemented in the States utilizing the funds available. In sum, the prime task of State CAMPA would be regenerating natural forests and building up the institution engaged in this task in the State Forest Department.

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

The Functions of State CAMPA shall include (i) funding, overseeing and promoting compensatory afforestation done in lieu of diversion of forest land for non-forestry use under the Forest (Conservation) Act, 1980; (ii) overseeing forest and wildlife conservation and protection works within forest areas undertaken and financed under the programme; (iii) maintaining a separate account in respect of the funds received for conservation and protection of Protected Areas; (iv) creating transparency for the programme and mobilizing citizen support; and (v) earmarking up to two percent of the funds for monitoring and evaluation. The monies received in the State CAMPA shall be kept in interest-bearing account(s) in nationalized bank(s) and periodically withdrawn for the works as per the Annual Plan of Operations (APOs) approved by the Steering Committee.

The State CAMPA, Chhattisgarh is constituted as a government authority under the State Forest Department vide its notification No. F 5-23/2004/10-2 dated 24/07/2009 as per the guideline issued by Ministry of Environment & Forests dated 02/07/2009. The State CAMPA Fund is being utilized as per the provisions laid down in the aforesaid guidelines. Every year, an Annual Plan of Operation for utilizing the fund is prepared by the Executive Committee and approved by the Steering Committee under the chairmanship of the Chief Secretary of the State. Various activities being carried out by Chhattisgarh Forest Department under the CAMPA include raising seedlings, raising plantations and maintenance of plantations under the Compensatory Afforestation (CA) component, site specific activities (as specified in forest diversion projects), consolidation of forest boundary, forest protection, forest conservation, forest regeneration, wildlife protection and management, infrastructure development, etc. under the component of utilization of Net Present Value (NPV).

The Chhattisgarh state CAMPA was constituted with a prime objective of raising compensatory afforestation as provided in the statutory provisions of FCA 1980. Under 'Compensatory Afforestation' head, activities including, raising of planting stock, site preparation, afforestation and maintenance of old plantations are carried out as per guidelines. These works are taken up strictly as per the conditions laid down by Government of India, Ministry of Environment and Forests while granting the stage II approval of proposals under FCA 1980. From Net Present Value (NPV) fund, the activities including natural regeneration and afforestation, forest protection, infrastructure development and wild life management, as envisaged in guideline, have been carried out. Under the 'Net Present Value' head, the emphasis is generally given on interventions like the enhancement of natural regeneration and the qualitative improvement of growing stock by carrying out Assisted Natural Regeneration (ANR) works and Block plantations of valuable species. In such cases, waste lands are improved by carrying out high density plantation of suitable species useful to local people.

Executive Summary

This report provides a comprehensive evaluation of the projects implemented under the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in Chhattisgarh during the 2019-2020 period. The assessment examines the components approved in the Annual Plan of Operations (APO), tracking their progress from inception up to March 31, 2023. The report delivers key insights into the performance of State CAMPA in achieving its objectives across various forest divisions, assessing the effectiveness, impact, and challenges faced in project execution.

Project Categories

The analysis encompasses all activities funded under the APO 2019-20, covering over 50 different types of initiatives. The primary focus areas include:

- **Compensatory Afforestation (CA) Plantations** – Expansion and restoration of forest cover to offset deforestation.
- **Plantations in Orange Areas** – Afforestation efforts in designated degraded zones requiring ecological restoration.
- **Water and Soil Conservation Activities** – Implementation of sustainable land management practices to enhance soil fertility and prevent erosion.
- **Improvement of Forest Civil Structures** – Strengthening forest infrastructure, including roads, watchtowers, and administrative buildings.

These core activities, along with other technically essential and incidental tasks, are crucial to fulfilling CAMPA's mandate of sustainable forest management and conservation.

Scope and Geographical Distribution

The study covers 42 forest divisions across the entire state of Chhattisgarh, offering a division-wise perspective on project implementation. Administrative components at the head office and circle office levels were excluded to maintain a field-oriented analysis. Projects scales vary significantly, ranging from small interventions of 1 hectare to large-scale operations exceeding 200 hectares, reflecting the diverse ecological and socio-economic challenges across the state.

Effectiveness and Success Rates

The effectiveness of the projects has been assessed based on qualitative and quantitative observations. Key findings include:

- Afforestation and plantation success rates: Ranging between 70% and 95%, influenced by factors such as soil quality, climatic conditions, and post-plantation care.
- Soil moisture conservation (SMC) and civil works: Demonstrating a higher success rates of 85% to 100%, reflecting efficient execution and sustainability of conservation efforts.

Variations in success rates can be attributed to differences in site conditions, availability of irrigation facilities, vulnerability to environmental factors, funding constraints, and management practices.

Impact Assessment

The activities funded under the APO 2019-20 have yielded multiple positive impacts, demonstrating the success of the implementing agency in achieving its mandate. Key observations include:

1. **Efficient Fund Allocation:** Over 97% of the allocated funds have been successfully traced to specific works, ensuring financial accountability. More than 64% of funds were made available to field units within the first two financial years following the sanction of the APO. This efficient allocation has ensured that resources reached the tail-end units, enabling effective project implementation.
2. **Strengthening Field Units:** The deployment of resources has significantly strengthened the capacity of field forest units, allowing them to maintain and improve civil and land assets, despite significant socio-economic and political challenges.
3. **Adoption of Modern Technologies:** The introduction of new technologies, such as Hitech Barriers, GPS-based monitoring instruments, advanced training programs, and modern transportation amenities, has significantly enhanced the accuracy, safety, and reliability of territorial units in managing their regular activities.
4. **Support for Greenery Initiatives:** Activities related to seedling procurement, nursery development, and the establishment of modern and tall-plant nurseries have supported CAMPA and other state-sponsored greenery initiatives, reinforcing ecological sustainability.
5. **Community Engagement and Goodwill:** Development projects, such as the construction of civil structures and SMC tanks, have generated substantial goodwill for the forest department among local communities. This goodwill has been crucial in facilitating the continued implementation of programs, particularly in socially sensitive areas.
6. **Environmental and Social Benefits:** The APO 2019-20 efforts have contributed to carbon sequestration, soil stabilization, and water conservation. Besides,

they have provided livelihood opportunities through activities such as nursery management, plantation maintenance, and forest produce collection. These projects have helped maintain the delicate balance of the forest-tribal interface, ensuring the long-term sustainability of the region's natural resources.

Conclusion:

Overall, the report underscores the significant progress made by the State CAMPA in advancing forest management and conservation efforts in Chhattisgarh. The initiatives reflect a balanced approach, integrating environmental sustainability with socio-economic development. Moving forward, continued investments in technology, community participation, and adaptive management strategies will be crucial in further enhancing the effectiveness and impact of CAMPA-funded projects.

Monitoring & Evaluation methodology

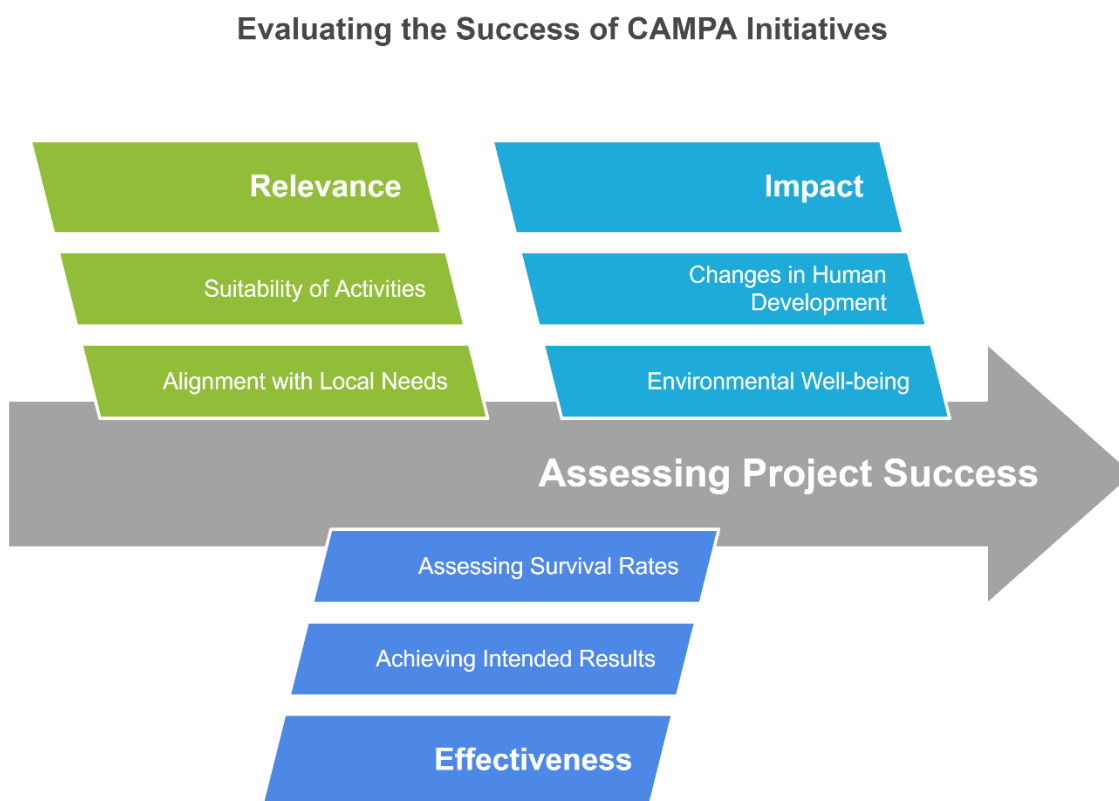
3.1 Introduction

In alignment with established international best practices, evaluation methodologies typically encompass five key criteria: relevance, effectiveness, impact, efficiency, and sustainability. These criteria are applied in combination to ensure a comprehensive assessment of all critical aspects of an initiative.

- **Relevance** refers to the extent to which a development initiative and its intended outcomes align with the needs of the environment and the targeted beneficiaries. This criterion also considers how well the plantation activities suit the local context and the needs of the beneficiaries. The evaluation of relevance considers how well the planning, design, and implementation of initiatives have been adapted to the specific local conditions.
- **Effectiveness** measures the extent to which the initiative's intended results (both outputs and outcomes) have been achieved. This involves assessing the cause-and-effect relationship between project activities and the observed changes. Evaluating effectiveness involves three key steps: (1) Measuring changes in observed outputs or outcomes; (2) Attributing these changes to the initiative; (3) Evaluating the significance of these changes, whether positive or negative. For plantation projects, the effectiveness is assessed by examining survival rates and growth parameters.
- **Impact** of CAMPA gauges the broader changes in human development and environmental well-being resulting from the development initiative, whether these changes are direct or indirect, intended or unintended. Impact evaluations are crucial for generating actionable information and ensuring accountability. However, challenges can arise, particularly in confirming whether observed benefits can be directly attributed to the initiative, especially when multiple interventions with overlapping objectives are in play. In assessing the impact of plantation projects, factors such as beneficiary awareness, involvement in planning, and employment generated will be considered. However, given that many plantations are still relatively young, their long-term impact on strengthening beneficiaries' livelihoods may not yet be fully measurable at this stage.

Given the diverse terrain and remote locations of many CAMPA projects, particularly those in forested areas, evaluating these projects requires special attention. These areas often pose challenges in stakeholder participation and verification, making the evaluation of afforestation models under CAMPA particularly complex. The diversity of plantation models, site conditions, and institutional mechanisms across different ecoregions further complicates the creation of a standardized national afforestation

evaluation manual. Consequently, the scope of this evaluation is limited to providing a brief description and field assessment of the implementation of various project activities. It also includes documenting stakeholder perceptions of the project's impact through interviews and discussions.



The primary objective of this evaluation exercise is to assess the CAMPA-related activities undertaken by the Territorial, Wildlife, Research, Working Plan, and Training wings of the Chhattisgarh Forest Department. The specific goals include:

- Evaluating whether the desired goals of APO 209-20 have impacts on the natural and social environment.
- Assessing the efficiency and effectiveness of the scheme and the extent to which the executed works meet the intended objectives.
- Evaluating the performance of the works across different categories and divisions.
- Inference on whether the works carried out under the scheme should be continued with the same planning level or re-look is required
- Reviewing the adequacy and transparency of existing reporting arrangements.
- Outline understanding on the funds provided under the scheme were routed to their intended purposes.
- Evaluating the quality of the works and attributing overall success rates.

This evaluation aims to provide actionable insights into the effectiveness of CAMPA initiatives while ensuring a structured and transparent approach to afforestation and conservation efforts in Chhattisgarh state.

3.2 Methodology

1. Scope & Methodology

- The study area covers the entire Chhattisgarh state, spreading 42 different forest divisions, where APO 2019-20 funded various activities
- A stratified sampling approach was used, covering 5-10 % of each division's project components approved in APO 2019-20.
- Success rates of individual project sites were assessed using both quantitative and qualitative observations, with results interpreted as a % of success rate for each site

2. Process

- Methodology & division wise random stratification of various project sites done at the head office level
- Filed offices given prior intimation about the sites for monitoring with a view to bring the written records to division office to undertake preliminary work
- Forest Circle level orientation workshops conducted to all TAs, NARWA Engineers, CAMPA Clerks and technical staff.
- Field data captured in pre-tested formats to analyses the results
- Presented the data captured at head office level in video conference and took the final remarks of the DFOs
- Published the report with an analysis of based field facts and photographic evidence

3. Data Collection

Data was collected through a “three stage” visit process:

1. Initial visit to Division offices for collecting compartment-level documentation
2. Visit to field sites to collect the data of 25% stratified sample of project sites
3. Follow-up visit to Circle offices to collate the data on additional activities like training sessions, procurement of instruments, and other relevant interventions.

4. Synthesis and Reporting

Synthesized findings from the desk review, site visits, and data analysis to generate insights and draw conclusions. Prepared a comprehensive assessment report highlighting key findings, recommendations, and lessons learned.

- Integrated quantitative and qualitative data to provide a holistic view of CAMPA project performance.
- Conducted interviews and focus group discussions to gather qualitative insights and contextual information.
- Triangulated data from different sources to ensure reliability and validity.
- Conducted quality assessment based on the criteria: Excellent (90-100%), Good (70-89%), Optimum (50-69%) and Poor (30-49%).

5. Reports

State Level Monitoring & Evaluation Consolidated report was prepared, consisting of division-wise detailed sub sections. The report was prepared and presented to the CAMPA office, ensuring comprehensive documentation and analysis of the monitored activities.

3.3 Division-wise sampled strata for Monitoring & Evaluation for APO 2019 – 20

SNo	Circle Name	Division Name	No. of projects	Sampling of 25% of total projects
1	Bilaspur	Bilaspur	71	19
2	Bilaspur	Dharmajaygarh	39	10
3	Bilaspur	Janjgir-Champa	47	13
4	Bilaspur	Katghora	62	15
5	Bilaspur	Korba	12	5
6	Bilaspur	Marwahi	187	52
7	Bilaspur	Mungeli	4	2
8	Bilaspur	Res & Ext Bilaspur	16	06
9	Bilaspur	Raigarh	219	50
10	Durg	Balod	197	49
11	Durg	Kawardha	173	45
12	Durg	Durg	31	14
13	Durg	Khairagarh	59	16
14	Durg	Rajnandgaon	175	47
15	Raipur	Balodabazar	184	46
16	Raipur	Dhamtari	97	24
17	Raipur	Gariyaband	255	66
18	Raipur	Mahasamund	160	43
19	Raipur	Raipur	32	09
20	Kanker	East Bhanupratappur	52	13
21	Kanker	West Bhanupratappur	66	18
22	Kanker	Keshkal	129	32
23	Kanker	Kanker	120	32
24	Kanker	South Kondagaon	182	46
25	Kanker	Narayanpur	130	35
26	Jagdalpur	Bastar	68	19
27	Jagdalpur	Bijapur	92	23
28	Jagdalpur	Dantewada	64	17
29	Jagdalpur	Res & Ext Jagdalpur	03	02
30	Jagdalpur	Sukma	64	19
31	Surguja	Balrampur	151	40
32	Surguja	Koriya	76	21
33	Surguja	Manendragarh	52	15
34	Surguja	Surajpur	23	07
35	Surguja	Surguja	42	12
36	Surguja	Jashpur	18	5

SNo	Circle Name	Division Name	No. of projects	Sampling of 25% of total projects
37	Wildlife Circle	Achanakmar TR Bilaspur	34	10
38	Wildlife Circle	Gurughasi Das NP Surguja	37	12
39	Wildlife Circle	Elephant Reserve Surguja	56	16
40	Wildlife Circle	Indravati TR Bijapur	175	45
41	Wildlife Circle	Udanti SNTR Raipur	73	18
42	Jagdalspur	Kanker Ghati Jagdalspur	51	13

Recommendations

Building on the insights gained from the evaluation of the CAMPA projects in Chhattisgarh, the following recommendations aim to address key areas for improvement and ensure future projects achieve their full potential.

1. Complete Data Digitization and Public Portal Development

The State CAMPA authority should aim to fully digitize all activity-related data, building on the current baseline digitization, which already exceeds 65%. This comprehensive digitization should lead to the creation of a public portal, modeled after the "National E-Green Watch Portal," to effectively and transparently showcase the project progress and success of the initiatives.

2. Update Operations and Field Sites on the National Portal

It is essential to ensure that all operations and field sites are regularly updated on the "National E-Green Watch Portal." This will guarantee that the data remains current, comprehensive, and reflective of the ongoing work, providing accurate information to stakeholders and the public.

3. Increased Funding for Soil and Moisture Conservation (SMC) Works

Recognizing that the fertility of large forest patches is generally lower than that of agricultural lands, it is recommended to explore increased funding allocation for Soil and Moisture Conservation (SMC) initiatives. This will help enhance the sustainability and long-term productivity of forested areas, ensuring their ecological stability.

4. Revise and Update Training Programs

All training manuals and content should be thoroughly revised and republished to incorporate the latest field operations and accounting practices. Consulting with the State Forest Training and Research Institute (SFTRI) or other external agencies may be necessary to ensure the materials are up-to-date. Furthermore, the Training of Trainers (ToT) programs and Human Resource Development (HRD) training should be aligned with the National Training Policy to ensure consistent, high-quality training across the board.

5. Sustained Investment in Monitoring and Adaptive Management

Continued investment in monitoring, adaptive management, and community engagement is crucial for sustaining and building upon the successes achieved so far. Internal monitoring processes should be strengthened through the use of advanced online tools like "OSRT" (On-Site & Real-Time) measures, enabling real-time tracking and adjustment of project activities.

6. Highlight Collaborative Efforts and Public Awareness

The collaborative efforts at the division level with other government programs and forest dwellers are highly commendable. To maximize their impact, State CAMPA should ensure that these successes are continuously highlighted in national newspapers and media outlets, increasing public awareness and support for these initiatives.

7. Expanding Community Benefits and Livelihood Support programs

Integrate livelihood programs that leverage community resources and skills, such as sustainable harvesting of non-timber forest products (NTFPs), beekeeping, and agroforestry, to provide steady income while promoting forest conservation. Establish strong market linkages for forest products, ensuring communities can sell their products at fair prices by setting up cooperatives and facilitating connections with buyers.

8. Strengthened Auditing and Reporting mechanisms

Conduct regular independent audits of project finances and activities, making the results publicly available and addressing any identified issues promptly. Further develop and enforce strict reporting standards, including detailed accounts of expenditure, progress towards objectives, and corrective actions taken.

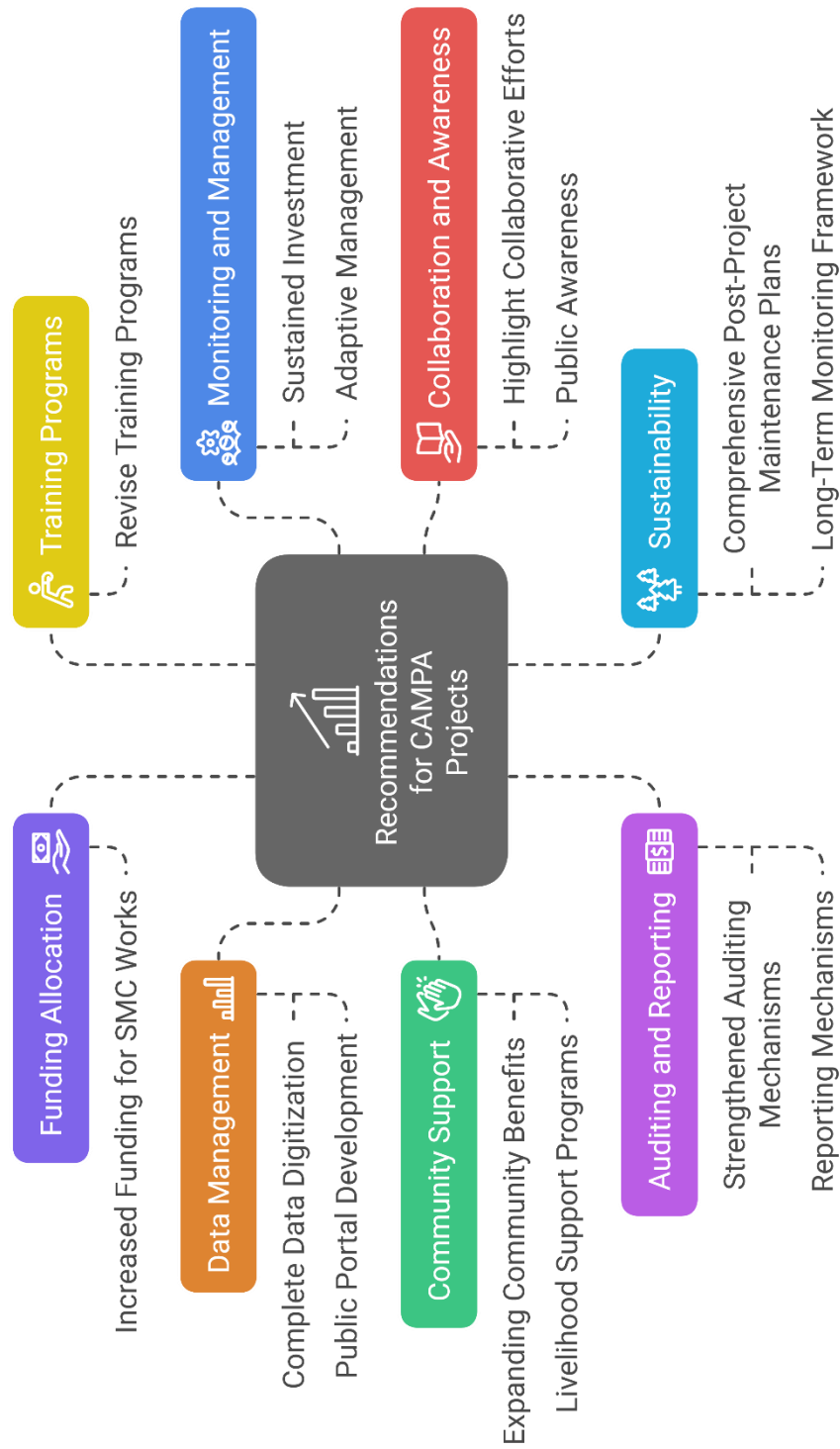
9. Ensuring Sustainability of Initiatives (Comprehensive Post-Project Maintenance Plans)

Develop long-term maintenance agreements involving local communities, forest departments, and stakeholders, clearly defining responsibilities and funding mechanisms to sustain project gains. Simultaneously explore sustainable financing options like payment for ecosystem services (PES), carbon credits, and community-based eco-tourism to fund ongoing project maintenance and expansion.

10. Setting up a Long-Term Monitoring Framework

Develop a comprehensive baseline dataset before project implementation begins, including ecological, social, and economic indicators. This data will serve as a foundation for tracking long-term impacts. Schedule regular impact evaluations every 5 years to assess the long-term effects on biodiversity, carbon sequestration, and community well-being. Involve independent experts to ensure objectivity.

Recommendations for CAMPA Project Improvement



Snapshot of



Bilaspur Division

Success Story: Soil and Moisture Conservation in

Birjha Nala, Bilaspur Division

The Bilaspur Division achieved a remarkable milestone in soil and moisture conservation through its exemplary work in Birjha Nala, compartment 6 RF. This initiative covered an area of 143 hectares and yielded a phenomenal success rate of 95%, showcasing the division's commitment to sustainable natural resource management.

The region of Birjha Nala, known for its ecological sensitivity, had long been facing challenges like soil erosion, reduced groundwater recharge, and declining agricultural productivity. Recognizing these pressing issues, the Bilaspur Division implemented a comprehensive Soil and Moisture Conservation (SMC) project to rejuvenate the area's ecological balance.

Impact - The SMC works have transformed the landscape of the Birjha Nala region, yielding significant benefits:

- **Reduced Soil Erosion:** The measures curtailed erosion, preserving the area's fertile topsoil.
- **Improved Water Availability:** Enhanced groundwater recharge has benefited agriculture and local communities.
- **Boosted Biodiversity:** The plantations have contributed to increased vegetation cover and wildlife habitat restoration.

The project's success rate of 95% stands as a testament to meticulous planning, effective execution, and collaborative efforts between the Forest Department and the local community.



Dharamjaygarh Division

Success Story: Transforming Forest Management in Chhattisgarh through State CAMPA Initiatives

The upgradation of the Timber Depot at Dharamjaygarh, particularly the BMW Road construction, stands as a shining example of integrated forest management and infrastructure development.

Achievements and Success Highlights

- 1. Improved Infrastructure for Sustainable Operations:** The construction of the BMW Road at the Timber Depot has significantly enhanced the logistical operations for timber storage and distribution. This infrastructure upgrade has streamlined transportation, reduced transit delays, and ensured the depot's effective functioning, contributing to the local economy.
- 2. Community Engagement and Employment Generation:** The project provided numerous employment opportunities for the local community. From road construction to ancillary activities, the initiative has supported livelihoods while fostering a sense of ownership and involvement among stakeholders.
- 3. Environmental and Ecological Benefits:** As part of the larger CAMPA initiative, the project also prioritizes ecological sustainability. The improved road infrastructure has facilitated better forest patrolling and monitoring, enhancing the protection of the natural environment.
- 4. Exemplary Execution and Success Rate:** The project underscores the high standards of planning, execution, and monitoring upheld by the Chhattisgarh Forest Department. This success is a testament to the meticulous approach taken to address both operational and ecological needs.

Impact on Forest Conservation and Management

The Dharamjaygarh Timber Depot upgradation exemplifies how strategic investments in infrastructure can strengthen forest management frameworks. Enhanced connectivity not only supports timber operations but also facilitates activities like forest fire mitigation, biodiversity monitoring, and habitat restoration.



Janjgir -Champa Division

Success Story: Chain-Link Fencing Work for Preserving Forests, Empowering Communities

In the verdant heart of Chhattisgarh lies the Bilaspur Circle, home to the Janjgir-Champa division, where nature and human effort converge to protect and rejuvenate forests. Among the many initiatives under the Chhattisgarh State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), the chain-link fencing work in PF-94 Khisora stands out as a shining example of success.

Under this initiative, a chain-link fencing project spanning 4,560 sq. ft. was implemented in PF-94 Khisora, Janjgir-Champa, to address critical challenges such as forest encroachment and wildlife disturbances. This project aligns with CAMPA's broader mission of enhancing forest protection while engaging and uplifting local communities.

Achievements and Impact

1. **Forest Protection and Fire Prevention:** The installation of the chain-link fence has effectively safeguarded the forest from unauthorized access and activities. This protection has been instrumental in mitigating forest fires, which previously posed a significant threat to biodiversity.
2. **Enhanced Biodiversity Conservation:** By creating a secure boundary, the project has promoted a conducive environment for the regeneration of native flora and fauna. Profuse grassland growth and the enrichment of nearby water bodies have further supported local wildlife.
3. **Community Engagement and Employment:** The initiative actively involved local communities, providing significant employment opportunities during its implementation. This engagement not only supported livelihoods but also fostered a sense of ownership and responsibility among the locals toward forest conservation.
4. **Infrastructure Development:** The project's successful execution has laid a strong foundation for future conservation endeavors in the region. It exemplifies how infrastructural interventions can contribute to sustainable forest management.
5. **Exemplary Success Rate:** The qualitative assessment of the project highlights an "Excellent" success rate, underscoring the effectiveness of the chain-link fencing in achieving its objectives.

Conclusion

The chain-link fencing work in PF-94 Khisora is a testament to the transformative power of well-planned and executed conservation efforts. By integrating technical expertise, community participation, and sustainable practices, the State CAMPA

project has set a benchmark for forest protection initiatives. This success story not only inspires similar projects but also reaffirms the commitment of Chhattisgarh's State Forest Department to preserving its natural heritage for generations to come.



Kotghora Division

Success Story: The SMC Works – Stop Dam Project

One key aspect of the project is the implementation of Soil and Moisture Conservation (SMC) works, which aim to improve water retention and prevent soil erosion. The SMC Works – Stop Dam project in the Katghora region of Bilaspur exemplifies the success of these efforts.

The SMC Works – Stop Dam project, located at GPS coordinates 22.4639 N, 82.3752 E, covers an area of 63 hectares. This initiative has achieved an *excellent* success rate in transforming the local landscape. The stop dam construction is a critical intervention for preserving water resources and supporting agricultural activities in the region. It has effectively enhanced the water retention capacity of the soil, rejuvenating the local environment and supporting both wildlife and the local community.

The project has also contributed to mitigating soil erosion, ensuring the sustainability of local farming and forest ecosystems. The revitalized water bodies fostered by this project have further enriched the area, providing a habitat for diverse fauna and flora while improving the region's water resources.

Impact on the Local Community and Environment

The impact of the project extends beyond environmental restoration. It has created numerous employment opportunities for local communities through various stages of implementation, including construction, plantation activities, and civil works. The local workforce has played a crucial role in the success of the SMC Works – Stop Dam project, and this involvement has fostered a sense of ownership and responsibility within the community.

In addition, the project has led to the improvement of water sources, ensuring better availability for both local residents and wildlife. The successful implementation of these water conservation measures has revitalized local water bodies, contributing to enhanced biodiversity in the region.

Conclusion: A Model for Sustainable Development

The SMC Works – Stop Dam project in Katghora serves as a shining example of how targeted interventions can address environmental challenges while simultaneously benefiting local communities. The success of this project is a testament to the efficacy of the Chhattisgarh State CAMPA's approach, which integrates environmental conservation with community engagement and sustainable development.

By combining afforestation efforts with soil and moisture conservation, the project has made significant strides in improving the local ecosystem and supporting the livelihoods of those who depend on it. The positive impact of this initiative on biodiversity, water management, and community empowerment will continue to resonate for years to come, paving the way for similar projects across the state.



Korba Division

Success Story: Wildlife Management Plan

In the Korba Division of Chhattisgarh, nestled within the Balco Range, the forest areas of compartments P 975, 977, and 980 in Keshalpur were in urgent need of ecological restoration and management. These forests, rich in biodiversity and home to an array of flora and fauna, faced increasing threats from degradation. The declining health of these ecosystems not only jeopardized the survival of local wildlife but also posed challenges to the livelihoods and well-being of communities that depend on forest resources.

Recognizing the urgency, a comprehensive Wildlife Management Plan was implemented, focusing on the Management of Biological Diversity and Biological Resources within the region. This ambitious initiative aimed to restore the ecological balance, enhance biodiversity, and promote sustainable practices that could ensure the long-term health and resilience of these forest ecosystems.

Key Highlights of the Project

1. Targeted Restoration Efforts

The project spanned six meticulously planned and executed restoration activities across compartments P 975, 977, and 980. These activities ranged from reforestation with native species, soil conservation measures, and water resource management to the creation of habitats conducive to wildlife.

2. Silvicultural Practices

By incorporating advanced silvicultural techniques, the project prioritized the regeneration of degraded forest areas. This included selective planting, canopy management, and the introduction of measures to prevent soil erosion,

ensuring that the forest's natural regeneration processes were supported and accelerated.

3. Community Engagement and Involvement

Local communities played an integral role in the success of the initiative. Workshops and awareness programs were conducted to educate residents about the importance of biodiversity conservation. Community-led monitoring programs also empowered locals to take ownership of the conservation efforts, fostering a sense of responsibility and stewardship.

4. Wildlife Habitat Development

Specific measures were undertaken to create and restore habitats for the region's wildlife. These included the construction of waterholes, enrichment planting to provide food sources, and corridors to facilitate the safe movement of animals.

5. Sustainable Resource Management

A framework for sustainable resource management was established, balancing conservation with the needs of the local population. This ensured that the forests could continue to provide ecosystem services, such as clean air, water, and resources, while maintaining their ecological integrity.

Impact and Achievements

The initiative has been a resounding success. The once-degraded forests of the Balco Range now exhibit signs of revival, with increased greenery, thriving biodiversity, and improved wildlife habitats. Key species that had been dwindling in number have made a comeback, and the ecological functions of the forest have been restored.

Moreover, the active involvement of local communities has strengthened the bond between humans and nature, creating a sustainable model of coexistence. The project has not only safeguarded biodiversity but also contributed to improving the socio-economic conditions of the region by providing employment opportunities and enhancing ecosystem services.

A Model for Conservation

The Wildlife Management Plan in the Balco Range serves as an exemplary model for similar conservation efforts across Chhattisgarh and beyond. It underscores the importance of collaborative, science-driven approaches in managing and enhancing biological diversity.



Marwahi Division

Success Story: Taraigaon Khutinala Anicut – A Model of Effective Civil and Construction Works

In the heart of Chhattisgarh's Marwahi division, a remarkable transformation is taking place, driven by the tireless efforts of the Chhattisgarh State Forest Department (CSFD) under the Chhattisgarh State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA). One such success story is the construction of the Taraigaon Khutinala Anicut, a vital infrastructure project that has had a profound impact on both the environment and local communities.

The project, executed under the auspices of the State CAMPA, is located in the Taraigaon (KhutiNala) compartment, with precise GPS coordinates: Latitude 22°41'19.38" and Longitude 81°54'2.65". This initiative falls under the Civil and Construction Works category and aims to improve water conservation, enhance local ecosystems, and bolster the livelihoods of communities.

The Taraigaon Khutinala Anicut is an engineering marvel with a total area of 126 cubic meters. The success of this project can be measured not only by its scale but by its outstanding success rate, which has been classified as excellent. This infrastructure is expected to create a significant positive impact on water conservation, aiding in the rejuvenation of local water bodies, promoting biodiversity, and improving the environment for both flora and fauna.

Collaboration and Community Impact

The Taraigaon Khutinala Anicut project exemplifies how well-designed infrastructure can integrate with environmental conservation efforts. Local communities, stakeholders, and the State Forest Department have all worked in close collaboration, ensuring the project's smooth execution and its positive, long-lasting effects on the region. From planning to implementation, the involvement of local workers and engagement with the community has been exemplary. These efforts not only enhanced the social fabric of the region but also provided employment opportunities for the locals.

Beyond the immediate benefits, the project is part of a larger effort to implement soil and moisture conservation techniques, which have rejuvenated water bodies, created a more resilient ecosystem, and improved habitats for wildlife. These water conservation practices play a critical role in strengthening the resilience of local flora and fauna, enhancing biodiversity, and supporting sustainable livelihoods for surrounding communities.

A Model of Success

The success of the Taraigaon Khutinala Anicut stands as a powerful testament to the effectiveness of the State CAMPA's innovative approach, seamlessly integrating environmental sustainability with infrastructure development. This achievement

highlights how CAMPA projects can simultaneously preserve and enhance Chhattisgarh's rich natural resources while empowering local communities. By prioritizing the conservation of forests and wildlife, the project demonstrates a holistic vision of sustainable development that balances ecological restoration with the socio-economic growth of the region.

As the initiative advances, it is poised to leave a profound and lasting impact on both the environment and the livelihoods of the people in Marwahi. By securing water resources and fostering biodiversity, it ensures a healthier and more sustainable ecosystem for future generations. This project exemplifies the core objectives of CAMPA—promoting growth, environmental resilience, and community well-being across Chhattisgarh's diverse and vibrant landscapes. Such endeavors set a benchmark for sustainable development, offering a replicable model for other regions striving to balance ecological and community needs effectively.



Mungeli Division

Success Story: Soil and Moisture Conservation Works at Koilar Nala, Mungeli

Among the numerous impactful projects under State CAMPA, the Soil and Moisture Conservation (SMC) Works at Koilar Nala in the Mungeli division stands out. With the aim of enhancing soil health, improving water retention, and promoting ecological balance, this project has proven to be a resounding success.

Key Features of the Koilar Nala SMC Works

- Location: Mungeli, Bilaspur, Chhattisgarh
- Coordinates: Lat: 22.387905, Long: 81.609375
- Project Area: 786 hectares (492, 497, 498, 499 RF compartments)
- Category: Soil and Moisture Conservation Works (SMC)

The project was designed to implement sustainable soil conservation practices, focusing on the regeneration of natural water systems. Its success lies in the integration of ecological preservation with water management, ensuring that vital water sources are restored and preserved for both wildlife and local communities.

Success in Conservation and Water Management

One of the most significant outcomes of the Koilar Nala SMC works is the rejuvenation of water bodies. Through meticulous efforts in soil and moisture conservation, water sources were significantly improved, benefiting not only the local flora and fauna but also contributing to the overall health of the ecosystem. The effective management of water bodies has fostered a thriving environment for wildlife, helping stabilize populations of various species.

Sustainable Forest Management

The State CAMPA's ongoing commitment to preserving Chhattisgarh's natural forests was reflected in the robust results achieved through the Koilar Nala project. The project saw the establishment of effective protective measures such as chain link fences and boundary walls, safeguarding the area's rich biodiversity. These efforts also paved the way for better connectivity between forest regions, with the construction of roads, enabling easier access for both monitoring and conservation activities.

Community Involvement and Employment Opportunities

A key element of the project's success has been the active engagement of the local community. From the planning stages to implementation, local stakeholders have been integral to the project's success. They have not only contributed to the physical work on the ground but have also benefitted from employment opportunities. This collaborative approach has ensured that the project remains community-centric, providing a steady stream of employment for local populations in activities such as forest fire mitigation, soil and moisture conservation, and civil works.

Long-Term Impact and Sustainability

The excellent results achieved at Koilar Nala are a testament to the effectiveness of the CAMPA initiative in driving long-term sustainable practices in forest conservation and water management. The project's focus on soil conservation, biodiversity improvement, and community engagement ensures that the benefits will continue to reverberate through the region for years to come.

Conclusion

The Soil and Moisture Conservation Works at Koilar Nala serve as a remarkable example of how targeted conservation efforts, combined with community engagement and effective management, can yield transformative results. The success of this project not only showcases the importance of environmental preservation but also highlights the positive impact such initiatives can have on local communities, wildlife, and ecosystems. The project stands as a model for future endeavours in forest and water management, reinforcing the commitment to preserving the natural heritage of Chhattisgarh.



Success Story: Wildlife Management Plan (Talab Nirman Karya), Raigarh

The initiative, situated at Latitude: N 21.54'57" and Longitude: E 83.25'43", centers on a wildlife management plan that includes the construction of ponds across 1008 PF (Talab Nirman Karya). This effort aims to enhance biodiversity and rejuvenate water bodies to support wildlife. Aligned with CAMPA's vision, the project advances forest protection, wildlife conservation, and infrastructure development throughout Chhattisgarh. It serves as a vital component of these broader efforts, addressing both ecological and community needs. According to the measurement book/office records, the area is 7,231.5 cubic meters.

Key Objectives

- **Wildlife Conservation:** The primary goal is to create a sustainable environment for local wildlife, particularly focusing on enhancing water bodies and ensuring the regeneration of native species.
- **Infrastructure Development:** Construction of ponds (Talab Nirman Karya) as part of the wildlife management plan ensures long-term water availability for both flora and fauna, particularly during dry spells.
- **Community Engagement:** Local communities have been integrated into the project, providing employment and enhancing their awareness of conservation practices. This initiative not only addresses environmental concerns but also offers socio-economic benefits for the surrounding population.

Impact and Outcomes

The success of this project is evident in several key areas:

1. **Biodiversity Conservation:** The creation of ponds has led to the rejuvenation of water bodies, which significantly benefits local wildlife. This initiative has directly improved habitats, resulting in an increase in biodiversity. The enriched water bodies support various species, and the surrounding grasslands have seen considerable growth, further enhancing the local ecosystem.
2. **Enhanced Forest Protection:** The project has helped in the effective protection of the forested area through the installation of boundary walls and chain-link fencing, ensuring that local flora and fauna are protected from encroachments and human activities.
3. **Water Conservation and Management:** Soil and moisture conservation activities have effectively improved water retention in the area, helping to rejuvenate dry water bodies. These efforts have created a sustainable water source for wildlife and vegetation, directly benefiting the surrounding ecosystem.

4. **Successful Implementation:** The project, covering an area of 966 RF, is deemed a major success, with a high qualitative assessment. The work completed, such as the pond construction (Talab Nirman Karya), has achieved the desired outcomes, including increased water availability for wildlife and plant life.

Conclusion

The Raigarh wildlife management plan under the State CAMPA project is a testament to the successful integration of conservation, infrastructure development, and community involvement. With a strong focus on habitat improvement and wildlife protection, the project has contributed significantly to the state's efforts to preserve its natural resources. As a result, it has not only achieved ecological success but also supported the livelihoods of local communities, paving the way for more inclusive and sustainable conservation efforts in the future.



Success Story of Plant Production Initiative

Project Overview

The project, located at 22°6'52.95"N and 082°3'55.11"E, spans a total area of 13 hectares. It was part of the larger compensatory afforestation and conservation efforts by the CAMPA. The primary aim of this initiative was to promote plant production as a means to support afforestation efforts across Chhattisgarh. The project was implemented with the help of the state's extensive seed collection, which has been instrumental in supporting the conservation of forests, wildlife, and the development of necessary infrastructure.

The nursery is well-equipped and effectively managed with adequate facilities, including public display boards, species signages, skilled manpower, registers for work and distribution records, water supply, protection measures, seed rooms, shade nets, and polyhouses. Inspections and monitoring by superior officials are regularly conducted, ensuring smooth operations. This exemplary performance and efficient management underscore the nursery's role in promoting ecological sustainability and supporting reforestation efforts.

Performance Highlights:

1. The Annual Production Target (APO) was fully achieved, with 154,000 Teak Plants raised, meeting 100% of the target.
2. Distribution of plants included 153,205 teak plants distributed among stakeholders and departmental usage, achieving 99.48% of the target.
3. A 100% survival rate was recorded for the 154,000 live seedlings raised in 15x25 bag sizes during 2019–20.

Key Achievements

1. **Exceptional Success Rate:** The plant production efforts at the Aranyika Nursery have been highly successful, with a remarkable survival rate exceeding 75% for the saplings planted. This success is a testament to the project's careful planning, quality of saplings, and appropriate care during plantation activities.
2. **Effective Weed Management:** A key element of the project's success has been its rigorous weed management practices. The regrowth of invasive species post-management was reduced to less than 9%, preventing the spread of harmful plants and allowing native species to thrive.
3. **Biodiversity and Habitat Improvement:** The project's efforts have had a significant positive impact on local biodiversity. The growth of grasslands and the rejuvenation of water bodies have enriched the habitats of local wildlife, providing essential resources for both flora and fauna.
4. **Soil and Moisture Conservation:** Effective soil and moisture conservation techniques, including water source rejuvenation, have helped restore local

water bodies. This not only supports plant growth but also benefits the local wildlife population, ensuring a healthy ecosystem.

5. **Infrastructure for Forest Protection:** The construction of boundary walls, chain-link fencing, and other protective measures has greatly enhanced the security of forest areas, preventing encroachment and illegal activities. Furthermore, improved connectivity through road construction has facilitated better access to remote areas, enabling efficient management and monitoring.
6. **Community and Stakeholder Engagement:** The project actively engaged local communities and stakeholders at every stage, from planning to execution. It provided numerous employment opportunities, including activities such as plantation work, forest protection, civil construction, and training, thereby benefiting the local economy and ensuring that people have a stake in the long-term success of conservation efforts.
7. **Sustainability and Capacity Building:** The project has emphasized the importance of capacity building, offering training and outreach activities to local communities and stakeholders. This has strengthened the institutional framework, ensuring that local authorities and communities can independently continue conservation and afforestation activities.

Conclusion

The plant production project at Aranyika Nursery, Sakri, under the State CAMPA initiative, serves as a shining example of how sustainable forest management practices can lead to significant environmental, social, and economic benefits. By prioritizing biodiversity conservation, community engagement, and infrastructure development, this project has not only enhanced the state's forest health but also empowered local communities to participate actively in conservation efforts. This initiative exemplifies the vision of the Chhattisgarh State Forest Department to balance development with environmental preservation, ensuring a greener and more sustainable future for the state.



Success Story: Effective Soil and Moisture Conservation at Kharun Nala of Balod Division

Under the Compensatory Afforestation Management and Planning Authority (CAMPA) initiative, a significant soil and moisture conservation project was undertaken in the Durg Circle, Balod Division, specifically at Kharun Nala. The intervention covered Compartments 22, 11, and 12, with the objective of mitigating soil erosion, improving groundwater recharge, and enhancing overall ecological balance in the region.

Challenges Addressed

1. **Erosion and Degradation:** The area had been facing severe soil erosion due to irregular rainfall patterns and runoff.
2. **Decline in Moisture Levels:** The loss of moisture in the soil was impacting local biodiversity and agricultural productivity.
3. **Community Dependence:** Local communities depended heavily on the natural resources of Kharun Nala for their livelihoods, which were being affected by environmental degradation.

Implementation Strategy

1. **Scientific Planning:** A thorough baseline survey was conducted to identify critical erosion-prone zones and formulate site-specific interventions.
2. **Infrastructure Development:** Structures like check dams, contour trenches, and bunds were constructed to prevent runoff and capture rainwater effectively.
3. **Vegetative Measures:** Plantation of indigenous species and grass turfing were carried out to stabilize the soil and enhance the green cover.
4. **Community Engagement:** Local communities were actively involved in planning and implementation, ensuring ownership and long-term maintenance of the structures.

Impact of the Initiative

1. **Improved Soil Stability:** The interventions reduced soil erosion significantly, ensuring better retention of nutrients in the soil.
2. **Enhanced Moisture Retention:** Increased groundwater levels were observed, benefiting both flora and fauna in the area.
3. **Biodiversity Revival:** The plantation and improved soil conditions created a conducive environment for the revival of local biodiversity.
4. **Community Benefits:** Farmers reported improved water availability for irrigation, and the project generated employment opportunities during its execution.

Field Observations

The intervention has resulted in visible improvements in soil quality, water retention, and vegetation growth. Local residents have expressed their appreciation for the positive changes brought about by the project, particularly the increased water availability and better land productivity. The successful execution of this project in Kharun Nala has been widely appreciated. It serves as a model for effective soil and moisture conservation and demonstrates the potential of CAMPA initiatives to bring tangible environmental and social benefits.



Durg Division

Success Story: High-Tech Nursery Upgradation

The High-Tech Nursery at Talpuri, located in the Durg Forest Division of Chhattisgarh, was established as part of a larger initiative to upgrade and extend nursery facilities to meet the growing demand for quality planting materials. The nursery aimed to produce a variety of seedlings to support afforestation and reforestation projects in the region. This initiative was critical in ensuring the availability of robust, healthy plants for various stakeholders, including forest departments and local communities. The nursery was equipped with modern facilities, including a mist chamber and a hardening chamber, which are essential for nurturing young plants in controlled conditions before they are transferred to the field.

The nursery achieved 94.55% of its expenditure target, indicating effective resource utilization and financial management. Key facilities such as the mist and hardening chambers were fully functional and met the operational targets, covering 6 hectares as planned.

The success of the High-Tech Nursery at Talpuri highlights the importance of modern infrastructure and skilled management in producing quality planting materials for forest regeneration projects. The nursery's ability to meet its targets and maintain high standards of operation serves as a model for other nurseries in the region. This project not only supports afforestation efforts but also contributes to the sustainable management of forest resources in Chhattisgarh.



Success Story: Transforming Grasslands Through CAMPA in Kawardha Division

A Vision for Change

State CAMPA, an innovative framework, is dedicated to afforestation, wildlife conservation, and sustainable forest management. By utilizing funds from compensatory afforestation and related activities, the initiative ensures the preservation and enhancement of the natural environment while engaging local communities.

The project in **Compartment RF134** was an integral part of this vision. Spanning **50 hectares**, this initiative aimed to rejuvenate degraded grasslands into thriving habitats for wildlife. Located at **21.980116° N, 80.922203° E**, the site was strategically chosen to maximize ecological impact.

Implementation Highlights

The project followed a structured approach:

1. **Grassland Development:** Focused on soil and moisture conservation, weed management, and enrichment planting to promote natural forage growth.
2. **Biodiversity Boost:** Encouraged by a 95% success rate, the profuse re-growth of grasses significantly improved habitat quality for local fauna.
3. **Water Resource Enhancement:** Soil and moisture conservation techniques rejuvenated water bodies, ensuring year-round water availability for wildlife.
4. **Infrastructure Improvements:** Protective measures like chain-link fencing safeguarded the area against encroachment, while road connectivity facilitated monitoring and management.

Community Engagement and Benefits

A cornerstone of the project was **local community involvement**. Employment opportunities were generated through activities like plantation, habitat restoration, and infrastructure development. These efforts not only supported livelihoods but also fostered a sense of stewardship among the local populace.

The project also prioritized capacity building. Training programs equipped stakeholders with knowledge on sustainable practices, further amplifying the initiative's impact.

Results That Speak

The project's outcomes were evaluated using a robust monitoring framework. Key findings included:

- **High Survival Rates:** Over 95% of planted grass species thrived, creating lush pastures for herbivores.
- **Effective Weed Management:** Invasive species regrowth was minimized to less than 9%, ensuring sustainable habitat conditions.
- **Wildlife Support:** The enriched grasslands and rejuvenated water sources attracted diverse fauna, reflecting improved biodiversity.
- **Forest Protection:** Strengthened by boundary walls and fencing, the area witnessed a decline in illegal activities.

Looking Ahead

This success story is a testament to the transformative potential of well-planned conservation initiatives. The grassland development project in Kawardha Division is not just an ecological milestone but a blueprint for replicating habitat improvement efforts across the state.

With continued community involvement, rigorous evaluation, and dedicated resource management, the State CAMPA initiative in Chhattisgarh promises to be a beacon of hope for wildlife conservation and sustainable development.



Preserving Forests and Empowering Communities: The Success of CAMPA in Khairagarh Division

The Khairagarh Forest Colony boundary wall project was designed to enhance security and mitigate encroachments. Situated at coordinates **N-21° 25' 12.19" E-80° 58' 17.04"**, the project involved constructing a 1000-meter-long boundary wall within the colony premises.

This effort not only strengthened the infrastructure but also contributed significantly to forest conservation by preventing unauthorized access and ensuring habitat protection for local fauna.

Evaluation and Success Metrics

The evaluation of this project, highlighted several successes:

- **Forest Protection:** The boundary wall effectively curtailed unauthorized entry, reducing threats to biodiversity and habitat encroachment.
- **Community Engagement:** Local stakeholders were actively involved, generating significant employment opportunities during construction.
- **Quantitative and Qualitative Assessment:** The monitoring and evaluation system confirmed the project's success, showcasing its alignment with the overarching goals of CAMPA.

Broader Impacts of CAMPA Initiatives

The Khairagarh boundary wall is a testament to the transformative impact of CAMPA initiatives across Chhattisgarh. Key achievements include:

1. **Effective Conservation Efforts:** Over 75% survival rate in afforestation projects and successful weed management limiting invasive species regrowth to less than 9%.
2. **Improved Habitat Quality:** Enhanced biodiversity, rejuvenated water bodies, and enriched grasslands benefiting both wildlife and local flora.
3. **Infrastructure Development:** Projects like road construction, soil moisture conservation (SMC), and boundary walls have significantly improved forest area connectivity and protection.
4. **Empowering Communities:** Local community participation provided livelihoods and training opportunities while fostering a sense of ownership and commitment towards forest preservation.

Conclusion

The success of the boundary wall project in Khairagarh Forest Colony underscores

the impact of the State CAMPA initiative. This project has not only strengthened forest conservation efforts but also empowered local communities, laying the groundwork for sustainable development in Chhattisgarh. As CAMPA continues its journey, projects like these set the benchmark for integrated forest management and conservation practices.



Rajnandgaon Division

Success Story: Construction and Maintenance of Forest Roads in Rajnandgaon Division

In the Rajnandgaon Division of Chhattisgarh, the need for improved infrastructure was critical for effective forest management and conservation efforts. The existing forest roads were in poor condition, making it difficult for forest officials to access remote areas and carry out essential activities such as patrolling, fire management, and resource monitoring. To address this, a project was initiated to construct and maintain a 2-kilometer stretch of forest road using Water Bound Macadam (WBM) technology in the Hetadkasa area (Part-2), specifically within the coordinates N 21°0'18.33" and E 80°31'26.32".

The road was constructed using Water Bound Macadam (WBM) technology, which involves laying and compacting crushed stone layers bound with water to create a stable and long-lasting road surface. This method was chosen for its durability and suitability for forested areas where heavy machinery and weather conditions can quickly deteriorate less robust roads.

The successful construction and maintenance of the 2-kilometer WBM road in Hetadkasa, Rajnandgaon Division, stands as a testament to the importance of infrastructure development in supporting forest management and conservation. The project has not only enhanced the operational efficiency of the forest department but also contributed to the long-term sustainability of the region's forest resources.



Success Story: Transforming Jagdalpur with Sustainable Soil and Moisture Conservation

Overview of the Project

The project focuses on preserving natural forests, enhancing wildlife management, and improving forest infrastructure through funding sourced from user agencies. These funds are allocated to various forest management activities, including compensatory afforestation, conservation, wildlife protection, and other allied works, contributing to an integrated framework for safeguarding Chhattisgarh's rich biodiversity.

Soil and Moisture Conservation (SMC) Works at Bharjodi Nala-1

One of the standout achievements of the CAMPA project is the Soil and Moisture Conservation (SMC) work undertaken in the Bharjodi Nala-1 area, located in the Jagdalpur Circle of Bastar. This critical intervention targeted the conservation of soil and water, which are vital resources for the local ecosystem. The project covered a total area of 537.8 hectares in compartments 1738 and 1739, ensuring that the land was effectively treated to prevent soil erosion and enhance moisture retention in this vital region.

Key Achievements

- **Excellent Success Rate:** The project has delivered outstanding results, with a qualitative assessment indicating an excellent success rate for the soil and moisture conservation efforts. This was primarily due to the strategic planning and effective implementation of the conservation measures.
- **Rejuvenation of Water Bodies:** The focus on improving water sources has been successful, rejuvenating water bodies and providing critical habitat for wildlife. Local fauna and flora have benefitted from the increased availability of water, enhancing biodiversity.
- **Community Engagement:** A crucial aspect of the project has been the active involvement of local communities in the planning and implementation phases. This collaboration has not only ensured sustainability contributing to the region's socio-economic development.
- **Sustainable Forest Protection:** Through the construction of protective structures like chain link fences and boundary walls, the project has strengthened forest protection measures, mitigating the risk of illegal activities and fire hazards.

Long-Term Environmental and Social Benefits

This successful implementation of the SMC project in Bharjodi Nala-1 exemplifies how sustainable conservation efforts can lead to long-term environmental and social benefits. The community's active involvement, combined with the ecological restoration, sets a precedent for future forest conservation projects across the state.

Conclusion

The SMC Works at Bharjodi Nala-1 represent a model of success under the Chhattisgarh State CAMPA project. With a proven track record of excellent outcomes, this initiative not only strengthens the state's forest management but also contributes to the overall sustainability of the local ecosystem. The project highlights the effectiveness of targeted conservation efforts and community collaboration, ensuring that the region's forests and wildlife are preserved for future generations.



Success Story of Madded: A Triumph in Sustainable Forest Management

Project Overview:

The "Madded – Improvement of Growing Stock in Orange Area" project, undertaken as part of the Chhattisgarh State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) initiative, represents a landmark achievement in the preservation and enhancement of Chhattisgarh's natural resources. This project, executed by the Chhattisgarh State Forest Department (CSFD), is a part of a broader strategy to accelerate forest conservation efforts, wildlife management, and infrastructure development across the state.

Strategic Importance of the CAMPA Project

The project specifically aims to utilize the resources to enhance natural forest areas, improve growing stock, and engage local communities in sustainable practices. A key feature of the project is its integration of diverse funding sources and activities aimed at enhancing forest protection and wildlife management. The State CAMPA also promotes youth and community involvement, creating a robust platform for collaborative conservation efforts.

The Madded Project: A Success in Silvicultural Operations

The "Improvement of Growing Stock in Orange Area" at Madded is a prime example of the project's success. Located in the Pushugudi compartment, the project area spans 80 hectares, and its success has been marked by the following key outcomes:

- **Improved Growing Stock:** The primary objective was to enhance the growing stock of trees in the area, leading to improved forest health and biodiversity. The project has been deemed a success, with an excellent assessment of the quality and effectiveness of the silvicultural operations.
- **Forest Protection Measures:** Alongside the improvement in growing stock, the project included effective protection measures such as boundary wall construction and chain-link fencing. These measures have significantly improved forest area security, preventing encroachment and illegal activities.
- **Biodiversity Conservation:** By promoting healthier forest ecosystems, the project has contributed to the conservation of local flora and fauna. The rich biodiversity has been bolstered by the regeneration of native species and the management of invasive species, ensuring a balanced ecosystem that supports wildlife.

Key Successes and Contributions

1. **Forest Rehabilitation and Management:** The project successfully improved the growing stock in the designated area, achieving excellent results in silvicultural operations. The growing stock improvement ensures long-term ecological benefits, contributing to both climate change mitigation and enhanced biodiversity.

2. **Water Conservation and Soil Moisture Management:** Significant efforts in water and soil conservation, including the rejuvenation of water bodies and improvement of soil moisture levels, have had a profound impact on the local ecosystem. This has not only benefited the local flora but has also enhanced the availability of water for the wildlife, contributing to the overall health of the forest.
3. **Weed Management:** Effective weed management has played a critical role in ensuring the success of the plantation. The invasive species growth has been effectively controlled, with regrowth kept to less than 9%, allowing for the promotion of native species.
4. **Sustainable Forest Protection:** Robust protection measures, including fencing and boundary walls, have safeguarded the area from illegal activities and damage. These efforts are vital for ensuring the long-term sustainability of the forest and preventing encroachment.
5. **Biodiversity Restoration:** The success of the project has contributed to the restoration of local habitats. Grasslands have flourished, and water bodies have been enriched, benefiting the fauna and flora of the region.



Success Story: Transforming Forest Conservation in Chhattisgarh through Chain Link Enclosure

The Geedam Chain Link Enclosure project is a shining example of how thoughtful conservation initiatives can transform forest management and ecosystem preservation. Situated in the Dantewada district of Jagdalpur, this standout project under the CAMPA initiative has garnered recognition for its exceptional planning, execution, and outcomes. Spanning 3,302 hectares, the project involves the installation of a chain link enclosure to safeguard vital forest resources. With a success rate deemed "Excellent," this initiative highlights the importance of integrated resource use and community involvement in achieving conservation goals.

The chain link enclosure has proven to be a robust measure for forest protection, effectively preventing unauthorized human activities and mitigating fire risks. By creating a physical barrier, the project has safeguarded critical flora and fauna, ensuring the preservation of Chhattisgarh's natural ecosystems. This intervention has not only protected biodiversity but also enhanced the conditions necessary for native vegetation and wildlife to thrive. The restoration of grasslands and water bodies within the enclosed area has further enriched the environment, fostering a resurgence of biodiversity.

A key highlight of this initiative is the active involvement of local communities. The project has created numerous employment opportunities, engaging locals in activities such as construction, maintenance, and monitoring. This has not only provided economic benefits but also raised awareness about the importance of forest conservation. By empowering the community, the project has established a strong foundation for sustainable forest management, ensuring that the benefits are both ecological and social.

The project's emphasis on weed management and invasive species control has also yielded significant results. The spread of invasive species has been reduced to below 9%, contributing to healthier ecosystems. Soil and moisture conservation measures have rejuvenated local water bodies, creating a supportive environment for wildlife and enhancing the area's overall ecological health.

Long-Term Benefits and Sustainability:

- **Forest Connectivity:** As part of the ongoing infrastructural development, road construction and connectivity improvements have facilitated better access to the forest areas for conservation activities. These improvements will have a long-lasting impact on forest monitoring and management.
- **Sustainability of the Project:** With the successful implementation of the Geedam Chain Link Enclosure, the project sets a benchmark for future conservation works. The continued protection and preservation of these forest areas will contribute to the state's long-term environmental goals.

Conclusion:

The success of this initiative underscores the commitment of the Chhattisgarh State Forest Department and CAMPA towards a sustainable future. By effectively utilizing resources, engaging communities, and adopting sustainable practices, the Geedam Chain Link Enclosure project not only preserves biodiversity but also strengthens the relationship between conservation efforts and local development. This project is a significant step forward in the journey to protect Chhattisgarh's rich natural heritage and sets a high standard for future conservation efforts across the state.



Success Story: Nursery Development/ Establishment/ Upgradation/ Extension of Nurseries

Objective and Impact

The primary objective of the nursery development project in Jagdalpur is to support large-scale afforestation and reforestation activities across the region. By nurturing healthy, native plants in the nurseries, the project contributes to compensatory afforestation efforts and the regeneration of forest ecosystems. The project has been a major part of the strategy to improve the overall biodiversity of the region, enrich habitats for wildlife, and contribute to the management of water resources.

Project Location and Details

- Circle/Division: Jagdalpur R&E Jagdalpur
- Project Category: Nursery and Development
- Project Description: Establishment/Upgradation/Extension of Nurseries
- Location Coordinates: 19°3'48.67"N, 82°0'39.62"E
- Compartment: Sargipal RF 1024
- Area: 7 Ha
- Success Rate: 95%

The project has been implemented in Sargipal RF 1024, a strategically chosen site with a total treatment area of 7 hectares. The location of the nurseries has been selected to enhance afforestation efforts and support forest regeneration in the area.

Achievements and Key Findings

- **High Success Rate:** The nursery project in Jagdalpur has shown a success rate of 95%, which is a testament to the effective implementation and management of the project. The high survival rate of saplings indicates that the nursery development initiative is on track to achieve its long-term afforestation goals.
- **Biodiversity Enhancement:** The establishment of these nurseries has contributed to the enhancement of biodiversity in the region. The project has supported the regeneration of native species, improving habitat quality and supporting the local wildlife population.
- **Effective Weed Management:** With a strong focus on sustainable practices, weed management has been highly effective, ensuring that invasive species do not hinder the growth of the newly planted trees. This is crucial for maintaining the ecological balance in the region.
- **Soil and Moisture Conservation:** The nursery project has also played a role in soil and moisture conservation efforts. By improving water retention in the soil, the project has contributed to the rejuvenation of local water bodies, benefiting both flora and fauna.

Conclusion: A Step Toward Sustainable Forest Management

The nursery development project in Jagdalpur, under the CAMPA initiative, stands as a prime example of how effective forest management can be achieved through community involvement, sustainable practices, and strategic planning. With its high success rate, positive environmental impact, and community participation, this project contributes to Chhattisgarh's vision of restoring and protecting its natural forest resources. The results of this project will continue to have a long-term positive effect on the region's ecology, demonstrating the critical role of nursery and afforestation projects in combating deforestation and enhancing biodiversity.



Success Story: Soil and Moisture Conservation (SMC) Works at Konta Range

The **Konta Range** in Sukma was chosen for implementing Soil and Moisture Conservation (SMC) works, aimed at addressing water conservation and forest sustainability. The SMC activities were focused on various areas, including the **Konta Range Nala**, with the goal of improving soil quality, conserving water, and rejuvenating forest habitats.

Key details of the project include:

- Location: Konta Range, Sukma
- Coordinates: Latitude 17.91973564, Longitude 81.41419308
- Compartment Area: Includes Asirguda and multiple forest compartments such as RF/700, RF/696, RF/685, and others.
- Total Area: 1948 hectares
- Assessment: The SMC works conducted at Konta Range received an Excellent success rating.

Project Outcomes and Achievements

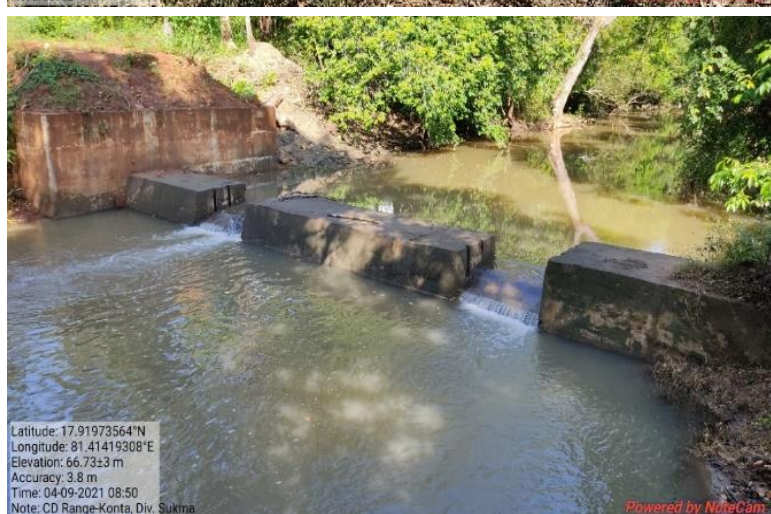
1. **Soil and Moisture Conservation Effectiveness:** The SMC works have played a critical role in improving soil structure and moisture retention. By addressing water conservation needs through effective techniques such as water harvesting pits, trenching, and bundling, the project has been successful in preventing soil erosion and improving water retention. This has enhanced the availability of water in the forest areas, benefitting both the flora and fauna.
2. **Increased Forest Sustainability:** One of the most significant outcomes of the SMC works is the improved health and sustainability of the local forest ecosystem. By rejuvenating water sources and stabilizing the soil, the forest's ability to support wildlife has been significantly enhanced. The project has contributed to the regeneration of grasslands and the revival of local water bodies, providing vital resources for the wildlife population.
3. **Enhanced Biodiversity Conservation:** The successful implementation of SMC measures has led to a visible improvement in biodiversity. The removal of invasive species and the promotion of native flora has resulted in richer habitats, allowing local wildlife species to thrive. The project has fostered a healthier ecosystem, where the fauna benefits from increased water resources and better plant growth.
4. **Local Community Engagement:** The project has made a significant positive impact on the local community by creating employment opportunities for local individuals. Residents from nearby villages were engaged in various stages of the project, from plantation activities to construction works, generating substantial employment and providing a source of income.
5. **Water Body Rejuvenation:** The SMC activities have contributed to the rejuvenation of water bodies in the region, including streams and ponds. This

has led to improved water quality, benefitting both wildlife and the local human population who depend on these water sources.

6. **Success Rate and Evaluation:** The success of the SMC project at Konta Range has been quantified with a success rate of over **75%** for afforestation and reforestation activities, which exceeds the general expectations for such projects. The project has been assessed as highly successful due to its positive outcomes, particularly in the areas of soil and water conservation, and biodiversity preservation.

Conclusion

The **Konta Range SMC Works** is a prime example of how targeted conservation efforts can yield significant environmental and socio-economic benefits. Through the dedicated efforts of the Chhattisgarh State Forest Department and the community, this project has achieved remarkable success in improving the health of the forest ecosystem, conserving water, enhancing biodiversity, and creating employment opportunities for local communities.



East Bhanupratappur Division

Reviving Ecosystems through CAMPA's Soil and Moisture Conservation in Kanker, Chhattisgarh - A Vision for Restoration

Deep within the forests of Kanker, Chhattisgarh, a transformative effort led by the Chhattisgarh State CAMPA is weaving together the threads of ecological restoration and sustainable development. The initiative, under the aegis of the Chhattisgarh State Forest Department, strives to preserve natural forests, bolster wildlife management, and develop critical forestry infrastructure. At its core lies a mission to utilize compensatory afforestation funds to nurture forests and allied ecosystems.

A Model of Success

In the East Bhanupratappur division, the soil and moisture conservation (SMC) work at INDUL NALA-1 stands as a shining example of CAMPA's endeavors. Spanning an impressive 3,183 hectares, this project is rewriting the story of ecological degradation with sustainable solutions and setting a benchmark in forest management.

Healing the Land

At INDUL NALA-1, the soil and moisture conservation efforts are reshaping the landscape. By building check dams, contour trenches, and water recharge pits, the project has arrested soil erosion and significantly improved water retention. The rejuvenated land now offers fertile ground for afforestation and habitat restoration.

Green Growth and Resilience

The afforestation activities at the site have achieved a remarkable survival rate of over 75%. By employing strategic plantation methods and rigorous weed management, invasive species regrowth was reduced to less than 9%, ensuring the long-term health of the forest. The regenerated greenery provides a thriving environment for native flora and fauna, reviving the ecological fabric of the region.

Wildlife Thrives Again - Improved water bodies and restored grasslands have given a fresh lease of life to the region's wildlife. The enriched habitats now support diverse species, showcasing the profound impact of habitat improvement measures.

Building a Protective Network - To safeguard these efforts, the project has fortified the forest areas with chain-link fencing and boundary walls. Upgraded forest roads have improved connectivity, streamlining management and protection operations.



Kanker Division

Success Story: Revitalizing Forest Ecosystems Through Soil and Moisture Conservation

The Chhattisgarh State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA), in collaboration with the Chhattisgarh State Forest Department (CSFD), has spearheaded several initiatives to preserve natural forests, conserve wildlife, and enhance forest infrastructure. Among these, the Jhura Nala Soil and Moisture Conservation (SMC) project in the Kanker Division stands out as a prime example of ecological restoration and community engagement.

Overview of the Jhura Nala SMC Works

Located at 20.462265° N, 81.650214° E in compartment RF 183 of the Kanker Division, the Jhura Nala SMC project treated an expansive area of 604 hectares. This initiative aimed to rejuvenate water bodies, improve soil quality, and enhance biodiversity in the region.

Key Achievements

The Jhura Nala SMC project achieved remarkable results, driven by its focused interventions:

Enhanced Water Conservation - Through effective soil and moisture conservation techniques, water sources within the treated area were rejuvenated. This significantly benefited local flora and fauna while ensuring a sustainable water supply for wildlife. The enriched water bodies have become thriving ecosystems, promoting biodiversity in the region.

High Survival Rate of Plantations - Plantations established as part of this project achieved a survival rate exceeding 75%, showcasing the effectiveness of the interventions. Weed management measures further ensured that the regrowth of invasive species was limited to under 9%, contributing to ecological balance and stability.

Biodiversity Conservation - The project fostered the growth of grasslands and improved water bodies, creating enriched habitats for local wildlife. These efforts revitalized biodiversity, providing a safe haven for numerous species and bolstering the region's ecological resilience.

Infrastructure Development - Protective infrastructure, including chain-link fencing and boundary walls, was established to safeguard forest areas. Improved connectivity through road construction facilitated better access and forest management, further strengthening the sustainability of the project.

Success Factors

The success of the Jhura Nala project can be attributed to several critical elements:

- **Integrated Planning:** Strategic resource allocation and coordinated efforts ensured smooth project execution.
- **Community Participation:** Active involvement of local communities amplified the project's impact and long-term viability.
- **Scientific Approach:** The adoption of data-driven methodologies and regular monitoring ensured that project objectives were met effectively.
- **Sustained Efforts:** Continuous capacity building and outreach activities reinforced institutional capabilities and deepened stakeholder engagement.

Conclusion

The soil and moisture conservation initiative at Jhura Nala exemplifies the transformative potential of focused environmental interventions. By revitalizing ecosystems, conserving biodiversity, and empowering local communities, the project serves as a model for sustainable forest management. The excellent success rate achieved underscores the importance of such initiatives in achieving long-term ecological and socio-economic benefits. The accomplishments of the Jhura Nala SMC project set a benchmark for future conservation projects in the region, showcasing how well-planned and executed efforts can transform landscapes and livelihoods alike.



Keshkal Division

Empowering Forests and Communities: The Success Story of CAMPA in Keshkal Division, Kanker Circle

The Chhattisgarh State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) project is a pioneering initiative under the Chhattisgarh State Forest Department. It aims to rejuvenate forests, preserve biodiversity, and strengthen wildlife management while fostering socio-economic development in forest-fringe communities.

The project has leveraged funds from compensatory afforestation and related activities to rehabilitate degraded landscapes, establish protective infrastructure, and conserve wildlife habitats. One such impactful intervention is the maintenance of the Compensatory Afforestation Plantation in the Keshkal division of Kanker Circle.

Project Highlights: CA Plantation Maintenance in Keshkal

- Location: P-235 Pharasgaon, GPS Coordinates (19.72298, 81.695803)
- Total Area Treated: 10 hectares
- Success Rate: An impressive 95% survival rate of planted trees
- Scope: Weed management, biodiversity enhancement, soil and moisture conservation, and infrastructure development

This remarkable effort reflects a model of sustainable forestry that not only addresses ecological restoration but also empowers local communities.

Key Achievements

1. **High Success Rate in Plantation Survival** - The 95% survival rate demonstrates the project's robust planning and execution, ensuring that planted trees thrive and contribute to the local ecosystem's resilience.
2. **Effective Weed Management** - The systematic removal of invasive species has limited their regrowth to under 9%, allowing native vegetation to flourish and promoting biodiversity.
3. **Biodiversity Conservation and Habitat Enrichment** - Enrichment of grasslands and water bodies has provided a conducive environment for local fauna and flora, ensuring a thriving ecosystem.
4. **Water Resource Rejuvenation** - Soil and moisture conservation efforts have revitalized water bodies, benefiting wildlife and enhancing the area's ecological balance.
5. **Enhanced Forest Protection and Connectivity** - Infrastructure like chain-link fencing and boundary walls has fortified forest protection, while improved road connectivity has facilitated better management and community access.

6. **Strengthened Conservation Ethos** - Outreach programs and training have built capacity among stakeholders, fostering a culture of conservation and sustainable forest management.

Looking Ahead

This success story underlines the potential of well-planned and executed afforestation projects to bring about transformative change. The learnings and achievements from Keshkal provide a robust framework for replicating similar initiatives across other divisions, contributing to the broader goals of ecological preservation and community development.



Narayanpur Division

Protection of Sacred Grooves

In the Narayanpur Division of Chhattisgarh, lies a sacred grove within RF.No: 2373, deeply revered by the local tribal communities. This grove, a spiritual sanctuary nestled within the forest, holds immense cultural significance and is a vital component of the region's ecological balance. It serves as a refuge for native flora and fauna, contributing to biodiversity conservation while being a site of spiritual importance for the tribal population.

However, the grove faced increasing threats from encroachment and environmental degradation. Unregulated activities around the site risked not only the grove's sacred status but also the biodiversity it nurtures. These challenges called for immediate action to protect the grove and ensure its sustainability for future generations.

In response, a construction project was initiated to create a protective boundary and infrastructure around the sacred grove. This intervention was designed to safeguard the area from external threats while preserving its cultural and spiritual essence. The protective measures included the construction of boundary walls and enclosures, which deterred encroachment and regulated access to the grove. The project was executed with careful planning to ensure that the construction respected the sanctity of the site, balancing conservation needs with cultural sensitivity.

The initiative proved to be a resounding success. By integrating modern conservation techniques with cultural respect, the project not only preserved the sacred grove but also protected the surrounding forest ecosystem. The local tribal communities were actively involved in the planning and implementation phases, fostering a sense of ownership and collaboration. This participatory approach ensured that the grove's cultural significance was upheld while its ecological value was reinforced.

This success story from Narayanpur Division serves as a shining example of how conservation and cultural heritage can coexist harmoniously. The project demonstrates the power of community involvement, thoughtful planning, and a commitment to preserving natural and cultural treasures. It sets a precedent for similar efforts in other regions, showcasing how integrating traditional values with modern conservation strategies can yield impactful results.



South Kondagaon Division

Transforming Landscapes Through Soil and Moisture Conservation

The Chhattisgarh State Compensatory Afforestation Fund Management and Planning Authority (State CAMPA) initiative, under the aegis of the Chhattisgarh State Forest Department (CSFD), is a beacon of effective environmental management and conservation. Designed to preserve natural forests, protect wildlife, and enhance infrastructure, the CAMPA program integrates multiple funding sources to drive impactful activities. From compensatory afforestation to soil and moisture conservation (SMC) works, the project underscores a holistic approach to forest and wildlife management while engaging local communities in meaningful ways.

Under the South Kondagaon division, a transformative project for soil and moisture conservation was undertaken in the Kahdaka Nala area (GPS coordinates: 19°36'28.58"N, 81°47'14.37"E) encompassing compartments RF-769, 770, 787, and 788. Covering a total area of 3,400 hectares, this initiative has demonstrated exemplary success, with its outcomes.

Significance of the Project

This project is a testament to the potential of integrated conservation efforts. By addressing critical challenges such as water scarcity, soil erosion, and invasive species, the initiative has:

- Bolstered the ecological balance in the region.
- Strengthened local livelihoods through employment generation and capacity building.
- Provided a replicable model for other regions facing similar challenges.

Looking Ahead

The success of the Kahdaka Nala SMC project highlights the importance of community-driven and scientifically backed conservation efforts. By continuing to engage stakeholders and leveraging innovative solutions, the CAMPA initiative is poised to make lasting contributions to the preservation and sustainable management of Chhattisgarh's forests and wildlife. The journey at South Kondagaon is not just a story of success but a source of inspiration, showing how thoughtful interventions can transform landscapes and lives.



West Bhanupratappur Division

Transforming Landscapes Through Compensatory Afforestation

One remarkable example of project initiative's success is the Koilibeda Compensatory Afforestation (CA) Plantation project in the West Bhanupratappur Division, Kanker district. This project exemplifies how strategic afforestation efforts can restore ecological balance and contribute to sustainable development.

The Project at a Glance

Located in Koilibeda, Kanker (N 19°58'30.42", E 080°59'46.51"), the project treated 13.200 hectares within compartments OA Koilibeda Khashra Nos. 218 and 219. With an impressive 95% success rate, the Koilibeda CA Plantation has set a benchmark for effective afforestation efforts. The project underscores the success of scientific plantation techniques and regular maintenance practices. Community involvement played a pivotal role in achieving this remarkable outcome, demonstrating the power of collective effort. By reducing the regrowth of invasive species to below 9%, the project ensured that native vegetation could thrive. This robust weed management strategy directly contributed to biodiversity enrichment, allowing local ecosystems to flourish.

The plantation has significantly improved the habitat quality of the area. Key outcomes include:

- **Grassland Growth:** The profuse growth of grasslands has created vital forage sources for herbivores, enhancing the ecosystem's carrying capacity.
- **Water Body Enrichment:** Soil and moisture conservation measures have revitalized water bodies, benefiting both wildlife and nearby communities.

Protective measures, such as chain-link fencing and boundary walls, have safeguarded the plantation from encroachments and grazing pressures. Additionally, the construction of forest roads has improved connectivity, facilitating better forest management and protection efforts.



Balodabazar Division

Success Story: Revitalizing Forests through Assisted Natural Regeneration in Sonakhan Range

The project aimed to preserve natural forests, enhance wildlife habitats, and contribute to the socio-economic upliftment of local communities. A notable initiative within this framework was the Assisted Natural Regeneration (ANR) project in the Sonakhan range, Balodabazar division. Spanning an area of 123.04 hectares, this project sought to revive forest vitality and ensure ecological balance. With a remarkable success rate of 95%, the initiative stands as a testament to the potential of collaborative and science-driven conservation efforts.

Ecological and Biodiversity Gains

- Effective weed management significantly curtailed the regrowth of invasive species, achieving a reduction rate of less than 9%.
- Enhanced biodiversity was observed, with the profuse growth of grasslands and enriched water bodies providing habitats for local flora and fauna.

Water Source Rejuvenation

- Soil and moisture conservation efforts revitalized water sources, directly benefitting wildlife and aiding in forest restoration.

Infrastructure for Protection

- Protective measures such as the construction of boundary walls and chain-link fences safeguarded the regenerating forests.
- Connectivity within forest areas improved through the construction of essential roads, ensuring better management and accessibility.

Engaging Communities for Sustainable Outcomes

A key aspect of the project's success was the active involvement of local communities. By integrating stakeholders in the planning and implementation phases, the initiative achieved widespread acceptance and participation. Stakeholders were equipped with the necessary skills and knowledge through targeted outreach and training programs, ensuring sustained engagement and awareness.

The success of the Sonakhan range ANR project demonstrates the efficacy of combining traditional conservation methods with modern scientific approaches. With a survival rate of over 95%, the initiative not only restored the ecological health of the region but also set a precedent for future conservation projects.

- **Lessons Learned:** Effective weed management, community involvement, and infrastructural support were identified as critical factors contributing to the project's achievements.
- **Scalable Approach:** The methodologies adopted in this project serve as a scalable model for other regions seeking to implement afforestation and reforestation programs.

Conclusion

The Assisted Natural Regeneration work in the Sonakhan range stands as a beacon of hope and a model of excellence in forest restoration. Through the collective efforts of the Chhattisgarh State Forest Department, local communities, and CAMPA's strategic funding, a degraded forest landscape has been transformed into a thriving ecosystem. This success story underscores the importance of collaborative, well-planned, and community-oriented conservation initiatives in addressing environmental challenges and fostering sustainable development.



Success Story: Reviving Ecosystems through Soil and Moisture Conservation in Dhamtari

This Soil and Moisture Conservation (SMC) project became a beacon of ecological restoration, breathing new life into the forest ecosystem, fostering biodiversity, and uplifting local communities. It exemplifies how strategic interventions can balance ecological needs with community welfare. Nestled in compartments 465, 466, and 467, the Ghatiyarin Nala project focused on conserving soil and moisture while restoring a crucial water body. The initiative aimed to mitigate soil erosion, recharge aquifers, and create a thriving habitat for native flora and fauna. By blending modern techniques with traditional wisdom, and engaging local communities, the project sought to safeguard the forest ecosystem for future generations.

The success of the Ghatiyarin Nala initiative was driven by a multifaceted approach:

1. **Soil and Moisture Conservation Techniques:** Techniques like contour trenches, check dams, and vegetative barriers were employed to retain moisture and control erosion.
2. **Nala Rehabilitation:** The restoration of the water body improved its flow dynamics and ensured sustainable water availability.
3. **Community Engagement:** Local residents actively participated in planning and implementation, fostering a sense of ownership and responsibility.
4. **Protective Infrastructure:** Chain-link fencing and boundary walls were installed to prevent encroachment and grazing, safeguarding the area's ecological integrity.

The outcomes of this initiative have been remarkable:

- **Enhanced Water Resources:**
 - The rejuvenation of Ghatiyarin Nala ensured sustained water flow, benefiting wildlife and local communities.
 - Improved soil moisture levels led to thriving grasslands, providing critical forage for local fauna.
- **Biodiversity Conservation:**
 - Restored habitats supported the resurgence of native plant and animal species.
 - Invasive species were effectively controlled, enhancing the ecological balance.
- **Community Benefits:**
 - Employment opportunities were created for locals through activities such as plantation drives, SMC works, and infrastructure development.

- Capacity-building programs empowered stakeholders with skills in sustainable forest management.
- **High Success Rates:**
 - Afforestation efforts achieved a survival rate exceeding 75%, highlighting effective planning and care.
 - Weed control measures reduced invasive species regrowth to below 9%, ensuring long-term ecosystem health.
- **Improved Protection and Connectivity:**
 - Strategic road planning enhanced connectivity across the forest, simplifying management and access.
 - Fencing and boundary walls provided robust protection against encroachment and grazing pressures.

Conclusion

The Soil and Moisture Conservation project at Ghatiyarin Nala stands as a testament to the transformative potential of well-targeted ecological interventions. By rejuvenating a critical water body, enhancing biodiversity, and empowering local communities, this initiative has set a benchmark for future conservation efforts under the CAMPA framework. It reinforces the Chhattisgarh State Forest Department's commitment to environmental stewardship and serves as a model for sustainable conservation practices across India.



Transforming Landscapes: The Oxyvan Plantation Success Story in Gariyaband

Among the various efforts taken up in the division, the Oxyvan Plantation project in Gariyaband division stands out as a remarkable example of nature restoration and community engagement. Initiative demonstrates how effective planning and community involvement can lead to exceptional results.

As part of the CAMPA initiative, the Oxyvan Plantation in Gariyaband focused on compensatory afforestation, covering 5 hectares in Compartment 63. This area, a beacon of green transformation, boasts a success rate of 95%, far surpassing expectations and showcasing the effectiveness of the afforestation strategy.

The plantation not only enriches the local environment but also serves as a crucial carbon sink, mitigating climate change impacts and rejuvenating biodiversity in the region.

- 1. High Survival Rate:** The survival rate of the planted species reached an impressive 95%, setting a benchmark for similar projects in the region. This success underscores the meticulous planning, effective species selection, and post-plantation care implemented by the CAMPA team.
- 2. Effective Weed and Invasive Species Management:** Through rigorous weed management strategies, the regrowth of invasive species has been kept below 9%, ensuring the health and longevity of native plants.
- 3. Biodiversity Enrichment:** The plantation has catalyzed the growth of grasslands and enhanced water bodies, creating habitats that support diverse flora and fauna. Local wildlife populations have visibly benefitted from the enriched environment.
- 4. Community Engagement and Employment:** The project directly involved the local community, providing significant employment opportunities during plantation activities, soil and moisture conservation efforts, and forest fire mitigation. This approach not only ensured smooth project implementation but also fostered a sense of ownership and stewardship among the residents.
- 5. Soil and Water Conservation:** By adopting soil and moisture conservation techniques, the project successfully rejuvenated nearby water bodies. This has had a cascading positive impact on the ecosystem, benefiting both wildlife and local communities.
- 6. Enhanced Forest Protection and Connectivity:** With the construction of chain-link fences and boundary walls, the forest area is now better protected against encroachment and degradation. Improved road connectivity has further strengthened forest management efforts.

The Oxyvan Plantation in Gariyaband is a testament to the power of collaborative, well-planned afforestation efforts. It exemplifies how large-scale environmental initiatives, when executed with precision and care, can yield extraordinary results.

Conclusion

The Oxyvan Plantation stands as a shining example of environmental rejuvenation and sustainable development. With a clear focus on ecological preservation, community engagement, and resource optimization, it has set the stage for future success stories.

As Chhattisgarh continues to lead the way in afforestation and biodiversity conservation, projects like this inspire hope and action, proving that with commitment and collaboration, the path to a greener future is within reach.



Mahasamund Division

Success Story: Soil Moisture Conservation (SMC) Works

In the Mahasamund Forest Division, the Bhalutri Nala project emerged as a beacon of success in soil and water conservation, addressing critical environmental challenges in the region. The project, spanned across Compartments 220 to 226, covering a substantial area of 834 hectares. This initiative was part of the broader Narwa program, focusing on Soil Moisture Conservation (SMC) to restore the ecological balance and enhance water availability in the area.

The Bhalutri Nala project aimed to tackle the issues of soil erosion and water scarcity, which had been plaguing the region for years. The project involved constructing various soil moisture conservation structures along the Nala, including check dams, contour trenches, and gully plugs. These structures were strategically placed to slow down water runoff, enhance groundwater recharge, and prevent further degradation of the soil.

The success of the Bhalutri Nala project in Mahasamund Division is a testament to the effectiveness of well-planned and executed soil and water conservation efforts. By focusing on sustainable practices and involving the local community, the project not only restored the ecological balance but also provided long-term benefits to the people who depend on the land. This success story serves as an inspiring example of how targeted conservation efforts can lead to significant environmental and socio-economic gains, ensuring a healthier and more sustainable future for the region.



Success Story - River bank Plantation

Compartment No. 80 in the Koliyari "A" Beat of the Rajim Unit, Research and Extension Raipur Division, was identified as a critical area for ecological restoration due to its proximity to a river and the associated risks of soil erosion and habitat degradation. To address these issues and improve the local environment, a riverbank plantation project was initiated over 15 hectares, aiming to stabilize the riverbanks, enhance biodiversity, and provide economic benefits to the local community.

The riverbank plantation involved the planting of 16,500 seedlings across the 15-hectare area, with a focus on species well-suited to the riparian environment. The project was meticulously planned, with a detailed plantation journal maintained and updated regularly. The site was carefully selected for its suitability, and sufficient irrigation facilities were developed to ensure the success of the plantation.

High Survival Rate: Out of the 16,500 plants initially planted, 15,676 survived, achieving a remarkable survival rate of 95%. The average height of the live plants was 4.5 feet, indicating healthy growth and successful establishment.

The riverbank plantation in Compartment No. 80 was a significant success, with the following key outcomes:

- **Environmental Impact:** The plantation effectively stabilized the riverbank, reducing erosion and enhancing the ecological balance of the area. The healthy growth of the plants also contributed to increased biodiversity, providing a habitat for various species of flora and fauna.
- **Optimal Use of Resources:** The project was executed with precision, with the entire 15-hectare area covered as planned. Financial management was also exemplary, with almost 95% of the approved funds utilized, leaving a negligible unutilized amount.



Success Story – Afforestation

Years of deforestation had left the land barren, with soil erosion and the absence of native flora and fauna. The local community, which depended on the forest for resources, faced challenges due to the loss of forest cover and the subsequent decline in biodiversity. Recognizing the critical need for restoration, the forest department selected Compartment P 3283 of Jarima beat, Kusmi range as a priority site for its Compensatory Afforestation Plantation program with species like *Dalbergia sissoo*, *Albizia lebbbeck*, *Tectona grandis*, *Mangifera indica*, *Psidium guajava* and bans etc. The goal was to restore the ecological balance by reintroducing native tree species that could thrive in the local conditions and provide habitat for wildlife. Over 50 hectares of land in Compartment P 3283 were planted with these native species. The planting was carried out during the monsoon season to take advantage of the natural rainfall, which helped the young saplings establish strong roots.

The forest department implemented regular maintenance practices, including watering, weeding, and protection from grazing animals. Local communities were engaged in these activities, providing them with both employment opportunities and a vested interest in the success of the project.

Continuous monitoring was conducted to assess the health and growth of the plantations. This included tracking survival rates and addressing any issues that arose, such as pest infestations or nutrient deficiencies in the soil.

As a result of the above efforts, the project in Compartment P 3283 exceeded expectations, with a survival rate of 96% i.e., one of the highest among similar afforestation projects in the region. The once-barren landscape is now covered in a thriving forest, rich with diverse tree species that provide habitat for a variety of wildlife. The high survival rate of the plantation demonstrates the effectiveness of the strategies employed, including species selection, community engagement, and ongoing maintenance. This success story highlights the potential for similar compartments in the region to be rehabilitated, contributing to broader conservation goals and improving the livelihoods of local communities.



Oxyvan Plantation: A Success Story of Restoration and Resilience

In the serene expanse of **PF 1393 compartment**, a transformative journey began with the plantation of Oxyvan across 10 hectares. This initiative wasn't just about planting trees; it was a commitment to restoring ecological balance and rejuvenating degraded lands. What unfolded was a tale of meticulous planning, dedicated execution, and a collective vision to heal the environment.

Project Implementation and Efforts

The Oxyvan plantation in PF 1393 marked its second year of maintenance during this phase. Efforts were carefully aligned with best practices in reforestation, from selecting **native species** to optimizing planting techniques. The process involved preparing the soil, enriching it with organic matter, and ensuring adequate spacing for healthy growth.

A dedicated team of forest officials, local laborers, and ecological experts worked tirelessly to care for the young saplings. Regular monitoring, irrigation, and protection from grazing animals and pests were pivotal to ensuring the saplings thrived. The inclusion of local communities in these efforts fostered a sense of shared responsibility, turning the initiative into a collaborative success.

The Impact and Achievements

The project yielded remarkable results, with the plantation achieving an impressive **survival rate of 93.15%**. This high survival rate is a testament to the effective maintenance practices and the relentless commitment of all stakeholders involved. The thriving plantation has become a flourishing green belt, contributing significantly to the region's ecological health.

- **Biodiversity Restoration:** The Oxyvan plantation has created a conducive habitat for native wildlife, supporting a resurgence of birds, small mammals, and pollinators.
- **Enhanced Ecosystem Services:** The planted trees are not only sequestering carbon but also improving soil stability, water retention, and local climate moderation.
- **Community Empowerment:** The project provided employment opportunities for local residents, involving them in planting and maintenance activities. This not only supported livelihoods but also instilled a sense of ownership and pride in the community.

Lessons Learned and Future Aspirations

The success of the Oxyvan plantation project underscores the importance of meticulous planning, consistent monitoring, and community engagement in reforestation efforts. The achievement serves as a model for future plantations, demonstrating that with the right approach, degraded lands can be transformed into thriving ecosystems.



Success Story: Transforming Compartment 192 through Compensatory Afforestation

Background: Compartment 192, located in the Koriya district, was identified as a critical area for ecological restoration due to its degraded condition caused by deforestation and soil erosion. The loss of tree cover had significantly impacted the local environment, leading to reduced biodiversity, soil degradation, and increased vulnerability to erosion. To address these challenges, the forest department initiated a Compensatory Afforestation Plantation project in this compartment as part of a broader effort to restore ecological balance and improve the sustainability of the area.

Project Implementation: The project focused on planting a variety of indigenous tree species that were well-suited to the local climate and soil conditions. The objective was to restore the natural forest cover, enhance biodiversity, and stabilize the soil to prevent further erosion. The plantation covered an area of 15 hectares, with carefully selected species that included both fast-growing trees and those known for their long-term ecological benefits. The selection of species was based on their ability to thrive in the local environment, provide habitat for wildlife, and improve soil fertility.

Maintenance and Monitoring - To ensure the success of the plantation, regular maintenance activities were carried out, including watering, mulching, and protection from grazing animals. A dedicated team was responsible for monitoring the growth of the saplings and addressing any issues such as pest infestations or nutrient deficiencies.

Community involvement was a key aspect of the project, with Forest Development Committees (FDCs) actively participating in the maintenance and monitoring processes. This not only ensured the well-being of the plantation but also strengthened the relationship between the forest department and the local communities.

Outcomes: The Compensatory Afforestation Plantation in Compartment 192 was a resounding success, achieving a survival rate of 93%. This success is a testament to the careful planning, effective implementation, and strong community involvement that characterized the project.

Conclusion: The transformation of Compartment 192 through the Compensatory Afforestation Plantation project is a shining example of successful ecological restoration. The high survival rate of 93% and the positive environmental and socio-economic impacts demonstrate the effectiveness of the strategies employed.

This success story highlights the importance of careful species selection, community involvement, and ongoing maintenance in achieving long-term conservation goals. Compartment 192 now serves as a model for similar projects, showcasing how targeted afforestation efforts can lead to significant environmental recovery and improved livelihoods for local communities. The project's success underscores the

potential for restoring degraded lands and achieving sustainable development through well-planned and executed conservation initiatives.



Manendragarh Division

Effective Soil Moisture Conservation in Turrapani Nala (Compartment 1043)

Compartment 1043, located in the Turrapani Nala area, faced significant challenges related to soil erosion and water retention. These issues threatened both forest regeneration and the agricultural productivity of nearby lands. To address these challenges, a soil moisture conservation project was implemented under the NARWA Yojna initiative, focusing on improving water retention and preventing soil degradation.

Project Implementation: The project employed a range of soil moisture conservation techniques, including the construction of check dams and contour trenches, across 153 hectares. These methods were carefully chosen to suit the local terrain and climatic conditions, ensuring that the conservation efforts would be effective in both the short and long term.

Outcomes: The project achieved a 90% success rate, one of the highest among similar initiatives in the region. The implementation of these conservation measures significantly reduced soil erosion and improved water retention in the area. This not only supported the regeneration of the local forest but also enhanced the agricultural productivity of the surrounding lands, benefiting local communities.

Conclusion: The success of the soil moisture conservation project in Compartment 1043 demonstrates the effectiveness of targeted interventions in addressing environmental challenges. The 90% success rate highlights the project's impact in improving ecological stability and supporting the livelihoods of the local population. This success story serves as a model for future conservation efforts in similar terrains.



Surajpur Division

Success Story: Compensatory Afforestation Plantation at Surajpur

A standout success from the CAMPA projects is the Compensatory Afforestation Plantation at Surajpur Range, specifically the CA Mixed Plantation site at P 1628, APO Sr. No.: 45/22.11.19. This project aimed to enrich biodiversity through the plantation of various species such as Siris, Teak, Arjun, Khamhar, Mahua, Mango, Amla, Bamboo, Imli, and Sal.

Success Factors:

- **High Survival Rate:** The project achieved a remarkable survival rate of 93.4%.
- **Healthy Growth:** The planted species exhibited robust health and growth, with an average height of live plants ranging from 3.5 to 6.0 feet.
- **Financial Efficiency:** The project managed its budget effectively, with only a minimal variance between the approved budget and actual expenditure.



A Success Story: Pond Construction in Surguja Division

Transforming Habitats, Sustaining Life

Nestled in the heart of the Suyiya Jungle, Sayar, the Surguja Division embarked on a mission to enhance wildlife habitats through the construction of a pond under its Wildlife Management Plan. Situated in P 2040, this initiative aimed to address critical challenges faced by the region's wildlife, including water scarcity during dry spells and habitat degradation. The result? A remarkable success story with a 95% success rate, showcasing the transformative impact of thoughtful conservation efforts.

Water is the lifeblood of any ecosystem, and in forested landscapes like the Suyiya Jungle, its availability directly influences wildlife survival and biodiversity. The pond construction project was conceptualized to provide a perennial water source for animals, ensuring their sustenance and well-being. The initiative also aimed to create a thriving ecological hotspot that would attract a variety of species, enhancing the region's biodiversity.

The construction of the pond was a carefully planned endeavor. A site in P 2040 was chosen after thorough assessments, ensuring proximity to wildlife corridors and compatibility with the natural terrain. Engineers, ecologists, and local laborers collaborated to design and construct the pond, integrating features such as gentle slopes for easy access and vegetation buffers to prevent soil erosion. The project's success hinged on meticulous execution:

- **Excavation and Soil Stabilization:** The pond was excavated to an optimal depth, ensuring water retention even during periods of low rainfall. Soil stabilization techniques were employed to enhance durability.
- **Vegetation Management:** Native plant species were introduced around the pond to create shade, reduce evaporation, and provide cover for smaller species.
- **Community Involvement:** Local communities were actively engaged in the project, from construction to maintenance. This approach fostered a sense of ownership and responsibility toward the newly created water source.

Key Success Factors

The 95% success rate of the project reflects the careful planning, technical expertise, and collaborative spirit that drove the initiative. Regular monitoring and adaptive management ensured that challenges were addressed promptly, securing the project's long-term viability.

The success of the pond construction in P 2040 serves as a model for future wildlife management projects in the Surguja Division and beyond. Scaling similar efforts across other critical habitats can amplify the positive impact, creating a network of water sources to support wildlife during changing climatic conditions. Integration with other habitat improvement initiatives, such as grassland development and reforestation, can further enhance ecosystem resilience.

Conclusion

The pond construction in the Suyiya Jungle is a shining example of how targeted conservation efforts can transform ecosystems and sustain wildlife. By addressing the fundamental need for water, the Surguja Division has not only safeguarded the region's biodiversity but also inspired confidence in the power of well-executed wildlife management plans. This success story reaffirms the commitment to preserving natural habitats and ensuring the survival of wildlife for generations to come.



Soil and Moisture Conservation Work at Rakshachhak Nala

The soil and moisture conservation (SMC) project at Rakshachhak Nala in RF 299 Ranjki Beat of Achanakmar Tiger Reserve is a notable success story, covering 2050 hectares with an impressive 95% success rate. This initiative has significantly contributed to improving soil stability and water retention, transforming the area into a thriving ecological zone.

The SMC interventions, including contour trenches and check dams, have reduced soil erosion and enhanced groundwater recharge, which has revitalized nearby water bodies. This has not only supported forest vegetation but also provided essential water sources for wildlife and local communities. Improved soil conditions have encouraged the regeneration of native vegetation, fostering biodiversity and creating a more sustainable ecosystem.

Key factors in the project's success include strategic planning, site-specific interventions, and regular monitoring to ensure consistent progress. Additionally, collaboration with local communities and stakeholders helped overcome initial challenges, such as terrain difficulties and resistance to change, ensuring the long-term sustainability of the initiative.

The success of Rakshachhak Nala serves as a model for replicating similar projects in other parts of the reserve. By showcasing the potential of targeted conservation efforts, this project highlights the importance of soil and moisture conservation in safeguarding both ecosystems and livelihoods.

The soil and moisture conservation work at Rakshachhak Nala is a shining example of how well-planned and executed conservation projects can bring about significant ecological and socio-economic benefits. With a 95% success rate, this initiative underscores the importance of soil and water conservation in safeguarding forest ecosystems and supporting biodiversity.



The Baniyadhur Nala Project: A Case Study

Background

Located in the ER Surguja division, the Baniyadhur Nala project under CAMPA focused on soil and moisture conservation (SMC) works. With GPS coordinates at 23.652932, 82.939393, this site has become a beacon of success for conservation efforts. Spanning an area treated to 25 metric tons, the project was executed in the RF-854 compartment and has been hailed as an "Excellent" example of effective forest management.

Project Implementation

The SMC work involved critical activities such as:

- **Nala plugging** to control water runoff and enhance groundwater recharge.
- **Rejuvenation of water bodies**, benefitting both flora and fauna.
- **Habitat enrichment**, ensuring the availability of resources for wildlife.

Community Engagement

The project emphasized local participation, involving communities in planning and execution. This approach not only ensured the project's success but also provided livelihood opportunities through activities like plantation, civil construction, and forest management training.

Achievements and Impact

Soil and Moisture Conservation Success

- The plugging and treatment of Baniyadhur Nala led to **enhanced water retention**, rejuvenating nearby water bodies.
- These efforts directly contributed to a healthier ecosystem, supporting the growth of grasslands and enabling the survival of local wildlife.

Wildlife Conservation

- Improved water availability resulted in a significant rise in local fauna populations, while enriched grasslands provided abundant grazing areas.
- Habitat enhancement ensured the preservation of biodiversity, maintaining ecological balance.

Infrastructure Development

- The construction of chain link fences and boundary walls safeguarded forests from encroachment.

- Improved connectivity through forest roads facilitated better management and patrolling of the area.

Community Benefits

- The project created numerous employment opportunities, empowering local communities and reducing dependency on forest resources.
- Stakeholders, including youth and students, were actively involved, fostering a sense of ownership and responsibility towards forest conservation.

Key Outcomes

1. **High Success Rate:** The project achieved an exceptional success rate with over 75% survival of planted trees.
2. **Effective Weed Management:** Regrowth of invasive species was curtailed to less than 9%, ensuring the sustainability of conservation efforts.
3. **Enhanced Biodiversity:** Flourishing grasslands and water bodies have led to visible improvements in local biodiversity.
4. **Community Empowerment:** Active involvement of local stakeholders reinforced the project's effectiveness and sustainability.

Conclusion

The Baniyadhur Nala project exemplifies the transformative potential of CAMPA initiatives. By integrating community engagement, scientific methodology, and robust infrastructure development, the project not only restored degraded landscapes but also empowered local communities. This success story highlights the importance of collaborative efforts in achieving long-term ecological and socio-economic benefits, setting a benchmark for future conservation projects in Chhattisgarh and beyond.



Grassland Development under Chhattisgarh CAMPA Initiative

Through its integrative framework, CAMPA channels funds from compensatory afforestation, penal compensatory afforestation, and other related activities to restore and protect vital ecosystems. One such landmark project is the Wildlife Habitat Improvement (Forage/Pasture) - Grassland Development in 30 Hec. of RF-40 compartment in the GGNP (Guru Ghasidas National Park) division.

The project was executed in the GGNP circle with the specific objective of enhancing grassland ecosystems to provide better forage and pasture for local wildlife. Spanning a total treatment area of 30 hectares, this initiative utilized GPS-enabled site selection and meticulous planning to ensure maximum ecological impact. The project's success rate was evaluated as Excellent, reflecting the profound improvements in biodiversity, soil health, and water resource rejuvenation.

Key Achievements

1. Grassland Restoration

Through this initiative, degraded grasslands were transformed into lush, thriving ecosystems. The profuse growth of native grasses created a sustainable habitat for herbivorous species, ensuring a balanced food chain within the park's ecosystem. Effective weed management practices reduced invasive species regrowth to below 9%, preserving the ecological integrity of the grasslands.

2. Biodiversity Conservation

The rejuvenation of grasslands played a pivotal role in conserving the local flora and fauna. Enriched water bodies and improved soil moisture levels attracted diverse wildlife species, providing them with an ideal habitat. This project has notably contributed to the recovery of endangered and vulnerable species within GGNP.

3. Soil and Moisture Conservation

By employing innovative soil and moisture conservation techniques, the project significantly enhanced the availability of water resources. These efforts rejuvenated existing water bodies, benefitting both wildlife and vegetation. The plugged water sources have become vital lifelines during dry seasons, ensuring ecosystem resilience.

4. Infrastructure and Protection Measures

Chain-link fencing and boundary walls were erected to safeguard the restored grasslands from encroachments and grazing by domestic animals. Improved connectivity within the forest area through forest road construction facilitated better management and monitoring of wildlife habitats.

The Grassland Development initiative under the CAMPA project in Chhattisgarh's GGNP circle is a testament to the power of strategic planning, community participation, and scientific intervention in restoring natural ecosystems. The project has not only

enhanced wildlife habitats but also contributed to the overall ecological and socio-economic landscape of the region. It serves as an inspiring model for similar conservation efforts across the country, highlighting the critical importance of collaborative and innovative approaches in environmental management.



Success Story: Removal of invasive alien species

The Bijapur Buffer Zone, part of the broader forest management efforts in Chhattisgarh, faced significant ecological challenges due to the presence of invasive alien species. These species threatened the native biodiversity, disrupted the natural habitat, and posed a risk to the ecological balance of the region. To address this issue, a project was launched to systematically remove invasive species across several compartments within the buffer zone. The project focused on the removal of invasive alien species in multiple compartments, including Mandem (C.No. 142), Mormed East (C.No. 141), Mandem West (C.No. 151), and Mormed West (C.No. 166). The efforts were carried out over an extensive area, totaling over 400 hectares across these compartments.

The successful removal of invasive alien species in the Bijapur Buffer Zone stands as a testament to the effectiveness of well-planned and meticulously executed conservation efforts. The 95% success rate achieved across all compartments highlights the project's impact on restoring ecological balance and protecting native biodiversity. This success story serves as a model for similar initiatives in other regions, demonstrating the importance of targeted interventions in preserving the integrity of natural ecosystems.



Soil and Moisture Conservation (SMC) work

The Kukadi Jhodi Nala project, located in the South Kakalgur Beat of Kotamsar Range within the Kanger Valley National Park, Jagdalpur, was implemented as part of a larger initiative to address soil erosion and improve water retention in the area. The region, known for its rich biodiversity and undulating terrain, was facing challenges related to soil degradation and water scarcity, which threatened both the local ecosystem and agricultural activities.

The Soil and Moisture Conservation (SMC) works in Kukadi Jhodi Nala focused on constructing various structures such as Loose Boulder Check Dams (LBCD), Gully Plugs (GS), and Contour Dams (CD) to mitigate soil erosion and enhance water conservation. A total of 14 such structures were constructed across the project area.

The Kukadi Jhodi Nala SMC project was a resounding success, with all sampled structures evaluated as being in "Good" condition. The project achieved the following key outcomes:

- **Erosion Control:** The Loose Boulder Check Dams (LBCD) and other structures effectively reduced soil erosion in the targeted areas, stabilizing the soil and preventing further degradation.
- **Water Retention:** The construction of Gully Plugs (GS) and Contour Dams (CD) significantly improved water retention in the nala, which has positively impacted both the local flora and fauna. This enhanced water availability has also benefited the surrounding agricultural lands, improving crop yields.

The successful implementation of the Soil and Moisture Conservation project in Kukadi Jhodi Nala demonstrates the effectiveness of well-planned and executed SMC strategies in addressing environmental challenges. The precise construction and strategic placement of structures have led to significant improvements in soil stability and water conservation, contributing to the overall health of the ecosystem within the Kanger Valley National Park.



Success Story of Assisted Natural Regeneration in Raipur Division

With a mission to conserve natural habitats, promote biodiversity, and ensure sustainable afforestation practices, the CAMPA initiative has demonstrated significant achievements in the Raipur Division, specifically through the Assisted Natural Regeneration (ANR) project.

This integrated framework has laid the foundation for achieving measurable outcomes in preserving Chhattisgarh's natural wealth.

As part of the State CAMPA initiative, Assisted Natural Regeneration (ANR) activities were implemented in the Raipur Division (UTR). Spanning a total area of 139.770 hectares at GPS coordinates N20.013098 and E82.194475, this project aimed to rejuvenate degraded forest compartments (Compartment 1195) using natural regeneration techniques. By focusing on minimal intervention methods, the ANR project supported the natural growth of indigenous plant species while promoting soil and moisture conservation practices.

Key Achievements

1. High Success Rate of Afforestation:

- The ANR project reported an impressive 95% success rate, demonstrating the efficacy of well-planned natural regeneration techniques and the resilience of local ecosystems.

2. Effective Weed Management:

- By implementing targeted weed management practices, regrowth of invasive species was reduced to less than 9%, ensuring that native vegetation thrived.

3. Enhanced Biodiversity and Habitat Improvement:

- The project facilitated the growth of diverse grasslands and the enrichment of water bodies, creating a robust habitat for local flora and fauna. This has directly contributed to increased wildlife activity and improved ecological balance.

4. Water Source Rejuvenation:

- Through soil and moisture conservation efforts, water bodies within the project area were revitalized, benefiting both wildlife and surrounding communities by enhancing water availability.

5. Forest Protection and Connectivity:

- Protective measures, such as chain-link fencing and boundary walls, have been instrumental in safeguarding the regenerated forests. Additionally, the construction of forest roads has improved connectivity, aiding in forest management and wildlife monitoring.

Conclusion

The Assisted Natural Regeneration project under the CAMPA initiative in Raipur Division is a testament to the power of strategic planning and community-driven efforts in achieving environmental sustainability. With a 95% success rate, the project underscores the importance of integrating natural regeneration techniques, effective conservation practices, and stakeholder engagement. This success story not only highlights the progress made in Chhattisgarh's forest conservation but also sets a benchmark for future afforestation and biodiversity conservation projects.



DIVISION WISE ASSESSMENT

Bilaspur Circle

Bilaspur: Division Assessment

Introduction

Bilaspur Forest Circle is the largest circle in Chhattisgarh. It is an administrative division responsible for managing and conserving forest resources in the Bilaspur region of the state. Like other forest circles, the Bilaspur Forest Circle plays a crucial role in protecting, managing, and sustainably utilizing forest lands and biodiversity within its jurisdiction.

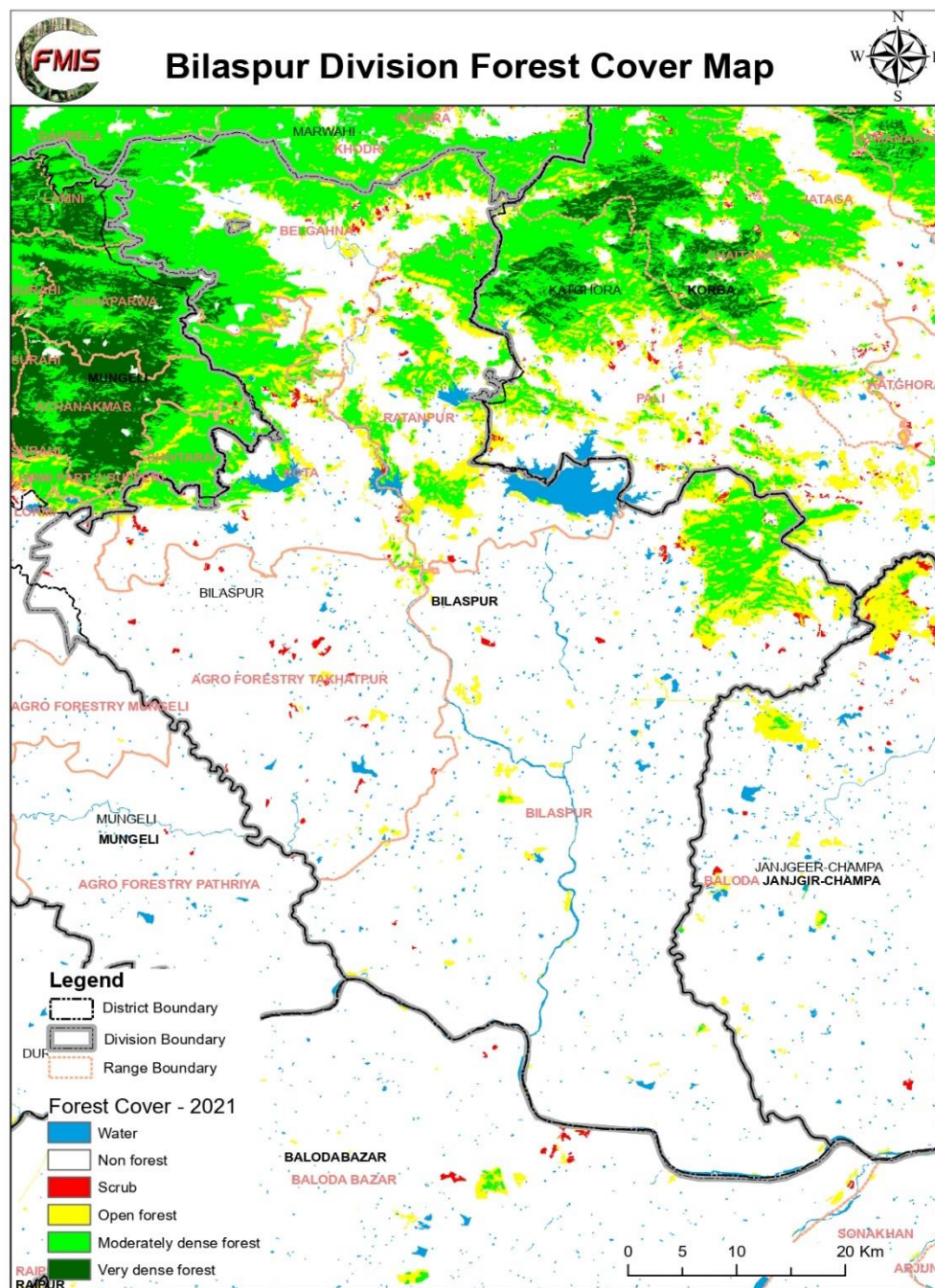
The Bilaspur district is between latitudes 21°47' and 23°8' north and 81°14' and 83°15' east. It is bordered on the north by the Gaurela-Pendra-Marwahi district, on the west by the Madhya Pradesh state's Anuppur District and Dindori District, on the southwest by Kabirdham, on the south by Durg and Raipur, and on the east by Korba and Janjgir-Champa. The district covers 6377 km² of land.

This city is the North East Chhattisgarh region's commercial center and business hub. It is also important for the Indian Railways, as it is the headquarters of the South East Central Railway Zone (SECR) and the Bilaspur Railway Division. Bilaspur is also the headquarters of South Eastern Coalfields Limited. Chhattisgarh's largest power plant, which NTPC operates, is in Sipat.

The Bilaspur district has a subtropical, semiarid, continental, and monsoon climate. Thus, it experiences hot summers, chilly winters, and a brief rainy season. The winter season begins in the second half of November and lasts until around the middle of March. The summer season follows, lasting until around the end of June, when the maximum temperature can reach 45 degrees. The southwest monsoon follows it. The rainy season continues from July through September.

A transitional period from the monsoon to the winter season comprises the post-monsoon months of October and November. The region receives roughly 58 centimeters of rainfall annually. Rainfall diminishes from the south to the southwest and is unevenly distributed. From July to September, there is a rainy season. During this time, there is a total rainfall of about 80%. During the winter, western disturbances bring a small amount of rain. The major river in the Bilaspur district is Arpa. The river originates in Khodri Khongsara of Pendra subdivision is the largest river in the district, and is about 100 kilometers long. Other major rivers of the district are as Leelagar and Maniyari.

Division Map



Division Profile

Particulates		Details		Remark if any		
Total Forest area		51406.513				
Major forest types and area			RF,OF, Orange Area			
Sl.No.	Range Name,	Address	Mobile Number	Section/ RA Circle	Beat	No. of Compartments
1	Bilaspur-Sindhi colony	--	--	--	--	66
2	Takhatpur	--	--		--	8
3	Ratanpur	--	--	--	--	84
4	Belgehna	--	--		--	103
5	Kota	--	--	--	--	21
Total No of JFMCs/EDCs and community membership			99	No JFMCs/ EDCs Associated with CAMPA WORKS		
No of projects in APO 2019-20			71			

Category wise Sampled strata for Monitoring & Evaluation – Bilaspur Division APO 2019 - 20

S. No	Category of Projects	Total no of projects	Sampled Sites
1	Compensatory afforestation plantation	25	7
2	Awareness and Training	1	1
3	Artificial Regeneration NPV Plantation	16	3
4	Soil and moisture conservation	20	5
5	Forest/Fire Protection Works	9	3
	TOTAL	71	19

Analysis of Monitoring & Evaluation Study

The Bilaspur Division report provides insights into the success and qualitative outcomes of a variety of projects focusing on compensatory afforestation, plantations, soil conservation, fire protection, and training initiatives. Here's a detailed analysis:

A. Compensatory Afforestation Plantations

- Projects spanned multiple locations, including Dhauramuda, Karichhapar, Limha, Pendri, and Ratkhandi.
- Areas treated ranged from 15 to 50 hectares, with success rates varying between 78.63% (Pandrapathra) and 94.89% (Ratkhandi).
- Higher success rates, like those seen in Ratkhandi (94.89%) and Barar (91.72%), indicate effective implementation practices, while lower rates (e.g., Pandrapathra at 78.63%) highlight areas for improvement in maintenance or initial planting strategies.

B. 2. NPV Plantations

- Focused on mixed and special-purpose species along riverbanks (e.g., Son and Bhosko).
- Treated areas ranged from 4 to 13 hectares with success rates between 90.5% and 94.11%.
- These high success rates emphasize strong project execution, especially in small-scale, localized plantation efforts.

C. Soil and Moisture Conservation (SMC)

- SMC works were carried out in areas such as Jamchua Nala, Ranwasin Nala, and Birjha Nala, treating extensive areas up to 367 hectares.
- Amongst the SMC works, the Birjha Nala project work is reflecting its exceptional impact on water retention and soil stabilization.
- The focus on water conservation and erosion prevention across critical regions underscores the division's commitment to sustainable land management.

D. Forest and Fire Protection Works

- Fire protection activities included the deployment of fire watchers for four months in Belgehna, Bilaspur, and Ratanpur ranges.
- Each work signifies their effectiveness in mitigating fire risks during critical periods.

E. Awareness and Training

- Conducted at Sakri Van Chetna Kendra. These initiatives are vital for capacity-building and community engagement in forest conservation efforts.

Key Observations

1. **High Success Rates:** Both afforestation and plantation projects generally reported success rates above 85%, with notable peaks in specific locations, suggesting strong adherence to project goals.
2. **Focus on Sustainability:** The emphasis on soil and moisture conservation in large areas, alongside effective fire protection measures, demonstrates the division's holistic approach to environmental stewardship.
3. **Room for Improvement:** Projects like Pandrapathra (78.63% success) reveal gaps that could be addressed by refining techniques or providing additional resources.
4. **Community Involvement:** Awareness and training activities play a crucial role in integrating local communities into conservation efforts, ensuring broader participation and long-term sustainability.

Conclusion

The Bilaspur Division effectively balanced ecological restoration with conservation and awareness initiatives. While most projects achieved high success rates and positive qualitative assessments, focusing on areas with relatively lower performance can further enhance outcomes. Continued investment in soil conservation, fire prevention, and community training will ensure long-term environmental and operational success.

Detailed results of Monitoring & Evaluation for selected sites – Bilaspur Division APO 2019-20

Sl.No.	Category of Projects	Name of Works	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Compensatory Afforestation plantation	CA Plantation	22.252897	82.29729	1626 PF	45 Ha	84.80%
2	Compensatory Afforestation plantation	CA Plantation	N22.1141.02,	E-82.20.43.11	6RF	40 Ha.	85.50%
3	Compensatory Afforestation plantation	CA Plantation	N22.259582,	E-82.309877	36 RF	50Ha	87.40%
4	Compensatory Afforestation plantation	CA Plantation	N 22.26'09"	E82.02'55"	Pandrapathra	15	78.63%
5	Compensatory Afforestation plantation	CA Plantation	N-22°10'7"	E-81°58'51"	Pendri OA	32	85.31%
6	Compensatory Afforestation plantation	CA Plantation	N 22.23'43"	E82.02'34"	Barar OA	30	91.72%
7	Compensatory Afforestation plantation	CA Plantation	N 22.23'59"	E82.03'06"	Ratkhandi	25	94.89%
8	Artificial Regeneration NPV Plantation	Riverbank Plantation	N21.762907,	E-82.390678	Son	13 Ha.	90.50%
9	Artificial Regeneration NPV Plantation	Riverbank Plantation	N-22°33'57.16"	E-81°54'52.01"	OF 1137 (2435)-	10 Ha	94.11%
10	Artificial Regeneration NPV Plantation	Riverbank Plantation	N-22°34'21.97"	E-81°54'22.87"	OF 1137 (2435)-	4 Ha	92.77%

Sl.No.	Category of Projects	Range	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
11	Awareness and Training	Van Chetna Kendra Sakri, Bilaspur	-	-	Sakri Van Chetna Kendra	Sakri Training Van Chetna Kendra	Optimum
12	Soil and moisture conservation	SMC Works - Jamchua nala	22.19022222	82.3610555	7 RF	279 Ha.	Good
13	Soil and moisture conservation	SMC Works - Ranwasin nala	22°12'48"	82°20'27"	5 RF	367 Ha.	Good
14	Soil and moisture conservation	SMC Works - Murchaduwari nala	22°15'24"	82°18'49"	36 RF	47.96 Ha.	Good
15	Soil and moisture conservation	SMC Works - Birjha nala	22°12'2.96"	82°21'5.1"	6 RF	143 Ha.	Excellent
16	Soil and moisture conservation	SMC Works - Thodi nala	22°13'9"	82°20'5"	18 RF	286 Ha.	Good
17	Forest/Fire Protection Works	Fire watchers for 4 months(Belgeh na range)	-	-	Belgehna Range	20	Good
18	Forest/Fire Protection Works	Fire watchers for 4 months (Bilaspur)	-	-	Bilaspur Range	25	Good
19	Forest/Fire Protection Works	Fire watchers for 4 months (Ratanpur)	-	-	Ratanpur Range	18	Good

Dharamjaygarh: Division Assessment

Introduction

Dharamjaygarh, located at 22.47°N 83.22°E, sits at an elevation of approximately 300 meters above sea level. It serves as the taluk capital in the Raigarh District of Chhattisgarh and is positioned 77 kilometers northwest of Raigarh on the Raigarh-Ambikapur highway. The town is accessible via the nearest airport and railway station in Raipur, with bus services connecting it to various major cities including Raigarh, Raipur, Bilaspur, Ranchi, Garhwa, Banaras, and Ambikapur.

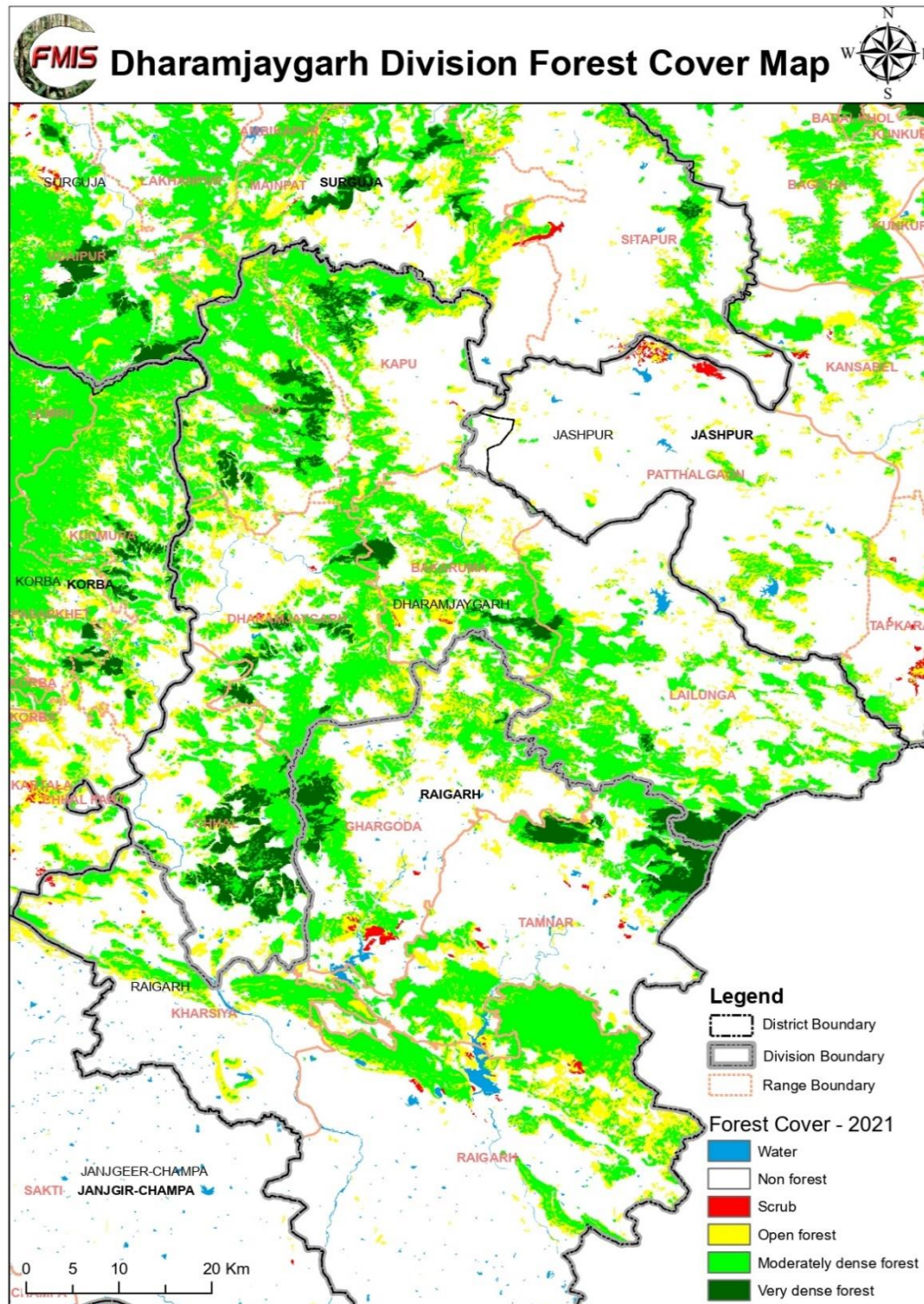
Spanning an area of 1,537.69 square kilometers, Dharamjaygarh is located in the northwestern part of Raigarh district, between latitudes 22°03' and 22°47'30" N and longitudes 83°02' and 83°47'30" E. The region is composed of 189 villages and 118 village panchayats, with a total population of 179,748 according to the 2011 Census. The area under irrigation accounts for 15.85% of the net sown area, with groundwater providing irrigation to approximately 33.28% of this area.

Dharamjaygarh experiences a subtropical climate, characterized by extremely hot summers and cold winters. The region receives an average annual rainfall of 1,517.48 mm, based on data from the last five years (2012-2017). During the winter months, temperatures range from 10°C to 46°C, while in the summer, temperatures can soar up to 46°C. Relative humidity fluctuates between 85% during the monsoon season and 35% to 40% during other times of the year. The area is primarily drained by the perennial rivers Mand, Kurket, and Korega, with the drainage system originating in the northern part of the block and flowing southward into the Mahanadi River.

The demography of Dharamjaygarh reflects a rich cultural tapestry, with a population that includes a significant proportion of indigenous tribal communities. Prominent among these are the Oraon, Gond, and Korwa tribes, who have lived in the region for centuries. These communities maintain a strong connection to their traditional ways of life, relying heavily on agriculture, forest resources, and indigenous knowledge systems. Agriculture is the primary livelihood, with paddy, maize, and pulses being the main crops cultivated in the region. The tribes also engage in the collection of non-timber forest products (NTFPs) such as tendu leaves, mahua, and lac, which are vital for their economic sustenance.

The social structure in Dharamjaygarh is deeply rooted in traditional practices, with village panchayats playing a crucial role in local governance. These panchayats not only manage the administrative affairs of the villages but also oversee the preservation of cultural practices and the sustainable use of natural resources.

Division Map



Division Profile

Particulates		Details			Remark if any	
Total Forest area		1081.83 Sq KM				
Major forest types and area			RF,PF, Orange Area			
Sl.No.	Range Name,	Address /	Telephone Number	Section/ RA Circle	Beat	No. of Compartments
1	Dharamjaygarh	Forest Range office Dharamjaygarh, block Dharamjaygarh		4	18	124
2	Boro	Forest Range office boro at Dharamjaygarh, block Dharamjaygarh		4	17	114
3	Chhal	Forest Range office chhal,atchhal block Dharamjaygarh		4	17	118
4	Ka[pu	Forest Range office kapu at kapu , block Dharamjaygarh		3	13	80
5	Bakaruma	Forest Range office bakaruma at bakaruma , block Dharamjaygarh		3	10	80
6	Lailunga	Forest Range office lailunga, block lailunga		5	24	192
Total No of JFMCs/ EDCs and community memberships			254	No of JFMCs/ EDCs Associated with CAMPA WORKS		81
No of projects in APO 2019-20			39			

Category wise sampled strata for Monitoring & Evaluation – Dharamjaygarh Division APO 2019 - 20

S. No	Category of Projects	Total no of projects	Sampled Sites
1	Compensatory afforestation plantation	9	2
2	Forest/Fire Protection Works	12	3
3	Improvement of growing stock in orange area	2	1
4	Soil and moisture conservation work	1	1
5	Silvicultural Operations	6	1
6	Civil and construction works	9	2
	TOTAL	39	10

Analysis of Dharamjaygarh Division Projects

The projects implemented in the Dharamjaygarh Division reflect a holistic approach to forest management, encompassing ecological restoration, fire protection, infrastructure development, and operational enhancements. Below is a detailed analysis:

1. Compensatory Afforestation Plantation

- Success rates range from 85% to 95.28%, indicating well-managed reforestation efforts.
- High-performing compartments suggest effective species selection, plantation techniques, and maintenance strategies.
- Lower-performing areas may require additional interventions, such as improved soil preparation, watering, or protective measures for young saplings.

2. Forest/Fire Protection Works

- A total of 12 projects emphasize the critical role of fire prevention in maintaining forest health.
- Continued investment in fire prevention infrastructure can help mitigate seasonal risks, especially during dry periods.

3. Upgradation of Timber Depots

- Projects focused on improving operational efficiency by upgrading depot infrastructure.
- Expanding such upgrades to other depots could further enhance the division's operational capabilities.

4. Soil and Moisture Conservation Works

- The single project implemented targets vital ecosystem functions like soil stabilization and water retention.
- Such initiatives are particularly impactful in preventing erosion and improving forest sustainability.
- Expansion of these projects to more degraded areas would strengthen the division's ecological resilience.

5. Silvicultural Operations

- Focused on removing invasive species and restoring native biodiversity, six projects were undertaken.
- These efforts are essential for improving forest health and maintaining ecological balance.
- Scaling up silvicultural operations across more compartments could yield long-term ecological benefits.

Key Observations

1. **Strong Performance:** High success rates in afforestation projects and effective fire protection measures highlight the division's operational strengths.
2. **Holistic Management:** A diverse range of projects ensures ecological restoration is complemented by infrastructure and operational improvements.
3. **Opportunities for Improvement:** Targeted interventions in lower-performing afforestation sites and broader adoption of soil conservation practices could enhance overall impact.
4. **Sustainability Focus:** Continued emphasis on soil and moisture conservation and invasive species removal is crucial for maintaining long-term forest health.

The Dharamjaygarh Division demonstrates effective forest management practices, balancing ecological restoration with operational efficiency. Strategic scaling of successful projects and addressing gaps will ensure sustained environmental and administrative progress.

Detailed results of Monitoring & Evaluation for selected sites – Dharamjaygarh Division APO 2019-20

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Compensatory afforestation plantation	Compensatory afforestation plantation 1st Year	22.293757	83.643662	375/1	22.775	95.28%
2	Compensatory afforestation plantation	Compensatory afforestation plantation 1st Year	22.485238	83.318662	115/1	23.552	85%

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
3	Forest/Fire Protection Works	Fire Watchers - Lailunga	-	-	Lailunga	24	Good
4	Forest/Fire Protection Works	Fire Watchers - Dharamjaygarh	22°33'4"N	83°6'26"E	Dharamjaygarh	18	Good
5	Forest/Fire Protection Works	Fire Watchers - Boro	22°33'8"N	83°13'9"E	Boro	17	Good
6	Silvicultural Operations	Improvement of growing stock in orange area	22.314271	83.494418	Darra Pahad Lailunga Khasra No 223/1	30	Optimum
7	Soil and moisture conservation work	SMC Works - Sariyanala	22.40189N	83.289384 E	428, 427, 400, 398, 397, 383, 370, 369, 368, 367, 366, 365 RF	10970	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
8	Upgradation of timber depo	Timber Dipo Dharamjaygarh – BMW Road Nirman	22.446444	83.210617	Timber Depo Dharamjaygarh	98.98Rm	Very Good
9	Civil and construction works	Upgradation of forest Roads (WBM) sirki to balpeda	22.569838	83.167317	654 RF	3 km	Good
10	Civil and construction works	Upgradation of forest Roads (WBM) Ongana to Potiya	22.398968	83.250112	Ongana to Potiya	2km	Good

Janjgir-Champa: Division Assessment

Division Background

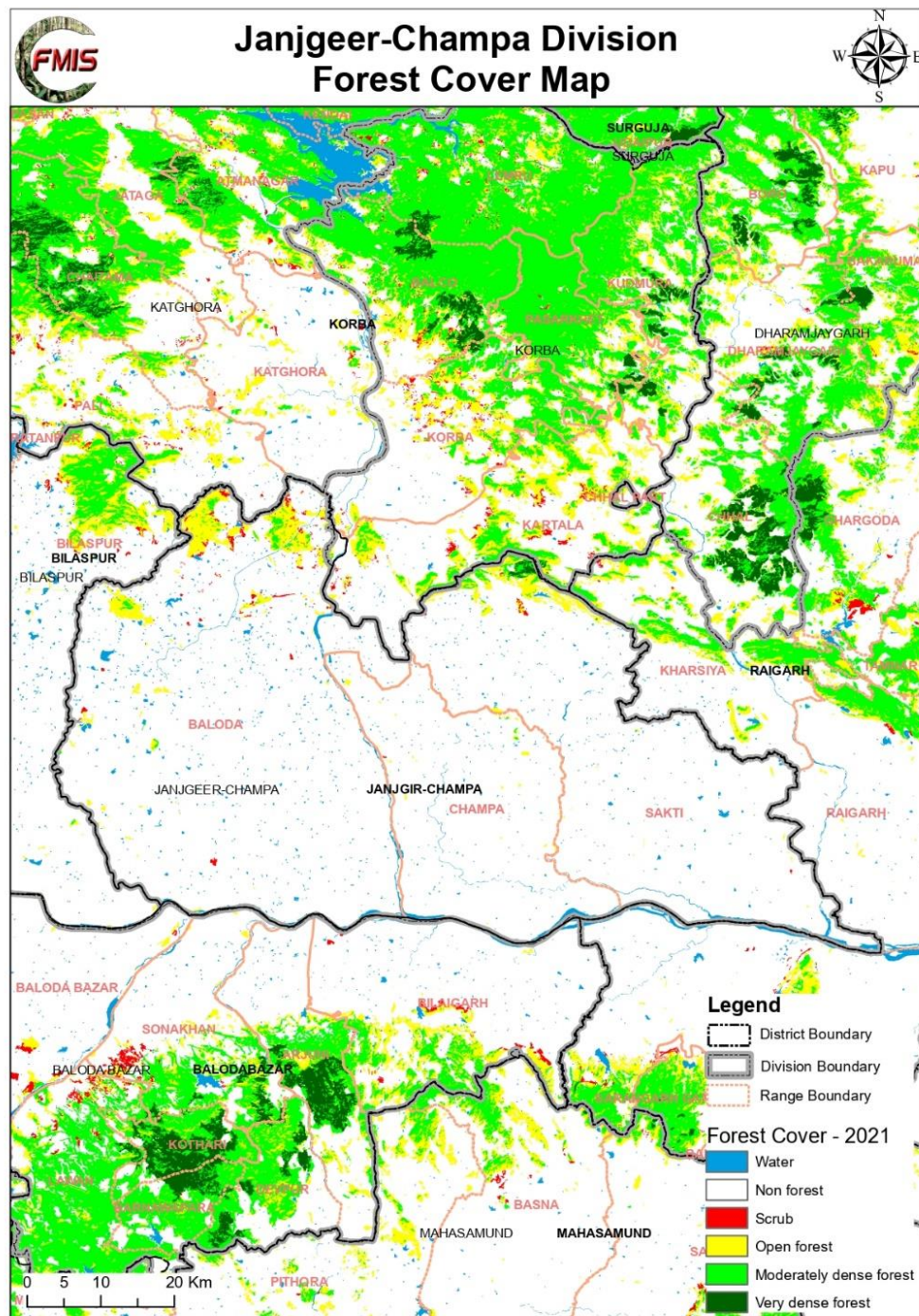
The Janjgir-Champa Forest Division is located in the eastern part of Chhattisgarh, a state in central India. Geographically, the division is situated in the plains of the Mahanadi River basin, which is one of the most fertile regions in the state. The terrain is predominantly flat with a few gentle undulations, making it an ideal area for agriculture. The forest cover in Janjgir-Champa is relatively sparse compared to other regions of Chhattisgarh, with patches of tropical dry deciduous forests interspersed with agricultural lands and settlements. The primary river systems in the division include the Mahanadi, Hasdeo, and Shivrath rivers, which are crucial for irrigation, drinking water, and sustaining the local ecosystems.

The region experiences a tropical climate with distinct seasons. The monsoon season, from June to September, brings the majority of the annual rainfall, which is vital for both agriculture and maintaining the forest cover. The winters are mild, and the summers can be hot, often leading to water scarcity issues in the drier months. The climate plays a significant role in the agricultural productivity of the region, which is primarily rain-fed.

Janjgir-Champa is one of the more densely populated districts in Chhattisgarh, with a mix of urban and rural populations. The demographic composition includes a significant proportion of agricultural communities, as the region is one of the state's primary rice-producing areas. The economy of Janjgir-Champa is heavily reliant on agriculture, with rice, wheat, and pulses being the major crops. The fertile plains and the availability of irrigation from the Mahanadi River and its tributaries make the region one of the leading agricultural zones in Chhattisgarh.

The forest cover in Janjgir-Champa is limited but plays a crucial role in supporting the local biodiversity and providing resources for the rural population. The forests are mainly composed of species like teak, sal, and bamboo. Due to the sparse forest cover, the management strategies focus on conservation and sustainable utilization of the existing forest resources. Efforts are being made to increase afforestation and improve the green cover in the region to combat the environmental challenges posed by deforestation and industrialization.

Division Map



Division Profile

Particulates		Details		Remark if any		
Total Forest area		25006.600 ha				
Major forest types and area		• Reserve forest • Protected forest • Orange area				
Sl.No.	Range Name,	Address	Telephone Number / Mobile Number	Section/ RA Circle	Beat	No. of Compartments
1	Champa	Near tehsil office champa		01	03	05
2	Baloda	Near bus stand baloda		04	17	102
3	Sakti	Sakti		02	09	47
Total No of JFMCs/ EDCs and community membership		65	No JFMCs/ EDCs Associated with CAMPA WORKS			
Enclose Vegetation Map (if available)						
No of projects in APO 2019-20			47			

Category wise sampled strata for Monitoring & Evaluation – Janjgir-Champa Division APO 2019 - 20

S. No	Category of Projects	Total no. of projects	Sampled sites
1	Silvicultural operations	24	6
2	Forest/Fire Protection Works	9	2
3	Nursery Expansion	2	1
4	Construction And Maintenance	2	2
5	Management of biological diversity and biological Resources	1	1
6	Soil Water Conservation & Works in Forest Areas	2	1
Total		40	13

Analysis of Projects in Janjgir-Champa Division

The Monitoring and Evaluation (M&E) data for the Janjgir-Champa Division showcases a diverse range of forestry and ecological management activities. These projects address key conservation challenges and provide infrastructure support for sustainable forest management.

Silvicultural operations dominate the division's efforts, focusing on the removal of invasive alien species such as Lantana across five locations, covering areas between 50 and 230 hectares. These operations are crucial for restoring native biodiversity and improving forest health. Additionally, bamboo cleaning work in OA-143 Kosmanda over 50 hectares ensures sustainable bamboo growth, contributing to both ecological balance and economic utility.

Nursery expansion was undertaken in PF-91 Gatwa, covering 10 hectares. This initiative increases the capacity to produce high-quality planting material, supporting afforestation and reforestation efforts. The expansion is a key step in ensuring the availability of sufficient resources for forest regeneration in the region.

Forest and fire protection works involved the construction of chain-link fencing at two sites: PF-94 Khisora (4,560 sq. ft.) and PF-91 Gatwa (19,560 sq. ft.). These fences serve as barriers to prevent encroachment, unauthorized access, and wildlife disturbances, significantly reducing the risk of forest fires.

Civil and construction works included the upgradation of forest roads (WBM) from Angarkhar to the main road in RF-78, covering 1.5 kilometers (62,496 sq. ft.), and the construction of a ranger office building in the Baloda range, spanning 1,500 sq. ft. These infrastructure developments improve forest accessibility and management efficiency, while the ranger office provides a critical facility for coordination and monitoring.

A unique initiative under biodiversity management was the construction of a Pravesh Dwar (entrance gate) at OA-155 Indira Udhyan in Akaltara. This structure emphasizes the importance of biodiversity conservation and promotes awareness among visitors to managed forest areas.

Soil and moisture conservation (SMC) works at Karranala in Baloda RF-79 and PF-81 covered an extensive area of 4,500 hectares. These operations are vital for preventing soil erosion, enhancing water retention, and improving land productivity, thereby ensuring sustainable forest and ecosystem management.

Detailed results of Monitoring & Evaluation for selected sites – Janjgir-Champa Division APO 2019-20

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ treatment of details	Qualitative Assessment
1	Silvicultural operations	Removal of Invasive Alien Species - Lantana Eradication	N- 22°07'29.89"	E- 82°54'38.16"	RF-25	120 ha	Optimum
2	Silvicultural operations	Removal of Invasive Alien Species - Lantana Eradication	N- 22°05'39.84"	E- 82°45'24.56"	RF-40	50 ha	Good
3	Silvicultural operations	Removal of Invasive Alien Species - Lantana Eradication	N- 22°07'59.19"	E- 82°50'19.02"	PF-31	70 ha	Good
4	Silvicultural operations	Removal of Invasive Alien Species - Lantana Eradication	N- 22°07'59.19"	E- 82°50'19.02"	RF-33 Rainkhol	210 ha	Optimum
5	Silvicultural operations	Removal of Invasive Alien Species - Lantana Eradication	N- 22°07'56.05"	E- 82°53'15.42"	RF-34 devri	230 ha	Optimum
6	Silvicultural operations	Bamboo cleaning work	N- 22° 05'45.76"	E- 82° 22'40.57"	OA-143 Kosmanda	50 ha	Good
7	Nursery Expansion	Gatwa nursery vistar Karya	N- 22° 10'13.8"	E- 82° 37'49.5"	PF-91 Gatwa	10 ha	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/treatment of details	Qualitative Assessment
8	Forest/Fire Protection Works	Chain-link fencing work	N- 22 ⁰ 11'32.726"	E- 082 ⁰ 33'3.448"	PF-94 Khisora	4560 sq.ft.	Excellent
9	Forest/Fire Protection Works	Chainlink fencing work	N- 22 ⁰ 10'29"	E- 082 ⁰ 37'58"	PF-91 Gatwa	19560sq.ft.	Good
10	Civil and Construction Works	Upgradation of forest Roads (WBM)	N- 22 ⁰ 12'26.8"	E- 082 ⁰ 35'49.4"	RF-78 (Angarkhar to main road)	1.5 K.M. (62496 sq.ft.)	Good
11	Civil and Construction Works	Ranger office building	N- 22 ⁰ 08'06.97"	E- 082 ⁰ 28'37.00"	Baloda Range Office	1500 sq ft	Good
12	Management of Biological diversity and biological resources	Pravesh dwar nirman work	-	-	OA-155 Indira Udhyan Akaltara	01 NOS	(Remark- work not started)
13	Soil and Moisture Conservation Works	SMC Works - Karranala	N- 22 ⁰ 10'29.9"	E- 082 ⁰ 37'54.8"	Karranala baloda RF-79 &PF-81	4500 ha	Good

Katghora: Division Assessment

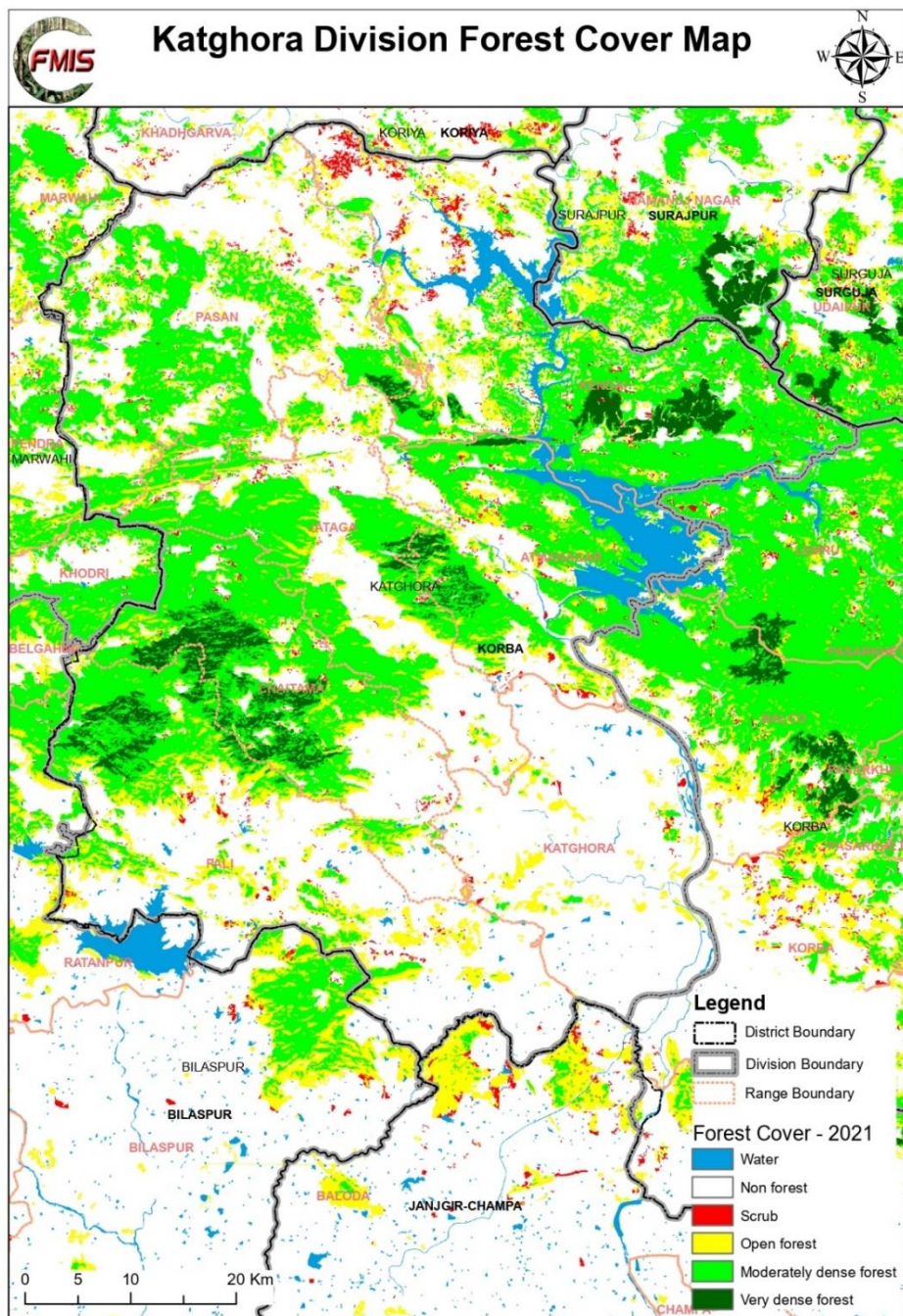
Katghora Forest Division Background

Katghora Forest Division is situated within the Bilaspur Circle in Chhattisgarh, India. This division is known for its diverse topography, which includes a combination of dense forests, hilly terrains, and fertile plains. The region falls within the central part of the state and is characterized by its tropical deciduous forests, which are dominated by species like sal, teak, and bamboo. These forests are crucial for maintaining the ecological balance in the region, supporting a variety of wildlife and contributing to the overall biodiversity of Chhattisgarh. The area experiences a tropical climate with distinct seasons, including a monsoon period that brings the majority of the annual rainfall, which is essential for both the forest ecosystem and the agricultural activities in the surrounding areas.

Demographically, the Katghora Forest Division is home to a mix of tribal and non-tribal populations. The tribal communities, including groups such as the Gond and Baiga, have a deep connection with the forest, relying on it for their livelihood through activities such as agriculture, collection of non-timber forest products (NTFPs), and traditional crafts. These communities play a vital role in the sustainable management of forest resources, using practices that have been passed down through generations. In addition to the tribal population, there is a growing non-tribal population engaged in agriculture, small-scale industries, and other economic activities. The population density in the region is relatively low, with rural settlements spread across the forested areas.

The socio-economic conditions in Katghora are closely tied to the health of the forests. Many local communities depend on forest resources for their daily needs, including fuel wood, fodder, and building materials. The forest division is also important for conservation efforts, as it is part of the larger Bilaspur Circle, which is a key area for biodiversity in Chhattisgarh. The management of the Katghora Forest Division focuses on balancing conservation with the sustainable use of forest resources, ensuring that the needs of the local population are met while preserving the ecological integrity of the region.

Division Map



Division Profile

Particulates		Details	
Total Forest area		2050.91 Sqkm	
Major forest types and area		RF,PF, Orange area	
Ranges	7	Address / Telephone Number of Range office KATGHORA- वनमंडलकार्यलयकटघोरा नगरपालिकाकटघोराकोरबा (छ .ग) विकासखण्ड- पोड़ीउपरोड़ा ❖ कार्यलयवनपरिक्षेत्रअधिकारी(ऐतमानगरसा.) ❖ कार्यलयवनपरिक्षेत्रअधिकारी (कटघोरा)	
Ranges Name	KATGHORA AITMANAGAR CHAITMA JATGA KENDAI PALI PASAN	No .of Beats -121 No .of Compartments- 776 RF- 03 PF-519 OA-254	
Sl. No	JFMC-263 Members-3428 Family-20568		
No of projects in APO 2019-20			62

Category wise sampled strata for Monitoring & Evaluation – Katghora Division APO 2019 - 20

S. No	Category of Projects	Total no. of projects	Sampled sites
1	Artificial Regeneration NPV Plantations	12	3
2	Soil and moisture conservation work	17	4
3	Civil and construction works	15	4
4	Development of Staff amenities in Forest Colony	10	2
5	Wildlife Habitat Improvement	8	2
	Total	62	15

Analysis of Monitoring & Evaluation Data for Selected Sites – Katghora Division APO 2019-20

The Monitoring and Evaluation (M&E) data from the Katghora Division for the APO 2019-20 highlights a wide range of forestry and habitat improvement projects, categorized into civil works, soil and moisture conservation, plantation initiatives, and wildlife habitat enhancement. Key observations are as follows:

❖ Civil and Construction Works

- **Road Upgradation:** WBM roads were upgraded over a combined length of 3.5 km (1.5 km from Bhandarkhol to Khariabhar and 2 km from Kumhari to Batra), and a CC road of 387 meters was constructed near the division office. These improvements enhance accessibility, facilitate patrolling, and improve forest management efficiency.
- **Fencing Infrastructure:** The installation of 1100 RM of chain-link fencing in compartment P149 is a vital step toward securing forest boundaries, reducing encroachments, and mitigating human-wildlife conflicts.
- **Staff Amenities:** Construction of a 300 RM boundary wall in the Pasan Forest Colony and a 500-meter CC road in the Revenue Land Forest Colony improved living and working conditions for forest staff. These initiatives support operational efficiency and morale among the personnel.

❖ Soil and Moisture Conservation (SMC) Works

- **Large-Scale Impact:** SMC works were carried out over vast areas, including Baispar Nala (3710 hectares), Godmanala (3386 hectares), and Bajrang Nala (3682 hectares). These projects significantly contribute to water retention, erosion prevention, and ecosystem restoration.
- **Stop Dam Construction:** A stop dam in compartment P373 covering 63 hectares was particularly effective, reflecting excellence in design and implementation.

❖ Plantations under Net Present Value (NPV) Allocations

- **Fruit-Bearing Plantations:** Three sites (compartments P35, P68, and P274) totaling 77.5 hectares achieved a 95% success rate. This indicates robust planning, planting, and maintenance practices, contributing to both afforestation and biodiversity enhancement.

❖ Wildlife Habitat Improvement

- **Grassland Development:** Forage and pasture improvements were implemented in compartments P457 and P467 over a total of 40 hectares, achieving a 95% success rate. This is critical for supporting local wildlife populations by enhancing habitat quality and availability of forage.

Detailed results of Monitoring & Evaluation for selected sites – Katghora Division APO 2019-20

Sl.No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/treatment of details	Qualitative Assessment
1	Civil and construction works	CC Road	22.505161	82.554244	Division office	387 mtr	Good
2	Civil and construction works	Upgradation of Forest Roads WBM Road	22.404522	82.179327	Bhandarkhol to khariabhar	1.5 km	Good
3	Civil and construction works	Upgradation of Forest Roads WBM Road	22.440365	82.310942	Kumhari to batra	2 km	Good
4	Civil and construction works	Chain link	22.375844	82.334716	P149	1100RM	Good
5	Development of Staff amenities in Forest Colony	Boundary wall colony pasan	22.841328	82.197599	Residential forest colony bus Stand pasan	300Rm	Optimum
6	Development of Staff amenities in Forest Colony	CC Road	22.684279 N	82.376728 E	Revenue land forest colony	500 mtr	Good
7	Soil and moisture conservation works	SMC Works - Baisparnala	22.502176	82.429445	P 79,80,81,82,83 OA 545,546,547,548,549,550	3710 Ha	Good
8	Soil and moisture conservation works	SMC Works - Godmanala	22.56755	82.520684	P-482,483,484,485, 486,487,488	3386 Ha	Good
9	Soil and moisture conservation works	SMC Works - Bajrang nala	22.718951N	82.304141 E	P 268, P 265, P 264	3682 Ha	Good
10	Soil and moisture conservation works	SMC Works - Stop Dam	22.4639 N	82.3752 E	P 373	63 Ha	Excellent

Sl.No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ treatment of details	Success rate
1	Artificial Regeneration NPV Plantations	Fruit Bearing Plantation	22.552908	82.183339	P/35	40 Ha	95%
2	Artificial Regeneration NPV Plantations	Fruit Bearing Plantation	22.433072	82.389691	P68	35 Ha	95%
3	Artificial Regeneration NPV Plantations	Fruit Bearing Plantation	22.749057N	82.341895 E	P 274	2.50 Ha	95%
4	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	22.693667	82.484707	P-457	20.00 Ha	95%
5	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	22.701815	82.463086	P-467	20.00 Ha	95%

Korba: Division Assessment

Division Background

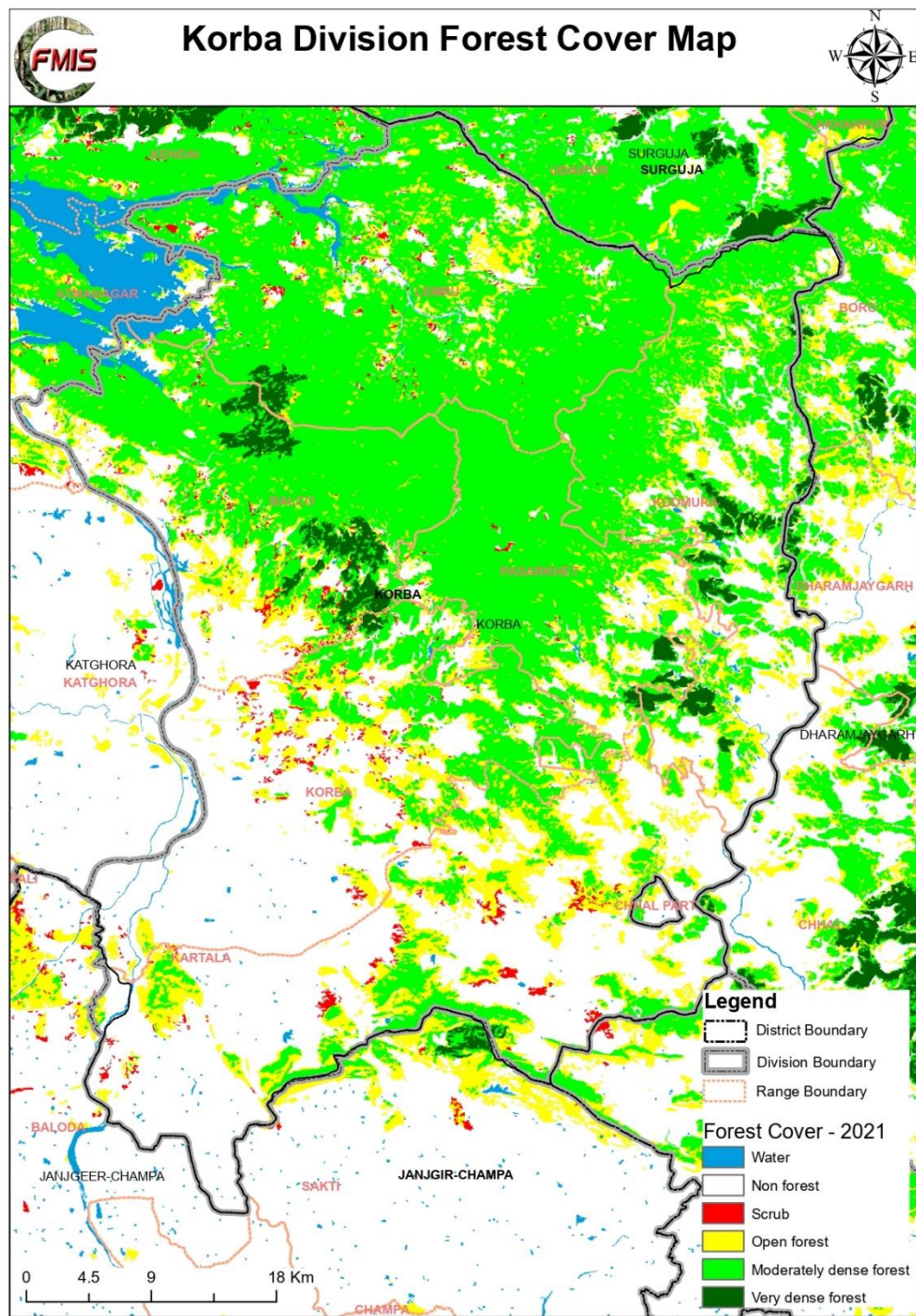
Korba Forest Division is located in the northeastern part of Chhattisgarh, within the Korba district, a region known for its rich natural resources and industrial significance. The division is characterized by its varied topography, including undulating hills, dense forests, and river valleys. The Hasdeo River, one of the major rivers in the region, along with its tributaries, plays a crucial role in supporting both the forest ecosystem and the agricultural activities of the surrounding areas. The forests in Korba are primarily tropical deciduous, featuring key species like sal, teak, and bamboo, which are integral to the local biodiversity and the livelihoods of the communities.

The region experiences a tropical climate with distinct wet and dry seasons, with the monsoon bringing significant rainfall that sustains the dense forest cover. However, the area is also subject to environmental pressures due to its rich deposits of coal, leading to extensive mining activities that pose challenges to forest conservation and management. The dual demands of industrial growth and environmental conservation make Korba a focal point for sustainable development efforts, requiring a careful balance between resource extraction and ecological preservation.

Demographically, Korba Forest Division is home to a diverse population, including a significant number of tribal communities such as the Gond, Korwa, and Baiga tribes. These indigenous communities have a long history of living in harmony with the forest, relying on it for their subsistence through agriculture, collection of non-timber forest products (NTFPs), and traditional practices. The tribal population plays a crucial role in the sustainable management of forest resources, with deep-rooted knowledge of the local ecology. Their involvement in forest management initiatives, including joint forest management (JFM) programs, is vital for ensuring the long-term health and sustainability of the forest ecosystems.

In addition to their ecological roles, the forests of Korba are also culturally significant. The traditional knowledge and practices of the tribal communities, passed down through generations, are closely tied to the natural environment, reflecting a deep respect for the land and its resources. This cultural heritage is a key component of the region's identity and is increasingly recognized as an important factor in conservation strategies.

Division Map



Division Profile

Particulates		Details		Remark if any		
Total Forest area			158870			
Major forest types and area			PF, OA			
Sl.No.	Range Name,	Address /	Mobile Number	Section/ RA Circle	Beat	No. of Compartments
1	Korba	Forest Range office Korba, block Korba	9993141638	98	1	Korba
2	Balco	Forest Range officeBalco, block Korba	9340119769	108	2	Balco
3	Lemru	Forest Range office Lemru, Block Korba	9302882789	148	3	Lemru
4	Kudmura	Forest Range office Kudmura, Block Korba	9399321838	131	4	Kudmura
5	Kartala	Forest Range office Kartala, Block Kartala	8720895667	123	5	Kartala
6	Pasarkhet	Forest Range office Pasarkhet, Block Korba	8319863488	104	6	Pasarkhet
	Total No of JFMCs		197			
No of projects in APO 2019-20			12			

**Category wise sampled strata for Monitoring & Evaluation – Korba Division APO
2019 - 20**

Si.No	Category of Projects	Total no. of projects	Sampled sites
1	Wildlife Management Plan	6	2
2	Management of Biological diversity and biological resources	1	1
3	Soil and moisture conservation work	3	1
4	Civil and Construction works	2	1
	Total	12	5

Analysis of Projects - Korba Division

❖ **Wildlife Management Plan**

Created ponds (Talabs) at OA 1302 (0.5 hectares) and P 978 (0.29 hectares), successfully providing essential water resources to wildlife in arid and water-scarce regions. This enhancement improved habitat quality, supporting increased biodiversity and sustaining local flora and fauna.

❖ **Management of Biological Diversity and Biological Resources**

Implemented comprehensive biodiversity and resource management across compartments P 975, 977, and 980 in Keshalpur, executing six specific conservation and management activities. These efforts improved biodiversity conservation, restored native species, and strengthened sustainable resource management practices, fostering long-term ecological resilience.

❖ **Soil and Moisture Conservation (SMC) Work**

Conducted extensive soil and moisture conservation at Aura Nala, covering 5,082 hectares across compartments P 995, 1010, 1011, OA 1306, and 1307. This initiative effectively mitigated soil erosion, enhanced soil stability and fertility, improved water retention capacity, and strengthened ecosystem resilience by stabilizing landscapes prone to degradation.

❖ **Civil and Construction Works**

Constructed a high-tech barrier at Ajarbahar (7.64 meters), enhancing forest security by regulating access and deterring unauthorized activities. This infrastructure played a crucial role in preventing encroachment and poaching, ensuring a safe habitat for wildlife, and supporting long-term ecological management.

Key Observations

1. **Diverse Project Portfolio:** Initiatives address critical ecological aspects like wildlife support, biodiversity conservation, soil and moisture conservation, and infrastructure development.
2. **Scales of Intervention:** Projects range from small-scale interventions (ponds and barriers) to large-scale efforts like SMC work, reflecting a balanced approach to addressing both immediate and long-term ecological needs.
3. **Focus on Habitat and Resource Management:** Wildlife and biodiversity projects play a vital role in maintaining ecological balance and supporting species diversity.
4. **Infrastructure Support:** Civil works enhance forest security, indirectly supporting conservation and management efforts.

This consolidated analysis highlights the Korba Division's well-rounded approach to ecological management, addressing immediate and strategic environmental challenges. By scaling up successful initiatives and refining resource management practices, the division can achieve greater.

Detailed results of Monitoring & Evaluation for selected sites – Korba Division APO 2019-20

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Integrated Wildlife Management Plan	Talab - OA 1302 (Korba)	22.2581	82.8175	OA 1302	0.5 Ha	Good
2	Integrated Wildlife Management Plan	Talab - P 978 Basin Khar (Korba)	22.3907	82.8225	P 978	0.29 Ha	Good
3	Management of Biological diversity and biological resources	Management of Biological diversity and biological resources	22.4092	82.8003	P 975, 977, 980 Keshalpur	6 Works	Very good
4	Soil and moisture conservation work	SMC Works - Aura Nala	22.259	82.9431	P995, 1010, 1011, OA 1306, 1307	5082 Ha	Good
5	Civil and Construction works	Ajgarbahar Hi Tech Barrier	22.5212	82.7105	Ajgarbahar Barriers	7.64 Meter	Good

Marwahi: Division Assessment

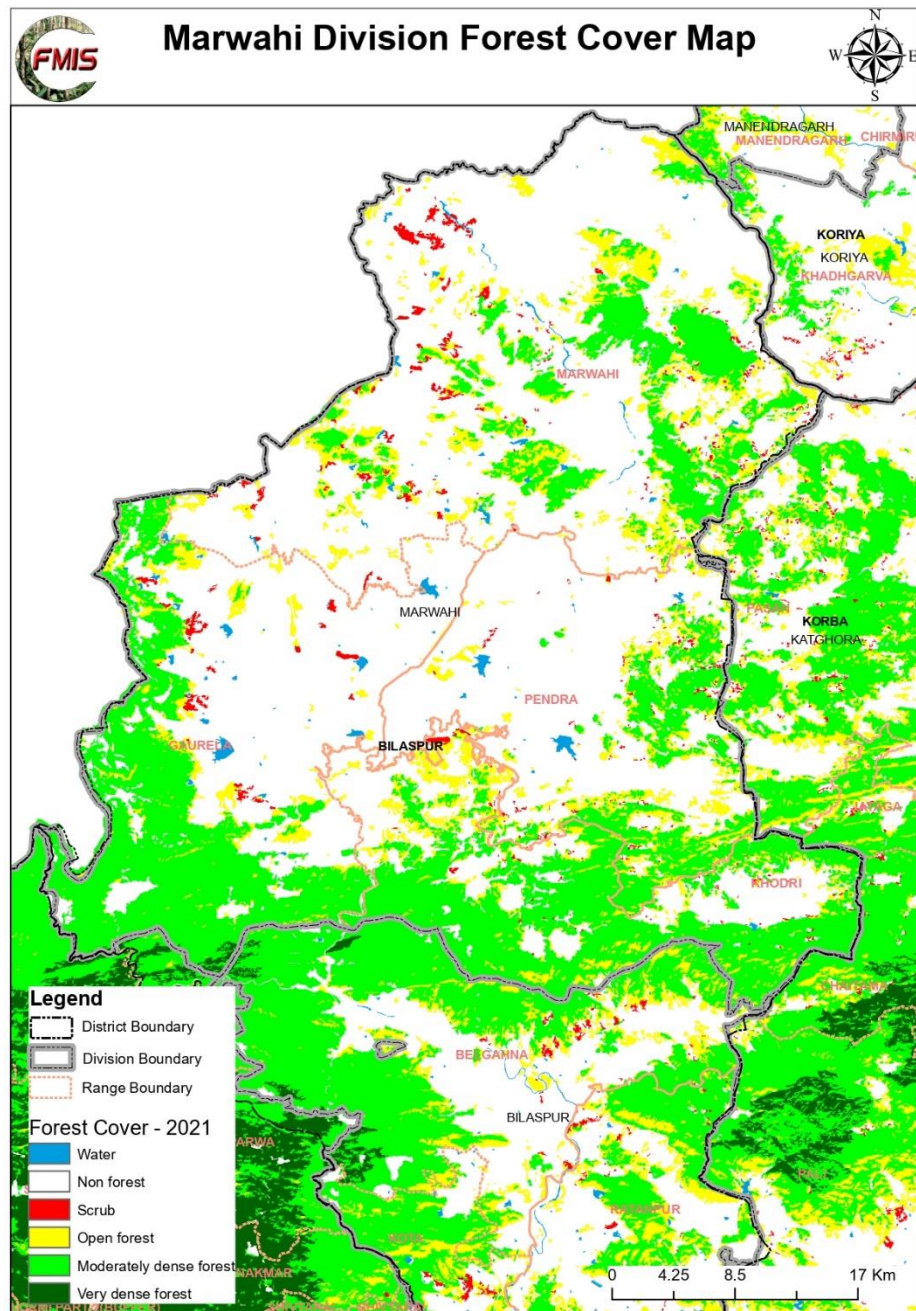
Marwahi Division Background

Marwahi Forest Division is situated in the northern part of Chhattisgarh, within the Gaurela-Pendra-Marwahi district, covering a geographical area of approximately 1,534 square kilometers. This region is renowned for its picturesque landscapes, featuring a mix of dense forests, rolling hills, and fertile plains. The division is nestled within the Maikal Range, a part of the Satpura Hills, which significantly contributes to its varied topography and rich biodiversity. The forests in Marwahi are predominantly tropical deciduous, with common species including sal, teak, and bamboo. These forests are crucial for maintaining the ecological balance in the region, supporting a diverse array of wildlife, including several endangered species, and playing an essential role in the water cycle, with numerous small rivers and streams originating from the hills and feeding into larger water bodies.

The climate of Marwahi is tropical, characterized by a distinct monsoon season that brings heavy rainfall, typically between June and September, followed by a dry season extending from October to May. The heavy monsoon rains sustain the dense forest cover but also present challenges such as soil erosion, which can lead to the degradation of agricultural lands and the silting of water bodies. Effective water management practices are critical in this region, both to support agriculture during the dry season and to prevent the adverse effects of erosion during the rains. The forest division plays a vital role in water conservation through its extensive network of rivers and streams that originate from the hilly terrain.

Demographically, Marwahi Forest Division is home to a significant tribal population, including communities like the Baiga and Gond tribes. These indigenous groups have lived in close harmony with the forest for generations, relying on it for their subsistence and cultural practices. The Baiga tribe, recognized as a Particularly Vulnerable Tribal Group (PVTG), has a profound connection with the forest, traditionally practicing shifting cultivation, also known as 'bewar.' This method of agriculture, though increasingly regulated, reflects the tribe's deep knowledge of the local environment. The collection of non-timber forest products (NTFPs), such as tendu leaves, mahua flowers, and medicinal herbs, forms a significant part of the tribal economy. Additionally, traditional crafts, such as bamboo work and the production of natural dyes, are integral to the livelihoods of these communities.

Divisional Map



Division Profile

Particulates		Details	
Total Forest area		851.870 sq km	
Major forest types and area		RF , PF , Orange Area	
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Khodari,Forest Range office Khodari, (Near khodari railway station) Gaurela-pendra-marwahi (CG)		116
2	Gaurela,Forest Range office Gaurela, Near railway station pendra , block gaurelaGaurela-pendra-marwahi (CG)		93
3	Pendra,Forest Range office Pendra, Near indiraudyann road pendra - Gaurela-pendra-marwahi (CG)		46
4	Marwahi,Forest Range office Marwahi, Near CHC Hospital Marwahi Block - Marwahi , Gaurela-pendra-marwahi (CG)		148
Total No of JFMCs		132	
No of projects in APO 2019-20		187	

Category wise sampled strata for Monitoring & Evaluation – Marwahi Division APO 2019 – 2020

S.No.	Category of Projects	Total no of projects	Sampled sites
1	Removal of Invasive / Un wanted species	10	3
2	Engineering Works (SMC,Civil Works & Habitat Improvement)	144	37
3	Nursery	0	0
4	Training	0	0
5	Plantation	33	12
6	Equipment	0	0
		187	52

Analysis of Monitoring & Evaluation Data for Selected Sites – Marwahi Division APO 2019-20

The Monitoring and Evaluation (M&E) data for the Marwahi Division highlights various forestry and conservation projects undertaken during the APO 2019-20. These projects span invasive species removal, engineering works for habitat improvement, and plantation efforts. Below is an analysis based on the available data.

❖ Removal of Invasive/Unwanted Species

Observations:

The eradication efforts demonstrate effective execution, contributing significantly to restoring native biodiversity by removing invasive species. The uniform success rate suggests standardized processes across all sites. However, monitoring the long-term impact on ecosystem recovery will be essential.

❖ Engineering Works (SMC, Civil Works & Habitat Improvement)

- Construction of infrastructure like barriers, fencing, roads, and buildings for forest guards.
- Habitat improvement through the creation of water retention structures (anicut) in various compartments.
- Projects spanned diverse sites, with the success rate predominantly reported at 95%.

Key Highlights:

- Infrastructure Development: Projects like high-tech barriers, chain link fencing, and forest guard buildings enhance forest management and protection.
- Water Resource Management: Anicuts (e.g., Banghat Kahua Nala and Fulwari Nala) improve water availability for wildlife and support soil moisture retention.

Observations:

These works significantly contribute to habitat improvement and forest protection. The high success rate reflects effective implementation, but additional qualitative assessments would help evaluate functionality and ecological impact over time.

❖ Plantation and Fencing Projects

- Project Scope: Afforestation efforts included CA plantations, riverbank plantations, and Jamvant plantations, covering over 600 hectares across multiple sites.

❖ Performance Ratings:

- Success rates varied: highest at 95% (e.g., Ghusariya CA plantation) and lowest at 20% (riverbank plantation at Jamundand).

Key Highlights:

1. High-Performing Sites: CA plantations in Ghusariya and Chuwabhra exhibited strong outcomes, reflecting effective site preparation and post-plantation care.
2. Underperforming Sites: Riverbank plantations (e.g., Jamundand and Bhulumada) showed significantly lower success rates, potentially due to site-specific challenges such as soil conditions or waterlogging.

Observations:

The disparity in success rates highlights the need for tailored strategies to address site-specific challenges, particularly for riverbank plantations. The success of high-performing sites underscores the importance of proper site selection and maintenance.

1. Comprehensive Efforts: The division's efforts span across invasive species control, habitat improvement, and afforestation, demonstrating a holistic approach to forestry management.
2. High Success Rates: Most projects reported high success rates (95%), indicating effective planning and execution. However, some plantation sites highlight the need for adaptive management.
3. Geographical Impact: The projects are spread across diverse locations, ensuring widespread ecological benefits. From water retention to infrastructure, the interventions cater to both biodiversity and forest management.

Challenges:

- Variability in plantation success suggests the need for enhanced site assessments and customized interventions.
- Long-term monitoring is crucial to ensure sustained ecological and functional benefits.

Concluding Remarks

The M&E data for the Marwahi Division underscores its commitment to forest conservation and biodiversity enhancement through well-executed projects. While most initiatives achieved notable success, focusing on underperforming areas like riverbank plantations and continuous monitoring will strengthen outcomes further. These projects collectively highlight the division's role in fostering sustainable forestry practices and ecological restoration.

Detailed results of Monitoring & Evaluation for selected sites – Marwahi Division APO 2019-20

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success Rate
1	Compensatory Afforestation Plantation	Padwaniya CA plantation	N22.67 9648	E81.84 589	Padwaniya/ 2346 (78 Hact.)	78.00 Hact.	89%
2	Compensatory Afforestation Plantation	Dumar kherwa 339@1 CA plantation	N22.94 5093	E81.97 818	Dumarkherwa (Latkonikhurd) / KH. No. 339/1	31.35 ha	85%
3	Compensatory Afforestation Plantation	Ghusariya 2049@ CA plantation	N22.97 6281	E81.99 966	Ghusariya / 2049	135.4 Hect.	95%
4	Compensatory Afforestation Plantation	Chuwabhra 2065@ CA plantation	N22.92 0345	E82.01 5492	Chuwabahra / 2065	60. Hect.	89.31%
5	Compensatory Afforestation Plantation	Salhelkota 1988@ CA plantation	N22.94 5093	E81.97 818	Salhekota / 1988	82.75 Hect.	86.78%
6	Artificial Regeneration NPV Plantation	2012 @Semardarri jamvant ropan	N22.93 4508	E82.18 0424	Semardarri/ 2012	5 Hect.	72.50%
7	Artificial Regeneration NPV Plantation	1988 @ Salhekota Jamvant ropan	N 22.91 9302	E 82.00 8453	Salhekota/ 1988	10 Hect.	91.66%
8	Artificial Regeneration NPV Plantation	2020 @Dhapnipani jamvant ropan	N22° 59'56"	E82°8'3"	Dhapnipani/ 2020	10 Hect.	86.11%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success Rate
9	Artificial Regeneration NPV Plantation	2063 @Chuwabhra jamvant ropan	N22.94 5887	E82.01 3996	Chuwabahra/ 2063	10 Hect.	77.77%
10	Artificial Regeneration NPV Plantation	Jhirnapondi Jamvant ropan	N22° 56'28"	E81° 55'5"	Jhirnapodi	10 Hect.	86.02%
11	Artificial Regeneration NPV Plantation	River bank plantation Bhulumada 2186	22.68 3092	82.01 0102	Jharhapara / 2186	15 Hect.	40%
12	Artificial Regeneration NPV Plantation	River bank plantation jamundand 2185	N22.67 663	E81.99 6794	Jamundad / 2185	10 ha	20%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
13	Silvicultural operations	Removal of invasive alien species- Lantana	N22.62 5584	E81.75 1392	Patpari / 1227 (254.15 Hact.)	254.15 Ha	Good
14	Silvicultural operations	Removal of invasive alien species- Lantana	22'41' 34.88"	81'53' 8.71"	Taraigaon / 1271 (262.19 Hact.)	145.43	Good
15	Silvicultural operations	Removal of invasive alien	N22°40' 41.08"	E 81°43' 34.55"	Patpari / 1224 (275.13 Hact.)	275.13 Ha	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
		species-Lantana					
16	Civil and construction works	High tech barrier	22.79 5278	81.79 2105	KarangaraBarrier / Revenue Land	25ft	Good
17	Civil and Construction Works	Watchman building depot	22.73 5581	81.90 0669	Division office parisar	200 sq ft	Good
18	Civil and Construction Works	Main road construction work	N 22.73 5693	E81.90 0253	depot	2000 M	Good
19	Civil and Construction Works	Boundary wall construction work	N22.73 5419	E81.899755	Depot	231 M	Good
20	Civil and Construction Works	Banghat kahuwa nala anicut	22°37' 28.05"	81°50'52.01"	Banghat (Kahua Nala)	283.64 Cubic Meter	Good
21	Civil and Construction Works	Banghat kahuwa nala anicut	N22.73 4178	E82.117877	Banghat (Kahua Nala)	359.46 Cubic Meter	Good
22	Civil and Construction Works	Kewachi bhiravsang nala anicut	N22.60 3952	E081.777775	Kewachi (BhairosanghNala)	65 Cubic Meter	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
23	Civil and Construction Works	Chuktipani shakti pipar nala anicut	22.72 8988	81.79 6078	Chuktipani (ShaktipiparNala)	666.13Cubic Meter	Good
24	Civil and Construction Works	Amanala jamjhor nala anicut	N22°37'23"	E81°46'54"	Amanala (JamjhorNala)	174 Cubic Meter	Good
25	Civil and Construction Works	Amanala anicut	N22° 37'23"	E81°46'54"	Amanala (JamjhorNala)	666.13 Cubic Meter	Good
26	Civil and Construction Works	Taraigav khutinala Anicut	22041' 19.38"	81054' 2.65"	Taraigaon (KhutiNala)	126 Cubic Meter	Excellent
27	Civil and Construction Works	2017 Barpaninala anicut	N22O 58'47"	E 82O9'9"	Dhapanipani / 2017	733 Cubic Meter	Good
28	Civil and Construction Works	2032 Magarkunda nala anicut	N23O0'8"	E 82O 10'28"	2032 Magarkunda nala anicut	728.45 Cubic Meter	Good
29	Civil and Construction Works	2011 Sukhadnala anicut	22'55' 20.70"N	82012' 12.40"	Semardarri / 2011	383.75Cubic Meter	Good
30	Civil and Construction Works	2013 Jhandinala anicut	N22O56' 23.80"	E82O11' 24.30"	Semardarri / 2013	0.9 Ha	Good
31	Civil and Construction Works	Boundary wall construction work depo	N22.73 5609	E81.89 9629	Depot	430M	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
32	Civil and Construction Works	Forest guard building	N22.77 9196	E81.97 403	Pendra	675 SQ FT	Good
33	Civil and Construction Works	Bagdhari nala Anicut	N22O56' 41.80"	E 82O11' 51.15"	Semardarri	726.31Cubic Meter	Good
34	Civil and Construction Works	Bageshar nala Anicut	N22.75 0042	E82.10 6479	Amaru 1454	386.59Cubic Meter	Good
35	Civil and Construction Works	Bamhani nala Anicut	N22.72 6164,	E82.10 5421	Amaru 1460	508.29 Cubic Meter	Good
36	Civil and Construction Works	Garjan nala anicut	N22.66 7068	E82.03 9486	Lata 1358	508.29 Cubic Meter	Good
37	Civil and Construction Works	Forest Guard Residence Building Khodri	N220 38'39"	E82.0'20"	Belpat	675sqft	Good
38	Civil and Construction Works	Forest Guard Residence Building Lalati	N22 .73 4365	E81.97 6847	Lalati	675sqft	Good
39	Civil and Construction Works	1455 Lamarnala	N22O46' 35.65"	E8206' 34.14"	Pendra Lamarnala/ P 1455	508.29 Cubic Meter	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
40	Civil and Construction Works	Salhekota forest Guard quarter 1	22.91 7333	82.03 0768	Salhekota	675sq ft	Optimum
41	Civil and Construction Works	Salhekota forest Guard quarter 2	22.91 745	82.03 0265	Salhekota	675 sq ft	Optimum
42	Civil and Construction Works	1451 Odiyajhiriya nala	N22.78 181	E82.16 6774	Pendra (Devarikhurd) Odajhiriya Nala/ P 1452	508.29 Cubic Meter	Good
43	Civil and Construction Works	forest Guard quarter Pendra	N22.79 209	E81.97 4012	Forest Colony Garenga	675 Sq.Ft	Good
44	Civil and Construction Works	Ajin nala	N23O 0'8"	E 82O 8'29"	1495 Dhapanipani	0.75	Good
45	Civil and Construction Works	Chakra nala	N23°0'18"	E 82°8'36"	1495 Dhapanipani	0.54	Good
46	Civil and Construction Works	Kekra mada nala	N23°0'24"	E 82°8'37"	1495 Dhapanipani	0.49	Good
47	Forest/Fire Protection Works	1257 Piparkhuti chain link fencing	22.64 5753	81.84 8552	Piparkhuti / 1257	2*1000 Rmtr.	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
48	Forest/Fire Protection Works	Jaleshwar chain link fencing	22.69 483	81.76 35	Jaleshwar	2*1000 Rmtr.	Good
49	Soil and Moisture Conservation Works	SMC Works Fulwari nala anicut part -1	N22.72 9542	E81.97 8653	Lalati 2213	0.75 Ha	Good
50	Soil and Moisture Conservation Works	SMC Works Fulwari nala anicut part -2	N22.72 95427	E81.97 8653	Lalati 2213	872.72 Cubic Meter	Good
51	Soil and Moisture Conservation Works	Jaitarni nala	22.6975 9022 N	82.0157 8416E	2184,2185,2186,2187, 2219,2199,2125,2126, 2127,2128,2123,2124, 2227,2228,2140,2141, 2142,2143,2182,2183, 2129,2130,2131,2132	10967 Hact.	Good
52	Engineering Works (SMC,Civil Works & Habitat Improvement)	Taraigav anicut khuti nala 2326	N22°41' 19.38"	E081° 54'2.65"	Taraigaon (KhutiNala) / 2326	126 Cubic Meter	Good

Mungeli: Division Assessment

Mungeli Division Background

Mungeli Forest Division is located in the Mungeli district of Chhattisgarh, India. The division is geographically positioned in the central part of the state, with coordinates approximately between 21.80°N to 22.20°N latitude and 81.40°E to 82.00°E longitude. Mungeli district was carved out from Bilaspur district in 2012 and is bordered by Bilaspur district to the east, Kawardha (Kabirdham) district to the west, and Balodabazar-Bhatapara district to the south. The region is characterized by a mix of flat plains and gently undulating terrains, making it suitable for both agriculture and forestry.

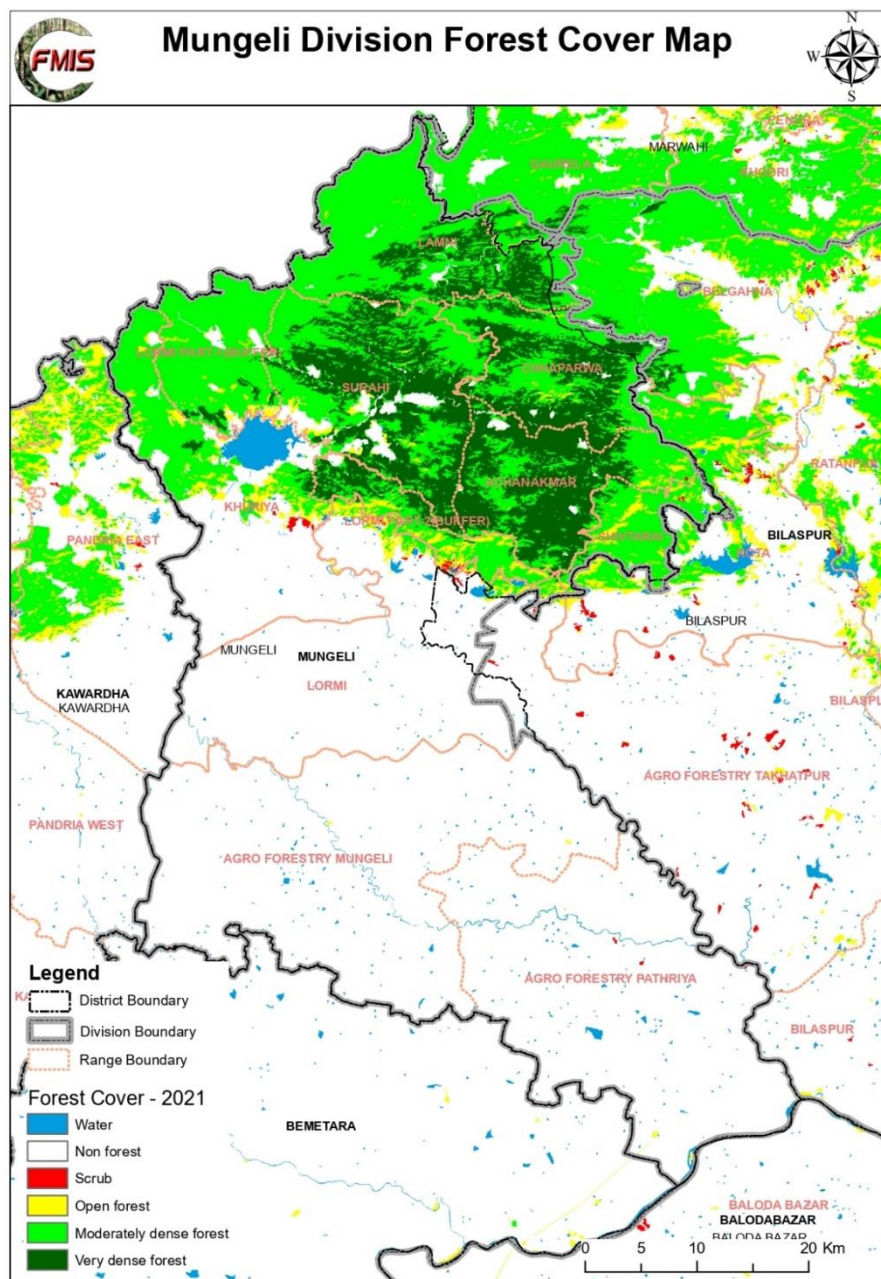
Mungeli Forest Division is primarily composed of tropical dry deciduous forests, which are typical of the central Indian landscape. The dominant tree species in these forests include Sal (*Shorea robusta*), Teak (*Tectona grandis*), and various species of bamboo (*Bambusoideae*). The forests in this division play a crucial role in maintaining ecological balance, providing habitat for wildlife, and offering resources such as timber, fuelwood, and non-timber forest products (NTFPs) to the local communities.

The division is divided into several forest ranges for effective management and conservation. These ranges are responsible for implementing civil & construction work and soil moisture conservation programs, protecting wildlife habitats, and ensuring the sustainable use of forest resources. The Mungeli Forest Division also focuses on the conservation of soil and water, which are vital for supporting both the forest ecosystems and the agricultural activities in the region.

Although Mungeli is not as densely forested as some other parts of Chhattisgarh, it still supports a variety of wildlife species. Common fauna include deer, wild boars, leopards, and various bird species. The forests serve as a crucial habitat for these species, contributing to the biodiversity of the region. Efforts are made to monitor and protect these wildlife populations through regular patrolling and conservation activities.

The economy of Mungeli district is predominantly agrarian, with agriculture being the main occupation for the majority of the population. The fertile plains of Mungeli are well-suited for the cultivation of crops such as paddy, wheat, and pulses. The forest resources also contribute significantly to the livelihoods of local communities, particularly through the collection and sale of NTFPs like tendu leaves, mahua flowers, and medicinal plants.

Division Map



Division Profile

Particulates	Details	
Total Forest area	14794.503 Hact.	
Major forest types and area	RF, PF	
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments
1	Khudiya, Forest Colony, Khudiya Mo.No. 8966985436	50
2	Lormi, Forest Colony, Lormi Mo.No. 8966985436	19
3	Mungeli (Agro), Majganvpara Forest Colony Mungeli	
4	Pathariya (Agro), Forest Colony Pathariya	
5	Lormi Production, Forest Colony, Lormi	
Total No of JFMCs	23	
No of projects in APO 2019-20	04	

Category wise sampled strata for Monitoring & Evaluation – Mungeli Division APO 2019 - 20

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Civil and Construction Works	2	1
2	Soil and Moisture Conservation Works	2	1
	Total	4	2

Analysis of Monitoring & Evaluation Results for Selected Sites – Mungeli Division

The Monitoring and Evaluation (M&E) results for the Mungeli Division in the 2019-20 Annual Plan of Operations (APO) provide insights into the implementation, performance, and qualitative outcomes of selected forestry projects. These projects span civil and construction works as well as soil and moisture conservation (SMC) efforts.

I.Civil and Construction Works: Hi-Tech Barrier at Karidongari

- Location: Karidongari, Latitude 22.34894, Longitude 81.611917
- Compartment: 495 RF
- Description: Construction of a hi-tech barrier.

- Current Status: The barrier is currently non-functional due to technical issues and has been sent for maintenance.

Observations and Insights:

This project highlights the challenges associated with implementing and maintaining advanced infrastructure in forested areas. While the introduction of hi-tech barriers indicates an effort to modernize forest protection, the non-functional status underscores the need for robust maintenance frameworks and troubleshooting mechanisms. Technical setbacks can delay the intended impact, emphasizing the importance of preemptive maintenance strategies and real-time monitoring systems for such initiatives.

II. Soil and Moisture Conservation (SMC) Works: Koilar Nala

- Location: Koilar Nala, Latitude 22.387905, Longitude 81.609375
- Compartments: 492, 497, 498, 499 RF
- Total Area Treated: 786 hectares

Observations and Insights:

The SMC works at Koilar Nala is showcasing effective planning and execution. These efforts are crucial for enhancing soil quality, preventing erosion, and improving water retention in the treated area. The large scale of the project (786 hectares) reflects a substantial impact on the hydrological and ecological balance of the region. The success of this initiative highlights the value of integrating localized soil and water conservation practices into forest management plans.

Detailed results of Monitoring & Evaluation for selected sites – Mungeli Division APO 2019-20

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Civil and Construction Works	Hi tech barrier Karidongari	N-22.34894	E-81.611917	495 RF	Hi tech barrier Karidongari	Due to some technical reason, it is not in working condition & sent for maintenance
2	Soil and Moisture Conservation Works	SMC Works - Koilar Nala	N-22.387905	E-81.609375	492,497,498,499 RF	786 Hact.	Excellent

Raigarh: Division Assessment

Raigarh Background

The Raigarh Forest Division, part of the Bilaspur Circle in Chhattisgarh, is not only known for its diverse geographical features but also for its vibrant and varied demographic composition. The division spans a landscape of undulating hills, dense forests, and fertile river valleys, creating a unique ecological environment that supports a wide range of human and wildlife populations.

The population of Raigarh Forest Division is a blend of various communities, including a significant number of tribal groups who have lived in harmony with the forest for generations. Prominent among these tribes are the Gond, Baiga, and Oraon communities, who traditionally rely on the forest for their livelihoods. These indigenous groups practice subsistence agriculture, shifting cultivation, and the collection of non-timber forest products (NTFPs) such as tendu leaves, mahua, and lac. Their way of life is closely tied to the natural environment, with cultural practices that reflect a deep understanding of the local ecology.

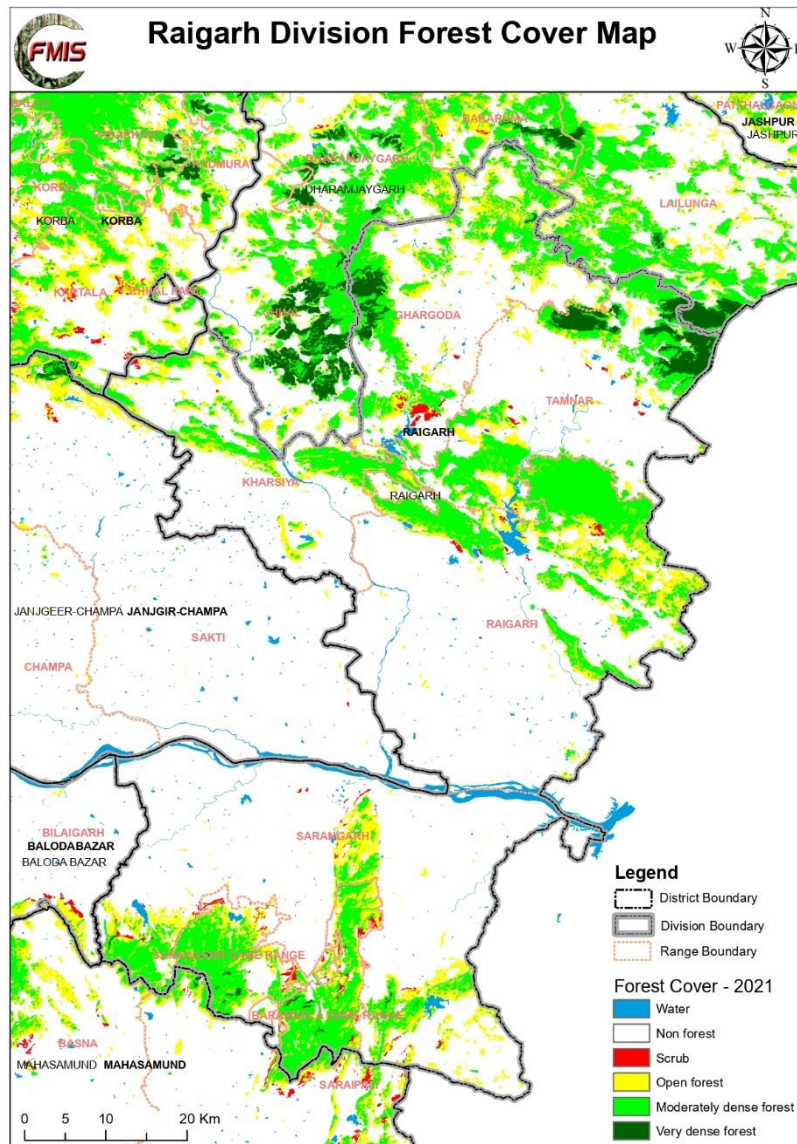
The climate in Raigarh is typically tropical, with a monsoon season that brings heavy rainfall, supporting the dense forest cover and agricultural activities in the valleys and plains. The dry season, which follows the monsoon, can be prolonged, making water conservation efforts essential for maintaining both the forest ecosystems and the agricultural productivity of the region.

In addition to the tribal population, the region is home to a diverse array of other communities, including small-scale farmers, artisans, and laborers who contribute to the local economy. Agriculture is the primary occupation for many, with paddy, wheat, and pulses being the main crops cultivated in the fertile valleys and plains. The forests also provide a critical source of employment through forest-related activities, such as the collection of forest produce, small-scale logging, and participation in government-affiliated conservation programs.

The social structure in the Raigarh Forest Division is deeply rooted in traditional governance systems, with village panchayats playing a central role in managing both community affairs and the sustainable use of natural resources. These panchayats, along with local forest committees, are instrumental in overseeing the implementation of various forest management and conservation initiatives, ensuring that the benefits of these programs are equitably distributed among the community members.

Culturally, the Raigarh Forest Division is rich in traditions, with festivals, dances, and rituals that are closely linked to the agricultural calendar and the cycles of nature. These cultural practices are not only an expression of the community's identity but also play a role in reinforcing the sustainable use of forest resources.

Division Map



Division Profile

Particulates		Details	
Total Forest area		1529.596 (Sq. km.)	
Major forest types and area		RF 829.044 PF 294.426	
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments	
1.	Raigarh	167	
2.	Kharsia	72	
3.	Tamnar	156	
4.	Gharghora	172	
5.	Sarangarh	91	
6.	Gomarda Sarangarh	51	
7.	Gomarda Baramkela	55	
Total No of JFMCs		367	
No of projectsin APO 2019-20		193	

Category wise sampled strata for Monitoring & Evaluation – Raigarh Division APO 2019 - 2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory afforestation plantation	61	14
2	Wildlife management plan	93	24
3	Silvicultural operations	16	4
4	Soil and moisture conservation work	8	2
5	Development of Staff amenities in Forest Colony	10	3
6	Forest/Fire Protection Works	5	1
	Total	193	48

Analysis: Key Observations of the projects

Compensatory Afforestation Plantations

The compensatory afforestation projects demonstrate high success rates, ranging from 85.26% to 95%, signifying effective site preparation and maintenance. The projects primarily focused on first-year site preparation and second-year maintenance, showcasing consistent execution. The success rates reflect robust practices in species selection, soil preparation, and post-plantation care. However, the site at Netnagar (85.26%) highlights a need to investigate challenges such as soil fertility issues, grazing pressure, or community engagement to enhance success rates. Moving forward, correlating factors like soil type, rainfall patterns, and plantation species with success rates could provide actionable insights.

Wildlife Management Plans

The wildlife management projects covered a diverse range of activities, including the construction of water reservoirs, stop dams, watch towers, and soil and moisture conservation (SMC) structures. These efforts primarily aim to improve water availability, monitor wildlife, and enhance habitat quality. Amongst all the Talab Nirman Karya at 966 RF, which sets a benchmark for others. The construction of watch towers and stop dams reflects a focus on habitat management and wildlife monitoring. To further assess their impact, biodiversity indices and wildlife population trends before and after these interventions should be compared, ensuring the long-term benefits of these activities.

Silvicultural Operations

The removal of invasive alien species was carried out across multiple locations. This indicates effective implementation of these operations. However, it is crucial to monitor the regrowth of native vegetation in treated areas and measure its impact on the local ecosystem. Additionally, tracking the density of invasive species over time would provide a clearer picture of the intervention's long-term success. Such efforts contribute significantly to ecosystem restoration, supporting native biodiversity and improving overall forest health.

Soil and Moisture Conservation Work

The large-scale soil and moisture conservation (SMC) projects, particularly at Chakradhar nala (11390.25 Ha) and Kachar nala (2897.55 Ha), underscore a substantial commitment to water resource management. These projects aim to stabilize soil, recharge groundwater, and enhance agricultural productivity. To quantify their success, data on water table levels, soil fertility, and agricultural yield in nearby areas should be analyzed. SMC work not only supports ecosystem health but also benefits local communities, strengthening the link between conservation and livelihoods.

Infrastructure Development

Infrastructure development projects, including CC roads, boundary walls, and chain link enclosures, highlight efforts to enhance forest protection and accessibility. These projects improve patrolling efficiency and reduce human-wildlife conflicts by demarcating boundaries. Utilizing eco-friendly and sustainable materials in future infrastructure projects could further align these efforts with conservation goals. Evaluating the direct and indirect benefits of such infrastructure, such as reduced poaching or encroachment, could justify future investments.

Key Observations and Opportunities

A notable observation is the uniform reflecting consistent quality. However, this uniformity might obscure specific challenges or areas of excellence. Geographical analysis reveals a concentration of projects in certain areas, raising questions about equitable resource distribution. Engaging local communities in afforestation and invasive species removal could enhance project sustainability and foster ownership. Future strategies should incorporate a cost-benefit analysis to compare investments against ecological and socio-economic benefits, ensuring the optimal allocation of resources.

Detailed results of Monitoring & Evaluation for selected sites – Raigarh Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Compensatory afforestation plantation	1 st yr site preparation	21 ⁰ .80 [^] 12 ^P	83 ⁰ .45 [^] 95 ^P	1019 PF Netnagar	10.352 Ha.	85.26%
2	Compensatory afforestation plantation	1 st yr site preparation	22 ⁰ .14 [^] 99 ^P	83 ⁰ .29 [^] 02 ^P	384/1,2,3 1372 OA Katangdih	15.00 Ha.	95%
3	Compensatory afforestation plantation	1 st yr site preparation	22 ⁰ .10 [^] 13 ^P	83 ⁰ .39 [^] 67 ^P	852 OA Kachkoba	9.00 Ha.	95%
4	Compensatory afforestation plantation	1 st yr site preparation	2136'99'	8339'50"	Khairat OA	8.900Ha.	95%
5	Compensatory afforestation plantation	1 st yr site preparation	21.42'88"	83.34'85"	Putainpali B	8.736 Ha.	95%
6	Compensatory afforestation plantation	1 st yr site preparation	21.42'31"	83.35'30"	Mugiyadih B	9.010 Ha.	95%
7	Compensatory afforestation plantation	1 st yr site preparation	21.42'85"	83.34'70"	Kurainpali A	6.718 hac	95%
8	Compensatory afforestation plantation	2 nd year maintenance	21.65'58"71	83.20'73"28	1062 PF Kodwari	40	95%
9	Compensatory afforestation plantation	2 nd year maintenance	22.18'18"95	83.26'91"45	1220 PF Nawagarh	20	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
10	Compensatory afforestation plantation	2 nd year maintenance	22.18'59"95	83.31'18"89	1235 PF Kurkut	15	95%
11	Compensatory afforestation plantation	2 nd year maintenance	22.38'61"71	83.38'16"7	1299 PF Kamtara	20	95%
12	Compensatory afforestation plantation	2 nd year maintenance	21.94'39"43	83.40'67"04	933 PF Bhelwatikra	16	95%
13	Compensatory afforestation plantation	2 nd year maintenance	21.45'55"36	83.32'27"33	Damdama OA	30	95%
14	Compensatory afforestation plantation	2 nd year maintenance	21.40'11"83	83.25'70"42	1093 PF Rangatikra	30	95%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
15	Wildlife management plan	Talab nirman karya	22.1'2"	83.31'5"	802 PF karmagarh	1 Nos	Good
16	Wildlife management plan	Talab nirman karya	22.4'26"	83.23'8"	842 PF Amaghat	1 Nos	Good
17	Wildlife management plan	Talab nirman karya	22.10'11"	83.35'40"	770 RF Chirwani	1 Nos	Good
18	Wildlife management plan	SMC work	22.9'31"	83.32'55"	776 RF	92.338	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
19	Wildlife management plan	Talab nirman karya	LATE- N 21.54'57"	LOG-E 83.25'43"	966 RF	1 Nos	Excellent
20	Wildlife management plan	Talab nirman karya	LATE- N 21.90'60"	LOG-E 83.43'47"	967 RF	1 Nos	Good
21	Wildlife management plan	Talab nirman karya	LATE- N 21.54'27"	LOG-E 83.28'09"	968 RF	1 Nos	Good
22	Wildlife management plan	Talab nirman karya	LATE- N 21.54'14"	LOG-E 83.28'26"	969 RF	1 Nos	Good
23	Wildlife management plan	Talab nirman karya	LATE- N 21.53'46"	LOG-E 83.29'25"	970 RF	1 Nos	Good
24	Wildlife management plan	Talab nirman karya	LATE- N 21.51'08"	LOG-E 83.29'50"	1000 OA	1 Nos	Good
25	Wildlife management plan	Talab nirman karya	LATE- N 21.49'45"	LON-E 83.29'09"	1002 OA	1 Nos	Good
26	Wildlife management plan	Talab nirman karya	LATE- N 21.80'80"	LOG-E 83.48'17"	1007 RF	1 Nos	Good
27	Wildlife management plan	Talab nirman karya	LATE- N 21.82'61"	LOG-E 83.45'70"	1008 RF	1 Nos	Good
28	Wildlife management plan	Talab nirman karya	LATE- N 21.44'06"	LOG-E 83.27'25"	1024 OA	1 Nos	Good
29	Wildlife management plan	Watch Tower	22.12'53.342"	83.32'.036"	765 RF HINJHER	1 Nos	Good
30	Wildlife management plan	Watch Tower	22.10'44"	83.35'.38"	769 RF CHIRWANI	1 Nos	Good
31	Wildlife management plan	Bhu jal sanrakshan karya	22.18'94"	83.43'99"	712 RF	92.338	Good
32	Wildlife management plan	Watch Tower	22.4'57"	83.19'.9"	846 RF SAMARUMA	1 Nos	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
33	Wildlife management plan	Watch Tower	22.10'25"	83.34'.25"	779 RF MILUPARA	1 Nos	Good
34	Wildlife management plan	Bolder check dam Nirman karya	22.37'19"	83.41'28"	1302 RF1303 RF	1 Nos	Good
35	Wildlife management plan	Watch Tower	22.7'11"	83.17'.776"	1273 RF	1 Nos	Good
36	Wildlife management plan	STOP DAM	22.13.555'	83.26.15"	716 RF TELAIDARHA NALA	1 No.	Good
37	Wildlife management plan	STOP DAM	LATE-21.2111	LONG—83.4506	792 PF GHOGHRA NALA	557.71 Cu. Meter	Good
38	Wildlife management plan	STOP DAM	LATE-22.211216	LONG—83.450413	844 PF BUDJHARIYA NALA		Good
39	Silvicultural operations	Removal of Invasive Alien Species	21.29'54"	83.04'34'	900 RF	50	Good
40	Silvicultural operations	Removal of Invasive Alien Species	21.29'56"	83.05'34'	904 RF	50	Good
41	Silvicultural operations	Removal of Invasive Alien Species	21.40'728 "	83.57'238'	910 RF	50	Good
42	Silvicultural operations	Removal of Invasive Alien Species	21.45397 3	83.0853	920 RF	50	Good
43	Soil and moisture conservation work	SMC Works - Chakradhar nala	21.97490 4	83.49673	902,905,906, - ---	11390.25 Ha.	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
44	Soil and moisture conservation work	SMC Works - Kachar nala	22.312323	83.28123	1197, 1198	2897.55 Ha.	Good
45	Forest/Fire Protection Works	chain link enclosure	Lat.21.542595	Long.83.035873	898 RF	2000 RM	Good
46	Development of Staff amenities in Forest Colony	Tamnar range colony CC road	22.5'33"	83.25'53'	VAN PARICHETRA TAMNAR	800 RM	Good
47	Development of Staff amenities in Forest Colony	Boundary wall Tamnar range colony	22.5'31"	83.25'51'	Boundary wall Tamnar range colony	786.78 Meter	Good
48	Development of Staff amenities in Forest Colony	Boundary wall Kharsia range colony	22004034 N	83110751 E	Boundary wall Kharsia range colony	400.00 Meter	Good

Durg Circle

Rajnandgaon: Division Assessment

Division Background

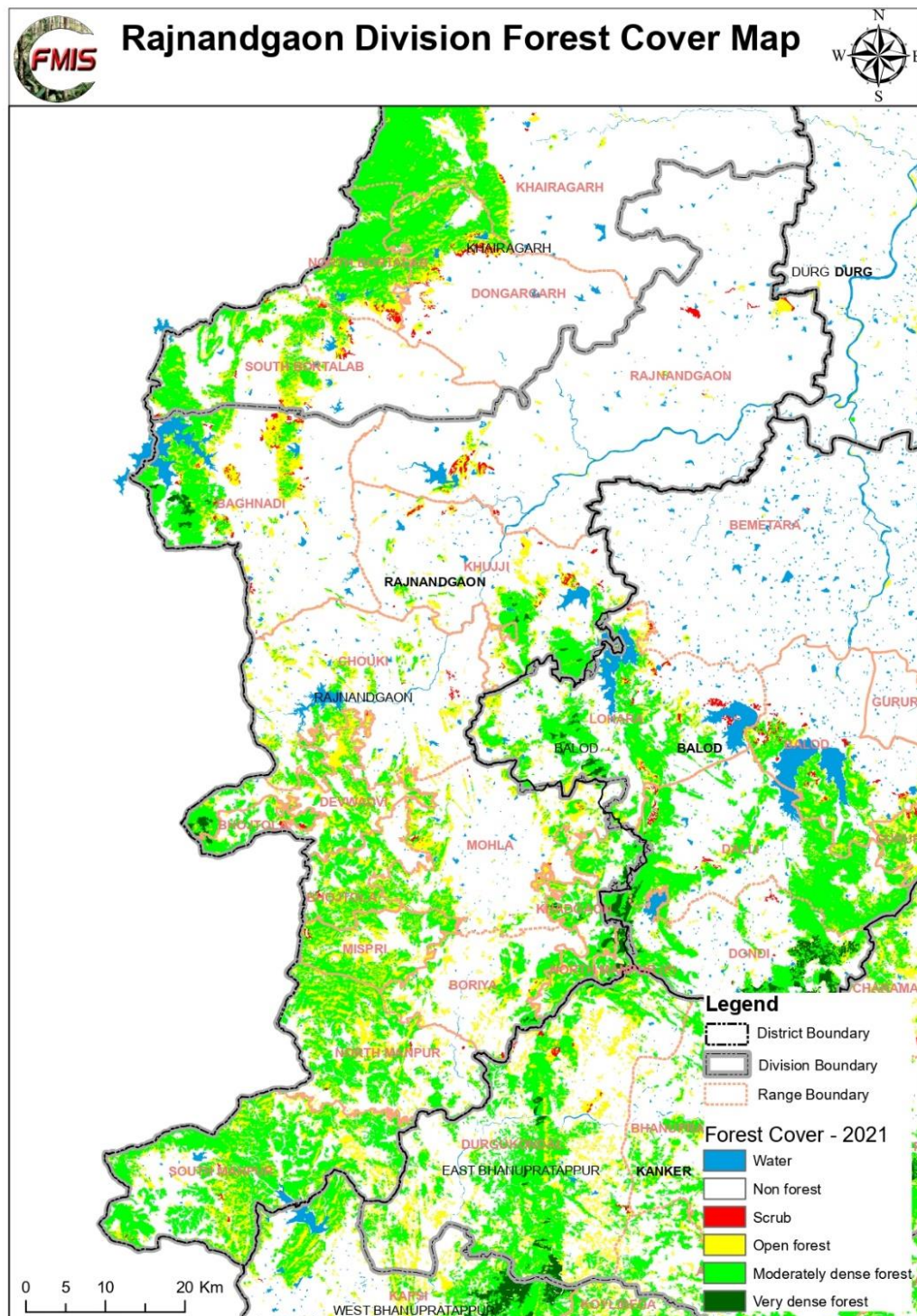
The district's geographical area spans 8,222 square kilometers, with the terrain varying from flat plains to areas influenced by the proximity of mountains and rivers. This varied geography not only supports a thriving agricultural economy but also provides ample resources for industrial development. The combination of fertile plains, abundant water resources, and the presence of natural resources makes Rajnandgaon an important region for both agriculture and industry. Rajnandgaon experiences a tropical wet and dry climate, with three distinct seasons: summer, monsoon, and winter. The summer season, which lasts from March to June, is characterized by high temperatures that can reach up to 48 degrees Celsius, often accompanied by hot and dry winds. The monsoon season brings relief from the intense heat, with significant rainfall that supports the district's agricultural activities. The winter season is mild and pleasant, with moderate temperatures that make it the most comfortable time of the year.

Approximately 67% of the Rajnandgaon Forest Division's area is covered by forests, making it a crucial part of the district's landscape. The total forested area within the division is about 5,158.52 square kilometers out of the district's total geographical area of 8,222 square kilometers. This extensive forest cover plays a vital role in maintaining the ecological balance, supporting biodiversity, and providing livelihoods for the local population.

The forests in Rajnandgaon are primarily tropical deciduous, with a mix of tree species such as Sal (*Shorea robusta*), Teak (*Tectona grandis*), and Bamboo (*Bambusoideae*). These forests are essential for the conservation of soil and water, as well as for the regulation of the local climate. The division's forests also support a variety of wildlife, including several species of mammals, birds, reptiles, and insects, contributing to the region's biodiversity.

Rajnandgaon district has a population of 1,537,133, with a literacy rate of 87.08%, which is relatively high compared to other regions in Chhattisgarh. The district's population is a mix of urban and rural communities, with a significant portion engaged in agriculture and forestry-related activities. The rural population relies heavily on the forest for their livelihoods, including the collection of non-timber forest products (NTFPs) and traditional farming practices.

Division Map



Division Profile

Particulates		Details				
Total Forest area		92837.551 Hac.				
Major forest types and area		</				

**Category wise sampled strata for Monitoring & Evaluation –
Rajnandgaon Division APO 2019-2020**

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantations	44	6
2	Silvicultural operations	26	8
3	Bamboo Works	6	2
4	Improvement of growing stock in orange area	2	1
5	Soil and moisture conservation work	11	3
6	Upgradation of timber depot	10	3
7	Civil and construction works	12	3
8	Assisted Natural Regeneration works (ANR)	25	7
9	Forest/Fire Protection Works	18	5
10	Artificial Regeneration NPV Plantation	15	6
11	Other Mandatory works	2	1
	Total	171	45

Analysis of projects Monitored & Evaluated

1. Compensatory Afforestation (CA) Plantations

- Several CA plantation maintenance activities were conducted across revenue and private lands, treating areas ranging from 4.79 hectares to 50 hectares.
- Success rates varied between 80% and 98%, indicating strong performance overall, with occasional room for improvement in specific sites like Malher and PF 645.

2. Natural Plantation Vegetation (NPV) Projects

- NPV plantations included mixed and special species plantations across multiple sites (e.g., Tatekasa, Kaudikasa, and Baghnadi).
- Success rates ranged from 70% to 87%, with slightly lower performance in special species plantations at some locations, suggesting potential for optimization in species selection and care.

3. Artificial Regeneration Works (ANR)

- ANR projects focused on Assisted Natural Regeneration across forest compartments like Arakund, Markakasa, Baseli, and Nalkasa, covering areas from 97.42 hectares to 159.29 hectares.
- Success rates were high, ranging from 89% to 98%, underscoring the effectiveness of regeneration efforts in natural forest areas.

4. Silvicultural Operations

- Removal of invasive species, particularly Lantana, was undertaken at multiple sites covering 10 to 100 hectares.
- These operations received a qualitative assessment demonstrating effective control measures to restore native vegetation and improve biodiversity.

5. Forest and Fire Protection Works

- These works were implemented across Baghnadi, Chowki, Rajnandgaon, and South Manpur, covering multiple beats.

6. Bamboo Works

- Projects involved cleaning old bamboo plantations in compartments like 511 and 980, treating areas of 50 and 100 hectares.

7. Soil and Moisture Conservation (SMC)

- SMC projects focused on improving water retention and reducing soil erosion at sites like Aama Nala, Sadakchirchari Nala, and Barbaspur Nala, treating extensive areas of 701 to 1,030 hectares.

8. Infrastructure Development

- The division undertook projects such as WBM road construction, repair of timber depots, and forest asset maintenance.
- Significant work included:
 - ✓ Boundary walls (450 meters) and road upgrades (4,000 meters) at Chirchari RF 509.
 - ✓ Forest Range Office construction at Khujji (1,700 sq. ft.).

9. Awareness and Training

- Workshops and other activities, such as the nursery upgradation at Depo Dongargaon, were part of ongoing efforts to enhance skills and awareness among stakeholders.

Key Observations

1. **High Success Rates:** Most projects reported success rates above 85%, with exceptional performance in artificial regeneration and compensatory afforestation.
2. **Diverse Initiatives:** The division balanced ecological restoration with infrastructure and capacity-building activities, ensuring holistic development.
3. **Strategic Focus on Invasive Species:** Extensive silvicultural operations highlight the division's commitment to preserving native biodiversity.
4. **Opportunities for Improvement:** Certain NPV plantations and afforestation projects with lower success rates suggest areas for targeted intervention, such as species selection and maintenance practices.

Summary

The Rajnandgaon Division's projects reflect a comprehensive approach to forest management, with robust ecological and infrastructural outcomes. Continued focus on optimizing lower-performing areas and sustaining high standards across other projects will ensure long-term success and environmental resilience.

Detailed results of Monitoring & Evaluation for selected sites – Rajnandgaon Division APO 2019-2020

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Compensatory Afforestation Plantations	CA plantation Maintenance, K.N.2,3,4, Kallubanjari	20.917837	80.573309	Revenue land K.N.2,3,4	10.17	98%
2	Compensatory Afforestation Plantations	CA plantation Maintenance, Tekeharra K.No. 115	N-20°50'11"	E-80°33'35"	Tekeharra K.No. 115	15.588	85%
3	Compensatory Afforestation Plantations	CA plantation Maintenance, Kotri K.No. 20,22,23	N-20°50.614	E-80°43.682"	Private land K.No. 20,22,23	4.79	98%
4	Compensatory Afforestation Plantations	CA plantation Maintenance, Malher khasra no 1/3, 1/16, 19, 20,21,22,23,24	N-20°20.621"	E-80°43.666"	Private land 1/3, 1/16, 19, 20, 21, 22, 23, 24	6.146	80%
5	Compensatory Afforestation Plantations	Ca plantation Maintenance, compt no pf 645	N-20°963721	E-80.530115	PF-645	50	80%
6	Compensatory Afforestation Plantations	Ca plantation Maintenance, compt no pf 648	N- 20°58'56.06"	E- 080°36'19.98"	PF-648	50	83%
7	Artificial Regeneration NPV Plantation	Mixed plantation	20.862142	80.767702	525	25	85%
8	Artificial Regeneration NPV Plantation	special species plantation, TATEKASA	N- 20042'5.28"	E- 80035'25.44"	751	10	70%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
9	Artificial Regeneration NPV Plantation	special species plantation, KAUDIKASA	N-20041'43.92"	E-80044'01.16"	683	14	87%
10	Artificial Regeneration NPV Plantation	special species plantation, BAGHNADI	N-21002'68.41"	E-80051'81.42"	621	20	80%
11	Artificial Regeneration NPV Plantation	special species plantation, BAGHNADI	21.046366	80.521176	620	20	82%
12	Artificial Regeneration NPV Plantation	Oxyvan, BAGHNADI	N-21000'50.34"	E-80062'32.26"	PF 654	10	87%
13	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, ARAJKUND	20.79552	80.921602	PF 673	97.42	89%
14	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, MARKAKASA	20.855058	80.847928	PF 700	108.22	95%
15	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, MARKAKASA	N-20052'50.15"	E-80050'38.16"	PF 701	159.29	98%
16	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, TATEKASA	N-20041'59.9"	E-80034'49.9"	PF 751	123.49	95%
17	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, BASELI	N-20018'24.95"	E-80042'43.41"	PF 952	128.34	98%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
18	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, NALKASA	N-20013'15.81"	E-80030'18.70"	PF 1037	143.16	95%
19	Assisted Natural Regeneration works (ANR)	assisted natural regeneration, NALKASA	N-20013'43.69"	E-80030'16.17"	PF 1037	147	95%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Analysis
20	Silvicultural operations	Removal of invasive alien species-Lantana	N-21012'26.88"	E-81009'44.78"	548	50	Good
21	Silvicultural operations	Removal of invasive alien species-Lantana	N-21011'54.84"	E-81010'21.01"	549	50	Good
22	Silvicultural operations	Removal of invasive alien species-Lantana	20.835927	80.909572	671	100	Good
23	Silvicultural operations	Removal of invasive alien species-Lantana	20.830859	80.909667	669	50	Good
24	Silvicultural operations	Removal of invasive alien	20.818359	80.941714	668	50	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Analysis
		species-Lantana					
25	Silvicultural operations	Removal of invasive alien species-Lantana	N-20052'4.974"	E-80052'41.02"	702	50	Good
26	Silvicultural operations	Removal of invasive alien species-Lantana	N-21012'11.35"	E-81007'35.23"	550	10	Good
27	Silvicultural operations	Removal of invasive alien species-Lantana	N-21013'21.50"	E-81007'15.77"	551	10	Good
28	Forest/Fire Protection Works	Forest protection work	Notavailable	Notavailable	Baghnadi	12 Meter	Good
29	Forest/Fire Protection Works	Forest protection work	Notavailable	Notavailable	Chowki	06 Meter	Good
30	Forest/Fire Protection Works	Forest protection work	Notavailable	Not available	baghnadi	20 Beat	Good
31	Forest/Fire Protection Works	Forest protection work	Not available	Not available	Rajnandgaon	21 Beat	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Analysis
32	Forest/Fire Protection Works	Forest protection work	Not available	Not available	South manpur	27 Beat	Good
33	Other Mandatory works	Creation of safety zone	N-20027'34"	E-80059'30"	C. No 879,880,881	5	Optimum
34	Bamboo Works	Cleaning of old Bamboo Plantation	N-21001'05.42"	E-80036'24.52"	511	50	Good
35	Bamboo Works	Cleaning of old Bamboo Plantation	N-20012'05.3"	E-80038'05.8"	980	100	Good
36	Improvement of growing stock in orange are	Gramvan plantation	20.823318	80.899947	OA Karutola Rengadabri	10	Good
37	Soil and moisture conservation work	SMC Works - Aama nala	20.989702	80.506106	606, 607, 608, 625	720ha	Good
38	Soil and moisture conservation work	SMC Works - Sadakchirchari nala	21.06841	80.59521	RF 509	701ha	Good
39	Soil and moisture conservation work	SMC Works - Barbaspur nala	N-20052'41.16"	E-80052'55.43"	701,702, 703, 704	1030 ha	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Analysis
40	Upgradation of timber depot	Main gate repair work	N-21004'42.9"	E-80035'20.05"	kasthagar chirchari RF 509	1 Nos	Good
41	Upgradation of timber depot	boundary wall	N-21004'42.9"	E-80035'20.05"	chirchari RF 509	450 mts	Good
42	Upgradation of timber depot	WBM road construction	N-21004'36.47"	E-80035'32.03"	chirchari RF 509	4000 rm	Good
43	Civil and construction work	construction and maintenance of forest assets - forest roads (only WBM road)	N-2100'18.33"	E-80031'26.32"	Job-hetadkasa(Part-2)	2 KM	Good
44	Civil and construction work	construction and maintenance of forest assets - forest roads (only WBM road)	N-20014'47"	E-80043'5"	Madan wada To Kalwar P2 970	2 KM	Good
45	Civil and construction work	Forest Range Office, khujji	N-20058'1.48"	E-80050'46.20"	Range Office campus, khujji Revenue Land	1700 SQ Feet	Good

Balod: Division Assessment

Division Background

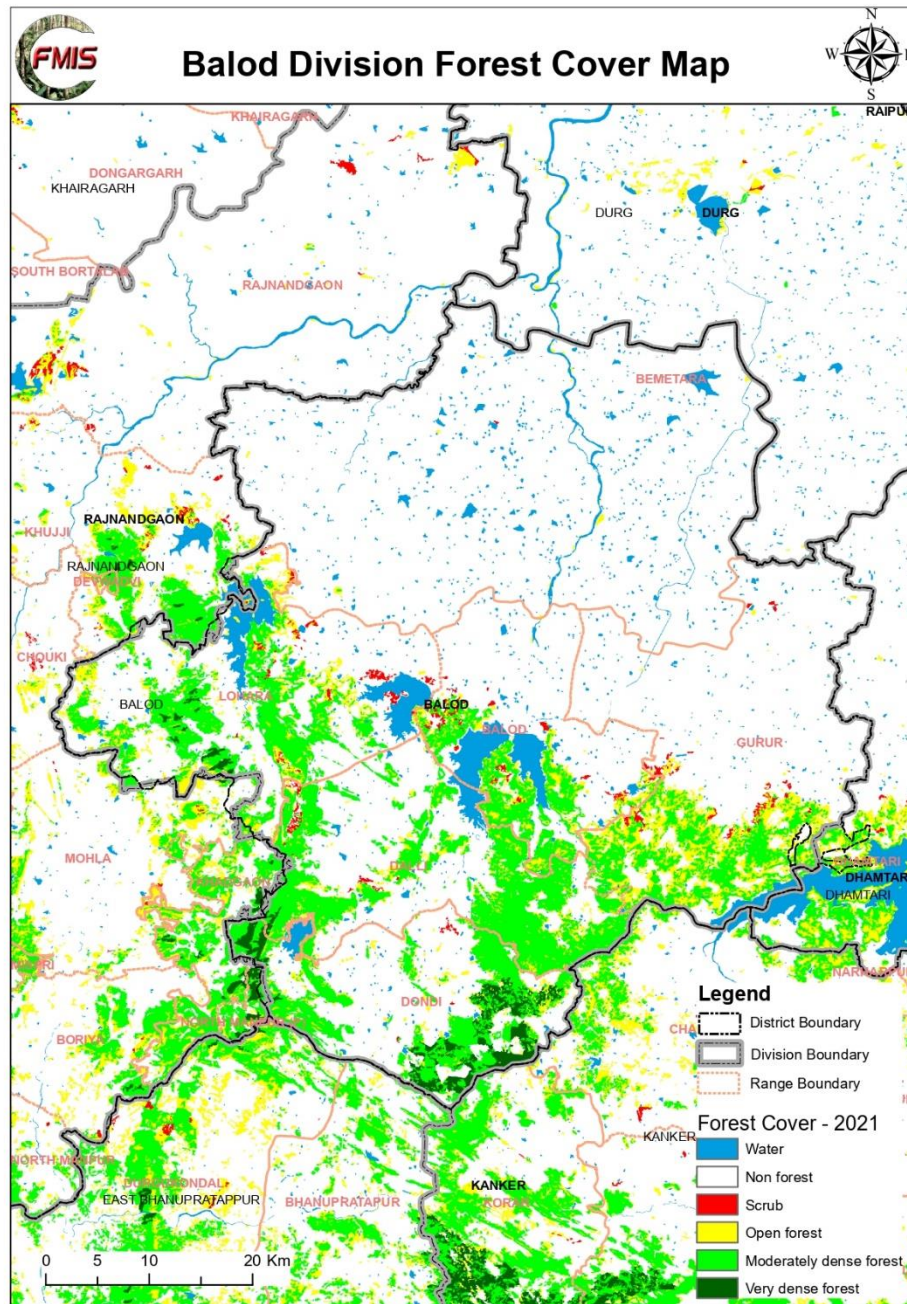
The total geographical area of Balod district is 3605.600 sq km. The total notified forest area of reserved, protected and orange area of Balod Forest Division is 86292.343 ha. means 862.923 sq km. The percentage of forest area in comparison to the geographical area is 23.932. According to the present revised working plan, the planimeter area of Balod Forest Division is 77581.220 ha. means 775.812 sq km. By this value, the percentage of forest area in comparison to geographical area is 21.52.

Balod Forest Division has a total of 11491.00 hectares of undermarketed forest area. Survey demarcation work of 300,000 ha. The area has been done. Out of which Avratola and Kamta 02 forest blocks, the total area is 79.890 ha. The No Objection Certificate (NOC) of the area was provided by the Collector, District Balod. Under Balod Forest Division, there are a total of 05 forest ranges namely Dalli, Daundi, Lohara, Balod and Gurur. Similarly, Balod Forest Division has a total of 02 subdivisions namely Balod and Dallirajhara. There are 02 forest areas under Balod subdivision namely Balod, Gurur and 03 under Dalli sub-division viz. Dalli, Daundi, Lohara.

Balod Forest Division is administratively divided into five forest ranges: Dalli, Daundi, Lohara, Balod, and Gurur. These ranges are managed under two subdivisions: Balod and Dallirajhara. The Balod subdivision includes the Balod and Gurur forest areas, while the Dallirajhara subdivision manages the Dalli, Daundi, and Lohara forest areas. This administrative structure allows for efficient management and conservation of the forest resources within the division.

There is a total of 16 forest villages under Balod forest division, which have been converted into revenue villages, which has been converted into revenue village from 01.01.2014. Under the provisions of the Forest Rights Recognition Act 2006, 940 individual acreage of 1205.609 ha under various enclaves under Balod Forest Division. and 660 community rights area 32750.520 ha. and Forest Resources 09 Area 1931.787 Total 1609 Area 35887.916 Ha. Forest rights recognition letter has been provided in the forest area. Under Balod Forest Division, in the month of September 2022, there are 103 cases of encroachment and 558 encroachments. 105.460 ha by encroachers. There is encroachment in the area. Total sanctioned cases under the Forest Conservation Act 1980 under the Forest Division are 14, 721.834 ha

Division Map



Division Profile

Particulates		Details	
Total Forest area		86292.343	
Major forest types and area		Mixed Forest	
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Forest Range Office Balod, Near Krishna (7470903222) Hemlata Mandavi		41
2	Forest Range Office Gurur, Near bus stand (7470903222) Hemlata Mandavi		72
3	Forest Range office Lohara, opposite of Mandi (7000030662) Kishore Kumar Sahu		80
4	Forest Range Office Dalli, Near SBI Chowk (9644566780) R.K Nandulkar		78
5	Forest Range Dondi, (9977964047) Jeevein Lal Bhokdeker		64
Total No of JFMCs		250	
Enclose Forest Map Showing Ranges and wildlife overlapping area			
Enclose Vegetation Map (if available)			
No of Projects in APO 2019-2020			197

Category wise sampled strata for Monitoring & Evaluation – Balod Division APO 2019 - 2020

Sl. No.	Category of Projects	Total no. of projects	Sampled sites
1	Assisted Natural Regeneration (ANR)	56	15
2	Compensatory Afforestation (CA)	16	4
3	Creation of safety zone	4	1
4	Silvicultural operations	74	18
5	Artificial regeneration NPV Plantation	16	4
6	Development of staff amenities in Forest Colony	2	2
7	Forest/ Fire protection works	2	1
8	Soil and moisture conservation work	1	1
9	Civil and construction works	14	2
10	Awareness and training and other projects	12	1
Total		197	49

Analysis of the Monitoring & Evaluation Observations

The provided data offers detailed insights into the activities conducted under the CAMPA (Compensatory Afforestation Fund Management and Planning Authority) initiative, categorized by project type, geographical location, and outcomes. Below is a comprehensive analysis based on the available information:

1. Compensatory Afforestation Plantations

- **Activities:** These projects involve second-year maintenance of plantations to ensure establishment and survival. The work spans areas such as Mohara, Armarikala, and RF Compartment Nos. 2 and P305. The success rate is uniformly high at 95%, indicating excellent implementation and consistent care.
- **Significance:** These plantations offset deforestation caused by development projects, playing a critical role in ecosystem restoration and biodiversity conservation.

2. Creation of Safety Zones

- **Activities:** Establishing safety zones in specific forest compartments (e.g., P278) to provide protection and create buffer zones around vulnerable areas. The success rate is 95%, reflecting effective planning and execution.
- **Impact:** Safety zones enhance the resilience of forest ecosystems against external threats like human interference and wildlife conflicts.

3. NPV (Net Present Value) Plantations

- **Activities:** Focused on developing medicinal plantations, mixed plantations, and special species plantations, along with maintenance of Oxyvan (forest area) sites. The success rate maintains a high standard at 95% across all activities.
- **Benefits:** These projects contribute to diversifying forest utility, supporting medicinal plant resources, and conserving rare or valuable species.

4. Artificial Natural Regeneration (ANR) Works

- **Activities:** Large-scale regeneration efforts across various compartments, covering extensive areas ranging from 20.24 hectares to 155.18 hectares. The success rate is consistently 95%, highlighting the success of reforestation techniques.
- **Significance:** ANR promotes natural forest Re-growth, enhancing ecological stability and supporting biodiversity.

5. Soil and Moisture Conservation (SMC)

- **Activities:** Includes Kharun Nala works, focusing on water retention and erosion control over a large area of 4009 units. The quality is indicating effective measures in conserving soil and water resources.
- **Ecological Value:** SMC projects enhance the sustainability of forest ecosystems by improving soil fertility and water availability.

6. Development of Staff Amenities

- Activities: Construction and maintenance of forest staff colonies and infrastructure (e.g., quarters, roads).
- Role: Improves working conditions for forest management personnel, indirectly supporting project implementation and maintenance.

7. Civil and Construction Works

- Activities: Upgrading forest roads (e.g., Dhorridema to Puttarwahi and Jagtra to Khairdigi), enhancing accessibility. The quality is reflecting adequate road conditions.
- Contribution: Improved infrastructure supports efficient forest patrolling, management, and logistics.

8. Silvicultural Operations

- Activities: Focused on removing invasive species like Lantana across various compartments (e.g., Com. Nos. 64, 154, 309).
- Impact: Successful removal of invasive species enhances forest health, allowing native species to thrive and improving overall biodiversity.

9. Forest/Fire Protection Works

- Activities: Includes the protection of sacred groves (e.g., Mahamaya Mandir, RF 159).
- Cultural and Ecological Importance: Protects culturally significant areas while safeguarding forest biodiversity.

10. Awareness and Training

- Activities: Conducted awareness programs, workshops, and training sessions in Balod, reaching 300 participants.
- Impact: Builds community engagement and capacity, fostering long-term support for forest conservation.

Key Observations

1. High Success Rates: Most activities report success rates of 95%, indicating effective project execution and management.
2. Diverse Activities: Projects cover a wide spectrum, including plantations, soil conservation, infrastructure development, silvicultural operations, and training, showcasing a holistic approach to forest management.
3. Geographical Spread: Activities are spread across numerous compartments and locations, demonstrating a strategic distribution of efforts to maximize impact.

Detailed results of Monitoring & Evaluation for selected sites – Balod Division APO 2019-2020

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Success rate
1	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 2 nd year	20°48'55"	81°25'59"	MOHARA	51/45	95%
2	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 2 nd year	20°833098	81dondi°396715	ARMARIKALA	30	95%
3	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 2 nd year	20°37'52"	81°28'19"	Com No 02 RF	50	95%
4	Compensatory Afforestation Plantations	Irrigated plantations	20°700663	80°972857	Com. No P305	15	95%
5	Artificial Regeneration NPV Plantations	Mixed Plantation 2nd year	20°537812	81°234644	Com. No. 54	20	95%
6	Artificial Regeneration NPV Plantations	Special Species plantations 2nd year	20°39'14"	81°25'29"	Com.No. 08	10	95%
7	Artificial Regeneration NPV Plantations	Oxyvan (Forest Area) Maintenance	20°49'27"	81°3'19"	khasra No. 03	10	95%
8	Artificial Regeneration NPV Plantations	Development of Medicinal Plantation 2nd year	20°398745	81°124323	Com. No. 134	25	95%

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Success rate
9	Creation of safety Zone	Creation of safety Zone	20°29'20"	81°9'14"	Com. No.P 278	25	95%
10	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°41'20.478"	81°03'31.092"	V ejbZVksyk, 179RF	45.71	95%
11	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°45'14.8"	81°21'27.36"	C/VI ekyikuh 104RF	132.64	95%
12	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°68'47.5"	80°92'42.85"	VrqeMhdlk, 304 RF	155.18	95%
13	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20 °32'47"	81 °17'37"	C/VI tcdksgMk, 53 RF	116	95%
14	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°35'37"	81°24'50"	Com No. 16	50	95%
15	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°35'27"	81°24'24"	Com No. 20	50	95%
16	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°56'35.07"	81°34'29.78"	Com No. 32	50	95%
17	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°41'10"	81°14'22"	Com No. 66	100	95%

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Success rate
18	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°73665	80°827175	Com No. 335	20.24	95%
19	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°692185	81°0869	Com No. 177	50	95%
20	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°685116	81°880541	Com No. 329	124.73	95%
21	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°38'2"	81°22'4"	Com No. 26	50	95%
22	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°36'18"	81°21'24"	Com No. 29	50	95%
23	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°515719	81°214628	Com No. 111	68	95%
24	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration (ANR) Works	20°579963	81°21763	Com No. 113	70	95%

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Qualitative Assessment
25	Soil and moisture conservation work	SMC Works - Kharun Nala	20° 36'32.36"	81° 23'59.44"	Kharun Nala 22,11,12	4009	Good
26	Development of Staff amenities in Forest Colony	Basic Infrastructure Facilities in Forest Staff colonies	20° 28'53.00"	81° 05'01.01"	Forest Range colony dondi	375 rmt	Good
27	Development of Staff amenities in Forest Colony	Construction Maintenance of forest assets Quarters & Colonies	20° 40'00.59"	81° 24'00.05"	Forest Colony Gurur	150 rmt	Good
28	Civil and construction works	Upgradation of forest roads - WBM	20.509063	81.179955	Dhorridema to puttarwahi 109, 110	2 km	Good
29	Civil and construction works	Upgradation of forest roads - WBM	20° 37'53.27"	81° 24'33.72"	Jagtra to Khairdigi 09RF	2 km	Good
30	Silvicultural operations	Removal of invasive alien species- Lantana	20°93'8.53"	81°15'55.31"	Com. No. 64	150	Optimum
31	Silvicultural operations	Removal of invasive alien species- Lantana	20°38'21.28"	81°18'50.12"	Com. No. 237	100	Optimum
32	Silvicultural operations	Removal of invasive alien species- Lantana	20°37'47.16"	81°13'41.19"	Com. No. 250	100	Optimum
33	Silvicultural operations	Removal of invasive alien species- Lantana	--		Com. No. 67	100	Optimum

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Qualitative Assessment
34	Silvicultural operations	Removal of invasive alien species- Lantana	20°40'57"	80°14'21"	Com. No. 66	100	Optimum
35	Silvicultural operations	Removal of invasive alien species- Lantana	--	--	Com. No. 68	100	Optimum
36	Silvicultural operations	Removal of invasive alien species- Lantana	20°37'25.99"	81°13'9.49"	Com. No. 72	100	Optimum
37	Silvicultural operations	Removal of invasive alien species- Lantana	20°38'13"	81°15'18"	Com. No. 63	100	Optimum
38	Silvicultural operations	Removal of invasive alien species- Lantana	20°39'8.69"	81°14'11.75"	Com. No. 64 RF	100	Optimum
39	Silvicultural operations	Removal of invasive alien species- Lantana	20°27'58.72"	81°04'06.79"	Com. No. 154	100	Optimum
40	Silvicultural operations	Removal of invasive alien species- Lantana	20°29'37.00"	80°59'46.00"	Com. No. 159	300	Optimum
41	Silvicultural operations	Removal of invasive alien species- Lantana	20°48'30.08"	81°12'11.47"	Com. No. 140 RF	90	Optimum
42	Silvicultural operations	Removal of invasive alien species- Lantana	20°42'56"	81°9'58"	Com. No. 96 RF	100	Optimum

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Qualitative Assessment
43	Silvicultural operations	Removal of invasive alien species- Lantana	20°35'27"	81°1'50"	Com. No. 148	100	Optimum
44	Silvicultural operations	Removal of invasive alien species- Lantana	20°35'68"	81°12'96"	Com. No. 77	103	Optimum
45	Silvicultural operations	Removal of invasive alien species- Lantana	20°82509	81°006508	Com. No. 309	84.175	Optimum
46	Silvicultural operations	Removal of invasive alien species- Lantana	20°42'23.03"	81°9'36.16"	Com. No. 98 RF	100	Optimum
47	Silvicultural operations	Removal of invasive alien species- Lantana	20°37'28"	81°15'19"	Com. No. 63 RF	100	Optimum
48	Forest/Fire Protection Works	Protection of sacred groves	20°29'09.93"	80°59'42.01"	159 RF Mahamaya Mandir	1000 rm	Good
49	Awareness and training and other projects	Awareness and training and other projects	--	-	Balod	300per.	Good

Durg: Division Assessment

Durg Division Background

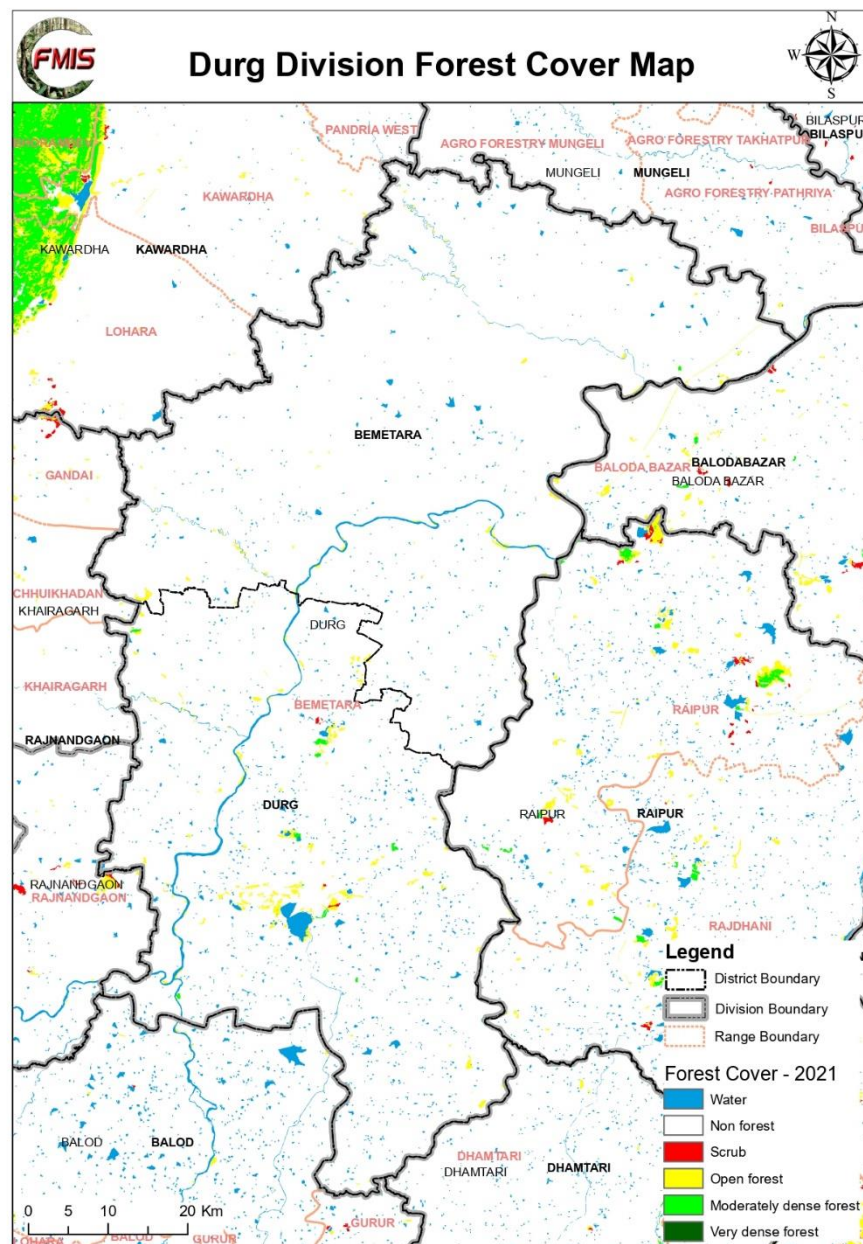
Durg Forest Division is located in the Durg district of Chhattisgarh, which is situated in the central part of the state. The district is characterized by a diverse landscape that includes a combination of plains, rolling hills, and river valleys. Geographically, the Durg Forest Division covers a significant portion of the district, which spans a total area of approximately 2,238 square kilometers. The region is bordered by several important districts, including Raipur to the east and Rajnandgaon to the west. The division is strategically located near the Mahanadi River basin, which contributes to the area's rich soil and supports both agriculture and forestry.

The Durg district, where the forest division is located, lies between latitudes 20°23'N and 21°33'N and longitudes 80°46'E and 81°58'E. The topography of the region includes low-lying plains, undulating terrains, and patches of hilly areas, especially towards the northern parts of the division. The presence of rivers such as the Shivanthi River, a tributary of the Mahanadi, plays a crucial role in the hydrology and agriculture of the region, making the area fertile and conducive to various forms of land use.

The Durg Forest Division includes a variety of forest types, primarily tropical deciduous forests, which are typical of the central Indian landscape. These forests are dominated by tree species such as Sal (*Shorea robusta*), Teak (*Tectona grandis*), and Bamboo (*Bambusoideae*), which are essential for both the local economy and ecological stability. The division also contains areas of mixed forests, which include a combination of hardwoods and other tree species that support diverse wildlife.

The total forested area in the Durg Forest Division is a significant part of the district's land area, though the exact percentage varies depending on land use and conservation efforts. The division's forests are important for maintaining biodiversity, supporting wildlife habitats, and providing resources such as timber, fuelwood, and non-timber forest products (NTFPs). These forests are also crucial for soil conservation and maintaining the hydrological cycle in the region, as they help regulate water flow and prevent soil erosion. Durg district, and consequently the Durg Forest Division, is home to a diverse population, including a mix of urban and rural communities. The district is one of the more densely populated areas in Chhattisgarh, with a population that engages in a variety of economic activities, including agriculture, industry, and forestry.

Division Map



Division Profile

Particulates		Details	
Total Forest area		248.59	
Major forest types and area		-	
Sl.No.	Range Name, Address / Telephone Number of Range office		No. of Compartments
1	Durg, Five Building Durg		-
2	Dhamdha, Kumhari		-
3	Bemetara, Bemetara		-
4	Saja, Saja		-
Total No of JFMCs			
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area			
Enclose Vegetation Map (if available)			
No of projects of APO 2019-20			31

Category wise sampled strata for Monitoring & Evaluation – Durg Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantations	9	3
2	Civil & Construction Work	11	4
3	Forest/Fire Protection Works	7	4
4	Nursery & Development	2	1
5	Training/ workshop Awareness, Publicity, Project formulation of CAMPA works	2	1
	Total	31	13

Analysis of the Evaluation

The activities conducted under the Durg Division's CAMPA project for the year 2019-2020 span multiple categories, including afforestation, civil infrastructure, fire protection, nursery development, and training.

1. **Compensatory Afforestation Plantations:** Maintenance activities were carried out on plantations in their 4th and 8th years in Birampur-Uslapur, Junwanikala, and Nagdha, covering a combined area of 99.2 hectares. Success rates for these plantations ranged from 60% to 68%, indicating moderate effectiveness. These figures reflect some level of survival and growth but suggest the need for enhanced maintenance and care strategies.
2. **Civil and Construction Work:** Infrastructure development included the construction of forester and forest guard quarters in Sikola Patan, Van Parisar Durg, and Adarsh Van Parisar Patan. The quarters ranged from 600 to 850 sq. ft. in size and are designed to support staff operations. This development is crucial for enabling better field management and ensuring staff have access to necessary amenities.
3. **Forest and Fire Protection Works:** Measures to protect forests included deploying fire watchers in the Durg and Dhamdha ranges and constructing 43 RCC boundary wall pillars in Mohrenga, Nandini, Khundini, and Pitara. These interventions are vital for safeguarding forest areas against encroachment and fire incidents, although the report lacks data on the quantitative impact of these measures.
4. **Nursery and Development:** Upgrading a high-tech nursery in Talpuri covering 6 hectares was a significant step toward enhancing the propagation of quality planting materials. This investment supports afforestation initiatives by ensuring the availability of healthy, resilient saplings suited to local conditions.
5. **Training and Awareness:** A training workshop for 100 participants was conducted to improve awareness and capacity in implementing CAMPA projects. While this is a positive initiative, the outcomes of such training sessions are not documented, leaving their long-term impact unclear.

Areas for Improvement

- **Monitoring and Evaluation:** While success rates are high, standardized evaluation metrics and protocols are needed to ensure consistency and comparability across projects.
- **Community Engagement:** Expanding training programs and enhancing participation can increase local support and project sustainability.
- **Long-Term Sustainability:** Focus on adaptive management and ongoing maintenance to ensure the lasting impact of afforestation and conservation efforts.

Conclusion

The CAMPA projects are highly effective in meeting their objectives of afforestation, conservation, and ecosystem restoration. By addressing identified areas for improvement, their long-term ecological and socio-economic benefits can be further amplified.

Detailed results of Monitoring & Evaluation for selected sites – Durg Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ treatment of details	Success rate
1	Compensatory Afforestation Plantations	Maintenance Work 8th Year Birampur-Uslapur	N 21°46' 02"1"	E 81°40' 17"6"	Birampur-Uslapur	57.00 Hac.	68%
2	Compensatory Afforestation Plantations	Maintenance Work 8th Year Junwanikala	N 21°56' 12"0"	E 81°47' 36"7"	Junwanikala	32.20 Hac.	68%
3	Compensatory Afforestation Plantations	Maintenance Work 4th Year Nagdha	N 21°84' 37"11"	E 81°79' 88"2"	Nagdha	10.00 Hac.	60%

Kawardha: Division Assessment

Division Background

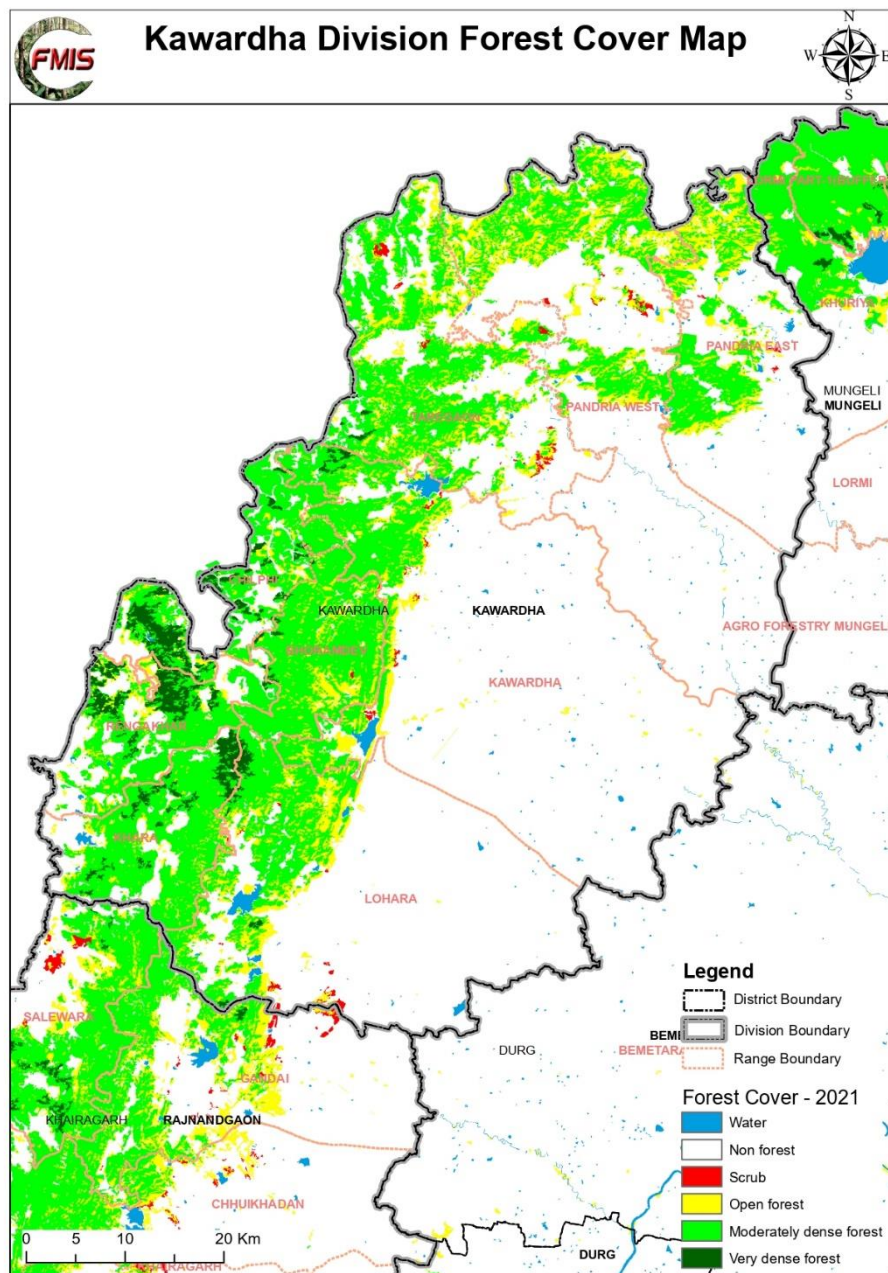
Kawardha Forest Division, located in the northern part of Chhattisgarh at the foothills of the Maikal Range, is a region of significant ecological and cultural importance. Its diverse forests, rich biodiversity, and vibrant tribal communities make it a key area for conservation and sustainable development. The division's efforts in forest management, community engagement, and cultural preservation are crucial for maintaining the environmental health of the region while supporting the livelihoods of its residents. As Kawardha continues to develop, the protection and sustainable use of its forest resources will remain essential for the well-being of both the environment and the local population.

This geographical positioning gives Kawardha a diverse landscape that includes a mix of plains, hills, and dense forests. The region is characterized by its undulating terrain, with elevations ranging from low-lying plains to higher altitudes in the Maikal Hills. The presence of these hills contributes to the area's rich biodiversity and varied climatic conditions. Kawardha district, and by extension the Kawardha Forest Division, is home to a diverse population that includes a significant number of indigenous tribal communities.

Kawardha Forest Division is known for its extensive forest cover, which includes a variety of forest types such as tropical dry deciduous forests and mixed forests. The forests in this division are primarily composed of species like Sal (*Shorea robusta*), Teak (*Tectona grandis*), and Bamboo (*Bambusoideae*). These forests are crucial for maintaining the ecological balance in the region, providing habitat for a wide range of flora and fauna.

The Maikal Range, which extends into the Kawardha Forest Division, is a significant ecological zone that supports diverse plant species, including several medicinal plants that are used by the local communities. The forests also play a vital role in soil conservation, water regulation, and carbon sequestration, making them essential for the environmental health of the region. The division is divided into several forest ranges, each responsible for the management and conservation of forest resources within its jurisdiction. Forest management practices in Kawardha include afforestation and reforestation projects, wildlife conservation efforts, and the prevention of illegal activities such as poaching and logging.

Division Map



Division Profile

Particulates		Details	
Total Forest area		158830.91	
Major forest types and area			
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Chilphi	lal singh markam -7587313381	52
2	Bhoramdev kawardha	Dileep Thakur -9425558314	16
3	Taregaon	Manish singh -8253055155	58
4	Rengakhar	Vijayan tiwari -8817379311	49
5	Khara	Anurag Verma-7587013311	57
6	East Pandariya	MK joshi-9685476224	61
7	West Pandariya	Smt.Pallavi Gangber - 7000170032	57
8	Lohara	Anurag verma-7587013311	95
9	Kawardha	Laxminarayan soni-9589035132	44
Total No of JFMCs		298	
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area			
Enclose Vegetation Map (if available)			
No of projects of APO 2019-20		173	

Category wise sampled strata for Monitoring & Evaluation – Kawardha Division APO 2019 - 2020

Sl. No.	Category of Projects	Total no. of projects	Sampled Sites
1	Assisted Natural Regeneration (ANR) Works	4	1
2	Wildlife Habitat Improvement	26	7
3	Silvicultural operations	70	17
4	Soil and moisture conservation work	4	1
5	Nursery and development	1	1
6	Up gradation of timber depot	6	1
7	Civil and construction work	57	14
8	Forest/Fire Protection Works	5	2
Total		173	44

Analysis of Division CAMPA Projects

The monitoring and evaluation report for the Kawardha Division (2019–2020) provides an in-depth analysis of various ecological restoration, infrastructure, and conservation efforts. This document captures the performance and outcomes of diverse projects conducted under different categories, emphasizing sustainable development and environmental conservation.

The **Artificial Regeneration Works** section highlights the implementation of Assisted Natural Regeneration (ANR) activities. With a success rate of 95%, these projects underline the effective strategies employed for forest restoration and biodiversity conservation. The high success rate reflects the alignment of these activities with the ecological needs of the region, showcasing their potential for long-term environmental benefits. The species planted are Sal, Saja, Dhawra, Mahua, Beeja, Senha and Bhirha.

In the realm of **Wildlife Habitat Improvement**, the focus was on grassland development to enhance forage and pasture availability for wildlife. This initiative was uniformly successful across multiple locations, maintaining a high success rate of 95%. Such efforts are crucial in supporting the local wildlife population by improving habitat quality and ensuring sustainable resource availability.

Forest and Fire Protection Works, executed by Wildlife Wings, covered key beats like Chilphi and Bhoramdev. These efforts were crucial in mitigating risks associated with forest fires and ensuring the safety and stability of forest ecosystems. The "Good" qualitative assessment of these activities indicates their effectiveness in achieving desired outcomes, including reduced fire incidents and enhanced forest health.

Silvicultural Operations focused on the removal of invasive alien species, which pose significant threats to native biodiversity. These operations spanned multiple locations with areas ranging from 63 hectares to 150 hectares.

The report also covers **Soil and Moisture Conservation Works**, such as the project at Mircha Nala, which covered 1.44 hectares of land. These activities are vital for maintaining soil fertility, preventing erosion, and improving water retention in forested areas. Similarly, **Nursery Development** initiatives, including the establishment and upgrading of nurseries like the Badora Nursery, play a significant role in supporting reforestation and plantation programs.

The **Civil and Construction Works** section highlights infrastructure development, including road construction, timber depot upgrades, and building official residences. Projects such as WBM road upgrades, Rapta (culvert) construction, and solar panel installations were carried out across various locations with detailed geographic coordinates provided. These projects not only improve accessibility and operational efficiency but also contribute to the overall development of the Kawardha Division.

Detailed results of Monitoring & Evaluation for selected sites – Kawardha Division APO 2019-2020

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Success rate
1	Assisted Natural Regeneration (ANR) Works	Assisted Natural Regeneration	21.963097N	80.8654426E	363PF	100.95	95%
2	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	22.01223 N	E-80.946926	RF123	50	95%
3	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	21.980116 N	E-80.922203	RF134	50	95%
4	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	21.953053N	80.90325E	RF138	50	95%
5	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	22*1'21"N	81*5'5"E	94	25	95%
6	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	22.034102-N	E-21.118561	83	25	95%
7	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	21*59'21"N	81*3'10" E	105 PART I	25	95%
8	Wildlife Habitat Improvement	(Forage/Pasture)-Grassland Development	21*59'33"N	81*1'53"E	105 PART II	25	95%

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Qualitative Assessment
9	Forest/Fire Protection Works	Forest protection work (Wildlife Wings)	-	-	chilphi	17 Beat	Good
10	Forest/Fire Protection Works	Forest protection work (Wildlife Wings)	-	-	bhoramdev	16 beat	Good
11	Silvicultural operations	Removal of Invasive Alien Species	21.955951 N	E-81.123341	217	150	Good
12	Silvicultural operations	Removal of Invasive Alien Species	21.913533 N	81.0933165 E	214	150	Good
13	Silvicultural operations	Removal of Invasive Alien Species	N-22°8'45.38"	E-81°8'52.07"	70	130	Good
14	Silvicultural operations	Removal of Invasive Alien Species	N-22.135565	E-81.17970	66	100	Good
15	Silvicultural operations	Removal of Invasive Alien Species	21°57'3" N	81°7'59" E	305	100	Good
16	Silvicultural operations	Removal of Invasive Alien Species	21.915186 N	81.095296 E	213	100	Good
17	Silvicultural operations	Removal of Invasive Alien Species	21.91333 N	E-81.092423	215	100	Good
18	Silvicultural operations	Removal of Invasive Alien Species	21.903288 N	E-80.937272	125	100	Good
19	Silvicultural operations	Removal of Invasive Alien Species	22.024189 N	80.995742 E	342	100	Good
20	Silvicultural operations	Removal of Invasive Alien Species	22.011217N	81.022132E	340	100	Good
21	Silvicultural operations	Removal of Invasive Alien Species	22.019596 N	80.9966 E	103	100	Good
22	Silvicultural operations	Removal of Invasive Alien Species	N-22°12'42.63"	E-81°9'16.76"	309	90	Good
23	Silvicultural operations	Removal of Invasive Alien Species	N-22°11'13.07"	E-81°8'19.07"	310	90	Good
24	Silvicultural operations	Removal of Invasive Alien Species	N-22°10'34"	E-81°11'23"	316	64	Good

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Qualitative Assessment
25	Silvicultural operations	Removal of Invasive Alien Species	N-22°11'21.70"	E-81°8'34.52"	311	63	Good
26	Silvicultural operations	Removal of Invasive Alien Species	21°55'9"N	80°54'46"E	112RF	50	Good
27	Silvicultural operations	Removal of Invasive Alien Species	29°49'4"N	80°56'2" E	182RF	50	Good
28	Soil and moisture conservation work	SMC Works -Mircha Nala	22.37216	81.321268	mircha nala	1.44ha.	Good
29	Nursery and development	establishment/upgradation /extension of nursery	22.298575N	81.434305E	Badora Nursery	1	Good
30	Upgradation of timber depot	Solar panel	22°10'22"N	81°3'14"E	chilphi wood depot	950m	Good
31	Civil and construction work	WBM Road Up-gradation of timber depot-other activity	22°10'21"N	81°3'13"E	chilphi kastagar	2000 M	Good
32	Civil and construction work	Rapta Tandupadav to khichrahi part (III)	22.16'6" N	81°10'29"E	RF 34,35	13.80 mtr x 5.00 mtr	Good
33	Civil and construction work	Rapta Tandupadav to khichrahi part (4)	22°16'8"N	81°10'26" E	RF 34,35	13.80 mtr x 5.00 mtr	Good
34	Civil and construction work	Construction of official and residence building	21°0'30"N	81°13'48"E	. RF 110	1356 sqft	Good
35	Civil and construction work	WBM (construction and maintenance work) Road. Barpani to jurgahi dadhar	22.3201324	81.1407895	RF 29	1000 meter	Good
36	Civil and construction work	WBM (construction and maintenance work) Road. Larbakkii to Jumachaaper	22.339056	81.190455	PF 416	1000 meter	Good

Sl. No.	Category of Projects	Activity	Latitude	Longitude	Place / Compartment No	Total area/ treatment of details	Qualitative Assessment
37	Civil and construction work	WBM (construction and maintenance work) Road. Adwar to sutiya part 1	21.973891	80.895938	133 RF, 137 RF Adwar to sutiya part 1	1km	Good
38	Civil and construction work	WBM (construction and maintenance work) Road.	22.260119 N	81.154391E	Van Marg Road – Amaniya(partI)	1000 meter	Good
39	Civil and construction work	Rapta Amapani to bharapani	22.257663 N	81.156552 E	RF 34,35	7rm	Good
40	Civil and construction work	Rapta Ghoghara to Mahidabra	22*24'28"	81*16'3"	Rapta Nirman, Ghogra To Mahidbara	10M	Good
41	Civil and construction work	Rapta	22.371148	81.33581	Rapta Nirman Damgarh	10M	Good
42	Civil and construction work	Upgradation of WBM	22*25'26"N	81*20'1"E	Van Marg Road Aamaniya part 2	1KM	Good
43	Civil and construction work	Upgradation of WBM	22*25'30"N	81*19'40"N	Van Marg Road Aamaniya part 3	1KM	Good
44	Civil and construction work	Rapta	22.367527	81.334956	Rapta Nirman, Damgarh2	10M	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ treatment of details	Qualitative Assessment'
4	Civil & Construction Work	Forester Quarter Sikola Patan	N 21°3'19.8"	E 81°33'32"	Sikola Patan	850 Sq.Ft	Good
5	Civil & Construction Work	Forester Quarter, Van Parisar, Durg	N 21°11'22"	E 81°17'15"	Van Parisar, Durg	850 Sq.Ft	Good
6	Civil & Construction Work	Forest Guard Quarter No. - 1 Adarsh Van Parisar Patan	N 21°02'20.01"	E 81°32'39.25"	Adarsh Van Parisar Patan	600 Sq.Ft	Good
7	Civil & Construction Work	Forest Guard Quarter No. - 2 Adarsh Van Parisar Patan	N 21°02'20.43"	E 81°32'38.27"	Adarsh Van Parisar Patan	600 Sq.Ft	Good
8	Forest/Fire Protection Works	Fire Watcher Durg Range	-	-	-	11	Optimum
9	Forest/Fire Protection Works	Fire Watcher Dhamdha Range	-	-	-	5	Optimum
10	Forest/Fire Protection Works	RCC Boundary Pillar Mohrenga	N 21°047'75'21"	E 81°43'46'31"	Mohrenga	23 Nos.	Good
11	Forest/Fire Protection Works	RCC Boundary Pillar Nandini-Khundini & Pitara	N 21°084'37'11"	E 81°79'88'2"	Nandini	20 Nos.	Good
12	Nursery & Development	High-tech Nursery Talpuri upgradation	N 21°10'48.68"	E 81°18'18.32"	Talpuri	6 Ha.	Excellent
13	Training/ workshop Awareness, Publicity, Project formulation of CAMPA works	Training Meeting Hall Durg	-	-	Durg	100 per.	Good

Khairagarh: Division Assessment

Division Background

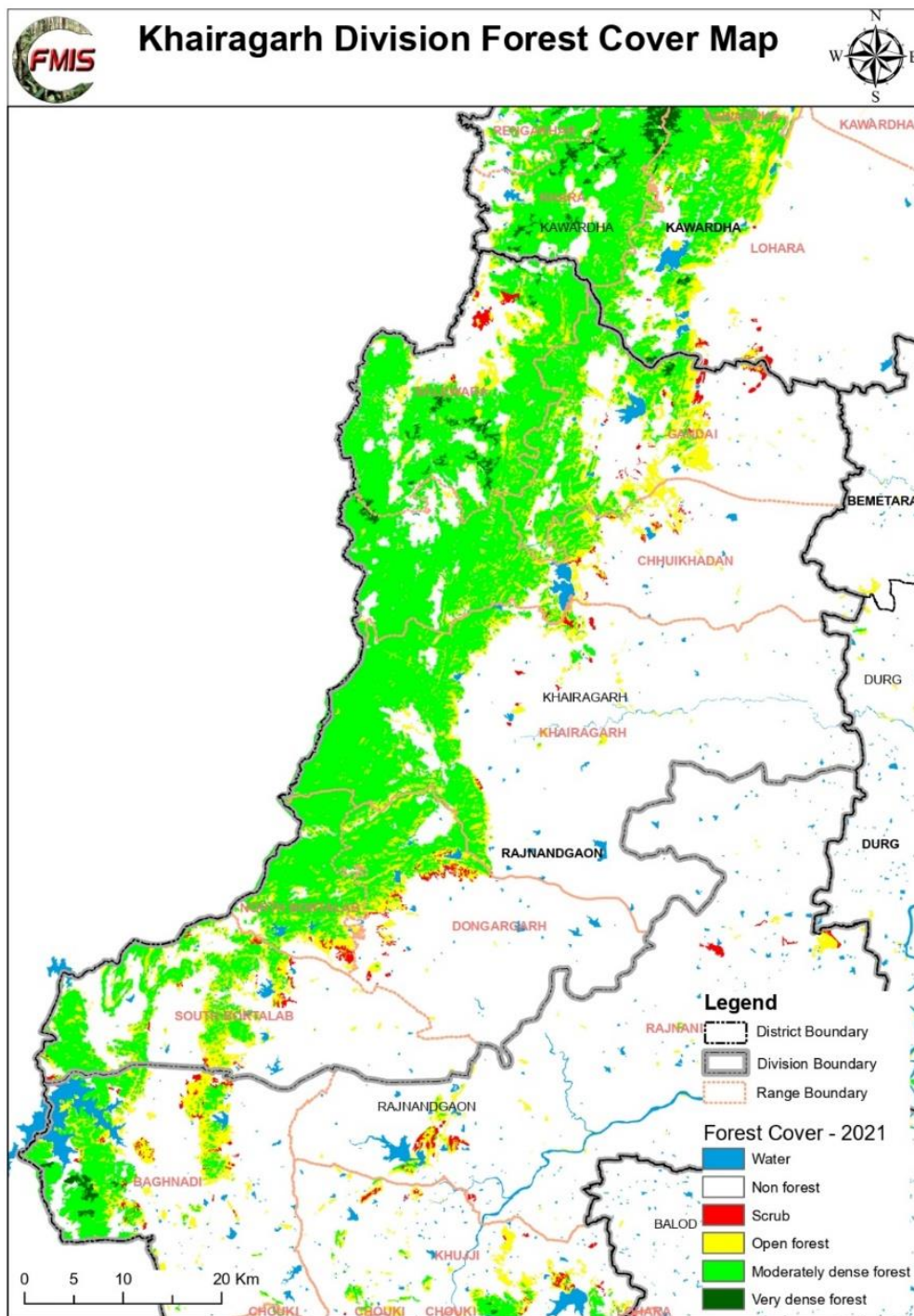
Khairagarh Forest Division is located in the western part of Chhattisgarh, within the district of Rajnandgaon. The region is notable for its varied topography, which includes a blend of undulating hills, fertile plains, and significant forested areas. This diverse landscape makes Khairagarh an important ecological zone with a mix of natural resources that support both agriculture and forestry.

The terrain of Khairagarh is characterized by gently rolling hills and expansive plains, which together create a mosaic of different ecosystems. The hills are mostly covered with tropical dry deciduous forests, where species such as teak (*Tectona grandis*), sal (*Shorea robusta*), and bamboo (*Bambusoideae*) are predominant. These forests are crucial for maintaining the ecological balance in the region, providing habitat for a variety of wildlife and playing a key role in soil and water conservation. The plains of Khairagarh are highly fertile, making them suitable for agriculture. The region's agricultural activities are supported by numerous small rivers and streams that traverse the area. These water bodies are essential for irrigation, particularly during the dry season, and they also sustain the forest ecosystems by maintaining soil moisture and providing water to both human and wildlife populations.

Khairagarh experiences a tropical climate with distinct seasonal variations. The region has a well-defined monsoon season, which typically occurs between June and September. During this period, the area receives the majority of its annual rainfall, which is critical for both agricultural and forest health. The monsoon replenishes the water bodies and helps maintain the lushness of the forests. Following the monsoon, the region enters a dry season, which can sometimes lead to water shortages, particularly in the more arid parts of the division. The dry season also increases the risk of forest fires, which can pose a significant threat to the local flora and fauna. The temperature in Khairagarh during the summer can rise significantly, while winters are generally mild and pleasant.

The Khairagarh Forest Division's ecological significance lies in its ability to support a wide range of species and provide essential ecosystem services. The tropical dry deciduous forests are home to various species of trees, plants, and wildlife, including several that are economically and ecologically important. The forests help in carbon sequestration, soil stabilization, and the regulation of the local climate, making them vital for the overall environmental health of the region.

Division Map



Division Profile

Particulates		Details	
Total Forest area		955.55962 sq km	
Major forest types and area			RF, PF, orange area
Sl.No.	Range Name, Address / Telephone Number of Range office		No. of Compartments
1	Ramesh tandan /Forest Range office khairagarh (civil line near new police station khairagarh) block -khairagarh District -KCG (CG) Forest range office khairagarh / phone no- 7820234821		117
2	Ashok kumar vaishnav /Forest Range office chhuikhadan (near bus stand) block -chhuikhadan District -KCG (CG) phone no- 7743263618		75
3	Salim mohmad qureshi/Forest Range office gandai (infort of pwd rest huse) block -chhuikhadan District -KCG (CG) /phone no- 7587013227		69
4	Sudesh ujjwane /Forest Range office salhewara (near bus stand salhewara) block -chhuikhadan District -KCG (CG) / phone no - 7887013201		99
Total No of JFMCs		142	
No of projects of APO 2019-20			59

Category wise sampled strata for Monitoring & Evaluation – Khairagarh Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Silvicultural operations	30	7
2	Soil and moisture conservation work	2	1
3	Civil and construction work	10	1
4	Development of Staff amenities in Forest Colony	15	5
5	Compensatory Afforestation	2	2
Total		59	16

Analysis of the Monitoring & Evaluation

I. Ecological Restoration and Plantation

The Khairagarh Division implemented projects under NPV Plantation work, covering both un-irrigated and irrigated plantations. The total area treated included 1.983 hectares in Bengree (P-95) and 3.18 hectares in Khasra No. 04. Both projects achieved a 95% success rate, reflecting robust and effective plantation methodologies.

II. Silvicultural Operations

A significant focus was placed on the removal of invasive species, particularly Lantana, which is known to disrupt native ecosystems. The division undertook these operations across various sites, treating areas ranging from 40 to 200 hectares. Notable compartments treated include P-195, P-198, P-32, P-117, P-248, P-252, and P-257. Each project received a qualitative assessment of "Good," highlighting their success in restoring ecological balance and improving habitat quality.

III. Soil and Moisture Conservation

Soil and moisture conservation efforts were carried out at Tangla Nala, treating an area of 1 hectare. This project was assessed as "Good," indicating effective measures to prevent soil erosion, enhance water retention, and improve the sustainability of the land.

IV. Infrastructure Development

The Khairagarh Division prioritized infrastructure projects aimed at improving staff amenities and operational efficiency. Key projects included:

- Construction of a pump house at Pailimeta (4,320 sq. ft.).
- Building a boundary wall, CC roads, and drainage systems in forest colonies, including Khairagarh and Gatapar. These developments spanned 1,000 meters for the boundary wall, 500 meters and 300 meters for CC roads, and 1,000 meters for the drain.
- Construction of RA quarters in the Forest Colony at Chhuikhadan (84 sq. ft.).

Observations

1. **Large-Scale Silvicultural Efforts:** The division undertook extensive operations to manage invasive species, treating large areas with a strong focus on ecological restoration.
2. **Staff-Oriented Infrastructure:** A significant portion of the projects focused on enhancing amenities for forest staff, including housing, roads, and other essential facilities.

Consistent Success: All evaluated projects received a "Good" qualitative assessment, demonstrating the division's effective planning and implementation strategies.

Detailed results of Monitoring & Evaluation for selected sites – Khairagarh Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Compensatory Afforestation	Compensatory AfforestationPlantation	21°29'8.32"	80°55'12.33"	khasra no 04	3.18 ha	95%
2	Compensatory Afforestation	Compensatory AfforestationPlantations	N- 21° 41'49° 17"	80°59'59°96"	P-95 Bengree	1.983 He.	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
3	Soil and moisture conservation work	SMC Works - Tangla Nala	21.529104	80.800538	RF-237	1H	Good
4	civil and construction work	RA quarter	21.52309	80.995758	Forest Colony chhuikhadan	84 Sq.Ft.	Good
5	Development of Staff amenities in Forest Colony	Pump House	N- 21° 38'26°	E- 081° 0' 40°	Forest Camps Pailimeta- P-15	4320 sq.ft.	Good
6	Development of Staff amenities in Forest Colony	boundary wall	N- 21°25'121	E- 80° 58'17.04"	Forest colony khairagarh	1000mtr	Good
7	Development of Staff amenities in Forest Colony	cc road	E- 21° 25'10.80	N- 80° 58'18.23"	Forest colony khairagarh	500mtr	Good
8	Development of Staff amenities in Forest Colony	cc road	E- 21° 23'51.07"	E- 80° 46'42.80"	Forest colony gatapar	300mtr	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
9	Development of Staff amenities in Forest Colony	Drain (Nali)	E- 21 ⁰ 25'11.09"	E- 80 ⁰ 58'17.20"	Forest Colony of Khairagarh	1000mtr	Good
10	Silvicultural operations	Removal of invasive alien species- Lantana	21.333682	80.470826	p195	40 ha	Good
11	Silvicultural operations	Removal of invasive alien species- Lantana	21.36507	81.004065	p198	50 ha	Good
12	Silvicultural operations	Removal of invasive alien species- Lantana	N-2104635	E- 800 5116	P/32	100	Good
13	Silvicultural operations	Removal of invasive alien species- Lantana	N- 21 ⁰ 46'25.5	E- 80 ⁰ 50'23.6"	P/117	100	Good
14	Silvicultural operations	Removal of invasive alien species- Lantana	21.283602	80.443556	P248	100 ha	Good
15	Silvicultural operations	Removal of invasive alien species- Lantana	21.28416	80.442075	P252	100 ha	Good
16	Silvicultural operations	Removal of invasive alien species- Lantana	21.284854	80.463965	P257	200 ha	Good

Jadgalpur Circle

Bastar: Division Assessment

Division Background

Bastar district, with its headquarters in Jagdalpur, is a region steeped in natural beauty and rich cultural heritage, earning it the title of the cultural capital of Chhattisgarh. Historically known as Dakshin Kaushal, Bastar is renowned for its dense forests, vibrant tribal culture, and significant natural resources. The district spans an area of 6,596.90 square kilometers and was once larger than entire states like Kerala and countries such as Belgium and Israel. To facilitate better administration, the district was reorganized in 1999, leading to the creation of two separate districts: Kanker and Dantewada. Bastar is now bordered by the districts of Kondagaon, Dantewada, Sukma, and Bijapur. The district's administrative center, Jagdalpur, is located approximately 305 kilometers from Raipur, the state capital.

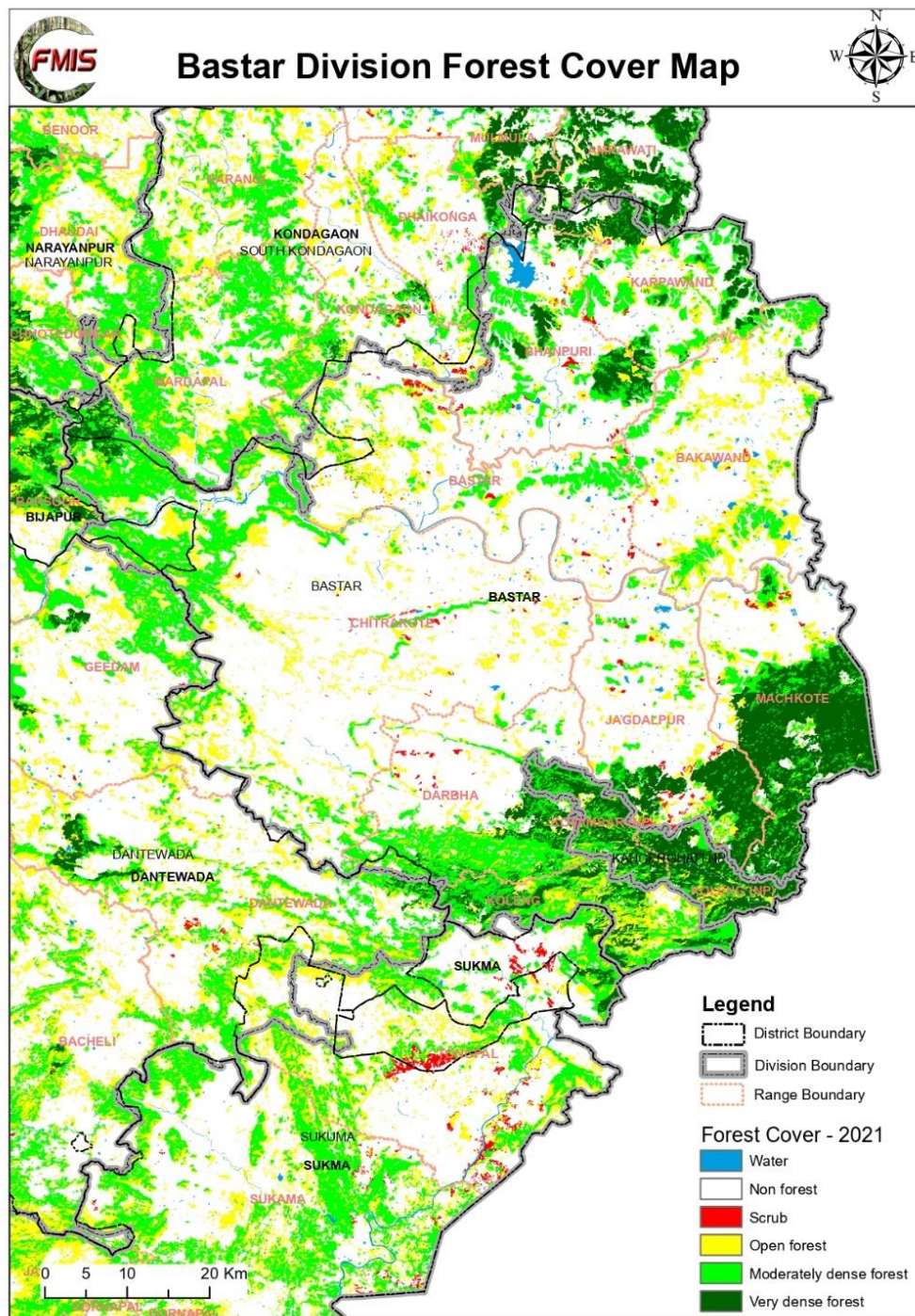
Bastar's geography is marked by a diverse landscape that includes dense forests, rolling hills, and fertile river valleys. The district is part of the larger Bastar Plateau, which is characterized by undulating terrain and a rich diversity of flora and fauna. The Indravati River, which originates in Orissa, flows through the district, covering about 240 kilometers before joining the Godavari River near Bhadrakali. The river is not only a crucial water source but also holds deep spiritual significance for the people of Bastar. The district's forests are predominantly tropical deciduous, with sal, teak, and bamboo being the dominant species. These forests are vital for maintaining ecological balance, supporting a variety of wildlife, and providing livelihoods for the local communities.

According to the 2011 Census, Bastar district has a population of 834,375, with 413,706 men and 420,669 women. The district has a significant tribal population, comprising around 70% of its total inhabitants. The major tribal communities include the Gond, Maria, Muriya, Bhatra, Halba, and Dhruva tribes. These indigenous groups have a rich cultural heritage and have traditionally lived in harmony with their natural surroundings. Their way of life is deeply connected to the forest, which provides them with food, shelter, and materials for their traditional crafts.

The social structure in Bastar is deeply rooted in tribal traditions, with a strong emphasis on community governance and cultural practices. The tribes of Bastar are known for their unique customs, languages, and festivals, which are celebrated with great enthusiasm and are integral to the social fabric of the district. The region is also famous for its handicrafts, particularly the intricate metalwork and woodcraft produced by the tribal artisans. Jagdalpur, the district headquarters, is a major center for these crafts and serves as a hub for cultural activities in the region.

Bastar's forests are among the most extensive in Chhattisgarh, playing a crucial role in the district's economy and ecology. The forests are home to a wide variety of plant and animal species, including several that are endemic to the region. The rich biodiversity includes species such as tigers, leopards, deer, and a variety of birds and reptiles.

Division Map



Division Profile

Particulates	Details	Remarks if any
Total Forest area	2211.807 Sq KM	
Major forest types and area	RF , PF , Orange Area	
SNo	Range Name	No. of sites
1	Bastar - Bhanpuri, Karpawand Bakawand Jagdalpur Machkote, Chitrakote Darbha, Koleng	No.of Beats – 148 Compartments – 1552 Sections–9 Van Khand , PF Van khand 140 , OA Van Khand - 755
Total No of EDCs and community memberships	JFMC – 351 Members – 261192.Jfmc Family - 89369 (Status at June – 23) Eco Development Community	No of JFMCs/ EDCs Associated with CAMPA WORKS
No of APO projects 2019-20	68	
Any other relevant information		

Category wise sampled strata for Monitoring & Evaluation – Bastar Division APO 2019-2020

Sl. No.	Category of Projects	Total no. of projects	Sampled sites
1	Silvicultural operations	38	10
2	Forest/Fire Protection Works	14	5
3	Soil and moisture conservation work	7	2
4	Civil and construction works	9	2
Total		68	19

Analysis of Bastar Division Projects

The Bastar Division undertook diverse forestry and conservation projects during 2019–2020, focusing on ecological restoration, fire protection, infrastructure development, and soil conservation. Below is a detailed analysis:

1. Silvicultural Operations

- **Objective:** Removal of invasive alien species, particularly Lantana, across multiple forest compartments.
- **Scale:** Covered large areas, with treatments ranging from 100 hectares to 460 hectares.
- **Key Observation:** The scale and consistency in execution highlight a well-structured approach to silvicultural operations. Continued efforts can further enhance forest health.

2. Forest and Fire Protection Works

- **Projects:** Focused on constructing boundary walls and chain-link fencing around sacred groves and forested areas, such as Dev-Gudi and Orange Area sites (e.g., Dhanpur, Garenga).
- **Scale:** Ranged from smaller projects like a 120-meter boundary wall in Biranpal to larger efforts such as a 10,800-meter chain link in compartment 1551.
- **Key Observation:** Sacred grove protection aligns with cultural and environmental priorities, creating synergy between community values and conservation efforts.

3. Soil and Moisture Conservation (SMC) Works

- **Sites:** Projects at Bharjodi Nala (537.8 hectares) and Raikela Nala (87.13 hectares) targeted erosion control and water retention.
- **Key Observation:** These projects address critical sustainability concerns in the region, with a need to replicate the high-impact methods used at Bharjodi Nala.

4. Civil and Construction Works

- **Projects:** Upgradation of forest roads, such as the WBM roads connecting Bodanpal to Baghbahar and Baghbahar to Nawaguda.
- **Scale:** Covered 1–2 kilometers in forested areas.
- **Key Observation:** Road development enhances forest management logistics while maintaining environmental standards.

Summary of Results

1. Focus on Sustainability:

- Large-scale invasive species removal and soil conservation efforts significantly contribute to ecological balance and habitat quality.

2. Community Integration:

- Protection of sacred groves reflects a cultural connection, fostering local support for conservation.

3. Infrastructure Support:

- Construction and upgrades of roads and protective structures bolster operational capabilities and forest protection.

Conclusion

The Bastar Division demonstrates a strong commitment to forestry and ecological restoration, balancing cultural, operational, and environmental objectives. With continued focus on invasive species management, soil conservation, and community-driven initiatives, the division can further enhance its environmental and operational outcomes.

Detailed results of Monitoring & Evaluation for selected sites – Bastar Division APO 2019-2020

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Silvicultural operations	Removal of invasive alien species- Lantana	19.3032	82.02476	1139	100.365	Good
2	Silvicultural operations	Removal of invasive alien species- Lantana	19.30177	82.05073	1143	102.4	Good
3	Silvicultural operations	Removal of invasive alien species- Lantana	19.31237	82.04313	1140	102.53	Good
4	Silvicultural operations	Removal of invasive alien species- Lantana	19.29358	82.0515	1144	103.238	Good
5	Silvicultural operations	Removal of invasive alien species- Lantana	18°54'21.23"	82°10'07.82"	1243	113.460 ha	Good
6	Silvicultural operations	Removal of invasive alien species- Lantana	18°54'47.53"	82°09'57.71"	1243	115.347 ha	Good
7	Silvicultural operations	Removal of invasive alien species- Lantana	19°20'12.29"	81°59'30.44"	1102	120.000 Ha	Good
8	Silvicultural operations	Removal of invasive alien species- Lantana	180 48' 55.29'	81 0 50" 9.834'	1977	113.974	Good
9	Silvicultural operations	Removal of invasive alien species- Lantana	180 54' 54.00"	810 58' 13. 00'	1768	102.900	Good
10	Silvicultural operations	Removal of invasive alien species- Lantana	19°17'29.67"	81°38'32.53"	1366	192.714 Ha.	Good
11	Soil and moisture conservation work	SMC Works - Bharjodi Nala-1	19.00907	81.92223	1738, 1739	537.8 Ha	Excellent

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
12	Soil and moisture conservation work	SMC Works - Raikela Nala-1	19.16868	81.97909	1322	87.13 Ha	Good
13	Civil and construction works	Upgradation of Forest Roads WBM Road Bodanpal to Baghbahar	19°11'45.67"	81°50'29.95"	1421-p	1.00 k.m.	Good
14	Civil and construction works	Upgradation of Forest Roads WBM Road Baghbahar to Nawaguda WBM Road	19°13'30.33"	81°55'34.02"	1429-p	2.00 k.m.	Good
15	Forest/Fire Protection Works	Protection of sacred groves Dev-Gudi-Durkabeda, Boundary Wall	19.33952	82.17508	Orange Area – Dev Gudi	533 rmt	Good
16	Forest/Fire Protection Works	Boundary Wall	180 94' 26" 5.81"	810 95' 95" 81.8'	Orange Area Biranpal	120 Rmt.	Good
17	Forest/Fire Protection Works	Boundary Wall	19.21419	82.04529	Orange Area Dhanpur	500 METER	Good
18	Forest/Fire Protection Works	Boundary Wall	19.24526	81.57104	Orange Area Garenga	400 METER	Good
19	Forest/Fire Protection Works	Chain Link	19.0929	81.4338	1551	10800 Rmt.	Good

Bijapur: Division Assessment

Division Background

Bijapur Forest Division, located in the southernmost part of Chhattisgarh, is a region marked by its rugged landscape, dense forests, and significant ecological value. As part of the larger Bastar division, Bijapur's geographical features include a mix of rolling hills, dense deciduous forests, and numerous rivers and streams, with the Indravati River being one of the most prominent water bodies. The division lies within the Dandakaranya region, a historically significant area known for its rich biodiversity. The tropical climate of Bijapur, characterized by a heavy monsoon season followed by a dry period, poses both opportunities and challenges for forest conservation and water resource management.

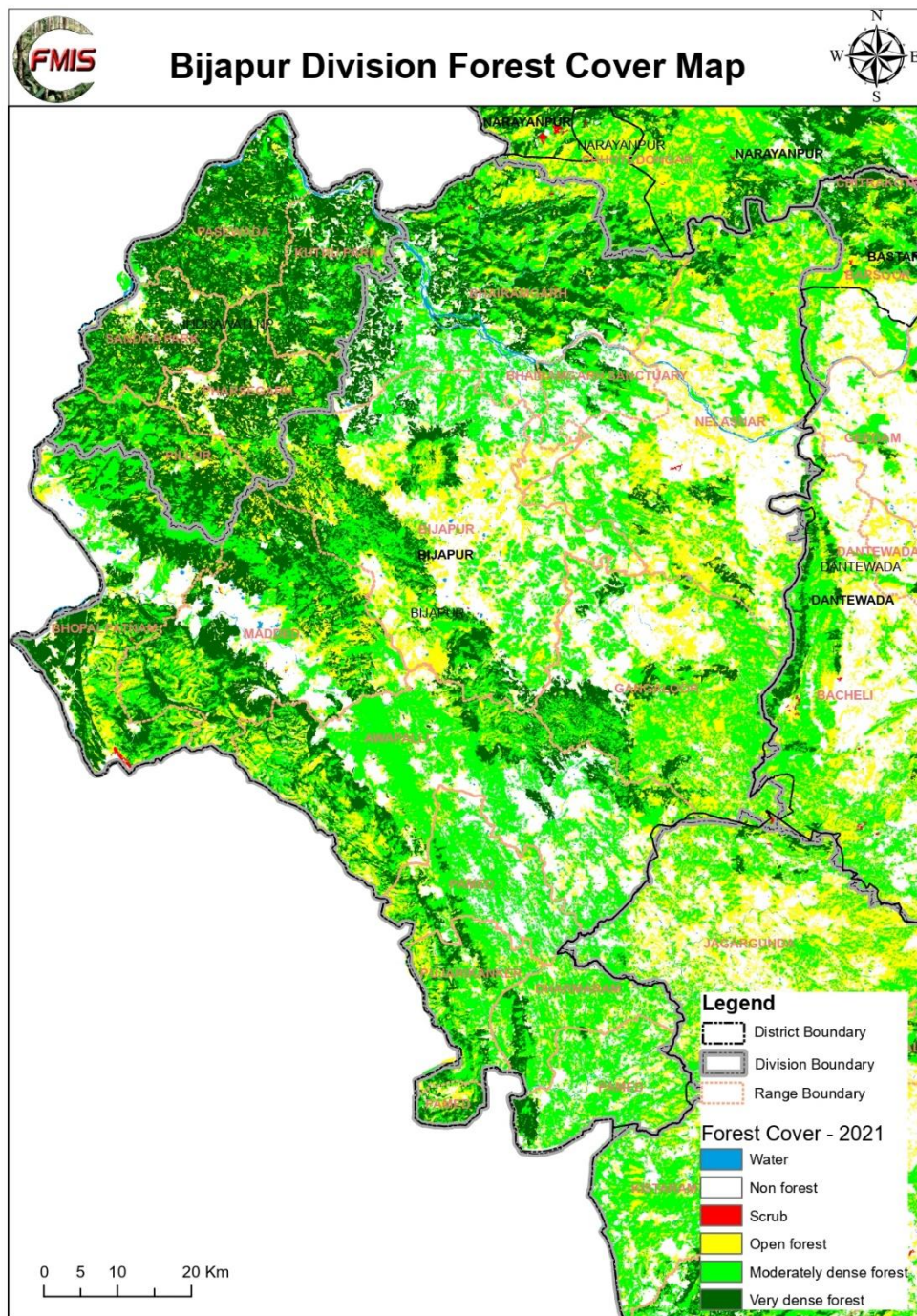
Bijapur is home to a predominantly tribal population, with indigenous communities such as the Gond, Maria, and Halba tribes constituting a significant portion of the inhabitants. These tribes have a deep connection with the land and forests, which are integral to their way of life. The population density in Bijapur is relatively low compared to other parts of Chhattisgarh, contributing to the area's status as one of the least developed regions in the state. Despite the low population density and limited infrastructure, the tribal communities have preserved a rich cultural heritage, deeply intertwined with the natural environment.

The rich cultural heritage of Bijapur is evident in the traditional knowledge systems that the tribal communities possess, particularly in areas related to forest management and conservation. This knowledge, passed down through generations, includes practices that promote biodiversity, prevent soil erosion, and manage water resources sustainably. The tribal communities' deep understanding of the local ecosystem is invaluable for the conservation efforts in the region.

The sustainable management of Bijapur's forests is essential not only for maintaining the ecological balance but also for the well-being of its indigenous population. The tribal communities' role in forest management is crucial, given their reliance on the forest and their extensive traditional knowledge. Conservation efforts in Bijapur focus on protecting the region's biodiversity, preventing deforestation, and promoting reforestation initiatives. These efforts are often carried out in collaboration with the local communities, ensuring that conservation strategies are culturally appropriate and socially inclusive.

Bijapur's forests are home to a wide variety of wildlife, including several endangered species. Protecting these forests from illegal logging, poaching, and other threats is a priority for the region. The involvement of tribal communities in these conservation efforts is essential, as their livelihoods depend on the health of the forest ecosystems.

Division Map



Division Profile

Particulates		Details	Remarks if any		
Total Forest area		2931.033 Sq KM			
Major forest types and area		RF , PF , Orange Area			
Sl.No.	Range Name	Address	Section / RA circle	Beat	No.of Compartments
1	Bhairamgarh	Range Office, Near NH-63	7	24	79
2	Bijapur	Range Office, Near NH-64	4	12	100
3	Pamed	Range Office, Near Basaguda Road	6	19	135
4	Gangaloor	Range Office,	4	17	173
5	Awapalli	Range Office, Near Basaguda Road	6	29	214
6	Bhopalpatnam	Range Office, Near NH-64	3	15	97
7	Madded	Range Office, Near NH-64	3	13	88
Total No of JFMCs/ EDCs and community memberships		125	No of JFMCs/ EDCs Associated with CAMPA WORKS		125
No of projects of APO 2019-20				92	

Category wise sampled strata for Monitoring & Evaluation – Bijapur Division PO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Silvicultural operations	36	8
2	Soil and moisture conservation work	6	1
3	Forest/Fire Protection Works	48	12
4	Other Mandatory Works	1	1
5	Wildlife Habitat Improvement	1	1
Total		92	23

Analysis of Bijapur Division Projects

The Bijapur Division implemented a variety of forestry and conservation projects aimed at ecological restoration, fire protection, wildlife habitat improvement, and soil conservation. Below is a detailed analysis of the data:

1. Silvicultural Operations

- **Objective:** Removal of invasive alien species like Eupatorium and Chhindgras across multiple compartments and areas.
- **Scale:** Large-scale operations were conducted, with treatment areas ranging from **65 hectares to 300 hectares**.
- **Key Insight:** These efforts help in controlling invasive species that threaten native vegetation, thereby improving the ecological balance.

2. Forest and Fire Protection Works

- **Activities:** Included fire line creation and construction of boundary walls around sacred groves to protect culturally significant forest areas.
- **Scale:** Projects varied from **100 meters to 449.2 meters** of boundary wall construction and **20 hectares** of fire line creation.
- **Key Insight:** Boundary walls around sacred groves and fire lines reduce the risk of encroachment and fire damage, preserving both ecological and cultural values.

3. Wildlife Habitat Improvement

- **Activity:** Grassland development was carried out in compartment 615 (Anchoda) over **10 hectares**.
- **Key Insight:** Grassland development supports wildlife by improving forage availability, contributing to habitat quality.

4. Soil and Moisture Conservation Works

- **Project:** SMC works at Thunkiwagu Nala covered **1,358 hectares**.
- **Key Insight:** Large-scale soil conservation projects play a critical role in sustaining forest productivity and combating land degradation.

5. Other Mandatory Works

- **Activity:** Plantation below transmission lines (3.71 hectares) in the Barsoor to Bijapur area.
- **Success Rate:** Achieved an impressive **95%**, highlighting effective management of site preparation and planting efforts.
- **Key Insight:** These plantations demonstrate how underutilized land can be repurposed for ecological benefits.

Opportunities for Improvement

Wildlife Habitat Expansion:

- **Grassland** development could be scaled up to support a broader range of wildlife species and enhance biodiversity.

Long-Term Monitoring:

- Establishing systems for regular monitoring and post-project evaluations can ensure sustained success and guide improvements.

Community Engagement:

- Greater involvement of local communities in sacred grove protection and other conservation activities could enhance project outcomes and long-term sustainability.

Conclusion

The Bijapur Division's projects reflect a strategic and impactful approach to forestry and conservation. With a balanced focus on ecological restoration, fire protection, and soil conservation, the division has made significant contributions to sustainable forest management. Scaling up successful initiatives and incorporating more community-driven efforts can further enhance these achievements.

Detailed results of Monitoring & Evaluation for selected sites – Bijapur Division APO 2019-2020

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
1	Silvicultural operations	Madded	Improvement of growing stock in orange area	18°.45'32'9 2"N	80°29'10'94 "E	Pushugudi ,Sandrel	80	Excellent
2	Silvicultural operations	Madded	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18°.40'42'4 4"N	80°33'9'23" E	P 595	150	Optimum
3	Silvicultural operations	Madded	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18°.45'15'7 1"N	80°34'12'82 "E	RF 642	250	Optimum
4	Silvicultural operations	Madded	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18°.45'32'9 2"N	80°29'10'94 "E	RF 639	300	Optimum
5	Silvicultural operations	Awapalli	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18°31'48.00 "N	80°50'37.0 0"E	Putakel 478	65	Optimum

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
6	Silvicultural operations	Awapalli	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18°31'26.00 "N	80°52'12.0 0"E	Putakel 479	85	Optimum
7	Silvicultural operations	Bhopalp atnam	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18.7583333	80.3583333 3	Metlacheru 858	100	Optimum
8	Silvicultural operations	Bhopalp atnam	Removal of Invasive Alien Species Eupatorium /Chhindgras Removal	18.7916667	80.2169444 4	Karkaavaya 842	150	Optimum
9	Forest/Fire Protection Works	Bijapur	Creation of fire line vkj- ,Q- 12 eh- pkSMhesaQk;jykbZuR F 12 m.Brod fire line work	18.851707	80.803522	Beejapur range	20	Optimum
10	Forest/Fire Protection Works	Madded	ckm.MªhokyfuekZ.ke n~nsM+ Hkx&1 ifj{ks= en~ns M Boundry wall construction	18°.770977 "N	80°554593" E	Madded Range	449.2 Rmt	Good

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
11	Forest/Fire Protection Works	Madded	Boundary wall construction	18°.759542 "N	80°585175" E	Mahalaxmi Temple Tingolmuda Range Madded - 680	200 Rmt	Optimum
12	Forest/Fire Protection Works	Madded	Protection of sacred groves Boundary wall construction	18.76165"N	80.580498" E	681 Madded	125 Rmt	Optimum
13	Forest/Fire Protection Works	Awapalli	Protection of sacred groves Boundary wall construction	18.601537 N	80.67893 E	Ilmidi	200 Rm	Optimum
14	Forest/Fire Protection Works	Awapalli	Protection of sacred groves Boundary wall construction	18.636273 N	80.737611 E	Penkaram	100 Rm	Optimum
15	Forest/Fire Protection Works	Awapalli	Protection of sacred groves Boundary wall construction	18.599388 N	80.767144 E	Kadti	100 Rm	Optimum
16	Forest/Fire Protection Works	Awapalli	Protection of sacred groves Boundary wall construction	18.5533 N	80.890555 E	Timmapur	200 Rm	Optimum
17	Forest/Fire Protection Works	Pamed	Protection of sacred groves Boundary wall construction	18.4834702	80.7429538	Pujari para - usoor	100 Rm	Optimum
18	Forest/Fire Protection Works	Pamed	Protection of sacred groves Boundary wall construction	18.265719	80.455291	Galgam	100 Rm	Good

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
19	Forest/Fire Protection Works	Bhopalpatnam	Protection of sacred groves Boundary wall construction	18.7630556	80.27805556	Atookpalli	127 RMT	Good
20	Forest/Fire Protection Works	Bhopalpatnam	Protection of sacred groves Boundary wall construction	18.7847222	80.29805556	Kondamousam)	127 RMT	Good
21	Wildlife Habitat Improvement	Maddur	(Forage/Pasture)-Grassland Development	18°44'42'92"N	80°29'54'89"E	Anchoda Compartment 615	10	Good
22	Soil and moisture conservation work	Maddur	SMC Works - Thunkiwagu Nala	18.73744	80.66711	PF-683,689,690,691	1358	Good

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Success rate
23	Other Mandatory Works	Bheramgarh	Plantation below Transmission line 1st Year (Site Preparation)	19.031759°	80.997100°	Barsoor to Bijapur 1965	3.71	95%

Dantewada: Division Assessment

Division Background

Dantewada Forest Division, located in the southern part of Chhattisgarh, India, is a region of significant ecological and cultural importance. This area is renowned for its dense forests, rich biodiversity, and vibrant tribal culture, making it a critical zone for conservation and sustainable development efforts.

Dantewada is characterized by a varied topography that includes rolling hills, river valleys, and extensive forest cover. The region lies within the larger Bastar Plateau, an area known for its undulating terrain and diverse ecosystems. The forests in Dantewada are predominantly tropical and deciduous, with a mix of other forest types, including mixed forests that support a wide range of plant and animal species.

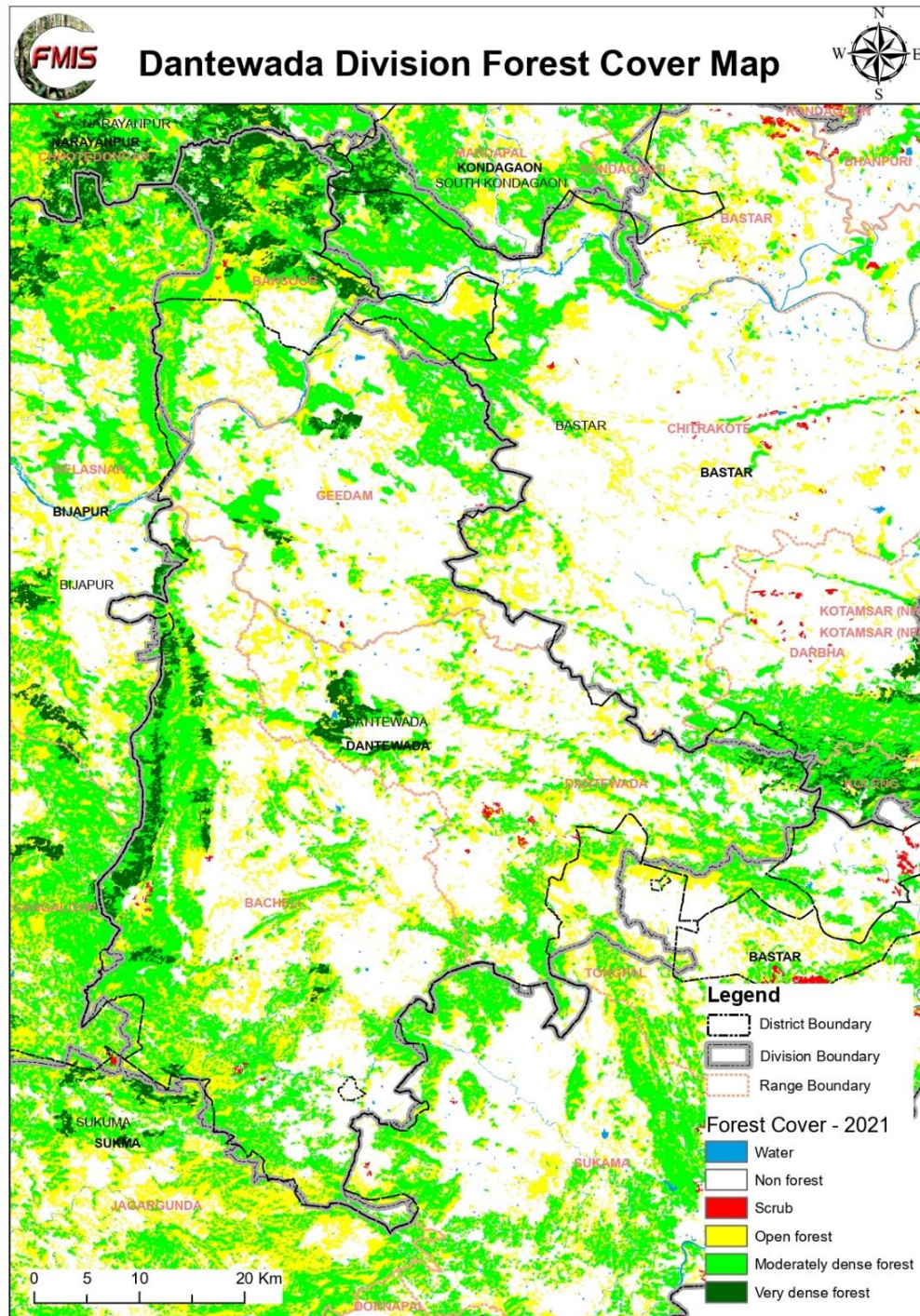
The forest division is crisscrossed by several rivers and streams, with the Indravati River being one of the most significant water bodies in the area. These rivers are not only vital for the local water supply but also play a crucial role in maintaining the health of the forest ecosystems. The monsoon season brings substantial rainfall to the region, which sustains the dense forest cover and supports the agricultural activities of the local communities.

The dense forests of Dantewada are home to a rich variety of flora, including economically and ecologically important trees such as sal, teak, and bamboo. The undergrowth is often dense, providing a habitat for numerous species of medicinal plants and herbs. The diverse vegetation supports a wide range of fauna, including large mammals like tigers, leopards, and sloth bears, as well as a variety of birds, reptiles, and amphibians. The biodiversity of the region is a testament to its ecological significance, making it a priority area for conservation.

Dantewada Forest Division plays a vital role in the conservation of biodiversity and the protection of wildlife. The forests serve as a critical habitat for many endangered and threatened species, making wildlife protection a key focus of the division's activities. Conservation efforts in the region include afforestation programs aimed at restoring degraded areas, soil and water conservation initiatives to prevent erosion and maintain the health of the forest, and anti-poaching measures to protect wildlife from illegal activities.

Sustainable forest management practices are also central to the division's efforts. These practices ensure that forest resources are utilized in a way that meets the needs of the present population without compromising the ability of future generations to meet their own needs. This includes the sustainable harvesting of non-timber forest products (NTFPs), which are an important source of income for the local tribal communities.

Division Map



Division Profile

Particulates		Details		Remarks if any		
Total Forest area		1242.505 Sq KM				
Major forest types and area		RF , PF , Orange Area				
Sl.No.	Range Name	Address	Telephone Number /Mobile Number	Section / RA circle	Beat	No .of Compartments
1	Dantewada	Forest Range office dantewada	Raytu ram Morya 94064 81018	4	15	219
2	Geedam	Forest Range office Geedam	G D Verma 88782 48391	3	14	119
3	Bacheli	Forest Range office Bacheli	Ashutosh Mandwa 93401 67308	4	19	315
4	Barsoor	Forest Range office Barsoor	BreejlaDewangan 94791 32455	3	7	53
Total No of JFMCs/ EDCs and community memberships		89	Total No of JFMCs/ EDCs EDCs and community memberships			
No of APO projects 2019-20			64			

Category wise sampled strata for Monitoring & Evaluation –Dantewada Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Trainings	1	1
2	Silvicultural operations	28	7
3	Forest/Fire Protection Works	23	5
4	Other Mandatory Works	6	2
5	Soil and moisture conservation work	3	1
6	Civil and Construction Works	3	1
Total		64	17

Analysis of Dantewada Division Monitoring & Evaluation Projects (2019–2020)

The Dantewada Division undertook diverse forest management and conservation initiatives that reflect a strategic focus on ecological restoration, infrastructure development, and community involvement. Below is an analytical summary of the data:

1. Strong Focus on Silvicultural Operations

- **Efforts in Invasive Species Removal:** Large-scale removal of invasive species, particularly Lantana, covered areas ranging from 154 hectares to over 318 hectares across multiple ranges.
- **Outcome:** All operations were indicating effective execution. These efforts are critical in restoring native biodiversity and enhancing forest health.
- **Key Insight:** The extensive coverage highlights the division's commitment to addressing ecological threats at scale, though ongoing monitoring is crucial to ensure long-term success.

2. Effective Forest and Fire Protection Works

- **Infrastructure Development:** Protection walls and chain link enclosures were constructed across significant areas (e.g., PF-1326 and PF-1346), with one standout project covering 3,302 hectares rated as "Excellent."
- **Impact:** These measures have been pivotal in safeguarding forests against illegal encroachments and fire hazards, contributing to biodiversity conservation and resource management.
- **Key Insight:** The emphasis on physical barriers demonstrates an efficient approach to addressing both natural and anthropogenic threats.

3. Soil and Moisture Conservation Efforts

- **SMC Work:** Initiatives like the Balod Nala project treated 56.5 hectares.
- **Impact:** These projects play a vital role in enhancing water retention, reducing soil erosion, and maintaining ecosystem health in forest areas.
- **Key Insight:** Expanding SMC initiatives can have a compounding effect on forest sustainability and productivity.

4. Plantation and Land Utilization

- **Other Mandatory Works:** Plantations below transmission lines were carried out over 75 hectares across two sites. These were rated for demonstrating successful site preparation and land repurposing efforts.
- **Key Insight:** Utilizing underutilized spaces for ecological restoration showcases the division's innovative approach to land management.

5. Capacity Building and Community Engagement

- **Training Initiatives:** A capacity-building program at the division level was implemented.
- **Impact:** These efforts promote skill development, awareness, and active participation in conservation activities among stakeholders.
- **Key Insight:** Investments in human resources complement physical conservation efforts, ensuring sustained engagement and awareness.

Key Observations

1. **Diverse and Strategic Approach:** The division's portfolio balances ecological restoration, infrastructure protection, and community engagement, addressing both immediate and long-term conservation needs.
2. **Focus on Threat Mitigation:** The significant emphasis on fire protection and invasive species removal highlights the division's proactive approach to forest conservation.

Opportunities for Improvement

- **Expand SMC Coverage:** Soil and moisture conservation projects, while impactful, are limited in scope. Scaling these initiatives could amplify ecological benefits across more areas.
- **Monitoring and Post-Project Evaluation:** Regular assessment of invasive species removal and plantation growth can ensure long-term effectiveness.
- **Enhanced Community Involvement:** Encouraging deeper community participation in projects like SMC works and sacred grove protection could enhance outcomes and foster local stewardship.

Jagdalpur: Division Assessment

Division Background

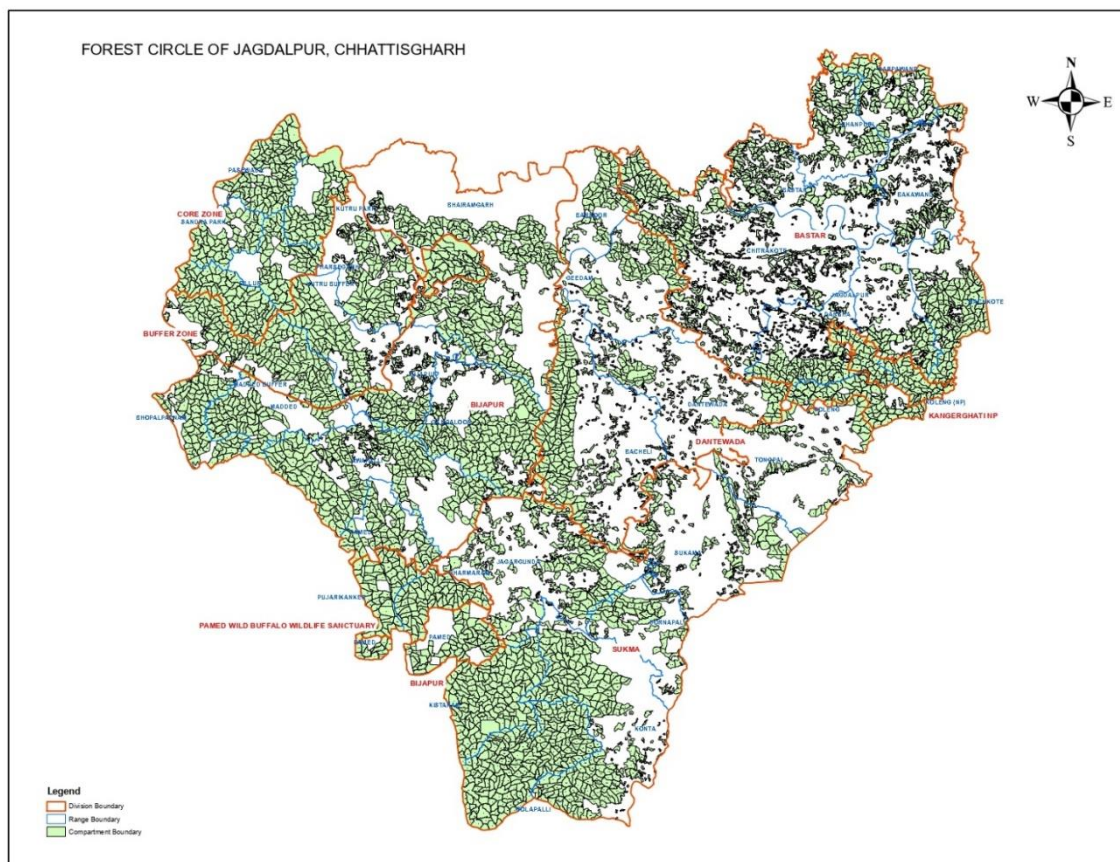
Jagdalpur's role as a center for research and extension is integral to the development of the Bastar region. The city's research institutions and extension services play a crucial role in addressing the unique challenges of the area, from improving agricultural productivity and forest management to preserving the rich cultural heritage of the tribal communities. Through these efforts, Jagdalpur not only contributes to the socio-economic development of Bastar but also ensures that this development is sustainable and respectful of the region's natural and cultural resources. As Jagdalpur continues to evolve, its focus on research and extension will remain key to balancing progress with the preservation of the region's unique identity.

Jagdalpur, the administrative headquarters of Bastar District and Bastar Division in Chhattisgarh, holds significant historical, cultural, and economic importance. As the former capital of the princely state of Bastar, Jagdalpur is steeped in history and is known for its rich cultural heritage, including the famous Danteswari Shakti Peeth and the religiously significant Shiv Linga in the Kotumsar Cave. The city, which is the fourth largest in Chhattisgarh, serves as a key commercial, financial, and political hub in the state.

Jagdalpur is located in the heart of Bastar district, nestled amidst the lush greenery of the Bastar Plateau. The region is characterized by its scenic landscapes, including dense forests, rolling hills, and numerous rivers and streams. The district is renowned for its stunning waterfalls, such as Chitrakoot and Teerathgarh, which draw tourists from across India. The city's geographical location makes it a gateway to some of the most picturesque and ecologically rich areas in Chhattisgarh. Jagdalpur experiences a tropical savanna climate (Köppen climate classification Aw), marked by three distinct seasons: summer, monsoon, and winter. Summers, lasting from March to May, are hot, with temperatures often reaching up to 38.1 °C (100.6 °F) in May. The monsoon season, from June to September, brings heavy rainfall, significantly cooling the region and supporting the dense forest cover that surrounds the city. Winters are warm and dry, providing a pleasant climate for both residents and tourists.

Jagdalpur is a melting pot of diverse cultures and communities, reflecting the broader demographic makeup of Bastar district. The population includes a significant proportion of indigenous tribal groups, such as the Gond, Maria, Dhurwa, and Halba tribes, who have lived in the region for centuries. These tribal communities contribute to the city's cultural richness, with their unique traditions, languages, and festivals playing a central role in the social fabric of the region.

Res & Ext Jagdalpur Division (Jagdalpur Circle) Map



Division Profile

Particulates		Details	
Total Forest area			
Major forest types and area			
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Tokapal Range, Jagdalpur / 7587016602		-
2	Jagdalpur Range, Jagdalpur / 7587016601		-
3	Bastar Range, Jagdalpur / 7587016604		-
4	Geedam Range, Jagdalpur / 9301572353		-
5	Kanta Range, Jagdalpur / 9399088816		-
6	Bijapur Range, Jagdalpur / 8965875747		-
Total No of JFMCs			
No of projects of APO 2019-20		3	

Category wise sampled strata for Monitoring & Evaluation – Jagdalpur Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Awareness and training	2	1
2	Nursery and development	1	1
Total		3	2

Findings of Monitoring and Evaluation

Overview

The monitoring and evaluation results for the Jagdalpur Division highlight two key initiatives in 2019–2020: nursery development and community awareness. A nursery establishment and upgradation project at Sargipal Reserved Forest covered 7 hectares, achieving an impressive success rate of **95%**. Additionally, the "Van Mitan Jagriti Karykram" awareness program was emphasizing community engagement and capacity building for forest conservation.

Observations

- **Strategic Focus:**
 - The division's approach combines operational efforts, such as nursery development, with community-oriented programs, ensuring both ecological and social benefits.
- **High Implementation Standards:**
 - The nursery project's success rate of 95% reflects effective planning, resource allocation, and execution.
 - The awareness program underscores its relevance and impact in fostering local stewardship of forest resources.
- **Potential for Expansion:**
 - Nursery initiatives could be scaled to meet growing demands for afforestation and reforestation projects.
 - Awareness programs have the potential to reach a broader audience, addressing specific challenges like wildlife conservation or fire prevention.
- **Opportunities for Long-Term Impact:**
 - Regular monitoring of nursery output and survival rates of transplanted saplings can ensure sustained ecological benefits.

- Enhanced training content and targeted outreach could further strengthen community involvement in conservation efforts.

Conclusion

The Jagdalpur Division's initiatives demonstrate a balanced and impactful approach to forest conservation, blending operational excellence with community engagement. By scaling successful projects and implementing robust monitoring systems, the division can further enhance its contributions to sustainable forest management and ecological restoration. These efforts set a positive precedent for future conservation initiatives.

Detailed results of Monitoring & Evaluation for selected sites – Jagdalpur Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Nursery and development	Establishment/ upgradation/ extension of nurseries	19°3'48.67" N	82°0'39.62" E	Sargipal RF 1024	7 Ha.	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
2	Awareness and training	Van Mitan Jagriti Karykram	-	-	-	-	-

Sukma: Division Assessment

Introduction

Sukma Forest Division, located at the southernmost tip of Chhattisgarh, is part of a region steeped in history and natural beauty, known as Dandakaranya in ancient times. The district of Sukma was carved out of Dantewada in 2012 and is characterized by its semi-tropical forests, extensive tribal population, and significant geographical and socio-economic disparities. With over 65% of its area covered in forests and a population density of only 45 persons per square kilometer, Sukma remains one of the most remote and least developed regions in India.

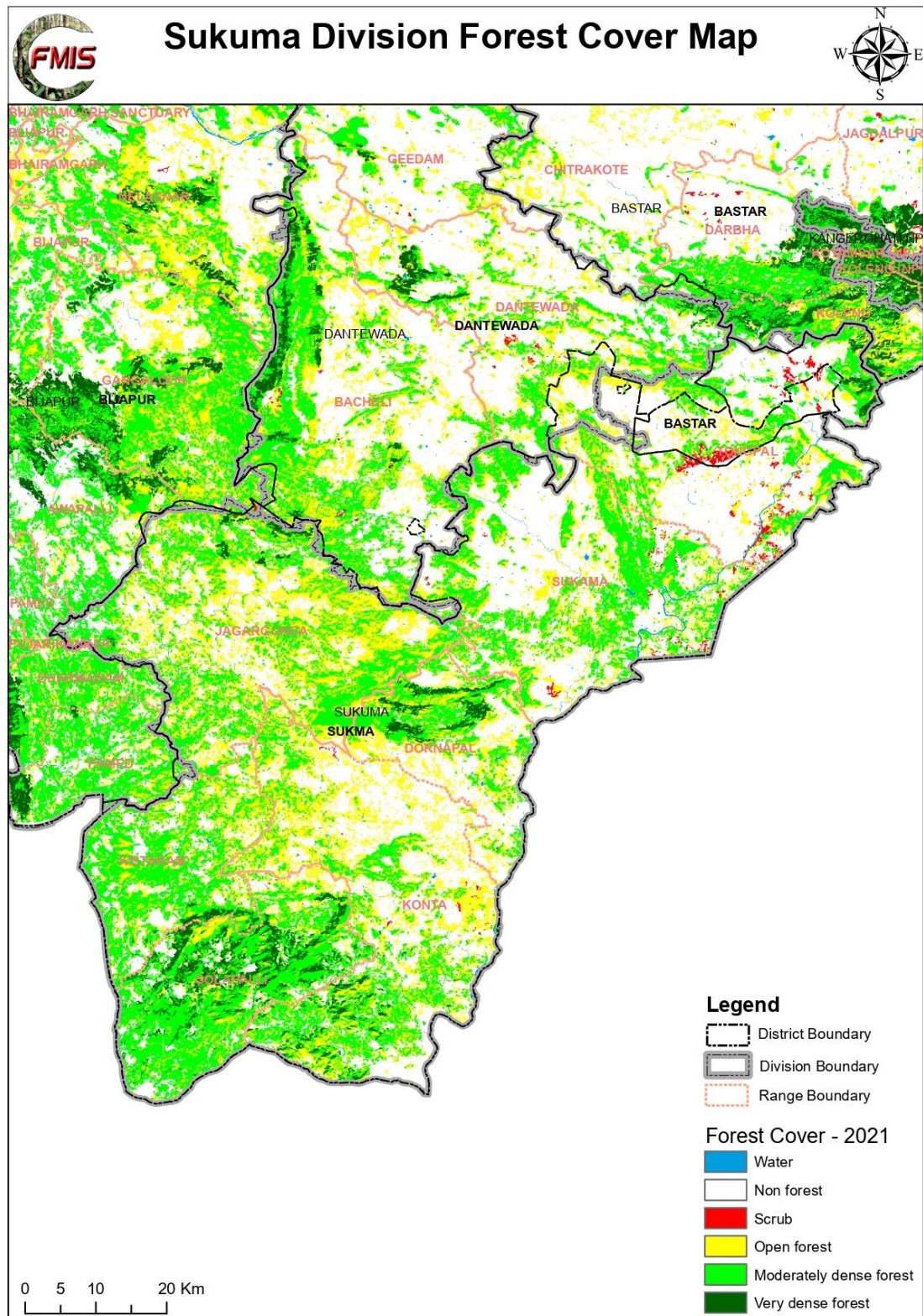
Sukma's landscape is dominated by dense semi-tropical forests that cover the majority of its territory. These forests are home to a rich variety of flora and fauna, providing a vital source of livelihood for the local tribal communities. The Sabari River, one of the major rivers in the district, flows through Sukma, contributing to the region's water resources and supporting both the forest ecosystems and the agricultural activities of the local population. The district receives substantial rainfall during the monsoon season, which sustains the dense forest cover and the rain-fed agriculture practiced by the tribal communities.

Sukma has a predominantly tribal population, with more than 85% of its inhabitants belonging to Scheduled Tribes (STs), primarily the Gond community. The district has one of the lowest literacy rates in India, at just 29%, reflecting the limited access to education and other basic services in the region. The tribal communities of Sukma have lived in relative isolation for generations, with little exposure to the outside world due to the lack of infrastructure, logistics, and communication facilities. This isolation has meant that the traditional ways of life, centered around the forest, have remained largely unchanged.

The Gond tribe, which is the dominant group in Sukma, has a deep connection with the forest. Their livelihoods are closely tied to the collection of non-timber forest products (NTFPs) such as tendu leaves, mahua, and bamboo, which they collect and sell as their primary source of income. Rain-dependent agriculture is also a key activity, though the lack of irrigation facilities and modern agricultural practices limits productivity. The Gond and other tribes in the region have traditionally relied on the forest for food, shelter, and medicine, maintaining a way of life that has remained largely self-sufficient and in harmony with the natural environment.

The tribal communities' reliance on the forest for their livelihood means that sustainable forest management is crucial for their well-being. However, the district's lack of exposure to the globalized world and modern economic systems has limited their ability to engage in more lucrative economic activities. This situation has led to a continued dependence on traditional subsistence activities, which, while sustainable in the past, may not be sufficient to meet the needs of a growing population in the future.

Division Map

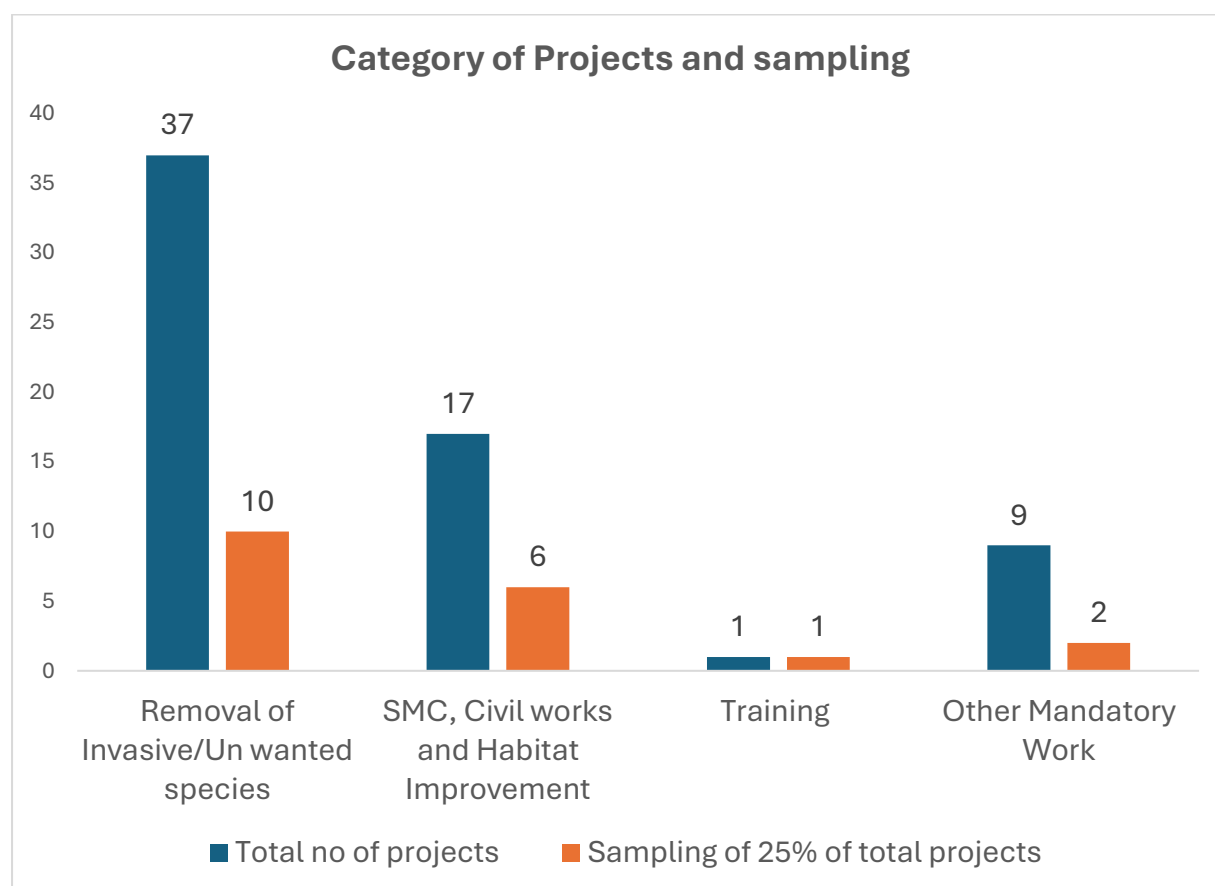


Division Profile

Particulates		Details		Remarks if any		
Total Forest area		2786.31183 Sq KM				
Major forest types and area		RF , PF , Orange Area				
Sl. No.	Range Name	Address	Telephone Number /Mobile Number	Section / RA circle	Be at	No.of Compartments
1	Tongpal	Forest Range office Tongpal (Gram Panchayat - Tongpal) Block Chindgarh	J.L. Nag 7587847021	5	20	111
2	Sukma	Forest Range office Sukma on NH-30 , Block Sukma	Gulshan Shau 9754428824	5	18	163
3	Dornapal	Forest Range office Dornapal On the NH - 30 ,Block- Dornapal	Ishwar Baghel 9406084701	4	13	75
4	Jagargunda	Forest Range office Jagargunda Block - Dornapal, On the NH - 30,District - Bastar (CG)	Narayansignh Salam 6261052319	4	22	220
5	Konta	Forest Range office Konta,Block- Konta	Ashraf Qureshi 6266491031	5	15	219
6	Golapalli	Forest Range office Golapalli,Near Konta Range Office ,Block- Konta	C.R. Baghel 9302355676	3	14	210
7	Kistaram	Forest Range office Kistaram,Block - Konta , Near Konta Range Office, District - Bastar (CG)	Ramswaroop Mandavi 9424274359	3	10	186
Total No of JFMCs/ EDCs and community memberships			258	No of JFMCs/ EDCs Associated with CAMPA WORKS		258
No of projects in APO 2019-20			64			

List of APO Projects (Projects Abstract)

Sl. No.	Category of Projects	Total no of projects	Sampled sites
1	Removal of Invasive/Un wanted species	37	10
2	SMC, Civil works and Habitat Improvement	17	6
3	Training	1	1
4	Other Mandatory Work	9	2
Total		64	19



Analysis

The document provides a summary of various activities undertaken as part of the Compensatory Afforestation Fund Management and Planning Authority (CAMPA) projects. These activities are categorized into several key project types, each contributing to the overall goal of environmental restoration and conservation. Below is an analysis of the project activities based on the provided data:

1. **Soil and Moisture Conservation Work:** Soil and moisture conservation efforts were undertaken in Konta Range through structured SMC (Soil and Moisture Conservation) works, focusing on Nala treatment. The intervention covered a total of 1,948 units (measurement not specified) across multiple compartments. This initiative is crucial in controlling soil erosion, improving groundwater recharge, and enhancing soil fertility, thereby benefiting both the forest ecosystem and local communities dependent on natural water sources.
2. **Silvicultural Operations:** A major component of the activities involved silvicultural operations, primarily focusing on the removal of invasive alien species and the improvement of growing stock.
3. **Removal of Invasive Alien Species:** Conducted in multiple locations including Dornapal, Jagargunda, and Sukma, this activity targeted the eradication of non-native plant species that threaten native biodiversity. The treated areas ranged from 100 hectares in Sukma to 395.5 hectares in Jagargunda. Such interventions help restore native flora, improve soil quality, and enhance forest regeneration.
4. **Improvement of Growing Stock in Orange Areas:** Implemented in Tongpal and Hamirgarh, covering 20 hectares and 25 hectares, respectively. These efforts aimed at enhancing forest productivity by improving tree density and health in degraded zones. Such initiatives contribute to better carbon sequestration, increased biodiversity, and enhanced ecological stability.
5. **Forest and Fire Protection Works:** A combination of protective measures was undertaken to safeguard forest resources and prevent fire hazards.
6. **Protection of Sacred Groves:** Implemented in Konta over a stretch of 176 Rm, this effort aimed to conserve culturally and ecologically significant forest patches that hold religious or historical value. Protecting such groves helps maintain biodiversity, preserve traditional ecological knowledge, and support local communities' spiritual and environmental beliefs.
7. **Protection Wall Construction:** A 2000 Rm protection wall was built in Tongpal to prevent encroachments, illegal grazing, and human-wildlife conflicts. Such infrastructure is vital for ensuring the long-term conservation of protected forest areas.

8. Chain Link Enclosures: Installed in Murtonda and Pakela (totaling 9000 Rm), these enclosures act as barriers to protect sensitive forest patches from degradation, human interference, and wildlife disturbance. These measures help sustain the ecological balance and support wildlife conservation efforts.
9. Maintenance of Strike Force Vehicles: Regular maintenance of emergency response vehicles was undertaken in Golapalli and Sukma Division, ensuring that forest protection teams are well-equipped to handle fire hazards, illegal logging, and other threats to forest conservation.
10. Training and Awareness Programs: Training sessions and workshops were conducted across seven forest ranges to enhance awareness and knowledge about forest conservation. These programs focused on capacity building, environmental education, and community involvement in sustainable forest management. By engaging local communities, these initiatives foster a sense of responsibility and encourage participation in conservation efforts.

Conclusion

The analysis of CAMPA project activities reveals that while most projects, particularly those related to invasive species removal and civil works, are successful, there are areas requiring further attention. The relatively lower success rates in training and awareness activities suggest a need for enhanced capacity-building efforts. By focusing on improving the consistency of success across all project categories and ensuring robust long-term management practices, the overall effectiveness of CAMPA projects can be significantly enhanced.

Detailed results of Monitoring & Evaluation for selected sites – Sukma Division APO 2019-2020

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
1	Soil and moisture conservation work	Konta	SMC Works - Konta Range Nala	17.91974	81.4142	Asirguda, RF/700, 699, 698, 697, 683, 696, 685, 632, 684, RF/296, 685, 694, 695	1948	Excellent
2	Silvicultural operations	Dornapal	Removal of Invasive Alien Species Ist Year	18°16'05.50"N	81°09'1.38"E	PF-309 D Pal	336.8 Ha	Good
3	Silvicultural operations	Tongpal	Improvement of Growing stock in Orange areas	18.678663	81.816623	P F -29 Kawrakopa	20 Ha	Good
4	Silvicultural operations	Jagargunda	Removal of Invasive Alien Species Ist Year	18.712620°N	81.123898°E	PF-501 Jgunda	281.79 Ha	Good
5	Silvicultural operations	Jagargunda	Removal of Invasive Alien Species Ist Year	18.331199°N	81.136709°E	RF-505 Jgunda	395.500 Ha	Good
6	Silvicultural operations	Sukma	Removal of Invasive Alien Species Ist Year	18°26'29.10" N	81°46'34.67"E	UDLATARAI RF-121	100 Ha	Good

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
7	Silvicultural operations	Dornapal	Removal of Invasive Alien Species Ist Year	18°16'09.46" N	81°20'46.64"E	RF-336 D Pal	326.519 Ha	Good
8	Silvicultural operations	Dornapal	Removal of Invasive Alien Species Ist Year	18°16'49.71" N	81°19'28.92"E	RF-338 D Pal	277.965 Ha	Good
9	Silvicultural operations	Dornapal	Removal of Invasive Alien Species Ist Year	18°16'16.80" N	81°18'3.81"E	RF-345 D Pal	341.32 Ha	Good
10	Silvicultural operations	Jagargunda	Removal of Invasive Alien Species Ist Year	18.270100°N	81.271200°E	RF-346 Jgunda	348.28 Ha	Good
11	Silvicultural operations	Tongpal	Improvement of Growing stock in Orange areas	18°40'23.81" N,	81°49'19.62"E	OA Hamirgarh 1	25 Ha	Good
12	Forest/Fire Protection Works	Konta	Protection of sacred groves	18.088475° N	81.376703° E	Pidmel, Jaggavaram, Verabhathi, Birla	176 Rm	Good
13	Forest/Fire Protection Works	Tongpal	Protection Wall	18.73412	81.8108	RF 04 Tongpal	2000 Rm	Good
14	Forest/Fire Protection Works	Sukma	Chain link enclosure	18.42938664°N	81.65659637°E	Murtonda & PF/175, 176	3000 Rm	Very Good

Sl.No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
15	Forest/Fire Protection Works	Sukma	Chain link enclosure	18.49653	81.7283	Pakela RF 114	3000 Rm	Very Good
16	Forest/Fire Protection Works	Sukma	Chain link enclosure	18.49619	81.7279	PAKELA RF 115	3000 Rm	Very Good
17	Forest/Fire Protection Works	Golapalli	Maintenance of Strike Force Vehicles Golapalli f-7625	17.922493°	81.077816°	Golapalli	2.5	Good
18	Forest/Fire Protection Works	Division Sukma	Maintenance of Strike Force Vehicles Division f-0081 (Camper)	18.388364°	81.657218°	Division Sukma	2.5	Good
19	Training	07 Range	Training/workshop Awareness, Publicity	17.794956°	81.035892°	07 Range	5	Good

Raipur Circle

Baloda Bazar: Division Assessment -

Division Background

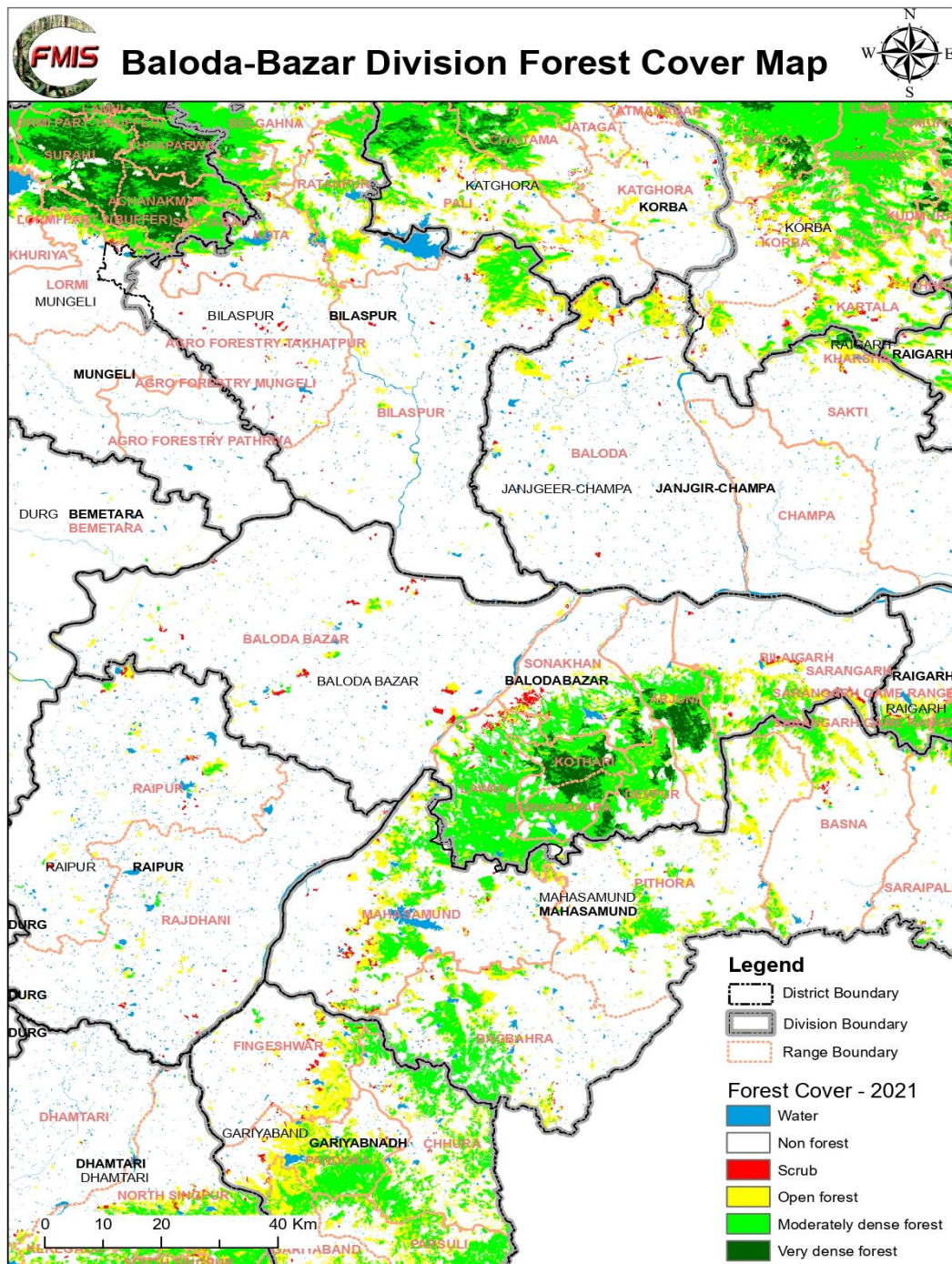
Baloda Bazar Forest Division is located in the central part of Chhattisgarh, India, with geographical coordinates approximately between latitudes 21.20°N to 22.10°N and longitudes 81.50°E to 82.10°E. This division is known for its varied topography, which includes a combination of flat plains, gentle hills, and significant forested areas. The Seonath and Shivnath rivers, key rivers in the region, flow through Baloda Bazar, playing a vital role in sustaining the local ecosystem. These rivers support both the wildlife and agricultural practices of the surrounding communities, making the region an important ecological and economic zone within the state.

The forests in Baloda Bazar primarily consist of tropical dry deciduous species, including Sal (*Shorea robusta*), Teak (*Tectona grandis*), and Bamboo (*Bambusoideae*). These species are typical of the central Indian landscape and are crucial for maintaining the ecological balance of the area. The diverse terrain and presence of water bodies contribute to the region's rich biodiversity and its importance for both conservation and sustainable development.

The climate in Baloda Bazar is tropical, characterized by a distinct monsoon season that typically lasts from June to September. During the monsoon, the region receives the majority of its annual rainfall, which is crucial for replenishing the rivers and supporting agricultural and forest growth. The dry season follows the monsoon, often leading to water scarcity challenges, especially in areas that depend on rainfall for agriculture. The region experiences hot summers with temperatures that can reach significant highs, while winters are relatively mild.

The forests in Baloda Bazar Forest Division are composed mainly of tropical dry deciduous trees. Sal, Teak, and Bamboo are the dominant species, and these forests play a critical role in soil conservation, water regulation, and providing habitat for a wide variety of wildlife. The forests are managed through sustainable practices aimed at preserving biodiversity while allowing for the responsible use of forest resources. Reforestation and afforestation efforts are ongoing to restore degraded areas and enhance the forest cover. Baloda Bazar is home to a diverse population, including a significant number of indigenous tribal communities such as the Gond, Baiga, and Oraon. These tribes have a deep cultural and economic connection to the forest, relying on it for their livelihoods through activities like agriculture, the collection of non-timber forest products (NTFPs), and traditional crafts.

Division Map



Division Profile

Particulars		Details
Total Forest Area		1117.80 Sq.Km.
Major Forest types and area		Mixed Forest area
SNo	Range Name/ Telephone number	No. of compartments
1	Sonakhan Range opposite police station main road kasdol, 9755610000	84
2	Arjuni Range, near Jonk Nadi Arjuni, thana- Kasdol, 8889570596	86
3	Devpur Range, vill- Devpur, dist – Balodabazar, 9981056709	66
4	Barnawapara Range, near Gram Paryatak Barnawapara, 6264082018	46
5	Kothari Range, vill- Kothari Thanakasdol, 7747990821	51
6	Lawan (Baldakachhar) Range, Thanakasdol Dist – Balodabazar, 9165266666	77
7	Bilaigarh Range, Near Bus Stand Bilaigarh, dist – Sarangarh, 9424235764	65
8	Balodabazar Range, in front of bus stand Baloda bazar, 8461902124	41
No. of Projects in APO 2019-2020		184

Category wise sampled strata for Monitoring & Evaluation – Balodabazar Division APO 2019-2020

Sl. No.	Category of Projects	Total no of projects	Sampled sites
1	Training	0	0
2	Plantation	63	15
3	Nursery	0	0
4	Engg. SMC work	27	7
5	Removal of invasive	94	23
6	Equipment's	0	0
	Total	184	45

Analysis of the Monitoring & Evaluation

The monitoring and evaluation data for the Balodbazar Division APO 2019-2020 provides insights into the implementation and outcomes of various forest projects. These initiatives are categorized into Assisted Natural Regeneration (ANR), Compensatory Afforestation (CA) Plantations, Silvicultural Operations, Civil and Construction Works, and Soil and Moisture Conservation (SMC). Each category reflects the division's strategic focus on forest restoration, infrastructure development, and sustainability.

- The Assisted Natural Regeneration (ANR) projects covered approximately 1,973.49 hectares across Sonakhan and Bilaigarh ranges, with a reported success rate of 95%. This uniform success rate highlights effective project implementation and maintenance efforts. Similarly, Compensatory Afforestation (CA) plantations, spanning 430 hectares in Bilaigarh and nearby regions, also achieved a 95% success rate, indicating consistent performance in addressing reforestation needs.
- Silvicultural operations were extensive, focusing on the removal of invasive alien species such as Lantana and Eupatorium and rehabilitating degraded bamboo forests. These efforts treated around 1,763.2 hectares, contributing significantly to ecological restoration. The removal of invasive species is vital for improving biodiversity, while bamboo forest rehabilitation helps in sustainable resource management.
- Civil and construction works aimed at improving forest infrastructure, including the installation of hi-tech barriers and upgrading 2 km of forest roads. These projects enhance accessibility and forest protection, supporting the division's operational efficiency. Additionally, large-scale Soil and Moisture Conservation (SMC) works, covering a combined area of 7,283 hectares in Bhutahi and Kantara Nalas, address soil erosion and improve water retention, strengthening ecosystem resilience.
- The consistent success rates across project categories reflect the division's robust planning and execution. However, introducing more detailed metrics for success evaluation could provide a deeper understanding of the challenges and areas for improvement. Strengthened follow-up mechanisms to assess long-term impacts, especially for plantations and invasive species removal, could further enhance outcomes. Community participation in monitoring and maintenance can also ensure sustained benefits.
- In conclusion, the Balodbazar Division's efforts demonstrate a comprehensive approach to forest management and ecological restoration. The integration of conservation strategies with infrastructure development underscores the division's commitment to preserving natural resources while supporting the needs of local communities.

Detailed results of Monitoring & Evaluation for selected sites – Balodabazar Division APO 2019-2020

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Assisted natural regeneration work	ANR work, Sonakhan range, Barkha	N-21 ⁰ 31'18"	E-82 ⁰ 25'51"	170	123.04ha	95%
2	Assisted natural regeneration work	ANR work, Sonakhan range, Jhalpani	N 21.50 9113	E- 82.55 5648	236	228.88 ha	95%
3	Compensatory Afforestation Plantations	Compensatory Afforestation plantation, Bilaigarh	N-21.51 85	E-82.72 475	408	40 ha	95%
4	Compensatory Afforestation Plantations	Compensatory Afforestation plantation, Bilaigarh, Mandalpur	N-21.52 1297	E-82.90 6341	458	50 ha	95%
5	Assisted natural regeneration work	ANR work , Bilaigarh range, Dhansir	N21.55 5393	E-82.75 4718	414	397.99	95%
6	Assisted natural regeneration work	ANR work, Bilaigarh range, Paschim Bilaigarh	N-21.59 8494	E-82.69 3695	399	217.414 ha	95%
7	Assisted natural regeneration work	ANR work, Bilaigarh range, Purv Saliha	N-21.50 701	E-82.71 8175	416	173.773	95%
8	Assisted natural regeneration work	ANR work, Bilaigarh range, Gindola	N-21.58 6583	E-82.68 336	399	179.9 ha	95%
9	Compensatory Afforestation Plantations	CA plantation, Bilaigarh, Dharsiv	N-21.62 9721	E82.75 9593	446	50 ha	95%
10	Assisted natural regeneration work	ANR work, Bilaigarh range, beladula	N-21.56 4018	E82.85 2837	432	222.693 ha	95%

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
11	Compensatory Afforestation Plantations	CA plantation , Bilaigarh, Gatadih	N-21.56 4135	E82.90 0887	454	152 ha	95%
12	Compensatory Afforestation Plantations	CA plantation , Bilaigarh, Junwani	N-21.53 3746	E82.82 9441	434 RF	58 ha	95%
13	Compensatory Afforestation Plantations	CA plantation, baldakachhar	N-21 ⁰ 25'449"	E-82 ⁰ 17' 026"	85RF	20ha	95%
14	Compensatory Afforestation Plantations	CA plantation , bilaigarh,barbaspur	N-21 ⁰ 24'41"	E-82 ⁰ 16' 309"	83 RF	10 ha	95%
15	Assisted natural regeneration work	ANR work,devpur range,west Gidhpuri	N-21 ⁰ 19'13"	E-82 ⁰ 31'065"	304	252.58 ha	95%

Sl. No .	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
16	Forest/Fire Protection Works	Chainlink fencing sonakhan nawagoan	N-21 ⁰ 29'1"	E-82 ⁰ 31 '38"	238	750RM	Good
17	Civil and construction works	Hi tech barrier Arjuni gidhauri,shashkiy psrisar	N-21. 7111	E- 82.596	Shaskiy parisar girhauri	16 ft	Good

Sl. No .	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
18	Civil and construction works	Hi tech barrier,Barnawapara, charoda	N-21.3298	E-82.4680	Shaskiy parisar charoda	16ft	Good
19	Civil and construction works	Upgradation of forest Roads (WBM) (Kothari to bar)	N-2124 2214	E-8226 1793	164	1 km	Good
20	Civil and construction works	Upgradation of forest Roads (WBM) (Khudmudi)	N-21 ⁰ 23' 46"	E-82 ⁰ 23' 577"	77	1000m	Good
21	Soil and moisture conservation work	SMC Works - Bhutahi Nala	N 21.47 7658	E-82.32 9833	126,103,115, 116, 122,138,139, 140	3283 HA	Good
22	Soil and moisture conservation work	SMC Works - Kantara Nala	N-21.35 0716	E-82.51 0404	290, 292, 299, 300,	4000 ha	Good
23	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.39 684	E-82.49 459	113	50 ha	Good
24	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.40 1184	E-82.49 9157	113	40 ha	Good
25	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21 ⁰ 33' 25"58	E-82 ⁰ 47' 43"54	123	25 ha	Good
26	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.33 273	E-82.42 348	113	64 ha	Good

Sl. No .	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
27	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.40 882	E-82.50 970	143	50 ha	Good
28	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.38 834	E-82.41 941	167	50 ha	Good
29	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.39 6795	E-82.47 3699	112	50 ha	Good
30	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.40 973	E-82.46 4628	110	50 ha	Good
31	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21.34 9384	E-82.46 4162	124	25 ha	Good
32	Silvicultural operations	Rehabilitaion of Degraded Bamboo Forest	N-21.52 1897	E-82.56 9982	238	110 ha	Good
33	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21 ⁰ 26'26"	E-82 ⁰ 26'31"	164	50 ha	Good
34	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21 ⁰ 26'16"	E-82 ⁰ 25'10"	161	50 ha	Good

Sl. No .	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
35	Silvicultural operations	Removal of invasive alien species Lantana,Euptorium removal	N-21 ⁰ 26'16"	E-82 ⁰ 25'10"	106	50 ha	Good
36	Silvicultural operations	Rehabilitation of Degraded Bamboo Forest	N-21.27 3405	E-82.15 2269	85,135	48 ha	Good
37	Silvicultural operations	Rehabilitation of Degraded Bamboo Forest	N-21 ⁰ 25' 16.76"	E-82 ⁰ 17' 55.57"	86,87,88	82 ha	Good
38	Silvicultural operations	Removal of invasive alien species Lantana	N- 21.2800	E- 82.3330	250	57.87 ha	Good
39	Silvicultural operations	Removal of invasive alien species Lantana	N- 21.2109	E- 82.3127	286	57.87 ha	Good
40	Silvicultural operations	Removal of invasive alien species Lantana 2 nd year	N- 21.2323	E- 82.3017	298	57.87 ha	Good
41	Silvicultural operations	Removal of invasive alien species Lantana 2 nd year	N-21 ⁰ 21'14"	E-82 ⁰ 54'75"	290	57.87 ha	Good
42	Silvicultural operations	Removal of invasive alien species Lantana 2 nd year	N-21 ⁰ 39'55"	E-82 ⁰ 54'75"	300	86.81ha	Good
43	Silvicultural operations	Removal of invasive alien species Lantana 2 nd year	N-21 ⁰ 26'16"	E-82 ⁰ 33'45"	287	86.81ha	Good
44	Silvicultural operations	Removal of invasive alien species Lantana 2 nd year	N-21 ⁰ 22'30"	E-82 ⁰ 33'45"	281	57.87 ha	Good
45	Silvicultural operations	Removal of invasive alien species Lantana 2 nd year	N-21.35 9025	E-82.59 8358	277	57.87 ha	Good

Dhamtari: Division Assessment

Dhamtari Division Background

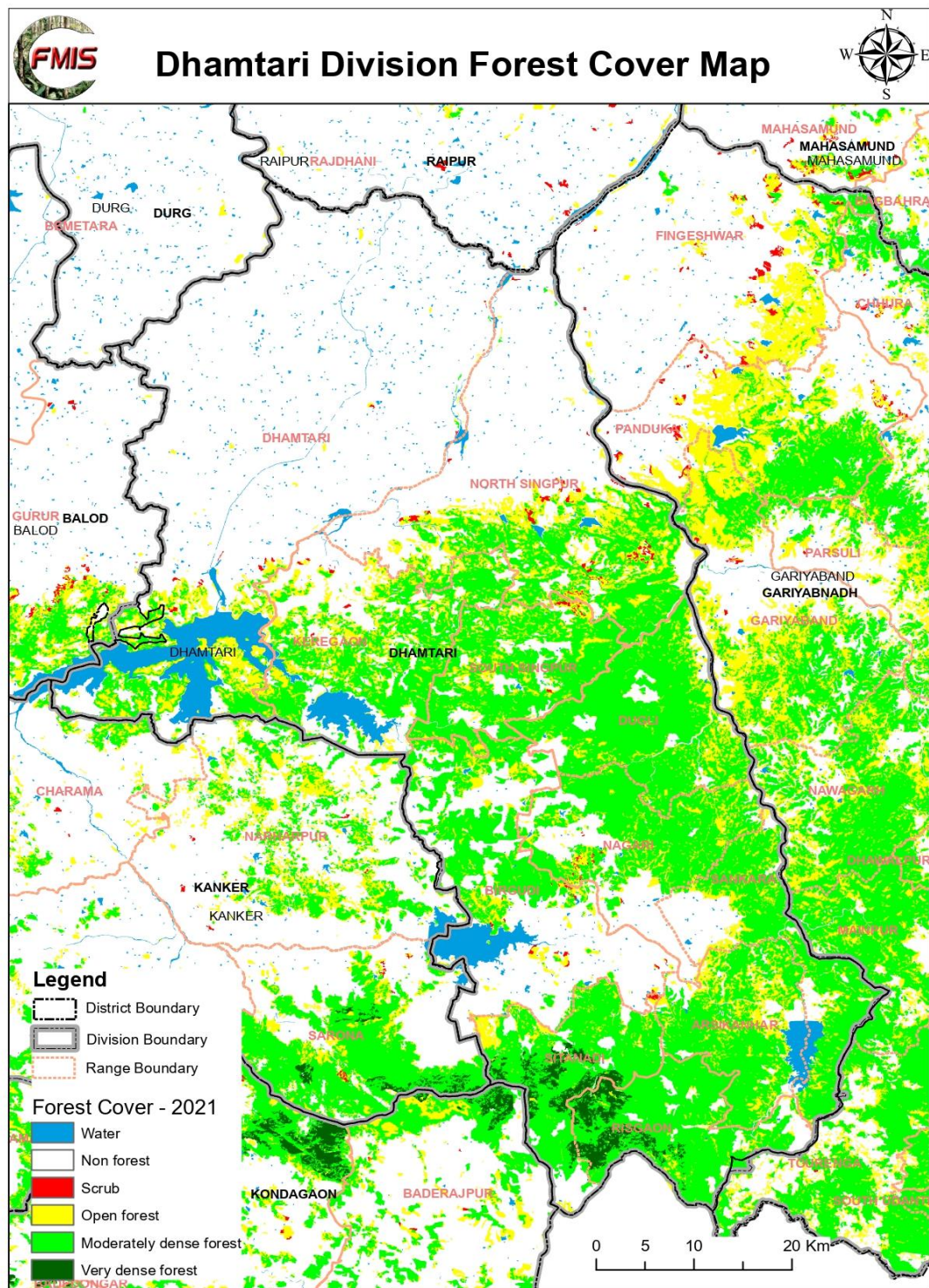
Dhamtari district is located in the central part of Chhattisgarh, India, situated at coordinates 20°42' N latitude and 81°33' E longitude. The district was officially established on 6 July 1998, when it was carved out from the larger Raipur district, along with Mahasamund. The total geographical area of Dhamtari district is 4,084 square kilometers, with an average altitude of 305 meters above sea level. The district is bordered by Raipur and Durg districts to the north, Gariaband district to the east, Nabarangpur district of Odisha to the south, Kondagaon district to the southwest, and Kanker and Balod districts to the west.

The district is characterized by a mix of plains and rolling hills, with the Mahanadi River being the principal river. Originating in the Sihawa hills within the district, the Mahanadi is known by various names as it flows through different regions, including Kankannadi, Chitrotpala, Neelotpala, Mandvahini, Jairath, and others. Its tributaries—Seonath, Paury, Sondur, Joan, Kharun, and Shivnath—play a crucial role in the district's agriculture, making the land highly fertile and suitable for paddy cultivation, which is the chief crop of the region.

Dhamtari's geographical setting, with its rivers and fertile plains, supports significant forest cover, particularly in the hilly regions. The forests are primarily tropical deciduous, with a variety of flora and fauna that contribute to the ecological diversity of the area. The district's forests are crucial for maintaining ecological balance, providing timber, fuelwood, and non-timber forest products (NTFPs) that are vital for the livelihoods of the local communities. The forested areas also serve as watersheds for the rivers, helping to regulate water flow and prevent soil erosion, which is essential for sustaining agriculture in the district. The presence of these natural resources has made Dhamtari an important area for both agriculture and forestry within Chhattisgarh. Dhamtari district has a population of 799,781, which is comparable to the population of the nation of Comoros or the U.S. state of South Dakota. This population gives Dhamtari a ranking of 485th among India's 640 districts.

Dhamtari district is administratively divided into three tehsils and blocks: Dhamtari, Kurud, and Nagari. These administrative divisions are central to the governance and development initiatives in the district. The economy of Dhamtari is predominantly agrarian, with paddy being the main crop due to the fertile plains and abundant water resources provided by the Mahanadi River and its tributaries. Dhamtari is culturally rich, with a significant tribal population that has preserved its traditional customs, languages, and practices. The tribal communities in the district, especially in the Sihawa region, have a deep connection with the land and forests, relying on them for both sustenance and cultural identity. The district's high literacy rate and focus on education have also contributed to its socio-economic development, making it one of the more progressive regions in Chhattisgarh.

Division Map



Division Profile

Total Forest area		1485.45, 59 KM
Major forest types and area		ECO - III
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments
1	DhamtariRange, Mobile NO. 7587011511	51
2	KeregaonRange, Mobile NO. 7587011501	74
3	North SingpurRange, Mobile NO. 7587011505	56
4	Nagri Range, Mobile NO. 7587011509	58
5	Sangra Range, Mobile NO. 7587011504	23
6	Birgudi Range, Mobile NO. 7587011502	86
7	DugliRange, Mobile NO. 7587011503	64
8	South SingpurRange, Mobile NO. 7587011507	60
Total No of JFMCs		291
No of projects in APO 2019-2020		97

Category wise sampled strata for Monitoring & Evaluation – DhamtariDivision APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled Sites
1	Civil and construction works	12	3
2	Cleaning of Old Bamboo Plantation	1	0
3	Artificial Regeneration NPV Plantation	8	2
4	Forest/Fire Protection Works	3	1
5	Construction &Maintenance of forest assets High Teck barriers	1	0
6	Up-gradation of Timber Depots	8	2
7	Soil and moisture conservation work	7	2
8	Nursery Upgradation	1	0
9	Development and staff amenities	1	0
10	Silvicultural Operations	54	14
11	RO Office Dugli	1	0
	Total	97	24

Analysis of the Monitoring & Evaluation Observations

The provided data offers detailed insights into the activities conducted under the CAMPA (Compensatory Afforestation Fund Management and Planning Authority) initiative. These activities are categorized by project type, geographical location, and outcomes, showcasing a broad range of conservation and resource management efforts. Below is a comprehensive analysis based on the available information.

1. Civil and Construction Works

The upgradation of forest roads (WBM) across locations such as **Chargaon to Jabarra**, **Jabarra to Kharka**, and **Koliyari to Gattasilli** has significantly improved accessibility. All these projects were completed, indicating satisfactory construction and enhanced road conditions. These upgraded roads facilitate efficient forest patrolling, management activities, and logistics, thereby strengthening overall forest protection efforts.

2. Forest/Fire Protection Works

The construction of a **chain-link enclosure** around **Ram Tekri** for fire protection has been a crucial cultural and ecological intervention. This project is effectively safeguarding the cultural significance of Ram Tekri while protecting the surrounding forest biodiversity from wildfires.

3. Upgradation of Timber Depots

Two critical projects were undertaken: the construction of a **boundary wall** and the **WBM road** at timber depots. Both projects were reflecting satisfactory execution. The boundary wall enhances the security of stored timber, while the WBM road facilitates efficient transportation and management of timber resources, contributing to better operational efficiency.

4. Soil and Moisture Conservation (SMC) Work

SMC efforts at **Ghatiyarin Nala** and **Bendra Nala** aimed at water retention and erosion control demonstrated effective implementation. Ghatiyarin Nala and Bendra Nala were 50 % intact and 50% worn out. These projects enhance the sustainability of forest ecosystems by improving soil fertility, water infiltration, and reducing soil erosion, thus supporting long-term ecological resilience.

5. Silvicultural Operations: Removal of Invasive Alien Species

The removal of invasive species, particularly Lantana, across various compartments was a significant silvicultural intervention. The removal of these invasive species is promoting the growth of native plants, improving biodiversity, and enhancing forest health, contributing to the ecological restoration of the affected areas.

Detailed results of Monitoring & Evaluation for selected sites – Dhamtari Division APO 2019-2020

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Civil and construction works	Upgradation of forest Roads (WBM) (Koliyari to Gattasilli)	N-20°28' 06"	E-81°50. 993"	423	1.5 Km	Good
2	Civil and construction works	Upgradation of forest Roads (WBM) (Chargaon to Jabarra)	N-20°26' 31.00"	E-81°58' 40.10"	335	2 Km	Good
3	Civil and construction works	Upgradation of forest Roads (WBM) (Jabarra to Kharka)	N-20°29' 45.75"	E-81°59' 08.33"	317A, 316	2 Km	Good
4	Forest/Fire Protection Works	Chain link enclosure Ram Tekri	N-20°35' 18.37"	E-81°28' 49.28"	201	1105 RM.	Good
5	Up-gradation of Timber Depots	Boundary Wall	N-20°43' 05.74"	E-81°33' 24.7"	1,2	502 Mtr.	Good
6	Up-gradation of Timber Depots	WBM Road Construction	N-20°42' 57.70"	E-81°33' 17.17"	1,2	1.99 Km	Good
7	Soil and moisture conservation work	SMC Works - (Ghatyan Nala)	N-20°21' 6.12"	E-81°50' 45.75"	465, 466, 467	1 Nos	Excellent
8	Soil and moisture conservation work	SMC Works - (Bendra Nala)	N-20°31' 25.14"	E-81°59' 36.78"	244, 245	1 Nos	Good
9	Silvicultural Operations	Removal of Invasive Alien Species	N-20°40' 06.57"	E-81°42' 35.71"	142	32	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
10	Silvicultural Operations	Removal of Invasive Alien Species	N-20°37' 04.60"	E-81°29' 02.05"	217	275	Good
11	Silvicultural Operations	Removal of Invasive Alien Species	N-20°31' 29.03"	E-81°28' 45.01"	200	20	Good
12	Silvicultural Operations	Removal of Invasive Alien Species	N-20°35' 40.46"	E-81°30' 38.13"	201	300	Good
13	Silvicultural Operations	Removal of Invasive Alien Species	N-20°38' 03.7"	E-81°58' 48.8"	10	50	Good
14	Silvicultural Operations	Removal of Invasive Alien Species	N-20°37' 06.0"	E-81°58' 30.5"	12	75	Good
15	Silvicultural Operations	Removal of Invasive Alien Species	N-20°22' 09.83"	E-81°58' 07.31"	370	50	Optimum
16	Silvicultural Operations	Removal of Invasive Alien Species	N-20°24' 40.41"	E-81°50' 26.37"	290	67.307	Optimum
17	Silvicultural Operations	Removal of Invasive Alien Species	N-20°21' 47.70"	E-81°56' 09.15"	300	50	Good
18	Silvicultural Operations	Removal of Invasive Alien Species	N-20°39' 18.75"	E-81°44' 11.81"	118	28	Optimum
19	Silvicultural Operations	Removal of Invasive Alien Species	N-20°39' 18.75"	E-81°44' 11.81"	443	60	Good
20	Silvicultural Operations	Removal of Invasive Alien Species	N-20°34' 58.32"	E-81°39' 37.60"	154	10	Good

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
21	Silvicultural Operations	Removal of Invasive Alien Species	N-20°38' 25.01"	E-81°39' 54.08"	159	25	Good
22	Silvicultural Operations	Removal of Invasive Alien Species	N-20°23' 13.26"	E-81°49' 29.62"	452	45	Optimum

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
23	Artificial Regeneration NPV Plantation	Riverbank Plantation Mahanadi Donar	N-20°43' 34.06"	E-81°42' 44.62"	Revenue Area	9.220 ha.	86.75%
24	Artificial Regeneration NPV Plantation	Riverbank Plantation Mahanadi Sivnikhurd	N-20°44' 35.81"	E-81°43' 30.13"	Revenue Area	21.000 ha.	89.58%

Gairyaband: Division Assessment

Division Background

Gairyaband District, one of the nine new districts formed in Chhattisgarh, became operational on January 1, 2012, and was ceremonially launched by Chief Minister Dr. Raman Singh on January 11, 2012. Carved out from the Raipur district, Gairyaband has its administrative headquarters in Gairyaband town. The district shares its borders with Dhamtari and Mahasamund districts to the west and north and with the state of Odisha to the south. Covering an area of 5,822.861 square kilometers, Gairyaband is rich in natural resources and has a diverse landscape that includes forests, rivers, and fertile plains.

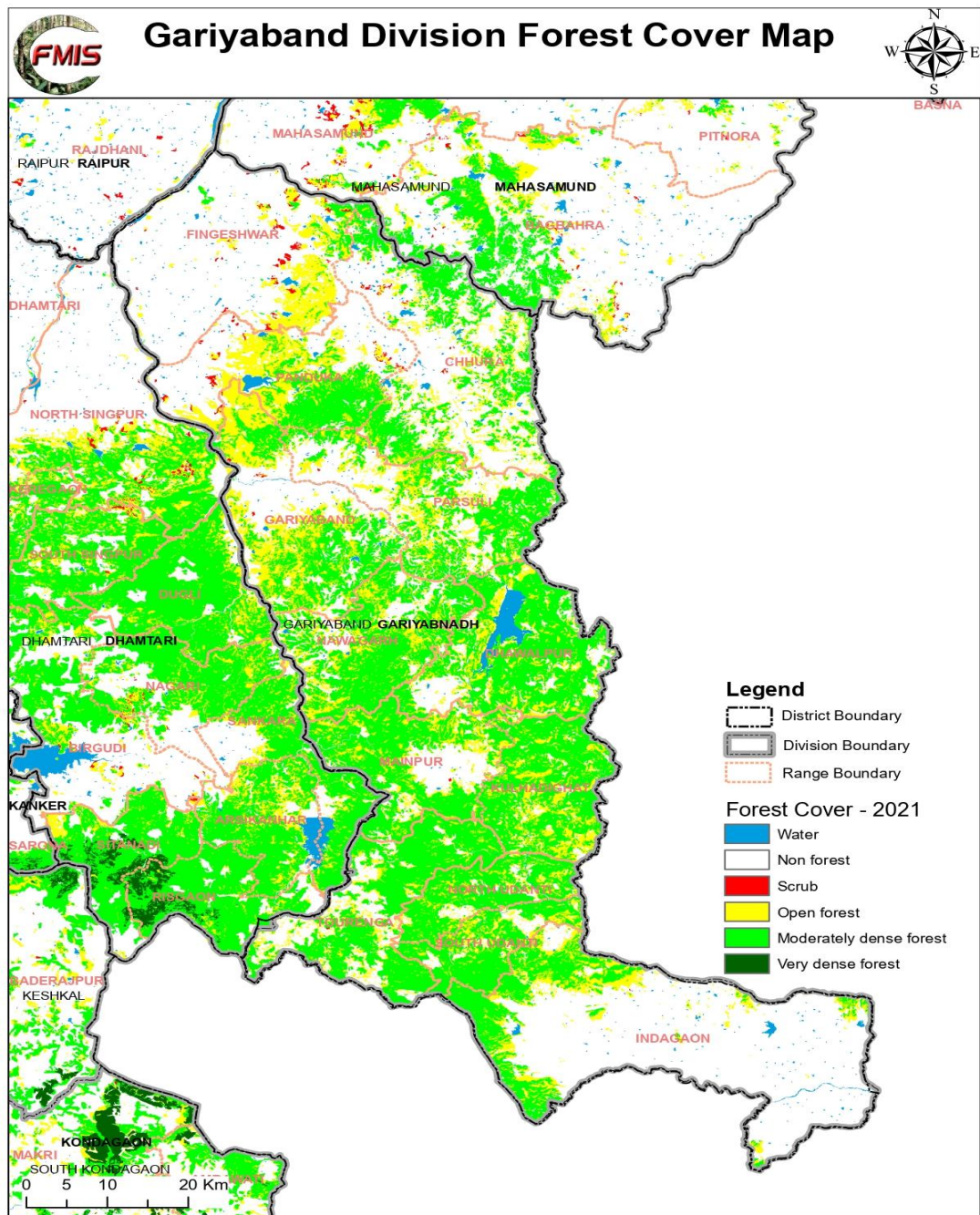
The district is traversed by several rivers, with the "Parry" and "Sodhur" rivers flowing northwards to join at the "Triveni Sangam" in Rajim, a significant pilgrimage center in the region. The Tel River flows along the border with Odisha. Rajim, often referred to as the "Robert," is famous for its religious significance and hosts an annual "Kumbh Mela" from Magh Purnima to Maha Shivaratri, drawing pilgrims from across the state and beyond.

Gairyaband district is divided into five talukas: Gairyaband (726.12 sq.km), Chhura (714.62 sq.km), Mainpur (670.52 sq.km), Devbhog (301.53 sq.km), and Rajim (474.27 sq.km). Each of these talukas contributes to the district's diverse cultural and geographical landscape, with Gairyaband, Chhura, and Mainpur blocks having a significant tribal population.

Gairyaband is known for its extensive forest cover, with the "Gairyaband Forest" spanning 1,951.861 square kilometers. The district is also home to the "Udanti Sitanadi Tiger Reserve," which covers 983.94 square kilometers and is a critical habitat for tigers and other wildlife. These forests are predominantly tropical deciduous, with Sal and Teak being the most common species. The forests play a vital role in the local ecology, providing habitat for diverse wildlife and serving as a crucial resource for the tribal communities who depend on them for their livelihoods.

The confluence of the Parry and Sodhur rivers near the Dhamtari border enhances the region's agricultural potential, supporting both traditional and modern farming practices. The Figenshwar development block, in particular, is noted for its advanced irrigation systems and modern agricultural methods, making it one of the most productive areas in the district.

Division Map



Division Profile

Particulates		Details	
Total Forest area		1604.63 Sq. KM	
Major forest types and area		Mixed Forest	
Sl.No.	Range Name, Address / Telephone Number of Range office		No .of Compartments
1	Gariyaband Range, Mobile No.8827468756		884/3 Khasra No.
2	Dhawalpur Range, Mobile No.9301023871		231/232
3	Fingeshwar Range, Mobile No.7828785905		1050 Khasra no
4	Chhura Range, Mobile No. 8815591096		287 Khasra No.
5	Mainpur Range, Mobile No.9981072591		327 Khasra No.
6	Nawagarh Range, Mobile No. 7067356110		695
7	Panduka Range, Mobile No.9977703353		1452 Khasra No.
8	Parsuli Range, Mobile No.9770035655		368
Total No of JFMCs		08 Range	328
No of projects of APO 2019-20			255

Category wise sampled strata for Monitoring & Evaluation – Gairiyaband Division APO 2019-2020

S.No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantations	9	1
2	Wildlife Habitat Improvement	4	1
3	Silvicultural Operations	80	42
4	Assisted Natural Regeneration works (ANR)	7	1
5	Artificial Regeneration NPV Plantation	91	3
6	Soil and moisture conservation work	5	1
7	Forest/Fire Protection Works	0	4
8	Civil and construction works	59	13
Total		255	66

Analysis of Monitoring & Evaluation of Gariyaband Division Projects

The detailed data from the Gariyaband Division for the APO 2019-2020 highlights the diverse range of CAMPA initiatives, focusing on civil construction, soil and moisture conservation, silvicultural operations, and forest protection works. Key observations include:

1. Civil and Construction Works:

- **Forest Infrastructure Development:** Projects such as upgrading forest roads (WBM), constructing boundary walls, and building residential facilities for forest guards and range officers show significant progress. These projects enhance accessibility, safety, and operational efficiency within the forest division.
- **High-tech Barriers and Chain-Link Fencing:** These structures aim to mitigate human-wildlife conflicts and secure forest boundaries. Success in these areas ensures better habitat protection and reduced encroachments.

2. Soil and Moisture Conservation:

- The SMC works conducted in compartments 609, 611, and 645 are critical for improving water retention and reducing soil erosion. Such efforts contribute to the overall health of the ecosystem and support afforestation activities.

3. Silvicultural Operations:

- **Removal of Invasive Species:** Projects focused on Lantana and Chhind removal cover large areas (e.g., compartments 594, 609, 641). While progress is evident, the long-term sustainability of these efforts requires monitoring to prevent regrowth.
- **Improvement of Growing Stock in Orange Areas:** Efforts to enrich degraded areas with high-value tree species show promising outcomes. These projects are essential for enhancing biodiversity and ecosystem services.

4. Forest and Fire Protection Works:

- Fire line maintenance spanning over 598.74 hectares reduces the risk of wildfires, protecting both wildlife and forest resources.

2. High Success Rate Projects:

- Projects such as unirrigated bamboo plantations, wildlife habitat improvement, oxyvan plantations, and compensatory afforestation consistently report success rates of 95%. This indicates effective planning, execution, and maintenance practices.

Detailed results of Monitoring & Evaluation for selected sites – Gariyaband Division APO 2019-2020

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Civil and construction works	Upgradation of Forest Roads (WBM)	N-20°88' 21.63	E- 82°23' 88.44	170	1 KM	Good
2	Civil and construction works	Upgradation of Forest Roads (WBM)	N-20.90 7175	E -82.24 0016	170	2.341 KM	Good
3	Civil and construction works	Causeway/Culvert	N- 20° 43'8"	E- 82° 02'18	534, 524	1	Good
4	Civil and construction works	Causeway/Culvert	N- 20° 43'9"	E- 82° 01'56"	534, 524	1	Good
5	Forest/Fire Protection Works	Chain Link Fencing Work	N20° 58'5.03"	E- 82° 0'21.34"	4	850 RM	Optimum
6	Forest/Fire Protection Works	Chain Link Fencing Work	N-20°36' 39.35"	E- 82° 5'3.75"	577	5700 RM	Optimum
7	Civil and construction works	Hi Tech Barrier,	N- 20°80' 40.48	E- 82°33' 53.89	Revenue Land	1	Good
8	Civil and construction works	Boundary wall	N- 20° 37'46"	E- 82° 3'51"	Revenue Land	900 RM	Good
9	Civil and construction works	Forest Gaurd Residency	N- 20° 40'1"	E- 082°18'14"	Revenue Land	501.93 Sq Ft.	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
10	Civil and construction works	Forest Range Officer Residence	N- 20° 41'19.0"	E- 082° 07'45.0"	368	2300.00 Sq. Ft.	Good
11	Civil and construction works	Forest Guard Residence	N- 20.54 19255	E- 82.14 03746	-	300 Sq. Ft.	Good
12	Civil and construction works	Forest Guard Residence	N 20° 58'43.9"	E 82°03' 59.3"	Revenue Land	436 Sq. Ft.	Good
13	Civil and construction works	Forest Guard Residence	20°57' 13.96"N	81°53' 49.53"E	Revenue Land	436 Sq. Ft.	Good
14	Civil and construction works	Residential Building	N- 20° 37'33"	E-82° 08'58"	-	600. Sq. Ft.	Good
15	Civil and construction works	RA Residential Building	N- 20° 37'46"	E- 82° 3'51"	-	1000 Sq.Ft.	Good
16	Soil and moisture conservation work	SMC Works	N-20°57' 27.30	E- 82°14' 18.37	609, 611, 645	1	Good
17	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N20°33' 5.90"	E-82° 8' 10.94"	611	65	Good
18	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N-20°43' 42.82"	E-82°2' 42.75"	524	75	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
19	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N-20°44' 32.15"	E-82°1' 11.39"	526	100	Good
20	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N-20°34' 11.05"	E-82° 8'16.56"	609	100	Good
21	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N-20°36' 24.73"	E-82° 9'0.05"	597	80	Good
22	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N-20°29' 13.71"	E-82° 7'53.53"	641	50	Good
23	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N-20°36' 56.25"	E 82°8' 16.32"	594	80	Good
24	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°36' 45.15"N,	82°10' 33.72"E	599	60	Good
25	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°35' 33.40"	E- 82° 1'23.27"	555	50	Good
26	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20°35' 44.34"	E- 82° 8'18.24"	591	28	Good
27	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20°35' 41.17"	E- 82° 8'58.75"	608	18	Good
28	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°43' 17.00"N	82°5' 58.00"E	136	79	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
29	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°44' 59.47"N	82°6' 42.99"E	133	115	Good
30	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°43' 50.02"N	82°8' 46.01"E	140	81	Good
31	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	N- 20°45' 18.63"	E- 82°6' 53.04"	132	77	Good
32	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°44' 49.56"N	82° 5'29.72"E	134	158	Good
33	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°44' 32.81"N	81°57' 11.79"E	63	77	Good
34	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°50' 6.59"N	82°2' 48.44"E	81	209	Good
35	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°50' 39.12"N	82°3' 36.25"E	85	65	Good
36	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°47' 54.37"N	E- 82°6' 41.28"	111	104	Good
37	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°47' 16.11"N	82°8' 53.19"E	145	88	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
38	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°47' 51.72"N	82°8' 21.14"E	108	107	Good
39	Silvicultural Operations	Removal of invasive alien species- Lantana & Chhind Unmulan Work	20°46' 58.41"N	82°6' 49.08"E	110	61	Good
40	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°44' 58.74"N	81°57' 8.49"E	68	25	Good
41	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°45' 24.50"N	81°59' 20.03"E	70	49	Good
42	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°44' 49.22"N	82°3' 44.27"E	123	78	Good
43	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20° 51'1.62"	E-82°7' 44.06"	93	49	Good
44	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°58' 38.01"N	82°09' 19.02"E	281	33.97	Good
45	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°45' 55.00"N	82°18' 54.00"E	270	50.21	Good
46	Silvicultural Operations	Improvement of Growing Stock in orange Area	N- 20°75' 65.32"	E-82°29' 39.68"	277	42.75	Good
47	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°44' 49.00"N	82°16' 43.00"E	274	37.41	Good
48	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°43' 15.00"N	82°16' 35.00"E	297	22.98	Good
49	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20°87' 98.48"	E- 82°19' 89.27"	195	38.53	Good
50	Silvicultural Operations	Improvement of Growing Stock in orange Area	N- 20°79' 35.98"	E- 82°28' 00.74"	250	25.5	Good

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
51	Silvicultural Operations	Improvement of Growing Stock in orange Area	N- 20°83' 43.69"	E-82°33' 21.33"	261	83.73	Good
52	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20°86' 25.17"	E-82°26' 73.26"	210	43.82	Good
53	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20°88' 39.31"	E-82°28' 55.58"	186	118.26	Good
54	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°44' 54.00"N	82°19' 56.00"E	283	49.71	Good
55	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°45' 57.00"N	82°12' 5.00"E	238	40	Good
56	Silvicultural Operations	Improvement of Growing Stock in orange Area	N-20°88' 07.46"	E-82°24' 98.5"	190	90	Good
57	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°58' 38.01"N	82°09' 19.02"E	153	90	Good
58	Silvicultural Operations	Improvement of Growing Stock in orange Area	20°39' 07.3"N	82°08' 54.2"E	460	50	Good
59	Forest/Fire Protection Works	Fire Line	20°41' 49.52"N	82°8'5. 37"E	368, 471, 470, 12 Parisar	365.3	Optimum
60	Forest/Fire Protection Works	Fire Line	20°47' 52.83"N	82°1' 24.90"E	91, 140, 102, 146, 119, 100, 17 Parisar	233.44	Optimum

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
61	Artificial Regeneration NPV	Unirrigated Bamboo Plantation	N- 20° 23'15"	E - 82° 15'09"	863	10 Hact	95%
62	Wildlife Habitat Improvement	Plantation in Wildlife habitat	20°58' 40.09"N	82°4' 30.95"E	05 & 09	40 Hact.	95%
63	Assisted Natural Regeneration works (ANR)	Bans Bhirra Cleaning Work	N- 20° 37'36"	E- 82 ° 07'47"	595	50	95%
64	Compensatory Afforestation Plantations	Compensatory Afforestation Plantation	N- 20.70 6343	E- 81.99 0441	530	1.67 Hect.	95%
65	Artificial Regeneration NPV	Oxyvan Plantation	20°56' 25.01"N	82°09' 13.2"E	157	15	95%
66	Artificial Regeneration NPV	Oxyvan Plantation	20°44' 32.81"N	81°57' 11.79"E	63	5	95%

Mahasamund: Division Assessment

Division Background

Mahasamund is a district located in the central-eastern part of Chhattisgarh, India, with the city of Mahasamund serving as its district headquarters. The district is particularly renowned for the historical temple town of Sirpur, which is situated along the banks of the Mahanadi River. Mahasamund district covers an area of approximately 4,790 square kilometers and lies between the coordinates 20°47' to 21°31'30" latitude and 82°00' to 83°15'45" longitude. The district is bordered by Raigarh and Baloda Bazar districts to the north, Bargarh and Nuapada districts of Odisha to the south, and Gariaband and Raipur districts to the west.

The geological makeup of Mahasamund is diverse, featuring granite rocks in regions such as Bagbakra, Basna, and Pithora. The district predominantly consists of limestone, part of the Chhattisgarh group, which is contemporary with the Cuddapah group of the Upper Pre-Cambrian age. These geological formations include layers of limestone, shale, sandstone, or quartzite. Additionally, the district has deposits of neo-granite, dolerite, and quartz in intrusive forms. This rich geological diversity presents significant potential for mining activities, particularly in limestone and granite extraction.

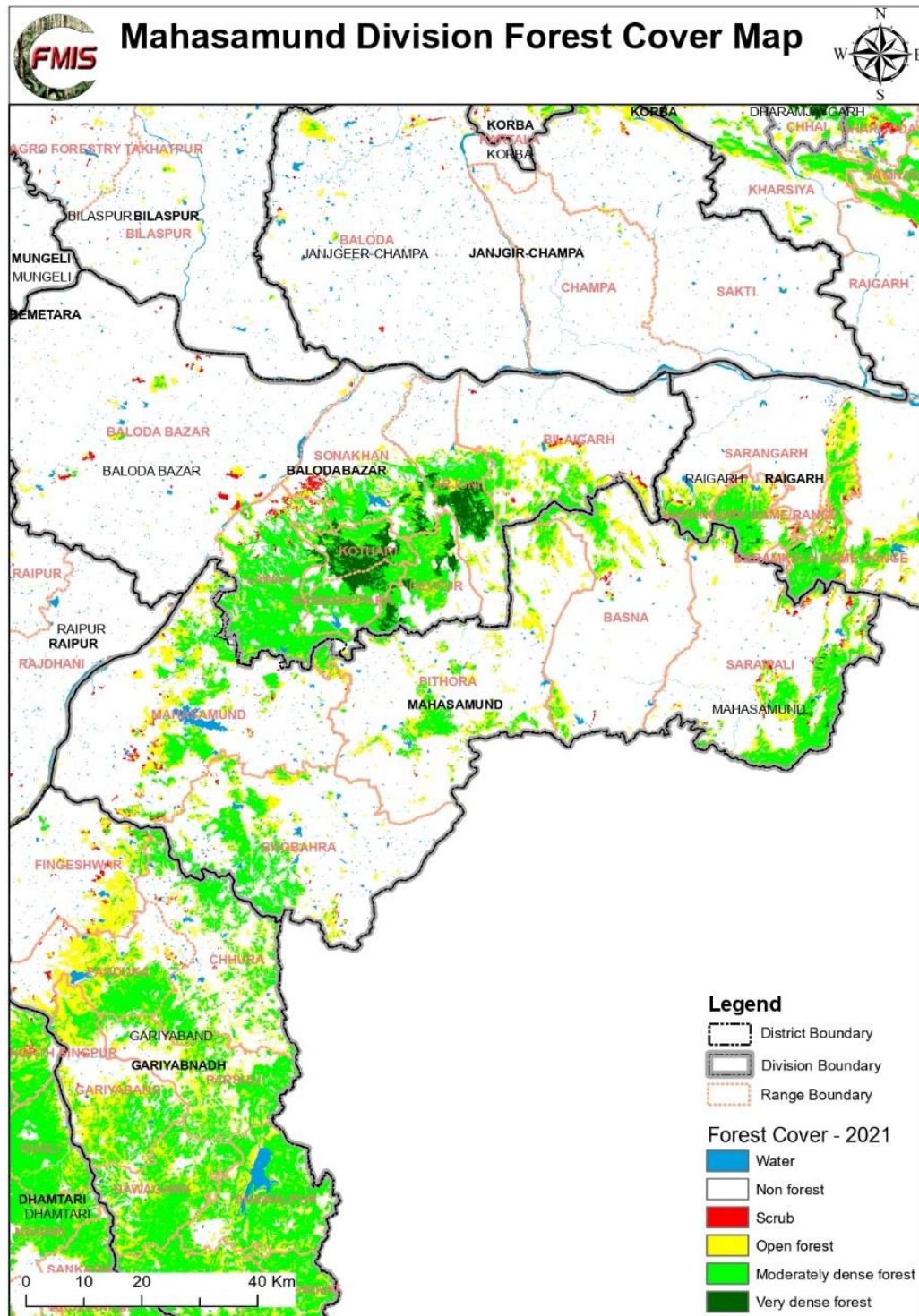
Mahasamund is home to Sirpur, an ancient town that was once a major center of trade and religion. Sirpur's historical significance is marked by its numerous temples, monasteries, and archaeological sites that date back to the 6th to 10th centuries. The town has been an important site for both Hindu and Buddhist pilgrims and continues to attract visitors and researchers interested in its cultural heritage.

According to the 2011 Census, Mahasamund district has a population of 1,032,754, which is roughly equivalent to the population of Cyprus or the U.S. state of Rhode Island. This population gives the district a ranking of 438th in India out of a total of 640 districts. The population density in Mahasamund is 216 inhabitants per square kilometer (560 per square mile), and the district experienced a population growth rate of 20% between 2001 and 2011.

The district also has a growing focus on small-scale industries, particularly those related to agro-processing, handicrafts, and forest products. The presence of significant forest cover in the district provides a source of non-timber forest products (NTFPs) that are essential for the livelihoods of the local tribal communities.

Mahasamund is a culturally vibrant district with a rich heritage reflected in its festivals, rituals, and traditional practices. The tribal communities, in particular, play a significant role in the cultural life of the district, with their customs and traditions deeply rooted in the region's history and environment. The district's religious and cultural significance is also highlighted by the annual festivals and fairs held in Sirpur and other parts of the district, which draw visitors from across the state and beyond.

Division Map



Division Profile

Particulates		Details	
Total Forest area		1604.63 Sq. KM	
Major forest types and area		Mixed Forest	
Sl.No.	Range Name, Address / Telephone Number of Range office		No .of Compartments
1	Mahasamund, RO Office Baronda Chowk Mahasamund/-		90
2	Bagbahara, RO Office Main Road Durga Mandir ke Pas Bagbahara/ -		152
3	Pithora, RO Office Pithora / 07707296780		106
4	Basna, RO Office Old Main Road Basna /		47
5	Saraipali, RO Office Saraipali /9131279327		131
Total No of JFMCs		410	
No of projects in APO 2019-20			160

Category wise sampled strata for Monitoring & Evaluation – Mahasamund Division APO 2019-2020

S.No.	Category of Projects	Total no. of projects	Sampled Sites
1	Upgradation of Timber Depot	2	1
2	Soil and moisture conservation work	8	3
3	Compensatory Afforestation Plantations	78	16
4	Assisted Natural Regeneration work (ANR)	30	7
5	Civil and construction works	6	3
6	Silvicultural operations	15	4
7	NPV Plantation	15	5
8	Development of Staff amenities in Forest Colony	1	1
9	Forest/Fire Protection Works	5	3
Total		160	43

Analysis

I. Success Rates and Variability in Outcomes:

- **High Success in ANR Projects:** Assisted Natural Regeneration (ANR) consistently achieved a success rate of 95%. This is a testament to the effectiveness of natural processes like seed dispersal and regeneration when combined with minimal human intervention. The large area under ANR treatment (up to 265 hectares in some sites) also demonstrates its scalability. However, long-term success will depend on continued protection against threats like grazing, fires, and invasive species.
- **Moderate Performance in NPV Plantations:** Non-compensatory plantations (NPV) showed variability, with success rates ranging from 78% to 89%. This suggests that certain factors, such as species suitability, soil conditions, or maintenance practices, may not have been uniform across sites. For instance, bamboo plantations recorded an 89% success rate, indicating that species selection aligned well with local conditions at those sites.
- **Decline in Success Rates for Older Plantations:** Maintenance efforts for plantations in their 4th or 5th year showed a slight dip in success rates (81%-88%), compared to first-year compensatory afforestation projects (95%). This reflects challenges in sustaining plant growth over time, possibly due to inadequate maintenance, reduced soil fertility, or external pressures like browsing and pests.

II. Ecological Impact of Soil and Moisture Conservation (SMC):

- The SMC works at Karmel Nala is showcasing the project's ability to significantly enhance soil stability and water retention. This is vital for improving plantation survival and downstream agricultural productivity.
- At Dongapani Nala and Sampbill Nala, has the opportunities exist to refine designs, such as introducing vegetative bunds or additional check dams, to achieve better results. These projects have the potential to play a critical role in combating soil erosion, improving water tables, and supporting biodiversity in forested and adjacent agricultural areas.

III. Infrastructure Development and Its Influence on Operations:

- Projects such as the upgradation of forest roads and staff amenities have improved logistics and morale within forest divisions. Well-maintained roads enhance accessibility to remote forest areas, facilitating timely monitoring, fire management, and the transport of resources.
- The upgrade of timber depots and development of high-tech barriers highlights a focus on efficiency and security in forest product management. These upgrades not only contribute to operational effectiveness but also support revenue generation through better timber storage and handling.

IV. Forest/Fire Protection Measures:

- The deployment of fire watchers and strike force vehicles indicates a proactive approach to preventing and responding to forest fires. However, the absence of quantitative data on fire incidents, response times, or area saved limits the ability to assess the full impact of these measures.
- A more robust fire prevention strategy, incorporating fire breaks, community-based patrols, and satellite-based fire alerts, could enhance current efforts. Additionally, better data collection could help identify high-risk zones and allocate resources more effectively.

V. Challenges in Invasive Species Management:

- The qualitative assessment is good for the removal of invasive species reflects initial progress but highlights the need for a more structured, data-driven approach. Invasive species like *Lantana camara* and *Prosopis juliflora* are known to outcompete native species, reduce biodiversity, and degrade soil quality.
- The current operations may benefit from integrating biological control agents and advanced mapping tools to identify and prioritize areas for invasive species removal. Long-term monitoring will be critical to ensure that cleared areas remain free of invasive regrowth.

VI. Community Participation and Stakeholder Involvement:

- The report does not provide detailed insights into the involvement of local communities in project implementation or maintenance. Engaging local stakeholders is critical, especially for activities like protecting plantations, managing natural regeneration sites, and removing invasive species.
- Without active community participation, there is a risk of plantations being degraded due to human-induced pressures such as illegal logging or overgrazing. Incorporating community co-management models could ensure the sustainability of these projects while providing socio-economic benefits to local populations.

VII. Monitoring and Evaluation Practices:

- Incorporating modern tools like remote sensing, GIS mapping, and drone surveys could revolutionize monitoring practices by enabling real-time tracking of project outcomes. Additionally, establishing benchmarks for various project categories would help evaluate success more objectively.

VIII. Economic and Environmental Sustainability:

- The integration of bamboo plantations into afforestation efforts shows potential for economic sustainability. Bamboo not only provides ecological benefits like soil stabilization but also offers commercial value, making it an ideal candidate for agroforestry systems.

- ANR projects are an example of cost-effective ecological restoration, but their success depends on safeguarding the regenerating forests from external threats, including human activities and climate variability.

IX. Cross-Project Synergies:

- A notable strength of the division's efforts is the synergy between projects. For instance, SMC works directly support plantation success by improving soil moisture and reducing erosion. Similarly, road upgrades enhance access to remote plantations and ANR sites, enabling better maintenance and monitoring.

Detailed results of Monitoring & Evaluation for selected sites – Mahasamund Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Artificial Regeneration NPV	(Non-CA) 2nd year plantation	21.4' 53"N	82.33' 59" E	206	50.45 HA	78%
2	Artificial Regeneration NPV	(Non-CA) 2nd year plantation	21.7' 18"N	82.26' 60" E	211	55.893	86%
3	Artificial Regeneration NPV	(Non-CA) 2nd year plantation	21.09 7529N	82.57 5554 E	207	28.548	84%
4	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 1st year	21.33 8263 N	82.74 1488 E	264 B	30 HA	95%
5	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 1st year	21.48 2113 N	82.74 2323 E	275 B	25.36 HA	95%
6	Compensatory Afforestation Plantations	Compensatory Afforestation 1st year maintenance	21.08 4812N	82.34 1863 E	191	14	94%
7	Compensatory Afforestation Plantations	Compensatory Afforestation 5th year maintenance	21.21 8057 N	82.31 668 E	38	20	84%
8	Compensatory Afforestation Plantations	Compensatory Afforestation 4th year maintenance	21°05' 56"N	82°08' 57"E	65	14.77	88%
9	Compensatory Afforestation Plantations	Compensatory Afforestation 4th year maintenance	21°6' 14.09"N	82°20' 29.38"E	190(721)	62.5	83%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
10	Compensatory Afforestation Plantations	Compensatory Afforestation 4 th year maintenance	21°5' 10.07"N	82°20' 20.68"E	191	50	86%
11	Compensatory Afforestation Plantations	Compensatory Afforestation 4 th year maintenance	21°6' 37.16"N	82°21' 4.26"E	194	50	83%
12	Compensatory Afforestation Plantations	Compensatory Afforestation 4 th year maintenance	21°6' 3.85"N	82°22' 56.04"E	196	100	83%
13	Compensatory Afforestation Plantations	Compensatory Afforestation 4 th year maintenance	20°58' 58.00"N	82°26' 23.00"E	470	20	83%
14	Compensatory Afforestation Plantations	Compensatory Afforestation 5 th year maintenance	21.27 2112 N	82.14 8863 E	13	10	81%
15	Compensatory Afforestation Plantations	Compensatory Afforestation 5 th year maintenance	21.18 6913 N	82.13 5608 E	23	10	88%
16	Assisted natural regeneration work	Assisted natural regeneration	21. 201'N	82. 44'17 E	264	159.2	95%
17	Assisted natural regeneration work	Assisted natural regeneration	21.16 2463N	82.56 9576 E	221	160	95%
18	Artificial Regeneration NPV	Bamboo plantations	21025' 20" N	82056' 22" E	338	20	89%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
19	Compensatory Afforestation Plantations	Compensatory Afforestation 4th year maintenance	21°24' 55" N	82°50' 36" E	303	50	91%
20	Compensatory Afforestation Plantations	Compensatory Afforestation 4th year maintenance	21. 26'35" N	82. 58'43"	336	50	92%
21	Assisted natural regeneration work	Assisted natural regeneration	21.024' 39" N	82.050' 04" E	317, 321	140.35	95%
22	Assisted natural regeneration work	Assisted natural regeneration	21.028' 28" N	82.050' 19" E	321	131.64	95%
23	Artificial Regeneration NPV	Bamboo plantations	21. 022'12"	83.011' 6" E	427	40	91%
24	Compensatory Afforestation Plantations	Compensatory Afforestation 4th year maintenance	21 012'2" N	82 057'25"	344	25	89%
25	Compensatory Afforestation Plantations	Compensatory Afforestation 4th year maintenance	21°12' 48" N	82°57' 50" E	344 B	12.396	88%
26	Assisted natural regeneration work	Assisted natural regeneration	21.011' 33" N	83.010' 02" E	401	151.44	95%
27	Assisted natural regeneration work	Assisted natural regeneration	21°16' 07" N	83°11' 21" E	415	265.27	95%
28	Assisted natural regeneration work	Assisted natural regeneration	21°8' 50" N	83°9' 11" E	419	214.55	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
29	Upgradation of Timber Depot	Upgradation of Timber Depot part ii – Boundry wall	21.28 7426N	82.51 606E	Pithora Depot part ii comp.no 245	960Rmt	Good
30	Soil and moisture conservation work	SMC Works - Karmel Nala	21.48 4923N	82.73 1754E	270, 271, 272, 275, 278	871	Excellent
31	Soil and moisture conservation work	SMC Works - Dongapani Nala	21°12' 51" N	83°12' 14" E	404, 405, 409	532	Good
32	Soil and moisture conservation work	SMC Works - Sampbill Nala	21°30' 26" N	82° 45' 29"	311	394	Good
33	Civil and construction works	High tech barrier building (Surangi Nala)	21°12' 12" N	82°51' 5" E	Basna Range	1 (454sqft)	Good
34	Civil and construction works	Upgradation of forest Roads (WBM) Charoda to khuteri	20°59' 30.57"N	82°14' 30.84"E	Bagbahara range comp.no 180	2KM	Good
35	Civil and construction works	Upgradation of forest Roads (WBM) Kandijhar to Bhaluchunwa	20.98 7882N	82.36 2835E	Bagbahara range comp.no 126,127	1KM	Good
36	Development of Staff amenities in Forest Colony	Basic infrastructure facilities in forest staff colonies	21°6'7. 08"N	82°4'52. 19"E	Division office campus Mahasamund	1(1000)	Good
37	Forest/Fire Protection Works	Fire Watchers	21°15' 9.99"N	82°31' 2.47"E	Pithora range	25	Good
38	Forest/Fire Protection Works	Strike Force Vehicles (CG 02 F 0038)	21.27 8770 N	82.82 1537 E	Basna	1	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
39	Forest/Fire Protection Works	Strike Force Vehicles (CG 02 F 0043)	21.10 4569N	82.09 427 E	Mahasamund	1	Good
40	Silvicultural operations	Removal of Invasive Alien Species (First Year)	21.01 6423 N	82.33 718 E	130	78	Good
41	Silvicultural operations	Removal of Invasive Alien Species (First Year)	21° 7'3"N	82°27' 45"E	198	80	Good
42	Silvicultural operations	Removal of Invasive Alien Species (First Year)	20.57' 45 N	82.11' 25 E	92	50	Good
43	Silvicultural operations	Removal of Invasive Alien Species (First Year)	21.09 2688 N	82.37 4156 E	195	90	Good

Raipur: Division Assessment

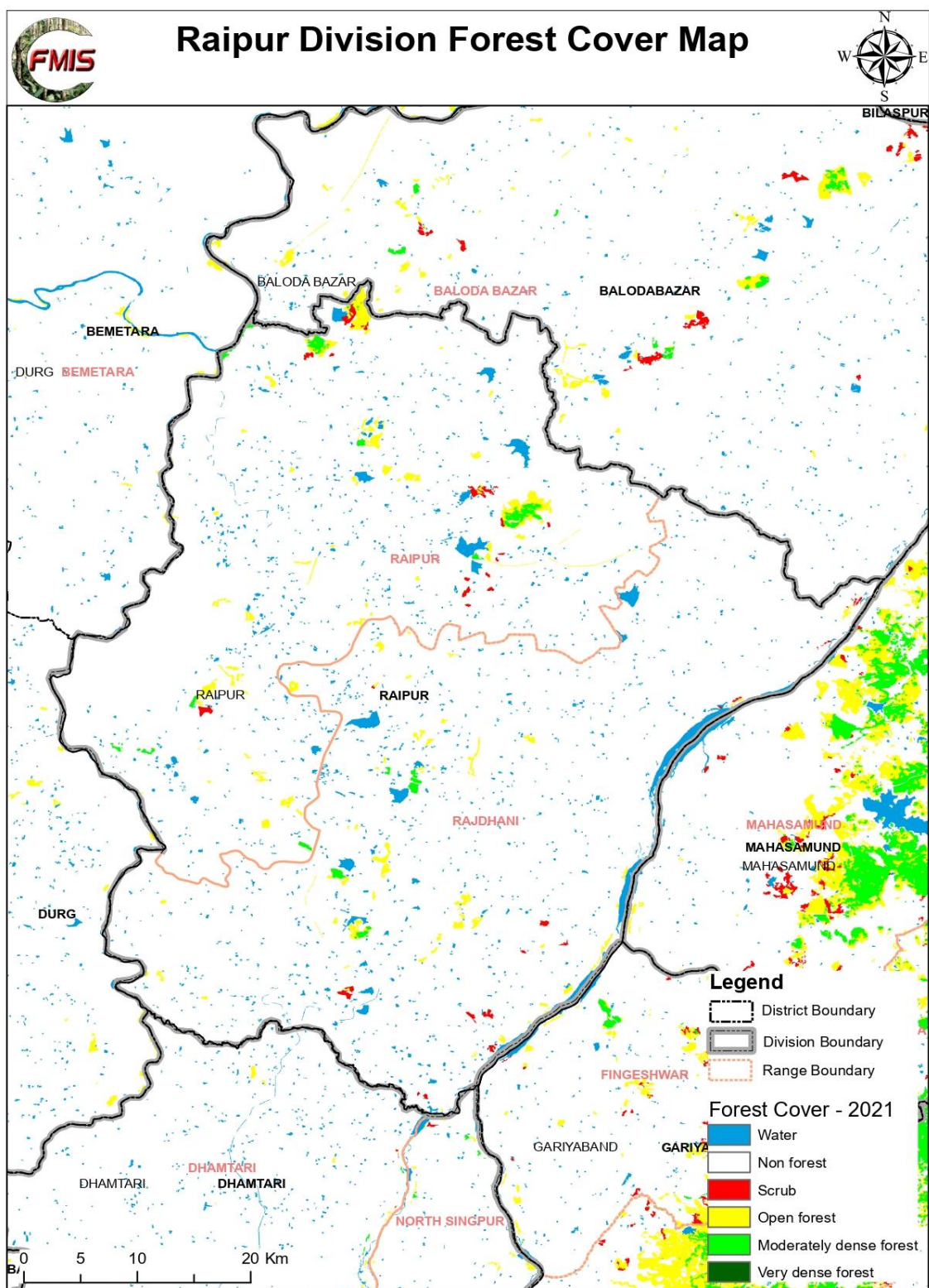
Division Background

Raipur Forest Division is located in the central part of Chhattisgarh, encompassing the area around the state capital, Raipur. Geographically, the division is situated between latitudes 21.14°N to 21.50°N and longitudes 81.32°E to 81.75°E. The division is characterized by a diverse landscape that includes flat plains, gentle undulations, and patches of tropical deciduous forests. These geographical features contribute to the ecological diversity of the region and play a crucial role in supporting the local flora and fauna. Raipur is located near the centre of a large plain, sometimes referred to as the "rice bowl of India", where hundreds of varieties of rice are grown. The Mahanadi River flows to the east of the city of Raipur, and the southern side has dense forests. The Maikal Hills rise on the north-west of Raipur; on the north, the land rises and merges with the Chota Nagpur Plateau, which extends north-east across Jharkhand state. On the south of Raipur lies the Deccan Plateau.

Raipur has a tropical wet and dry climate, with temperatures remaining moderate throughout the year except during the summer months from March to June, which can be extremely hot. During April and May, temperatures sometimes rise above 48°C (118°F), and these months are also characterized by dry and hot winds. The city receives approximately 1,300 millimeters (51 inches) of rainfall, mostly during the monsoon season from late June to early October. Winters, which last from November to January, are mild, with temperatures occasionally dropping to around 5°C (41°F), making it reasonably cold during this period.

The landscape is predominantly flat, which is typical of the Chhattisgarh Plains, and is interspersed with rivers and streams that play a crucial role in the region's agriculture and water management. The forested areas within the Raipur Forest Division are primarily composed of species such as sal, teak, and bamboo, along with other indigenous flora that thrive in the tropical deciduous forest type. These forests, though fragmented due to urbanization and agricultural expansion, still play an important role in maintaining local biodiversity and providing ecological services such as soil conservation and groundwater recharge. Raipur's climate is tropical, with a distinct monsoon season that brings the majority of the annual rainfall, essential for sustaining both the natural vegetation and the agricultural practices in the region. The dry season, which follows the monsoon, can be prolonged and often necessitates careful water management to support both the forests and agricultural lands.

Division Map

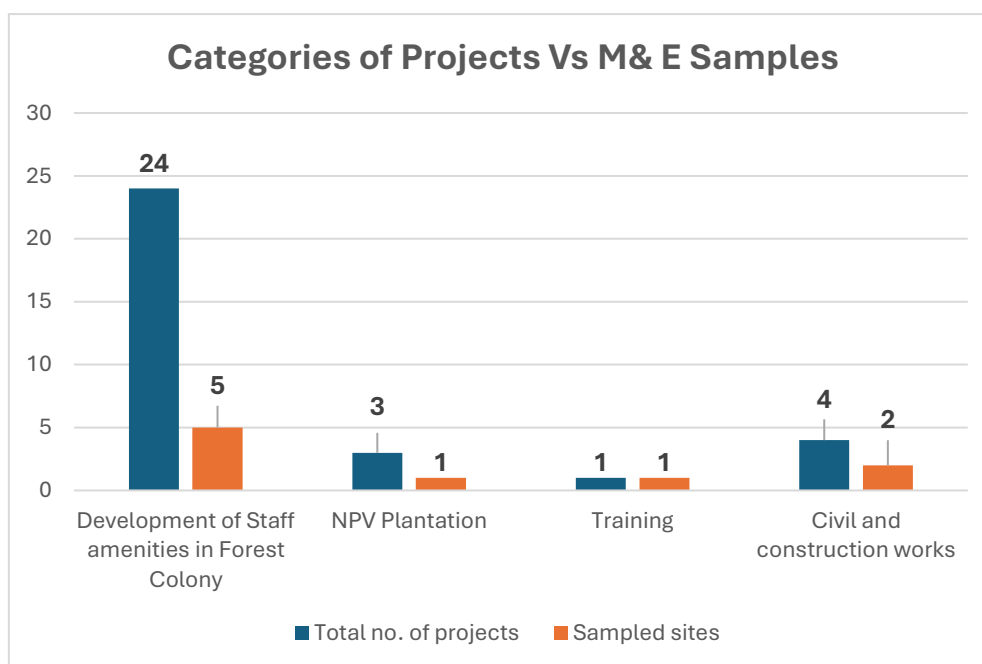


Division Profile

Particulars	Details	
Total Forest Area	2400 Hac.	
Major Forest types and area	500 Hac. (RF)	
SNo	Range Name/ Telephone number	No. of compartments
1	RO Raipur, Pandri, Raipur, Contact no. 94252-02858	12
2	RO Nawa Raipur, Rajatalab, Raipur Contact no. 999771-26952	25
3	Forest Ranger, Research and Extension Officer, Raipur, Pandri Contact no. 75870-11601	11
4	Forest Extension Officer, Rajim Unit, Raipur, Contact no. 75870-11601	2
5	Forest Extension Officer, Mahasamund, Unit, Contact no. 76470-78780	0
6	Forest Extension Officer, Raipur Unit, Pandri, Contact no. 75870-11601	1
7	Forest Extension Officer, Kasdol Unit, Contact no. 75870-11601	2
8	Forest Extension Officer, Saraipali Unit, Contact no. 76470-78780	0
No. of Projects in APO 2019-2020		32

Category wise sampled strata for Monitoring & Evaluation – Raipur Division APO 2019-2020

Sl. No.	Category of Projects	Total no. of projects	Sampled sites
1	Development of Staff amenities in Forest Colony	24	5
2	Artificial Regeneration NPV Plantation	3	1
3	Training	1	1
4	Civil and construction works	4	2
Total		32	9



Analysis of CAMPA Projects in Raipur Division (2019-2020)

The CAMPA (Compensatory Afforestation Fund Management and Planning Authority) projects in the Raipur Division for 2019-2020 emphasize infrastructure development, staff amenities, training, and afforestation efforts. These projects reflect a strategic approach to improving forest management while addressing the needs of forest personnel and supporting ecological restoration.

- Under the **Development of Staff Amenities in Forest Colonies**, several key projects were executed. These included the construction of a sump with pump fitting and a water supply pipeline at Pandri, as well as a 50 KL overhead water tank at Kalibadi. Additionally, residential complexes were constructed at Mana and Tilda. These projects, ranging in size from 1314.10 sq. ft. to 5005.21 sq. ft., were rated "Good," with the Mana housing project achieving a "Very Good" rating. These initiatives significantly improved living conditions for forest staff, ensuring better operational efficiency and long-term staff retention.
- **Civil and Construction Works** focused on building Forest Guard and Forester residences in Abhanpur, covering 6956.50 sq. ft. and 10,749.05 sq. ft., respectively. Both projects received "Good" ratings, highlighting their satisfactory implementation. These residences provide essential facilities for frontline forest personnel, enhancing their readiness for patrolling and management activities, which are vital for effective forest conservation.
- **One Training and Capacity Building** session was conducted to enhance awareness, publicity, and the formulation of CAMPA works. Rated "Good," this initiative contributed to improving stakeholders' understanding of CAMPA objectives. However, the limited scale of training suggests opportunities for expansion to maximize its impact on forest management practices.
- **The Afforestation Project** involved riverbank plantation at Koliyari "A," Compartment No. 80, covering 15 hectares. This project achieved a remarkable **95% survival rate**, demonstrating excellent management and care. It contributed significantly to riverbank stabilization, soil erosion prevention, and biodiversity conservation, serving as a model for similar ecological restoration efforts.

Key Observations

The infrastructure development projects showcased a strong commitment to improving the working conditions of forest personnel, with high-quality execution evident in their qualitative assessments. The afforestation initiative achieved exceptional success, highlighting the division's expertise in ecological restoration. However, the limited scale of training initiatives indicates the need for broader capacity-building efforts.

Detailed results of Monitoring & Evaluation for selected sites – Raipur Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Development of Staff amenities in Forest Colony	Basic Infrastructure Facilities in Forest Staff colonies, Pandri- Construction of Sump with Pump fitting Complete- Pandri	21.25 2284°N	81.65 0809°E	Shaskiya Awasiya Parisar, Pandri	1368.84 sq ft	Good
2	Development of Staff amenities in Forest Colony	Pandri- Water Supply Pipe Line Work	21.25 2378°N	81.65 0526°E	Shaskiya Awasiya Parisar, Pandri	5005.21 sq ft	Good
3	Development of Staff amenities in Forest Colony	Kalibadi- Construction of 50 KL Overhead Water Tank with Accessories	21.23 4084°N	81.63 9101°E	Shaskiya Awasiya Parisar, Kalibadi	4299.63 sq ft	Good
4	Development of Staff amenities in Forest Colony	Boundary Wall	21.16 2621°N	81.73 2696°E	Shaskiya Awasiya Parisar, Mana	2821.41 sq ft	Very Good
5	Development of Staff amenities in Forest Colony	Boundary Wall	21.54 7648°N	81.79 8197°E	Shaskiya Awasiya Parisar, Mana	1314.10 sq ft	Good
6	Civil and construction works	Forest Guard Residence Building- Abhanpur	21°3' 35.93"N	81°44' 57.41"E	Shaskiya Awasiya Parisar, Abhanpur	6956.50002 sq ft	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
7	Civil and construction works	Forester Residence Building- Abhanpur	21°3' 36.43"N	81°44' 57.47"E	Shaskiya Awasiya Parisar, Abhanpur	10749.0562 sq ft	Good
8	Training	Capacity Building (Awareness) Training/workshop Awareness, Publicity, Project formulation of CAMPA works	-	-	-	01 Nos.	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
9	Artificial Regeneration NPV Plantation	Riverbank Plantation- Koliyari "A" Compt No. 80	20.99 9763°N	81.89 0970°E	Compt No. 80	15 Ha.	95%

Kanker Circle

East Bhanupratappur: Division Assessment

Division Background

East Bhanupratappur is a town located within the Kanker Forest Circle in Chhattisgarh, India. The town, which derives its name from King Bhanupratap Dev, the last ruler of the erstwhile Kanker princely state, was established in his memory. Geographically, East Bhanupratappur lies at approximately 20°06'42.0" North latitude and 81.071930° East longitude, covering a total area of 2,043.12 square kilometers. The region is characterized by its mixed forests, with dominant species including Sal and Teak, contributing to the rich biodiversity of the area.

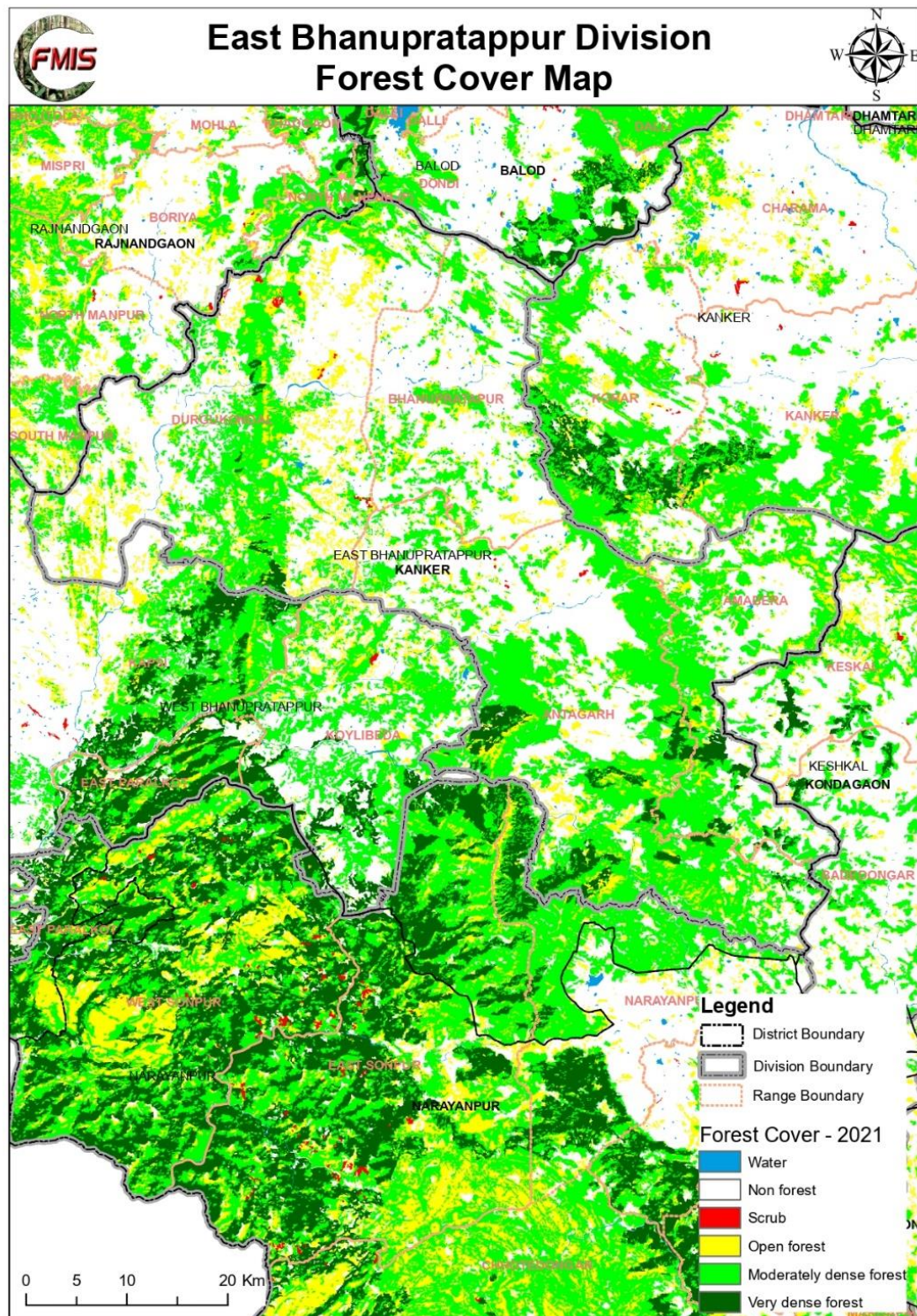
The town is surrounded by Rajnandgaon to the north and west, Narayanpur Forest Circle to the south, and Maharashtra State to the west. This strategic location places East Bhanupratappur within a critical ecological zone that connects various forested regions, making it an essential area for conservation and sustainable forest management. The town is situated 190 kilometers from Raipur, the state capital, making it accessible yet relatively remote, maintaining its natural landscape.

East Bhanupratappur experiences a tropical climate, with mean annual temperatures ranging from a minimum of 19.07°C to a maximum of 31.53°C. The area receives significant rainfall during the monsoon season, which sustains its dense forest cover and supports the agricultural activities of the local population.

Forest division in East Bhanupratappur encompasses mixed forests, with a prevalence of Sal and Teak. These forests play a crucial role in the local ecosystem, providing habitat for various species of wildlife and contributing to the ecological balance of the region. The division is divided into four forest ranges: Bhanupratappur, Durgkondal, Antagadh, and Amabeda, each managing and conserving the forest resources within their respective areas.

East Bhanupratappur is home to a diverse population, including a significant proportion of indigenous tribal communities. These communities have traditionally lived in harmony with the forests, relying on them for their livelihoods through activities such as agriculture, the collection of non-timber forest products (NTFPs), and traditional crafts. The region's demographic structure reflects the broader cultural diversity of Chhattisgarh, with a mix of tribal and non-tribal populations coexisting in the area.

Division Map

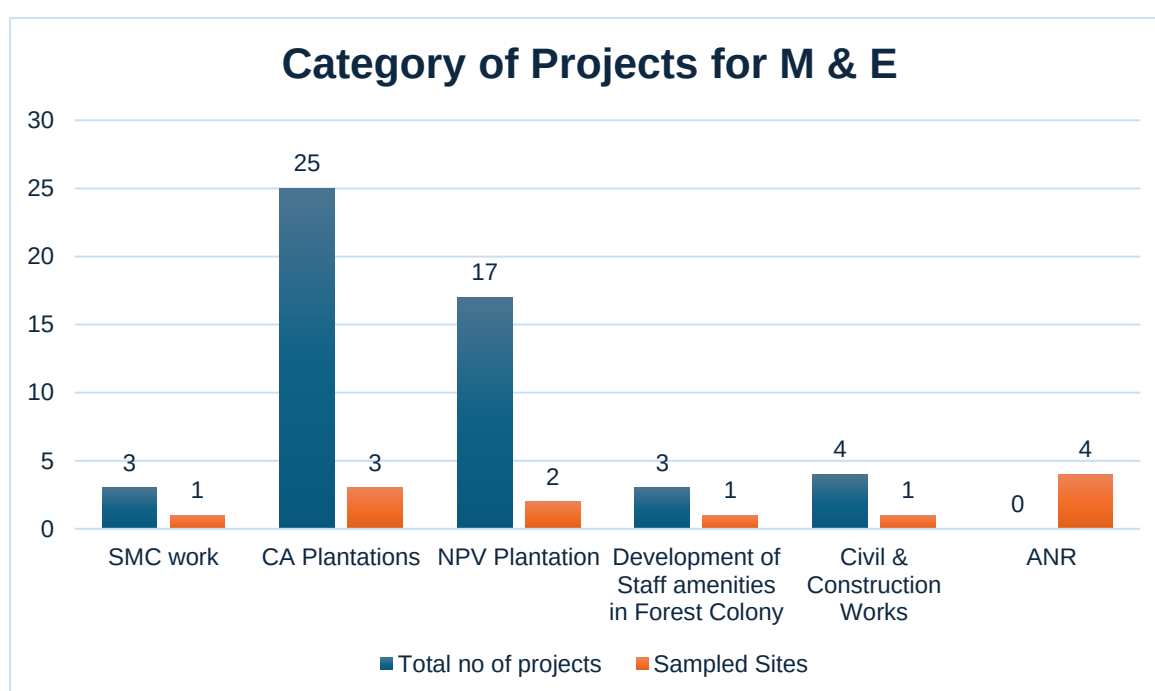


Division Profile

Particulates		Details	
Total Forest area		46852.33 ha	
Major forest types and area		RF,PF,ORANGE AREA	
Sl.No.	Range Name, Address / Telephone Number of Range office		No. of Compartments
1	BHANUPRATAPPUR		22
2	ANTAGARH		209
3	AMABEDA		68
4	DURGUKONDAL		104
Total No of JFMCs			
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area			
Enclose Vegetation Map (if available)			
No of projects in APO 2019-20		52	

Category wise sampled strata for Monitoring & Evaluation – East Bhanupratappur Division APO 2019-2020

Si.No.	Category of Projects	Total no of projects	Sampled Sites
1	Soil and moisture conservation work	3	1
2	Compensatory Afforestation Plantations	25	3
3	Artificial Regeneration NPV Plantation	17	2
4	Development of Staff amenities in Forest Colony	3	1
5	Civil and Construction Works	4	1
6	Assisted Natural Regeneration Works	8	4
TOTAL		52	12



Analysis of CAMPA Projects in East Bhanupratappur Division

The CAMPA initiatives under the APO 2019-2020 in the East Bhanupratappur Division reflect significant strides in ecological restoration, forest management, and community development. The analysis highlights the success of various projects, ranging from compensatory afforestation to infrastructure development.

Success in Afforestation and Biodiversity Conservation

The compensatory afforestation plantations across sites like Triaghotiya, Mahendrapur, and Chikhro achieved success rates between 88% and 95%,

showcasing the effectiveness of maintenance and plantation strategies. Similarly, mixed and special species plantations in Allanar and Pandaripani reached an impressive 95% success rate, contributing to biodiversity conservation and ecosystem stability. These efforts highlight the importance of strategic planting and weed management in ensuring survival and reducing invasive species proliferation.

Soil and Moisture Conservation at Scale

The Indul Nala-1 soil and moisture conservation project, covering 3,183 hectares, stands out as a flagship initiative for large-scale ecosystem restoration. By implementing structures like check dams and contour trenches, the project significantly improved soil retention and water availability, creating a ripple effect on surrounding ecosystems and wildlife.

Promoting Natural Regeneration

Assisted Natural Regeneration (ANR) projects maintained across various compartments, such as RF-625 and RF-610, spanned areas between 79.65 and 94.27 hectares. These efforts have revitalized natural vegetation and contributed to habitat connectivity, supporting wildlife and increasing forest density.

Water Source Rejuvenation and Wildlife Support

The restoration of Basla Pond with an 8,000 cubic meter capacity has provided a critical water source for wildlife and nearby communities. Such interventions underline the role of water conservation in bolstering biodiversity and mitigating the effects of water scarcity.

Infrastructure for Effective Forest Management

The development of infrastructure, including a CC road in the Amabeda Forest Colony, demonstrates CAMPA's commitment to improving forest management efficiency. Such amenities facilitate better connectivity, resource transportation, and forest monitoring.

Holistic and Inclusive Approach

Despite the success rates and tangible outcomes, greater emphasis on community involvement and granular impact metrics is essential. While many projects have undoubtedly benefited local stakeholders, integrating them further into the planning and execution stages can foster a sense of ownership and environmental stewardship.

Detailed results of Monitoring & Evaluation for selected sites – East Bhanupratappur Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Artificial Regeneration NPV Plantation	Mixed Plantation OA ALLANAR Maintenance	19.926695"	81.338332"	KHASARA NO. 108,227	50 ha	95%
2	Artificial Regeneration NPV Plantation	Special Species OA PANDARIPANI Maintenance	20.207002"	81.093249"	KHASRA NO - 312	20 HA.	95%
3	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 5th year Maintenance	20.299106"	80.961767"	OA MAHENDRAPUR	34.2 HA	95%
4	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 5th year Maintenance	20.383527"	80.935078"	TRAIGHOTIYA	25 HA	88%
5	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations 5th year Maintenance	20.294647"	80.96021"	OA CHIKHRO	13 HA	95%
6	Assisted Natural Regeneration Works	Assisted Natural Regeneration Maintenance	20.349961"	80.903691"	RF-625,PF-863	94.270 H	95%
7	Assisted Natural Regeneration Works	Assisted Natural Regeneration Maintenance	20.42795"	80.9768"	RF-610	81.900 HA	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
8	Assisted Natural Regeneration Works	Assisted Natural Regeneration Maintenance	20.62695"	80.9678"	PF-872	86.030 HA	95%
9	Assisted Natural Regeneration Works	Assisted Natural Regeneration Maintenance	20.3937"	80.914702"	RF-617	79.650 HA	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
10	Soil and moisture conservation work	SMC Works - INDUL NALA-1	20.11493"	80.92422"	RF-650,651,652, PF-884	3183 HA	Excellent
11	Wildlife Management Plan	BASLA Pond	20.277377"	81.073969"	RF-603	8000 cum	Very Good
12	Development of Staff amenities in Forest Colony	CC ROAD FOREST COLONTY AMABEDA	20°04'18.4"	81°19.54.5"	FOREST COLONY	820 sqft/250 rm	Good

Kanker: Division Assessment

Division Background

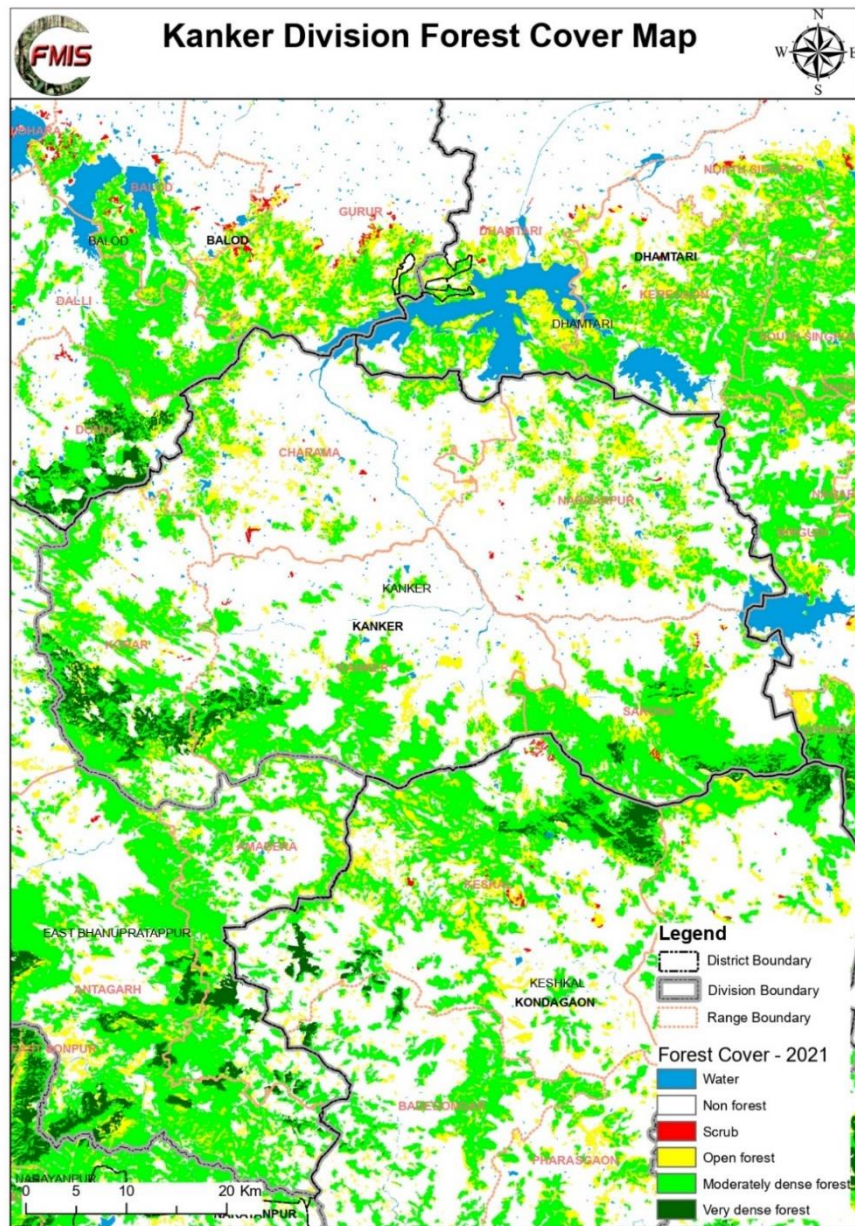
Kanker district, located in the southern region of Chhattisgarh, is an area rich in natural beauty and historical significance. Originally part of the historic Bastar district, Kanker was officially designated as a separate district in 1998. The district spans an area of approximately 5,285.01 square kilometers and features a varied landscape that includes rolling hills and mountainous terrain. The region is traversed by several important rivers, including the Milk River, Mahanadi, Hukkul River, Sindur River, and Turu River, which are vital for the district's agriculture, water supply, and ecological balance.

The Kanker Forest Division, which geographically encompasses the entire Kanker district, is bordered by Durg and Dhamtari districts to the north, Bhanupratapur forest division to the east, Kondagaon district and Antagarh development block to the south, and Dhamtari district to the east. The division is located between latitudes 20°07'43" N and 20°32'47" N, and longitudes 81°07'57" E and 81°49'13" E, with an elevation ranging from 838 to 3,114 meters above sea level. This varied topography contributes to the district's rich biodiversity and supports a wide range of flora and fauna.

The Kanker Forest Division covers a total forest area of 70,535.075 hectares, according to the forest working plan. The division includes several forest ranges: Kanker, Sarona, Narharpur, Charama, and Korar. These ranges are characterized by dense forests, primarily composed of tropical deciduous species such as sal, teak, and bamboo. The forests play a crucial role in maintaining the ecological balance of the region, providing habitat for wildlife, and supporting the livelihoods of the local population through the collection of non-timber forest products (NTFPs) and other forest-based activities.

The Kanker Forest Division plays a pivotal role in the conservation and sustainable management of the district's forest resources. The division's efforts focus on afforestation, soil and water conservation, wildlife protection, and the prevention of illegal activities such as poaching and illegal logging. The forests of Kanker are home to a variety of wildlife, including several endangered species, making conservation efforts critical for maintaining biodiversity.

Division Map



Division Profile

Sl. No.	Range Name, Address, Section / RA circle, Beat	No. of Compartments
1	Kanker Range - Range office - Kanker, Block - Kanker	175
2	Sarona Range - Range office - Sarona, Block - Narharpur	119
3	Narharpur Range - Range office - Narharpur, Block - Narharpur	220
4	Charama Range - Range office - Charama, Block - Charama	117
5	Korar Range - Range office - Korar, Block - Bhanupratappur	152
Total No of JFMCs		258
No of projects in APO 2019-2020		32

**Category wise sampled strata for Monitoring & Evaluation – Kanker Division
APO 2019-2020**

Sl. No.	Category of Projects	Total no of projects	Sampled sites
1	Compensatory Afforestation Plantations	52	12
2	Assisted natural Regeneration works (ANR)	30	9
3	Improvement of growing stock in orange area	4	1
4	Soil and moisture conservation work	5	2
5	Civil and construction works	16	2
6	Forest/Fire Protection Works	13	6
Total		120	32



Analysis of CAMPA Projects in Kanker Division (APO 2019-2020)

The Kanker Division's CAMPA initiatives showcase diverse activities across compensatory afforestation, soil and moisture conservation (SMC), artificial regeneration (ANR), and infrastructure development. Below is an analysis of the data provided.

Compensatory Afforestation Plantations

- **Coverage and Success Rates:** The division undertook maintenance of plantations across various sites, covering areas between 10 to 35 hectares. Most sites demonstrated high success rates, with several achieving 95%, and one as high as 97% (RF 153). A few sites, like OA 1485 (76%), exhibited slightly lower success, suggesting challenges in specific locations.
- **Key Sites:** High-performing sites include RF 153 (97%) and RF 426 (95%). Lower-performing sites like OA 1485 may require targeted intervention.

Artificial Regeneration (ANR) Works

- **Large-Scale Interventions:** ANR projects spanned extensive areas, with sites ranging from 68.33 hectares (RF 159) to a significant 221.77 hectares (RF 173). Notably, all ANR sites achieved a 95% success rate, highlighting consistent and effective implementation.
- **Ecological Impact:** The scale of ANR works supports habitat connectivity, enhances forest density, and creates thriving ecosystems.

Soil and Moisture Conservation (SMC)

- **Large Projects:** Significant SMC efforts were conducted at Budan Nala (776.28 hectares) and Jhura Nala (604 hectares). These projects contribute to improved water retention, reduced erosion, and enhanced soil fertility.
- **Key Role in Ecosystem Restoration:** These interventions provide foundational support for afforestation and wildlife.

Infrastructure Development

- **Civil Construction:** Projects included a residential colony in Charama and a high-tech barrier in Korar, reflecting investment in facilities for forest management and surveillance.
- **Fire Protection Measures:** Chain-link fencing was installed across multiple sites (e.g., OA 1576, RF 303), alongside expenditures on strike force teams in key locations like Kanker and Narhapur.

Integrated Observations

- **Success Rates:** Most plantation and regeneration projects achieved above 90% success rates, indicating robust methodologies and execution.
- **Community Involvement:** While implicit, the data does not detail the extent of local community participation, a critical factor for sustainability.
- **Monitoring and Impact Assessment:** The ecological and social impacts of projects like SMC and ANR can benefit from more detailed, quantified assessments.

Conclusion

The Kanker Division's CAMPA projects underscore the importance of integrated forest management strategies. With high success rates across afforestation and regeneration, coupled with impactful SMC and infrastructure development, these initiatives serve as a model for sustainable ecosystem restoration. Strategic scaling and enhanced stakeholder involvement can amplify these successes further.

Detailed results of Monitoring & Evaluation for selected sites – Kanker Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Artificial Regeneration NPV	Economic Plantation Maintenance	20°29'11.51"	81°28'18.54"	OA 1456	20	89%
2	Artificial Regeneration NPV	Economic Plantation Maintenance	20°30'16.23"	81°18'9.13"	OA 1485	15	76%
3	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°15'13.84"	81°39'4.63"	RF 117	10	92%
4	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°15'42.06"	81°45'4.83"	RF 153	30	97%
5	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°15'43.42"	81°41'15.53"	RF 426	20	95%
6	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°16'38.94"	81°41'3.60"	OA 424	17	95%
7	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°23'59.75"	81°32'34.63"	OA 560	15	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
8	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°21'52.37"	81°33'14.82"	OA 577	25	92%
9	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°29'11.97"	81°39'59.81"	OA 1413	35	95%
10	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°25'24.51"	81°27'15.92"	RF 223	21.572	95%
11	Artificial Regeneration NPV	irrigated Plantation Maintenance	20°28'0.42"	81°29'39.97"	OA 1460	15	87%
12	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°22'50.89"	81°42'07.43"	RF 210 p	183	95%
13	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°13'42.26"	81°35'56.65"	RF 93	103	95%
14	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°28'16.01"	81°18'6.30"	RF 231	178	95%
15	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°22'37.31"	81°36'43.49"	RF 172	149.6	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
16	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°21'7.66"	81°42'18.77"	RF 207	120.97	95%
17	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°22'40.74"	81°42'43.42"	RF 210	115.48	95%
18	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°24'8.47"	81°36'18.38"	RF 173	221.77	95%
19	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°25'50.93"	81°37'36.06"	RF 177	86.24	95%
20	Compensatory Afforestation Plantations	Compensatory Afforestation Plantations Maintenance	20°21'55.59"	81°33'33.71"	OA 557	15	95%
21	Assisted Natural Regeneration work (ANR)	Assisted Natural Regeneration work	20°18'54.18"	81°42'40.36"	RF 159	68.33	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Analysis
22	Improvement of growing stock in orange area	Janvant Project , Fruit Plant and water resource Development	20°28'54.10"	81°32'09.26"	RF 215	48	Optimum

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Analysis
23	Soil and moisture conservation work	SMC Works - Budan nala	20.274904"	81.202613"	RF 217	776.28	Good
24	Soil and moisture conservation work	SMC Works - Jhura Nala	20.462265"	81.650214"	RF 183	604	Excellent
25	Civil and construction works	Tube well for drinking water	20.486775"	81.369103"	Charama	1 Nos	Very good
26	Forest/Fire Protection Works	Chain-link fencing	20.306081"	81.171845"	OA 1576	3500 rmt.	Good
27	Forest/Fire Protection Works	Chain-link fencing	20.305341"	81.153963"	RF 303	6700 Rmt.	Good
28	Civil and construction works	Hitech Barrier	20.320551"	81.274044"	korar	1 set	Very good
29	Forest/Fire Protection Works	POL and other expenditure for strike force	20.263377"	81.503530"	Kanker	1 Nos	Good
30	Forest/Fire Protection Works	POL and other expenditure for strike force	20.287420"	81.642322"	Sarona	1 Nos	Good
31	Forest/Fire Protection Works	POL and other expenditure for strike force	20.449040"	81.626846"	Narhapur	1 Nos	Good
32	Forest/Fire Protection Works	POL and other expenditure for strike force	20.486926"	81.369565"	Charama	1 Nos	Good

Keshkal: Division Assessment

Division Background

Keshkal Forest Division, initially established as Uttar Kondagaon Forest Division in 2001 and later renamed by the Chhattisgarh Government Forest Department in 2011, is strategically located in the southern part of Chhattisgarh. The division is geographically positioned between latitudes 19°37'58" N to 20°11'41" N and longitudes 81°17'38" E to 81°52'34" E. The region is predominantly characterized by its plateau landscape, with approximately 30% of its forested area located in hilly terrain. The highest peak in the division reaches an elevation of 844 meters, located in the forest compartments No. P 1243 and 1244 near Kadarwahi village. On top of these hills, flat plains known locally as "Maaree" exist, adding to the unique geographical features of the division.

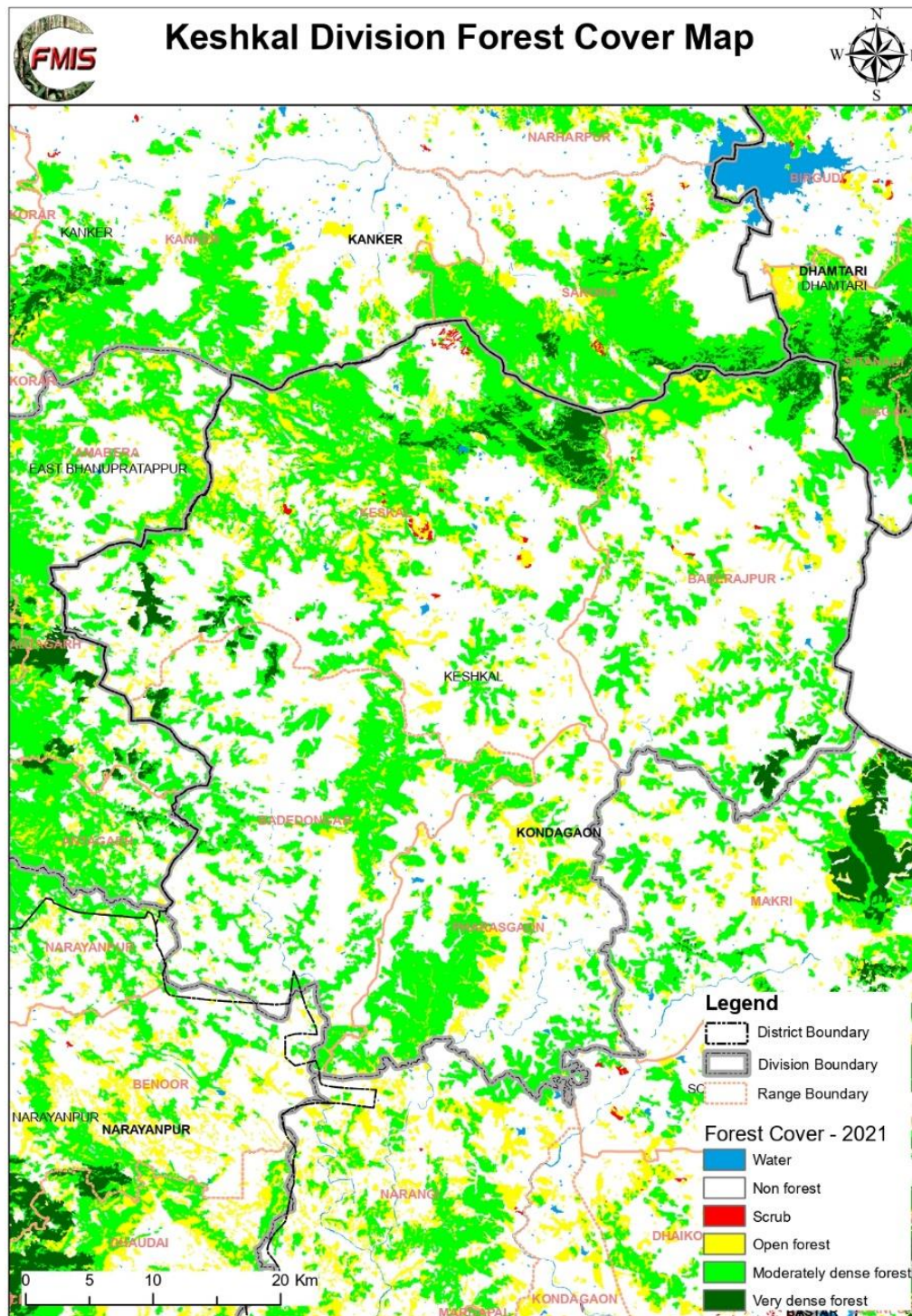
Keshkal Forest Division experiences a tropical climate, with an annual rainfall of approximately 1,566 mm, primarily brought by the South-West monsoon. The mean annual temperature in the region ranges from a minimum of 19.07°C to a maximum of 31.53°C. This climate supports the diverse vegetation and dense forest cover that characterizes much of the division's landscape.

The forests in Keshkal Forest Division are a mix of dense and open forests, primarily situated on the plateau and hilly areas. The division's unique topography, with its high peaks and flat plains, contributes to the variety of forest types found within its boundaries. These forests are rich in biodiversity, housing a wide range of flora and fauna. The presence of varied terrain, from flat plains to steep hills, creates different ecological niches that support diverse species.

The division's forests are home to several important tree species, including Sal (*Shorea robusta*), Teak (*Tectona grandis*), and Bamboo (*Bambusoideae*), which are crucial for both the ecological balance and the local economy. The forests also provide habitat for numerous wildlife species, including mammals, birds, reptiles, and amphibians, making the division a key area for biodiversity conservation.

Keshkal Forest Division is divided into four forest ranges: Keshkal, Baderajpur, Phrasgaon, and Badedonagar. Each range is responsible for the management and conservation of forest resources within its jurisdiction. The division headquarters is located at Keshkal, serving as the administrative center for the management of forest activities and conservation efforts.

Division Map

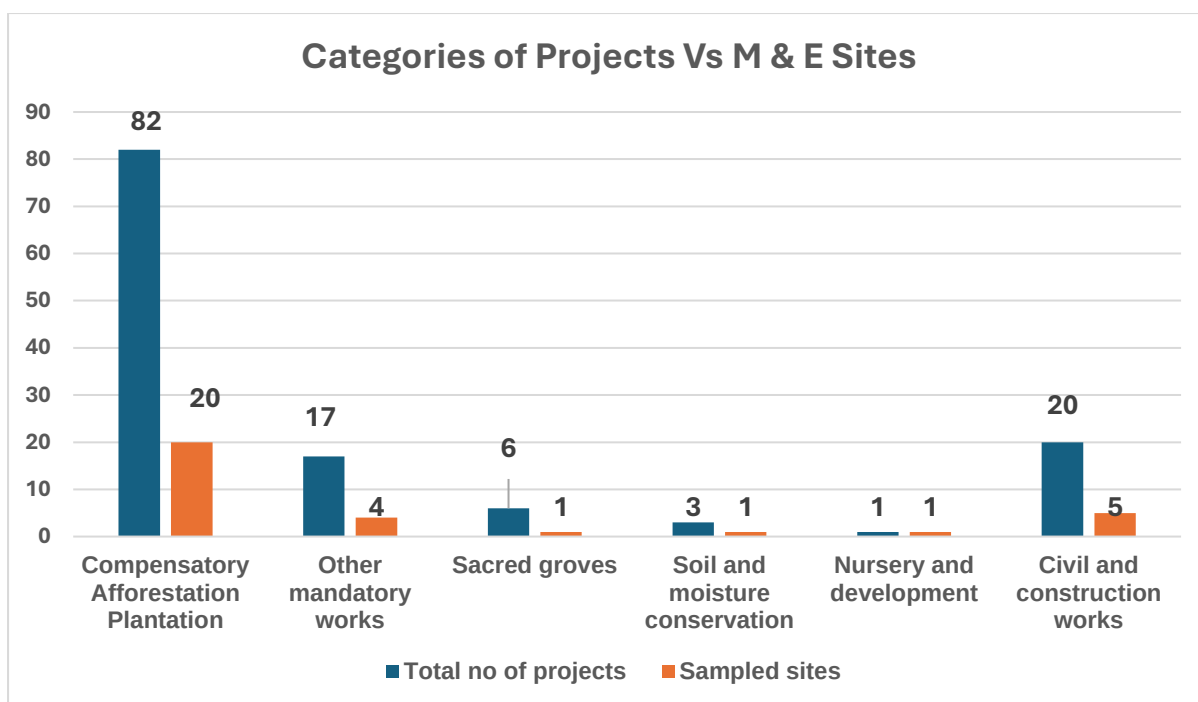


Division Profile

Particulates		Details
Total Forest area		142945.800Hac
Major forest types and area		RF, PF, Orange Area
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments
1	Range Office Keshkal , Block - Keshkal	202
2	Range Office Baderajpur (Vishrampuri) , Block - Baderajpur	119
3	Range Office Pharasgaon, Block - Pharasgaon	97
4	Range Office Badedongar, Block - Badedongar	99
Total No of JFMCs		207
No of APO projects 2019-20		129

Category wise sampled strata for Monitoring & Evaluation – Keshkal Division APO 2019-2020

Sl. No.	Category of Projects	Total no of projects	Sampled sites
1	Compensatory Afforestation Plantation	82	20
2	Other mandatory works	17	4
3	Sacred groves	6	1
4	Soil and moisture conservation	3	1
5	Nursery and development	1	1
6	Civil and construction works	20	5
	Total	129	32



Analysis of the Monitoring & Evaluation Observations

The provided data offers insights into the activities conducted under the CAMPA (Compensatory Afforestation Fund Management and Planning Authority) initiative, highlighting various project types, their geographical implementation, and outcomes. Below is a summarized analysis:

1. Compensatory Afforestation Plantations

Plantation maintenance, primarily in the second year, was carried out across multiple compartments, including RF-74, P-235 Pharasgaon, PF-294 Bhiragaon, and others. Success rates ranged from 77.2% to 95%, with most projects achieving 95%, reflecting effective implementation despite some site-specific challenges. These plantations play a critical role in restoring ecosystems, offsetting deforestation, and enhancing biodiversity and carbon sequestration.

2. Plantations Below Transmission Lines

Maintenance was conducted in PF-2786, RF-2799, and other areas under transmission lines. Success rates were 72.2% to 83.6%, lower than general afforestation efforts, likely due to challenging conditions. These plantations mitigate the environmental impact of infrastructure development while offering ecological benefits in disturbed areas.

3. NPV (Net Present Value) Plantations

Projects focused on special species, economic plantations, and bamboo planting in locations like PF-2875 Parond and RF-67 Korrabadgaon. Success rates ranged from 85.4% to 95.04%, indicating effective establishment and diverse benefits, including potential revenue generation and support for local livelihoods.

4. Artificial Natural Regeneration (ANR) Works

ANR efforts in compartments like P-319 Banskot and P-2869 Tewsa involved fifth-year maintenance and achieved a 95% success rate. These projects effectively promote natural forest regrowth, providing a cost-effective approach to forest restoration and ecological stability.

5. Silvicultural Operations

Invasive species removal (Lantana eradication) was carried out in compartments like P-172 and RF-64. This project reflects progress in controlling invasive species, improving biodiversity, and enhancing forest health.

6. Forest/Fire Protection Works

Protective measures for sacred groves in PF-249 included constructing C.P.T. structures. These works preserved culturally and ecologically significant areas while ensuring biodiversity protection. Fire management efforts included equipment purchases, further safeguarding forest ecosystems.

7. Soil and Moisture Conservation (SMC) Works

SMC activities in Gobrahin Nala contribute to soil erosion prevention, water retention, and soil fertility improvement, which are crucial for the stability of local ecosystems.

8. Nursery Development

Upgrading the Gattipalna Nursery improved seedling quality and infrastructure, supporting afforestation and reforestation efforts. This enhancement is reflecting effective implementation.

9. Civil and Construction Works

Infrastructure projects included road upgrades (Kotpad to Madkada) and residential building construction in Badedonger and Govindpur. These improvements enhanced forest patrolling, logistics, and staff well-being, with all works.

10. Development of Staff Amenities

The construction of a boundary wall in the Dhanora Forest Colony improved living conditions and security for staff, indirectly supporting effective forest management and protection.

Detailed results of Monitoring & Evaluation for selected sites – Keshkal Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Compensatory Afforestation Plantations	CA Plantation 2 nd year maintenance	19.81236	81.671771	RF- 74	7.732	95%
2	Compensatory Afforestation Plantations	CA Plantation maintenance	19.72298	81.695803	P-235 Pharasgaon	10	95%
3	Compensatory Afforestation Plantations	CA Plantation maintenance	19.69888	81.689415	P-236 Pharasgaon	10	95%
4	Compensatory Afforestation Plantations	CA Plantation maintenance	19.70156	81.68098	P-246 Pharasgaon	10	95%
5	Compensatory Afforestation Plantations	CA Plantation maintenance	19.8788	81.757513	PF-294 BHIRAGAON	10	77.20%
6	Compensatory Afforestation Plantations	CA Plantation maintenance	19.8936	81.602838	RF-62 Manjhiathgaon	25	84%
7	Compensatory Afforestation Plantations	CA Plantation maintenance	19.5944	81.2626	P-2723 karmari	20	92%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
8	Compensatory Afforestation Plantations	CA Plantation maintenance	19.98005	81.532467	P-2903 arandi	15	94.80%
9	Compensatory Afforestation Plantations	CA Plantation maintenance	19.98227	81.521739	P-2730 GHURGHAT ARANDI	25	95%
10	Compensatory Afforestation Plantations	CA Plantation maintenance	20.08726	81.75735	PF-2873 PUJARIPARA	10	95%
11	Other Mandatory Works	Plantation below transmission line 2 nd year maintenance	20.13204	81.571827	PF-2786,RF-2799,2800,OA-2925	5.22	72.20%
12	Other Mandatory Works	Plantation below transmission line 2 nd year maintenance	20.11785	81.582948	PF-2786,RF-2799,2800,OA-2925	5.107	83.60%
13	Artificial Regeneration NPV Plantation	Special Species Plantation 5 th Year maintenance	19.88902	81.772429	P-298	20	95.04%
14	Assisted Natural Regeneration works (ANR)	ANR 5 th year maintenance	19.5925	81.5006	319-P Banskot	245.45	95%
15	Assisted Natural Regeneration works (ANR)	ANR 5 th year maintenance	20.03255	80.732291	P-2869 Tewsa	203.14	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
16	Artificial Regeneration NPV Plantation	Economic Plantation 4 th year	20.03164	81.807115	PF-2875 PAROND	10	92.27%
17	Artificial Regeneration NPV Plantation	Economic Plantation 5 th year	19.85382	81.640571	PF-69 Mohpal	10	92.80%
18	Artificial Regeneration NPV Plantation	Economic Plantation 5 th year	19.70156	81.68098	2903	10	95%
19	Artificial Regeneration NPV Plantation	Economic Plantation 5 th year	19.5543	81.4112	OA-2962	20	90.50%
20	Artificial Regeneration NPV Plantation	Bamboo Plantation 5 th year maintenance	19.84363	81.614574	RF-67 KORRABADGAON	20	85.40%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
21	Silvicultural operations	Removal of Invasive Alien Species-1st Year Lantana Eradication	19.77322	81.421374	P-172	50	Good
22	Silvicultural operations	Removal of Invasive Alien Species-1st Year Lantana Eradication	19.86826	81.6332	RF-64	50	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
23	Silvicultural operations	Removal of Invasive Alien Species-1st Year Lantana Eradication	19.77206	81.423039	P-173	100	Good
24	Silvicultural operations	Removal of Invasive Alien Species-1st Year Lantana Eradication	19.72928	81.462266	P-182	50	Good
25	Forest/Fire Protection Works	C.P.T construction work	19.65639	81.663611	PF-249	500RM	Good
26	Soil and moisture conservation work	SMC Works	20.05771	81.55175	Ama NALA	1	Good
27	Nursery and development	Upgradation of Nursery	19.85042	81.65753	GATTIPALNA NURSERY	2	Good
28	Civil and construction works	Upgradation of Forest Roads (WBM)	19.80417	81.488333	KOTPAD TO MADKADA	3 KM	Good
29	Development of Staff amenities in Forest Colony	Boundary Wall	19.98806	81.463611	FOREST COLONY DHANORA	320 KM	Good
30	Civil and construction works	Forest Residential Building	19.80583	81.532245	BADEDONGER	1(787.60 Sq.Ft)	Good
31	Civil and construction works	Forest Guard Resident Building	19.80619	81.532183	BADEDONGER	1 (581.46Sqft)	Good
32	Civil and construction works	Forest Guard Resident Building	19.12991	81.796792	GOVINDPUR	1 (581.46Sqft)	Good

Narayanpur: Division Assessment

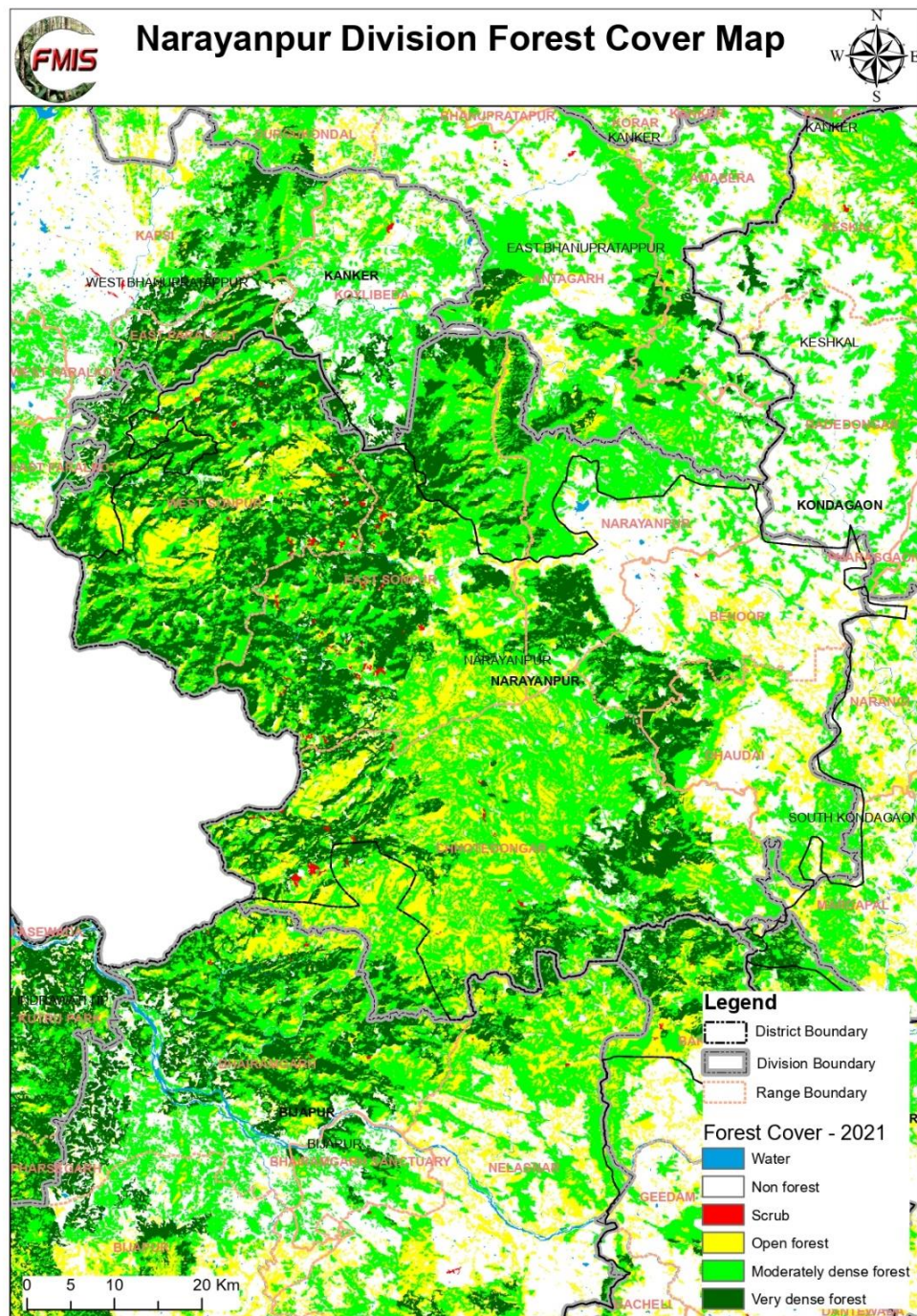
Narayanpur Division Background

Narayanpur is one of the tribal districts of Chhattisgarh state of India. It was constituted as on May 11, 2007, from Bastar district. There are 366 villages in this district and the district spreads on 20.98 km². This district is surrounded by Bijapur, Kanker Bastar, Dantewada and Gadhchiroli (MH) districts. The population of district is 140206, in which male and female population contains of 70,189 and 58,379 respectively as per 2011 census. More than 70% population belongs to tribal communities such as Gond, Maria, Muria, Dhruv, Bhatra, Hala tribe etc. Narayanpur district is divided into two sections, namely Narayanpur, Orcha and two tehsils. The district is full of natural resources, surrounded by dense forests, mountainous hills, rivers, waterfalls, natural caves. Art and culture here are valuable ancient qualities of the district.

A large number of tribal communities living in forests areas and hesitate to mingle with outside people as well as they are very protective of their culture. The tribes of Narayanpur are also known for their colorful festivals and art and crafts. Dussehra is one of the most famous festivals of the district. Adivasis of Narayanpur were also the first to work with metal and specializing in making beautiful sculptures of tribal gods, venerable animals, oil lamps, carts and animals.

About 70% of the total population of the district consists of tribes, which is 26.76% of the total tribal population of Chhattisgarh. The tribes of Narayanpur region are known for their unique and distinctive tribal culture and heritage throughout the world. Each tribal group has its own distinct culture and they enjoy their unique traditional lifestyle. Each tribe has developed its bids and is different from each other in their attire, food habits, customs, traditions and worship. The forest of the district have potential to harbor unique floral and faunal diversity, therefore efforts of enriching forest diversity and its conservation strategies need to be implemented in the forest div

Division Map



Division Profile

Particulates		Details	
Total Forest area		116237.98 hac	
Major forest types and area			Rf ,Pf ,and orange area
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Narayanpur-Beside SBI main road Narayanpur mob-7587014301		151
2	Benoor –Forest dipo bakhru para Narayanpur mob-7587014302		149
3	Chhotedongar- forest colony chhotedongar mob-7587014305		126
4	Dhoudai- Beside traffic police office main road narayanpur mob-7587014306		145
5	East sonpur- Beside Traffic police office main road narayanpur Mob- 7587014304		112
6	West sonpur – Beside Traffic police office main road narayanpur Mob-7587014303		53
Total No of JFMCs		127	
No of projects in APO 2019-20			130

Category wise sampled strata for Monitoring & Evaluation – Narayanpur Division APO 2019-2020

Sl. No.	Category of Projects	Total no. of projects	Sampling of 25% of total projects
1	Compensatory Afforestation Plantations	3	1
2	Artificial Regeneration NPV Plantation	2	1
3	Silvicultural operations	78	19
4	Forest/Fire Protection Works	24	6
5	Soil and moisture conservation work	2	1
6	Civil and construction works	15	2
7	Development of Staff amenities in Forest Colony	6	1
Total		130	31

Analysis of CAMPA Projects in Narayanpur Division

The CAMPA (Compensatory Afforestation Fund Management and Planning Authority) projects in Narayanpur Division for 2019-2020 focus on a range of activities, including afforestation, soil and moisture conservation, silvicultural operations, fire protection, and infrastructure development. Below is a detailed analysis of the key activities and outcomes:

1. Afforestation Initiatives

The division undertook multiple afforestation projects, including:

- NPV Plantation at ARB Oxyvan Upchar Gulum Kora (P-2331 A, 10 hectares) with an 83.75% success rate.
- Compensatory Afforestation (CA) Plantation 2nd Year Maintenance (P-2315 E, 10 hectares) achieving a 78% success rate.

These efforts aimed to enhance forest cover, improve biodiversity, and offset deforestation impacts. While the success rates indicate moderate achievement, there is scope for improving survival rates through better maintenance practices.

2. Silvicultural Operations

A significant focus was placed on silvicultural activities, including:

- Removal of Invasive Alien Species: Conducted across numerous compartments such as Palahudh RF/2499, Hurtrai RF/2446, Kundla RF/2528, and others, covering areas ranging from 30 to 350.55 hectares.

- Improvement of Growing Stock: Activities in compartments like P/2370 and P/2274A aimed to enhance forest productivity across 30 to 68.4 hectares.
- RDF (Regeneration of Degraded Forests): Large-scale efforts in compartments such as P/2230 (203.18 hectares) and P/2279 B (40 hectares).

These interventions significantly contributed to forest health, reducing invasive species prevalence and supporting the regeneration of native flora.

3. Soil and Moisture Conservation (SMC)

SMC works were conducted at Supgaon Nala, involving 360 units across multiple compartments such as RF/2404, 2405, and P/2360. These activities improved soil stability, enhanced water retention, and contributed to sustainable forest ecosystems.

4. Forest/Fire Protection Works

Several measures were implemented to protect forests and sacred groves, including:

- Equipment Purchases: Acquisition of six fire blowers in East Sonpur for fire management.
- Sacred Grove Protection: Construction of sheds and enclosures at sites like Chote Donger (400 sq. ft.), Rajpur (250 sq. ft.), and Taragaon (300 sq. ft.).
- Chain-Link Enclosures: A 1000 RM enclosure at P/2363.
- These efforts safeguard ecologically and culturally significant areas while mitigating the risks of wildfires.

5. Civil and Construction Works

Infrastructure improvements included:

- Forest Road Upgradation: A 2.5 km WBM road from Gorra to Kumgaon in RF-2377.
- Construction of a Watch Tower: A 110 sq. ft. structure in RF/2393 for better monitoring and patrolling.
- Boundary Wall Construction: A 671 RM wall in Narayanpur Forest Colony.
- These developments enhanced accessibility, forest monitoring capabilities, and the overall efficiency of forest management operations.

Detailed results of Monitoring & Evaluation for selected sites – Narayanpur Division APO 2019-2020

Sl.No.	Category of Projects	Project Description	Lat	Lan	Compartment	Total area/ Treatment of details	Success rate
1	Artificial Regeneration NPV Plantation	ARB OXYVAN UPCHAR GULUM KORA	19.40'46.4"	81.24'11.5"	P-2331 A	10 Ha.	83.75%
2	Compensatory Afforestation Plantations	CA Plantation 2nd year Maintenance	19.3821.1"	81.27'41.8"	P-2315 E	10 Ha.	78%

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Sl.No.	Category of Projects	Project Description	Lat	Lan	Compartment	Total area/ Treatment of details	Qualitative Assessment
3	Silvicultural operations	Removal of Invasive Alien Species	19.6676 74	81.2199 64	P2343	50	Good
4	Silvicultural operations	Improvement of growing stock in orange areas	19.7739 98	81.3015 15	P/2370	30	Good
5	Silvicultural operations	RDF	19.3509 5	81.2686 9	P/2274A	68.4	Good
6	Silvicultural operations	RDF	19.4658 84	81.2886 85	P/2230	203.18	Good
7	Silvicultural operations	RDF	19.4630 45	81.4007 92	P/2279 B	40	Good
8	Silvicultural operations	Removal of Invasive Alien Species	19.5434 82	81.3343 79	P/2246	60	Optimum
9	Silvicultural operations	Removal of Invasive Alien Species	190 784318"	810 026512"	Palahudh RF/2499	50.00 Ha	Optimum
10	Silvicultural operations	Removal of Invasive Alien Species	190 56'0'02"	810 4'54'03"	Hurtrai RF/2446	50.00	Optimum

Sl.No.	Category of Projects	Project Description	Lat	Lan	Compartment	Total area/ Treatment of details	Qualitative Assessment
11	Silvicultural operations	Removal of Invasive Alien Species	190 710374"	810 089327"	Kundla RF/2528	50.00	Optimum
12	Silvicultural operations	Removal of Invasive Alien Species	19.7952 8	80.7105 6	RF/2588	57.5	Optimum
13	Silvicultural operations	Removal of Invasive Alien Species	19.50.8 52	80.4385 3	RF/2567	50 Ha.	Optimum
14	Silvicultural operations	Removal of Invasive Alien Species	19.8661 59	80.7325 36	RF/2569	50 Ha.	Optimum
15	Silvicultural operations	Removal of Invasive Alien Species	19°26'5 7.01"	81°18'1 9.48"	P-2215	30 Ha.	Optimum
16	Silvicultural operations	Removal of Invasive Alien Species	19°26'1 9.39"	81°18'4 9.30"	P-2214	50 Ha	Optimum
17	Silvicultural operations	Removal of Invasive Alien Species	19°24'2 6.14"	81°19'5 8.39"	RF-2198	40 Ha	Optimum
18	Silvicultural operations	Removal of Invasive Alien Species	19°27'1. 35"	81°20'3 1.00"	P-2212	40 Ha	Optimum
19	Silvicultural operations	Removal of Invasive Alien Species	19°24'2 1.45"	81°12'4 6.67"	P-2229	35 Ha	Optimum
20	Silvicultural operations	Removal of Invasive Alien Species	19°23'5 9.03"	81°11'5 2.60"	RF-2164	30 Ha	Optimum
21	Forest/Fire Protection Works	Equipment purchase	19.55'6 0"	81.442"	EAST SONPUR	6 Nos.FIRE BLOWER	Good

Sl.No.	Category of Projects	Project Description	Lat	Lan	Compartment	Total area/ Treatment of details	Qualitative Assessment
22	Silvicultural operations	Removal of Invasive Alien Species	19°47'18.03"	80°41'58.30"	RF-2590	57.5 Ha	Optimum
23	Forest/Fire Protection Works	Protection of Sacred groves	19.492072	81.334782	Taragaon	300 SQF	Very Good
24	Forest/Fire Protection Works	Protection of Sacred groves	19.7453	80.6905	Chhindpadar	8.80X3.80 = 33.44 SQM	Very Good
25	Forest/Fire Protection Works	Protection of Sacred groves Construction of Shed	19°27'46.69"	81°17'47.15"	CHOTE DONGER	400 SQF	Excellent
26	Forest/Fire Protection Works	Protection of Sacred groves Construction of Shed	19°27'55.40"	81°16'35.86"	RAJPUR	250 SQF	Very Good
27	Soil and moisture conservation work	SMC Works - supgaon Nala	19.774762	81.21992	RF/2404, 2405, 2393, 2394, 2395 P/2362, 2360	360 nos	Good
28	Civil and construction works	Upgradation of Forest Roads (WBM) Gorra to kumgaon	19.786029	81.290129	Gorra to Kumgaon RF-2377	2.50 KM	Good
29	Development of Staff amenities in Forest Colony	BOUNDARY WALL	19.727735	81.244637	Narayanpur	671 RM	Good

Sl.No.	Category of Projects	Project Description	Lat	Lan	Compartment	Total area/ Treatment of details	Qualitative Assessment
30	Forest/Fire Protection Works	Chain link enclosure	19.7606 44	81.2250 43	P/2363	1000 RM	Good
31	Civil and construction works	Watch Tower	19.7774 9	81.2225 25	RF/2393	110 Sqf.	Good

South Kondagaon: Division Assessment

Division Background

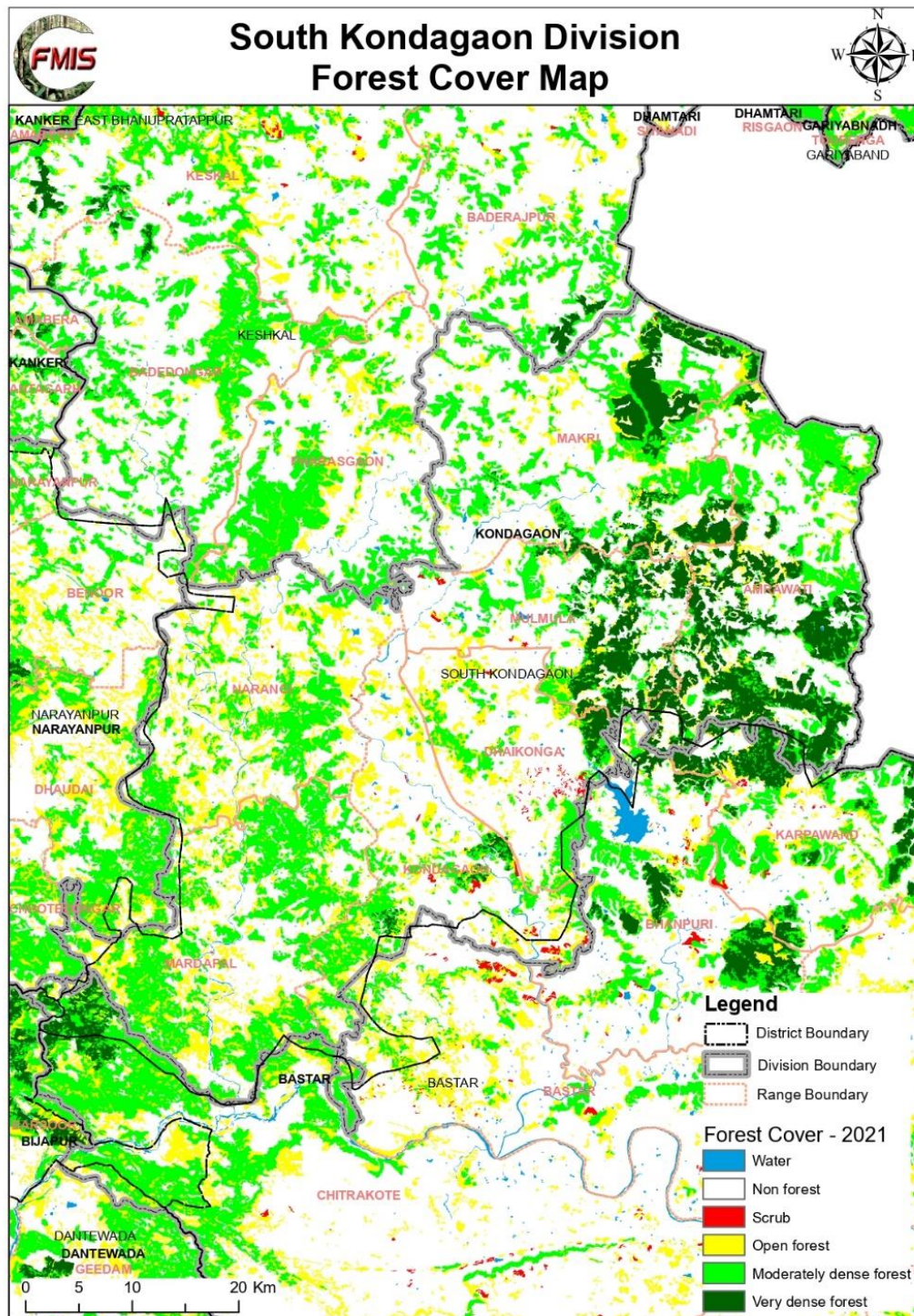
Kondagaon Forest Division is situated in the Bastar region of Chhattisgarh, an area known for its rich natural beauty and diverse ecosystems. The division's geography is characterized by a mix of terrain, including rolling hills, river valleys, and vast expanses of forested land. It covers a variety of forest types, such as tropical forests, deciduous forests, and scrublands, which are spread across the division's rugged landscape. Kondagaon Forest Division is located in the Bastar region of Chhattisgarh, India. The division is geographically positioned between approximately 19°45'N to 20°30'N latitude and 81°30'E to 82°00'E longitude.

Kondagaon is strategically located within the central part of the Bastar Plateau, which provides a unique mix of altitude and climate conducive to the growth of dense forests. The region is nourished by several rivers and streams, which play a vital role in sustaining both the forests and the agricultural activities in the area. The forested regions are interspersed with small rivers and water bodies that contribute to the biodiversity and ecological balance of the division.

The Kondagaon Forest Division is home to a diverse range of flora and fauna, supported by its various forest types. The tropical forests are rich in tree species such as Sal, Teak, and Bamboo, which dominate the landscape and are critical to the local economy and ecology. These forests are also home to a variety of medicinal plants and herbs that are used by the indigenous communities for traditional medicine. The deciduous forests of Kondagaon, which shed their leaves seasonally, support a wide array of wildlife, including mammals like tigers, leopards, deer, and wild boars. The forests are also home to numerous bird species, reptiles, and amphibians, making the division a vital area for biodiversity conservation. The presence of scrublands adds to the ecological diversity, providing habitats for smaller mammals and birds that thrive in more open, dry conditions.

The primary responsibilities of the Kondagaon Forest Division include biodiversity conservation, wildlife protection, and sustainable forest management. These efforts are crucial in maintaining the ecological balance of the region, which is under constant pressure from development activities and the demands of the local population.

Division Map

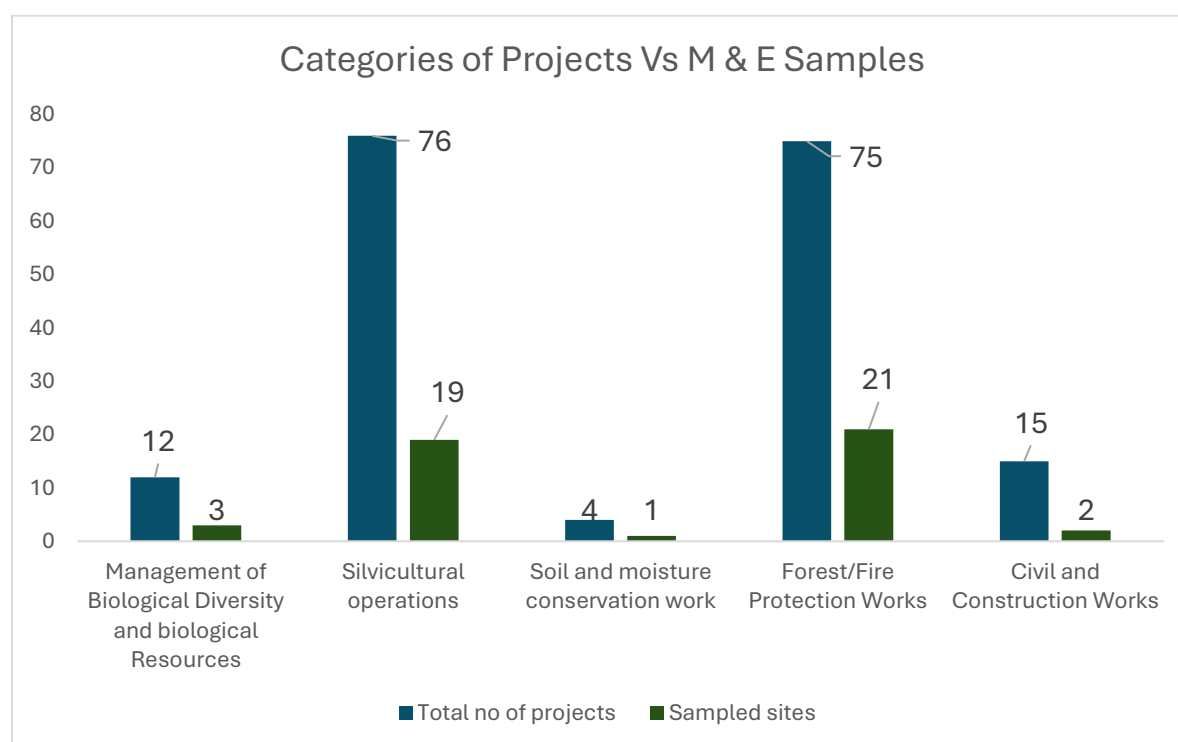


Division Profile

Sl. No.	Range Name	Address	Section / RA circle	Beat	No. of Compartments
1	Kondagaon	Range office - Kondagaon, Block - Kondagaon	5	16	109
2	Narangi	Range office - Kondagaon, Block - Kondagaon	3	12	115
3	Dahikonga	Range office - Kondagaon Block - Kondagaon	5	15	104
4	Mulmula	Range office - Kondagaon, Block - Kondagaon	3	12	82
5	Mardapal	Range office - Mardapal, Block - Mardapal	3	13	198
6	Amrawati	Range office - Amrawati, Block - Makdi	7	25	171
7	Makdi	Range office - Makdi, Block - Makdi	5	21	161
Total No of JFMCs/ EDCs and community memberships					202
No. of Projects in APO 2019-2020					182

Category wise sampled strata for Monitoring & Evaluation –South Kondagaon Division APO 2019-2020

Sl. No.	Category of Projects	Total no of projects	Sampled sites
1	Management of Biological Diversity and biological Resources	12	3
2	Silvicultural operations	76	19
3	Soil and moisture conservation work	4	1
4	Forest/Fire Protection Works	75	19
5	Civil and Construction Works	15	2
		182	44



Analysis of the Monitoring & Evaluation Observations

The provided data offers detailed insights into the activities conducted under the CAMPA (Compensatory Afforestation Fund Management and Planning Authority) initiative, categorized by project type, geographical location, and outcomes. Below is a comprehensive analysis based on the available information:

1. Management of Biological Diversity and Biological Resources:

- **Activities:** These projects focus on establishing and maintaining ornamental plantations, biodiversity parks (including a sacred grove), and nutritional gardens within PF 437 Old 795.
- **Success Rate:** High success rates are reported: Ornamental Plantation (96.87%), Biodiversity Park (Sacred Grove) (98.40%), and Biodiversity Park Nutritional Garden (97.40%). These high percentages indicate effective establishment and maintenance of these diverse biological areas.
- **Significance:** These initiatives are significant for conserving local biodiversity, creating educational and recreational spaces, and promoting the use of native plant species. The inclusion of a sacred grove adds a cultural dimension to conservation efforts.

2. Silvicultural Operations:

- These operations focus on the removal of invasive alien species, specifically Lantana and Eupatorium, across various compartments. Removing invasive species has a positive impact on native plant communities and overall forest health. This allows native species to regenerate and thrive, improving biodiversity and ecosystem function.

3. Soil and Moisture Conservation (SMC) Work:

- SMC works were conducted at Kahdaka Nala, covering a substantial area. These SMC works provide significant ecological value by reducing soil erosion, enhancing water infiltration and retention, and improving soil fertility. This contributes to the overall health and resilience of the local ecosystem.

4. Forest/Fire Protection Works:

- These works encompass several activities: protection of sacred groves, chain-link fencing, and deployment of fire watchers. This suggests effective implementation of protection measures, with the fire watcher deployment meeting the required level of service.
- Protecting sacred groves preserves culturally significant sites while also safeguarding biodiversity within these areas. Chain-link fencing helps prevent encroachment and grazing, while fire watchers play a crucial role in early fire detection and suppression, all contributing to the preservation of both cultural and ecological values.

5. Civil and Construction Works:

- Construction of biodiversity inspection pathways in two parts within Pf 437 Old 759. These pathways contribute to improved access for monitoring, research, and educational purposes within the biodiversity area, facilitating better management and understanding of the local ecosystem.

Key Observations:

- High success rates in biodiversity management projects suggest effective establishment and maintenance of these important areas.
- The diverse range of activities, from invasive species removal to sacred grove protection and fire management, reflects a holistic approach to conservation.

Conclusion:

The CAMPA projects demonstrate a strong commitment to biodiversity conservation, forest health, and sustainable land management. The diverse range of activities and generally positive assessments indicate effective implementation. By focusing on the identified areas for improvement, the long-term impact and sustainability of these crucial conservation efforts can be further enhanced.

Detailed results of Monitoring & Evaluation for selected sites – South Kondagaon Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	N 19° 27' 45.90"	E 81° 36' 06.00"	RF 2095 Botha	32	Good
2	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	N 19.468633	E 81.788678	PF 735 Joba B	72	Good
3	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	N 19°31.002	E 81°49.236'	PF 709 Badekanera	100	Good
4	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°47'6.70" N	81°54'17.55"E	PF 588 Makadi	50	Good
5	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°46'16.37 "N	81°51'45.83"E	RF 412 Hadigaon	40	Good
6	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°41'24.34 "N	81°52'0.83"E	RF 543 Silati	100	Good
7	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°38'8.43" N	81°41'32.31"E	PF 641 Bafna	100	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
8	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19° 45'18.07"N	82° 2'4.90"E	RF 382 Heerapur	162.675	Good
9	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°32'45.46 " N	81°34'29.59"E	R F 888 Hangwa	15	Good
10	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°29'51.47 " N	81°36'17.62"E	RF 903 Karsing	25	Good
11	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°32'27.23 " N	81°37'06.72" E	RF 919 bamhani	50	Good
12	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°34'18.9" N	81°38'12.60"E	PF 775 Kondagaon	31	Good
13	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°21'132" N	81°46'425"E	PF 980 Ghodagaon	83	Good
14	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°21'132" N	81°46'425"E	PF 981 Ghodagaon	126	Good
15	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°15'20.5" N	81°37'94.9"E	PF 1462 Parouda	50	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
16	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	19°47'47"N	81°54'30"E	PF 587 Makdi	25	Good
17	Silvicultural operations	Removal of invasive alien species Lantana, Eupatorium removal	N 19° 41' 40.60"	E 81° 29' 03.39"	PF 2041 Hadseli	28	Good
18	Soil and Moisture Conservation Work	SMC Works - kahdaka NALA	19°36'28.58 "N "	81°47'14.37	RF- 769,770,787,788	3400	Excellent
19	Forest/Fire Protection Works	Protection of Sacred groves Mata Devgudi Place	19°43'8.78" N	81°49'57.36"E	Babai	1	Good
20	Forest/Fire Protection Works	Protection of Sacred groves Mata Devgudi Place	19°45'47.63 "N	81°50'40.10"E	Hadigaon	1	Good
21	Forest/Fire Protection Works	Protection of Sacred groves Mata Devgudi Place	19°44'9.46" N	81°54'41.17"E	Belganv no 1	1	Good
22	Forest/Fire Protection Works	Protection of Sacred groves Mata Devgudi Place	19°42'53.39 "N	81°46'27.92"E	Maragaon	1	Good
23	Forest/Fire Protection Works	Protection of Sacred groves Mata Devgudi Place	19°50'5.47" N	81°49'53.67"E	sandasa	1	Good
24	Forest/Fire Protection Works	Chain-link Fencing	N 19.570787	E 81.682062	RF 793 Khudobra Part 01	1500 RM	Good
25	Forest/Fire Protection Works	Chain-link Fencing	N 19.564698	E 81.694761	R F 793 Khutdobara B Part 2	1500 RM	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
26	Forest/Fire Protection Works	Chain-link Fencing	19.554852 N	81.691773 E	RF792 Khudobra	2340 RM	Good
27	Civil and Construction Works	Bio diversity inspection path way Part 01	19.590554 N	81.691773E	Pf 437 Old 759	1880 RM	Good
28	Civil and Construction Works	Bio diversity inspection path way Part 02	19.590453N	81.681681E	Pf 437 Old 759	2000 RM	Good
29	Forest/Fire Protection Works	Chain-link Fencing	19°39'14.95 "N	81°46'55.23"E	RF 539 Makdi	98	Good
30	Forest/Fire Protection Works	Chain-link Fencing	19°37'9.98" N	81°45'43.29"E	PF 681	65	Good
31	Forest/Fire Protection Works	Chain-link Fencing	19°38'49.23 "N	81°50'18.13"E	RF 557 Makdi	98	Good
32	Forest/Fire Protection Works	Protection of Sacred groves Devgudi Shed Work	19.540201 N	81.595805 E	Jimmedarin Mata Dhunsuli	1	Good
33	Forest/Fire Protection Works	Fire Watcher	N- 19.39929°	E - 81.57990°	Fire Watcher	1	Good
34	Forest/Fire Protection Works	Chain-link Fencing	19°34'34.80 "N	81°40'0.78"E	PF 774 Kondagan	1090rmt	Good
35	Forest/Fire Protection Works	Chain-link Fencing	19°32'50.52 "N	81°40'41.77"E	PF 773v Doodhgaon	419rmt	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
36	Forest/Fire Protection Works	Protection of Sacred groves Devgudi Shed Work	19°34'44.19 "N	81°39'50.08"E	Shitlamata Mandir, Mugapadar	1	Good
37	Forest/Fire Protection Works	Protection of Sacred groves Devgudi Shed Work	19°34'44.19 "N	81°39'50.08"E,	Shitla Mata Mandir	1	Good
38	Forest/Fire Protection Works	Fire Watcher	----	----	Amrawati	25	Optimum
39	Forest/Fire Protection Works	Fire Watcher	----	----	Kondagan	16	Optimum
40	Forest/Fire Protection Works	Fire Watcher	----	----	Narnagi	12	Optimum
41	Forest/Fire Protection Works	Fire Watcher	----	----	Makdi	21	Optimum

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
42	Management of Biological Diversity and biological Resources	Ornamental Plantation	N 19.594092°	E 81.683161°	PF 437 Old 795	600	96.87%
43	Management of Biological Diversity and biological Resources	Biodiversity Park Plantation	N 19.593516	E 81.683896	PF 437 Old 795	2 Ha	98.40%
44	Management of Biological Diversity and biological Resources	Biodiversity Park Nutritional Garden	N 19.59212	E 81.683855	PF 437 Old 795	0.78	97.40%

West Bhanupratappur: Division Assessment

Division Background

Bhanupratappur is a town and a notified area council in Kanker district of Chhattisgarh. The city derives its name from King Bhanupratap Dev, the last ruler of Kanker princely state. A few years after the death of the last king of Kanker, Bhanupratap Dev (1969), this city was established. West Bhanupratappur forest division located in the Kanker forest circle at 20°06'42.0" and North 81.071930 East the total geographical area of the division is 2043.12 sq km. The area contains mixed forest followed by Sal and Sagoan forests. The West Bhanupratappur is surrounded by Rajnandgaon by north and west by west Bhanupratappur where the south area is shared by Narayanpur forest division and at the west by the Maharashtra state. The distance from the capital of the state (Raipur) is 190km. The mean annual temperature ranges from minimum 19.07°C to maximum 31.53°C in the division. It covers four forest ranges namely Koylibeda, West paralkot, East Paralkot and Kapsi.

The terrain of West Bhanupratappur is marked by hilly landscapes and dense forests, primarily composed of mixed forests with a significant presence of Sal and Teak trees. These forests are crucial for maintaining the ecological balance of the region, providing habitat for diverse wildlife and supporting the livelihoods of local communities.

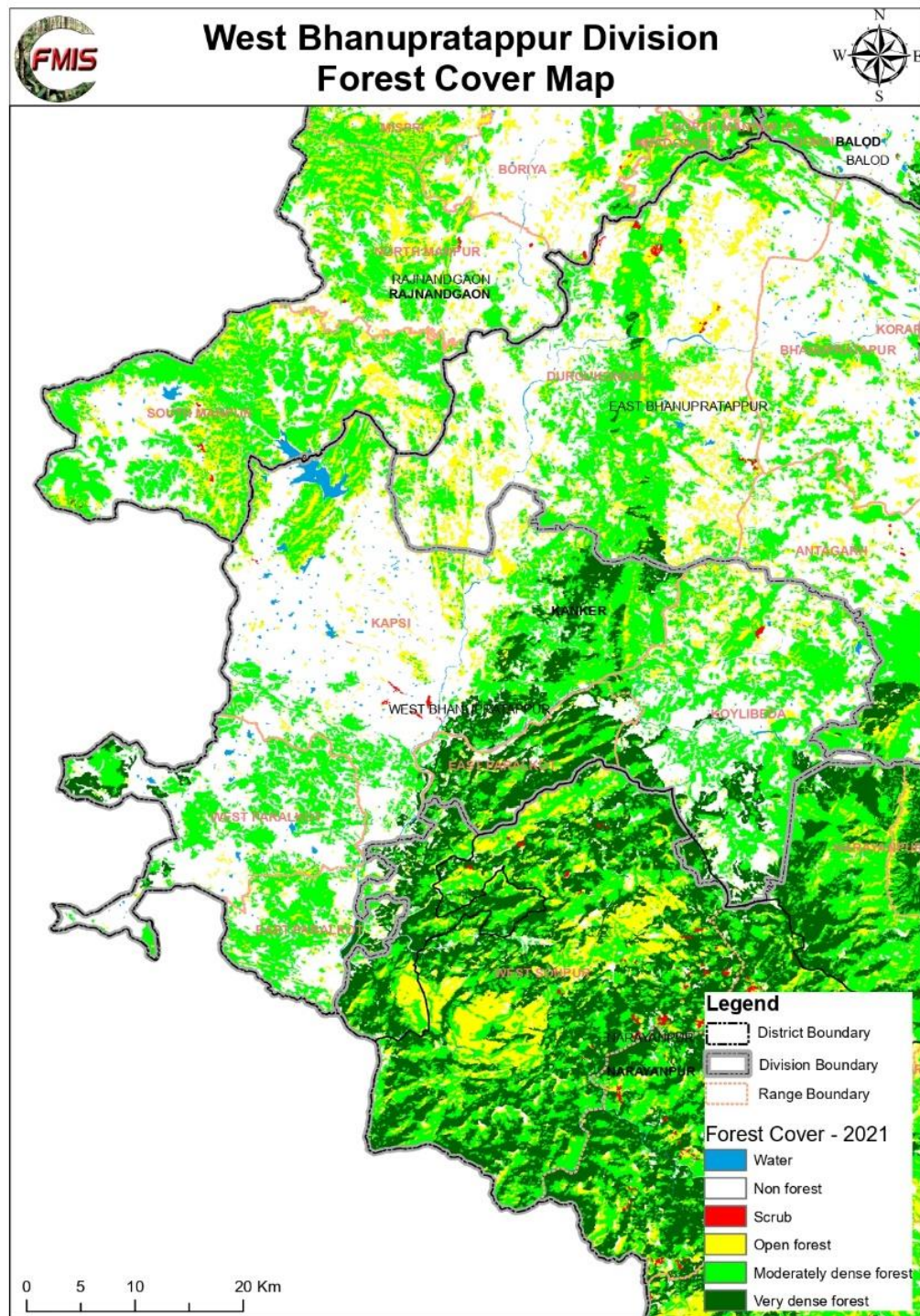
The division's strategic location within the Kanker Forest Circle places it at a critical junction between the plains of Chhattisgarh and the more rugged terrains of Maharashtra. The region's rivers, including the Milk River, Mahanadi, Hukkul River, Sindur River, and Turu River, play a vital role in sustaining both the natural ecosystems and the agricultural activities in the area. These water bodies are essential for irrigation and maintaining the fertility of the land, which supports the region's agrarian economy.

The forests of West Bhanupratappur are a vital part of the region's natural resources. The mixed forests, dominated by Sal and Teak, are home to a variety of flora and fauna. These forests not only contribute to the biodiversity of the region but also provide essential resources for the local population, including timber, medicinal plants, and non-timber forest products (NTFPs) such as tendu leaves, mahua, and bamboo. The forested areas are managed under the Bhanupratappur Forest Division, which includes forest ranges such as Bhanupratappur, Durgkondal, Antagadh, and Amabeda.

West Bhanupratappur is predominantly inhabited by indigenous tribal communities, including the Gond, Halba, and Abhujmaria tribes. These communities have traditionally lived in close harmony with the forest, relying on it for their livelihoods and cultural practices. The tribal population in West Bhanupratappur is known for their deep connection to the land, with many families engaged in agriculture, hunting, and

the collection of NTFPs. These activities form the backbone of the local economy, providing food, shelter, and income for the tribal communities.

Division Map



Division Profile

Sl. No.	Range Name	Address	Section / RA circle	Beat	No. of Compartments
1	Kapsi	Forest Range office Kapsi block Antagarh	10	33	134
2	Koylibeda	Forest Range office Koylibeda block Antagarh	4	15	71
3	west Paralkot	Forest Range office West Paralkot block Antagarh	5	16	50
4	East Paralkot	Forest Range office East Paralkot block Antagarh	4	13	44
Total No of JFMCs/ EDCs EDCs and community memberships			151		
No of JFMCs/ EDCs Associated with CAMPA works			151		
No of projects in APO 2019-20			62		

Category wise sampled strata for Monitoring & Evaluation – West Bhanupratappur Division APO 2019-2020

Sl. No.	Category of Projects	Total no. of projects	Sampled Sites
1	Civil and construction works	6	2
2	Artificial Regeneration works (ANR)	20	5
3	Silvicultural operations	4	1
4	Compensatory Afforestation Plantations (Maintenance)	9	3
5	Forest/Fire Protection Works	21	6
6	Soil and moisture conservation work	2	1
	TOTAL	62	18

Analysis of CAMPA Projects in West Bhanupratappur Division

The CAMPA (Compensatory Afforestation Fund Management and Planning Authority) projects in West Bhanupratappur Division showcase a diverse and strategic approach to forest conservation and management. Spanning activities such as afforestation, soil and moisture conservation, fire protection, and infrastructure development, these initiatives highlight the division's commitment to ecological restoration and sustainable development.

Compensatory Afforestation Plantations (CA) were implemented across multiple compartments, including Gattapalli (PF 1266), Aakhmeta (PF 1236), and Koilibeda (Khashra Nos. 218, 219), covering areas ranging from 13.2 to 20 hectares. These plantations offset deforestation impacts, enhance forest cover, and support biodiversity conservation. The focus on regular maintenance and community involvement ensured their success.

Artificial Regeneration (ANR) works were conducted across the East and West Paralkot and Kapsi ranges. These efforts included bamboo cleaning in Murdoda and afforestation activities in compartments PF 1283, 1211, and 1253, covering 50 to 100 hectares. Bamboo cleaning promotes sustainable growth, while ANR initiatives help regenerate degraded forests and create a conducive environment for native species to thrive.

In the realm of **Forest and Fire Protection Works**, protective measures were implemented to safeguard cultural and ecological sites. Sacred groves in Jhiramtarai, Uliya, Pittebhodia, and Chargaon (each 40 square meters) were preserved, emphasizing their ecological and cultural significance. Chain-link fencing at Pakhanjure (2000 meters) and fire protection efforts across PF 1180 (7900 Rmt) further enhanced forest safety, mitigating risks from wildfires and encroachment.

The division also undertook a significant **Soil and Moisture Conservation (SMC)** project at Anjadi Nala in the Kapsi range, spanning a massive **2479 hectares** across compartments PF 1184, 1186, 1187, 1190, and 1191. This large-scale intervention has been instrumental in preventing soil erosion, improving water retention, and enhancing land productivity, contributing to the overall sustainability of the forest ecosystem.

Silvicultural Operations focused on removing invasive species like Lantana and Eupatorium in Sulangi (PF 1298), covering 54.90 hectares. These efforts improved forest health by allowing native vegetation to flourish, promoting biodiversity, and restoring ecological balance.

In terms of **Civil and Construction Works**, key infrastructure upgrades included the upgradation of forest roads (WBM) from Belgal to Mehra (1 km) and the construction of hi-tech barriers along Pakhanjure to Bande (50 sq. ft.). These developments have improved road connectivity, enhancing forest management efficiency and ensuring better protection against encroachment and unauthorized activities.

Detailed results of Monitoring & Evaluation for selected sites – West Bhanupratappur Division APO 2019-2020

Sl. No.	Category of Projects	Range	Activity	Latitude	Long	Place / Compartment No	Total area/ Treatment of details	Success rate
1	Compensatory Afforestation Plantations (Maintenance)	West Paralkot	CA Plantation (Maintenance)	N 19.89 828	E 80. 5194	Gattapalli PF 1266	20 ha.	85.2%
2	Compensatory Afforestation Plantations	East Paralkot	CA Plantation (Maintenance)	N- 19°49' 53.0"	E-80° 37'23.0"	Aakhmeta PF- 1236	20.000ha	86.5%
3	Assisted Natural Regeneration works (ANR)	East Paralkot	Assisted Natural Regeneration works (ANR) PF 1283	19°55' 58.49"	80°45' 19.22"	PF 1283	100.000 Ha.	95.0%
4	Assisted Natural Regeneration works (ANR)	East Paralkot	Assisted Natural Regeneration works (ANR) PF 1211	19°53' 6.82"	80°45' 6.07"	PF 1211	50.000 Ha.	95.0%
5	Assisted Natural Regeneration works (ANR)	West Paralkot	Assisted Natural Regeneration works (ANR) PF 1253	19°51' 21.38"	80°33' 43.63"	PF 1253	50.000 Ha.	95.0%
6	Compensatory Afforestation Plantations	Koilibeda	CA Plantation (Maintenance)	N 19°58' 30.42"	E 80°59' 46.51"	OA Koilibeda Khashra no.- 218,219	13.200 Ha	95.0%

Sl. No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
7	Silvicultural Operations	Kapsi	Cleaning of old Bamboo	N 19°58' 8.63"	E 80°38' 46.82"	OA Murdoda –A KHASRA NO.- 97,80,81,82,83,90 , 96,97,98,113,178	100.000 Ha.	Good
8	Silvicultural Operations	Kapsi	Cleaning of old Bamboo	N 19°58' 6.13"	E 80°38' 45.63"	OA Murdoda –A KHASRA NO.- 15,16,17,25,48,51 ,64	50.00 Ha.	Good
9	Forest/Fire Protection Works	Kapsi	Chain-link Fencing	20°1'24.9 2"	80°41'49.99 "	PF 1180	7900 Rmt	Good
10	Forest/Fire Protection Works	Koyalibeda	Protection of Sacred Groves	N 19°58' 15.14"	E 80°58' 12.62"	Jhiramtarai	40 SQM	Good
11	Forest/Fire Protection Works	Kapsi	Chain-link Fencing (OA Matoli)	N 20°03' 15.55"	E 80°37' 25.33"	Pakhanjure	2000	Good
12	Forest/Fire Protection Works	East Paralkot	Protection of Sacred Groves	19.80' 1036"	80.57'1672"	Uliyia	40 SQM	Good
13	Forest/Fire Protection Works	Kapsi	Protection of Sacred Groves	N 20°5. 50'81"	E 80°38' 58.07"	Pittebhodia	40 SQM	Good
14	Forest/Fire Protection Works	Koilibeda	Protection of Sacred Groves	N 20°02' 57.67"	E 81°01' 49.49"	Chargaon	40 SQM	Good

Sl. No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
15	Silvicultural operations	Koyalibeda	Removal of invasive alien species Lantana, Eupatorium removal	N 20°1' 48.43"	E 081° 2'3.61"	Sulangi PF- 1298	54.90 Ha	Good
16	Civil and construction works	West Paralkot	Upgradation of Forest Roads (WBM) Belgal to mehra	19°54' 33.37"	80°36' 13.9"	Belgal to mehra forest WBM road	01 KM	Very Good
17	Civil and construction works	West Paralkot	Construction of hi-tech barriers	19°57' 58.12"	80°34' 17.52"	Pakhanjura to Bande	50 Sqf	Very Good
18	Soil and moisture conservation work	Kapsi	SMC Works - Anjadi Nala	19.93 1449°	80.70 4477°	PF 1184, 1186, 1187, 1190 1191	2479.00 Ha	Very Good

Surguja Circle

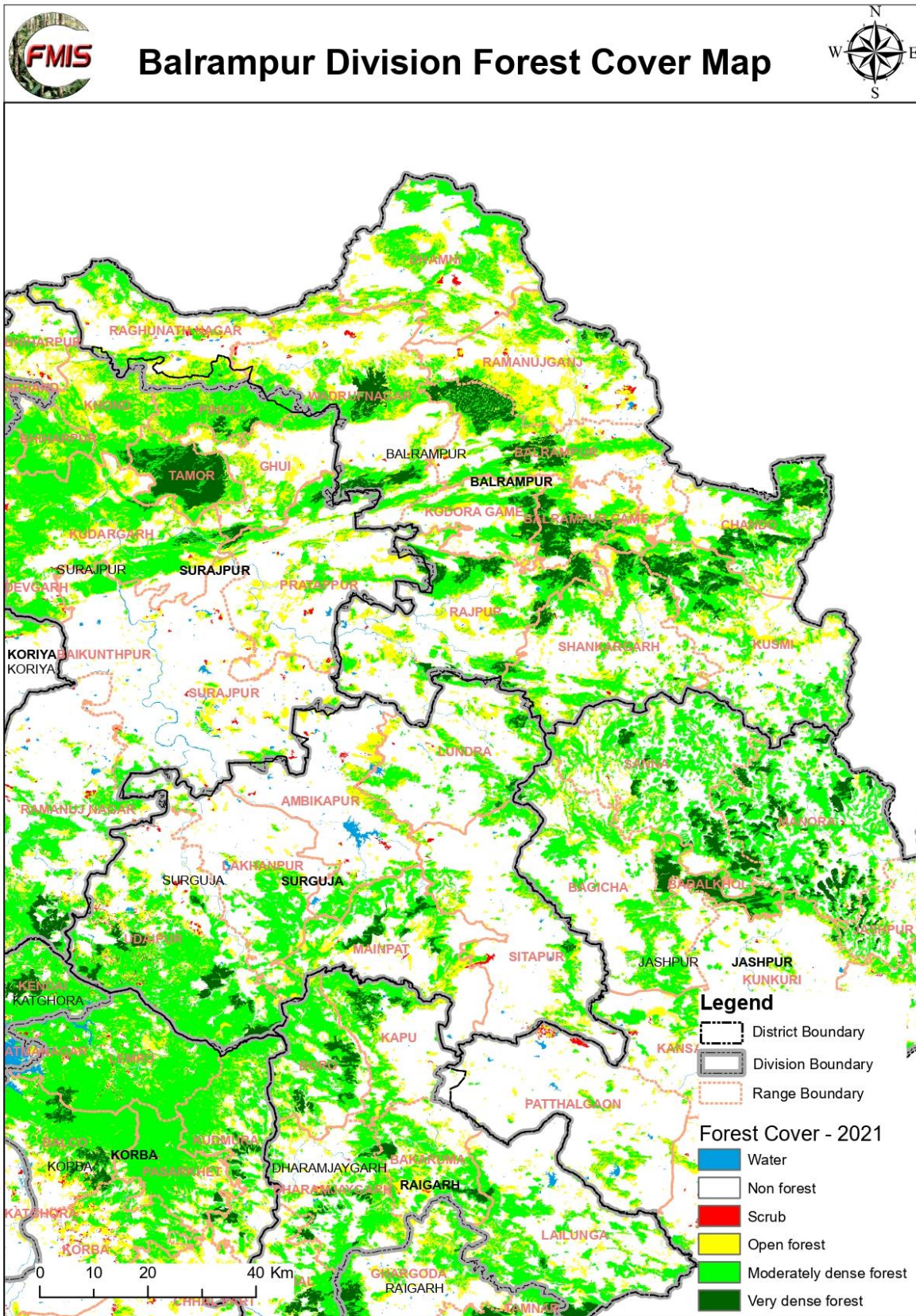
Balrampur: Division Assessment

Balrampur Division Background

Balrampur District is located in the northern part of Chhattisgarh, India, with geographical coordinates approximately between 22.75°N to 24.05°N latitude and 83.25°E to 84.50°E longitude. The district was carved out of the erstwhile Surguja district and officially came into existence on 17th January 2012. It shares borders with Uttar Pradesh to the north, Jharkhand to the east, and Madhya Pradesh to the west, covering an area of about 60.16 lakh hectares. The region is characterized by hilly and forested terrains dominated by the Satpuda hill ranges, making it a significant ecological zone.

Balrampur is part of the Northern Hills agro-climatic region of Chhattisgarh, with agriculture being the primary occupation. The district primarily cultivates paddy and maize, with groundnut, wheat, and gram grown in irrigated areas. The climate is tropical, featuring hot summers and a monsoon season with well-distributed rainfall, averaging 125 cm annually. The terrain and climate support diverse agricultural practices, though the region's dependence on monsoon rains makes it susceptible to weather fluctuations. Balrampur has a population of 730,491, with a sex ratio of 973 females per 1,000 males. The district is predominantly tribal, with Scheduled Tribes comprising nearly 63% of the population and Scheduled Castes around 4.5%. Major tribal groups include the Pahadi Korwas, Gonds, Khairwars, Kanwars, and Pandos. Agriculture and animal rearing are the main livelihoods, deeply connected to the natural environment.

The culture of Balrampur is heavily influenced by its tribal communities, with festivals like Karma and Chherta reflecting their deep connection to nature and agricultural cycles. Hindu festivals such as Diwali, Holi, and Sankranti are also widely celebrated. The district features notable tourist attractions like Tatapani, Dipadih, and Bacchraj Kunwar, highlighting its natural beauty and historical significance.



Division Profile

Particulates		Details
Total Forest area		3051.96.00 skm
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments
1	Range Officer Balrampur /9131976619	22
2	Range Officer Ramanujganj / 9516777826	24
3	Range Officer Chando / 9399792110	15
4	Range Officer Rajpur / 8770318495	31
5	Range Officer Shankargarh / 7697134511	22
6	Range Officer Kusmi / 8120472209	17
7	Range Officer Dhamni / 9340729359	19
8	Range Officer Raghunathnagar/ 7828105825	17
9	Range Officer Wadrafnagar / 6264193992	28
10	Depo Officer Wadrafnagar / 9653076787	-
Total No of JFMCs		571
No of projects in APO 2019-20		151

Category wise sampled strata for Monitoring & Evaluation – Balrampur Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantations	6	2
2	Wildlife management plan	46	10
3	Silvicultural operations	76	20
4	Forest/Fire Protection Works	1	1
5	Wildlife Habitat Improvement	4	1
7	Soil and moisture conservation work	8	2
8	Upgradation of timber depot	1	1
9	Civil and construction works	9	2
Total		151	39

Analysis

Project Categories and Key Metrics:

1. **Compensatory Afforestation Plantation:**
These projects focus on planting trees as compensation for deforestation. The survival rates are notably high, ranging from 95% to 96%. This indicates effective management and favorable conditions for tree growth.
2. **Wildlife Management Plan:**
A variety of projects under this category include construction of waterholes, earthen dams, stop dams, and raising plantations around villages. Success rates for these projects vary, with most hovering around 76% to 84%. This suggests a moderate success in wildlife habitat enhancement and water conservation efforts.
3. **Other Mandatory Works (Silvicultural Operations):**
These projects, aimed at maintaining and improving forest health, show success rates between 79% and 85%. The consistent success rates across different operations imply steady and effective forest management practices.
4. **Bamboo Works:**
The cleaning of old bamboo stands shows an 88% success rate, highlighting the effectiveness of interventions in bamboo management, which is crucial for both forest health and local livelihoods.
5. **Improvement of Growing Stock:**
This category, which likely involves enhancing the quality and density of forest stands, shows a success rate of 84%. This suggests that efforts to improve forest productivity are yielding positive outcomes.
6. **Soil Moisture Conservation Work:**
Projects aimed at conserving soil moisture have success rates between 82% and 86%, indicating good practices in preventing soil erosion and maintaining soil health, which are essential for the sustainability of afforestation efforts.
7. **Civil and Construction Works:**
Road construction and chainlink fencing show success rates ranging from 81% to 89%. These are critical for improving infrastructure within forest areas, which supports both conservation efforts and community access.

The overall high success rates across different project categories reflect effective implementation and monitoring practices. The diversity of projects, from afforestation to wildlife management and infrastructure development, indicates a comprehensive approach to forest and wildlife conservation in the region. The survival and success rates provide a quantitative measure of the effectiveness of these interventions, which appear to be generally successful with room for improvement in certain areas like wildlife management.

Detailed results of Monitoring & Evaluation for selected sites – Balrampur Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Integrated Wildlife management plan	Construction of Waterhole	23.4327	83.88427	P 3122, P 3128, P 3121, P3127	20x20	Good
2	Integrated Wildlife management plan	Construction of ED	23.2762	83.40515	RF 2751	12250	Good
3	Integrated Wildlife management plan	Construction of Stop Dam	23.2744	83.6332	RF 2711	600	Good
4	Integrated Wildlife management plan	Construction of Stop Dam	23.3117	83.22582	P 2567	600	Good
5	Integrated Wildlife management plan	Construction of Stop Dam	23.2857	83.44057	P 2849	-	Good
6	Integrated Wildlife management plan	Construction of Stop Dam	23.2957	83.43085	P 2835	-	Good
7	Integrated Wildlife management plan	Construction of Stop Dam	23.2555	83.22696	P 2556	600	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
8	Integrated Wildlife management plan	Construction of small earthen dam	23.4369	83.88193	P 2875	300	Good
9	Integrated Wildlife management plan	Soil moisture conservation work	23.4348	83.8833	P 3122	—	Good
10	Integrated Wildlife management plan	Fruit Bearing Plantation	23.1414	83.1719	P 2724	15	Good
11	Silvicultural operations	Removal of invasive alien species- Lantana	23.3454	83.94132	P 3114	25	Optimum
12	Silvicultural operations	Removal of invasive alien species- Lantana	23.2515	83.56385	P 2854	30	Optimum
13	Silvicultural operations	Removal of invasive alien species- Lantana	23.3503	83.40966	P 2758	100	Optimum
14	Silvicultural operations	Removal of invasive alien species- Lantana	23.2366	83.35335	P 2702	100	Optimum
15	Silvicultural operations	Removal of invasive alien species- Lantana	23.6742	83.6574	P 3334	50	Optimum

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
16	Silvicultural operations	Removal of invasive alien species- Lantana	23.6347	83.71453	P 3385	50	Optimum
17	Silvicultural operations	Removal of invasive alien species- Lantana	23.6373	83.64362	P 3395	50	Optimum
18	Silvicultural operations	Removal of invasive alien species- Lantana	23.8254	83.65059	P 3442	75	Optimum
19	Silvicultural operations	Removal of invasive alien species- Lantana	23.9113	82.82725	P 603	60	Optimum
20	Silvicultural operations	Removal of invasive alien species- Lantana	23.898	82.82113	P 604	50	Optimum
21	Silvicultural operations	Removal of invasive alien species- Lantana	23.8236	82.88904	P 613	50	Optimum
22	Silvicultural operations	Removal of invasive alien species- Lantana	23.933	82.77554	P 593	30	Optimum
23	Silvicultural operations	Removal of invasive alien species- Lantana	23.869	83.1684	P 822	70	Optimum
24	Silvicultural operations	Removal of invasive alien species- Lantana	23.6405	83.44116	P 3496	25	Optimum

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
25	Silvicultural operations	Removal of invasive alien species- Lantana	23.5429	83.77003	P 3309	30	Optimum
26	Silvicultural operations	Removal of invasive alien species- Lantana	23.2398	83.56269	P 2855	25	Optimum
27	Silvicultural operations	Removal of invasive alien species- Lantana	23.2386	83.56149	P 2870	25	Optimum
28	Silvicultural operations	Removal of invasive alien species- Lantana	23.7677	83.1669	P887	50	Optimum
29	Silvicultural operations	Removal of invasive alien species- Lantana	23.8236	82.88904	P 616	100	Optimum
30	Silvicultural operations	Cleaning of old Bamboo	23.2642	83.21888	P 2566	20	Good
31	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23.7845	82.95678	P 503	20	Good
32	Soil moisture conservation work	SMC Works	23.4779	83.95593	P 3232	-	Good
33	Soil moisture conservation work	SMC Works	23.7601	83.17002	P-692,P-693	-	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
34	Upgradation of timber depot	upgradation work	23.7687	83.19528	Wadrafnagar depo	-	Good
35	Civil and construction works	Upgradation of Forest Roads WBM Road	23.2437	83.6505	WBM Road (Amera to Kharkona)	1 km	Good
36	Civil and construction works	Upgradation of Forest Roads WBM Road	23.7504	83.35264	WBM Road (Chalgali to kapildevpur)	1 km	Good
37	Forest/Fire Protection Works	Chainlink fencing work	23.8845	83.16278	P 820, P813, P814	5400rmt	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
38	Compensatory Afforestation Plantations	Compensatory Afforestation Plantation 1st Year	23.5479	83.86437	P 3283	50	96%
39	Compensatory Afforestation Plantations	Compensatory Afforestation Plantation 1st Year	23.3375	83.96837	Niji bhumi gram jarimakul 9 khasra	12.04	95%

Jashpur: Division Assessment

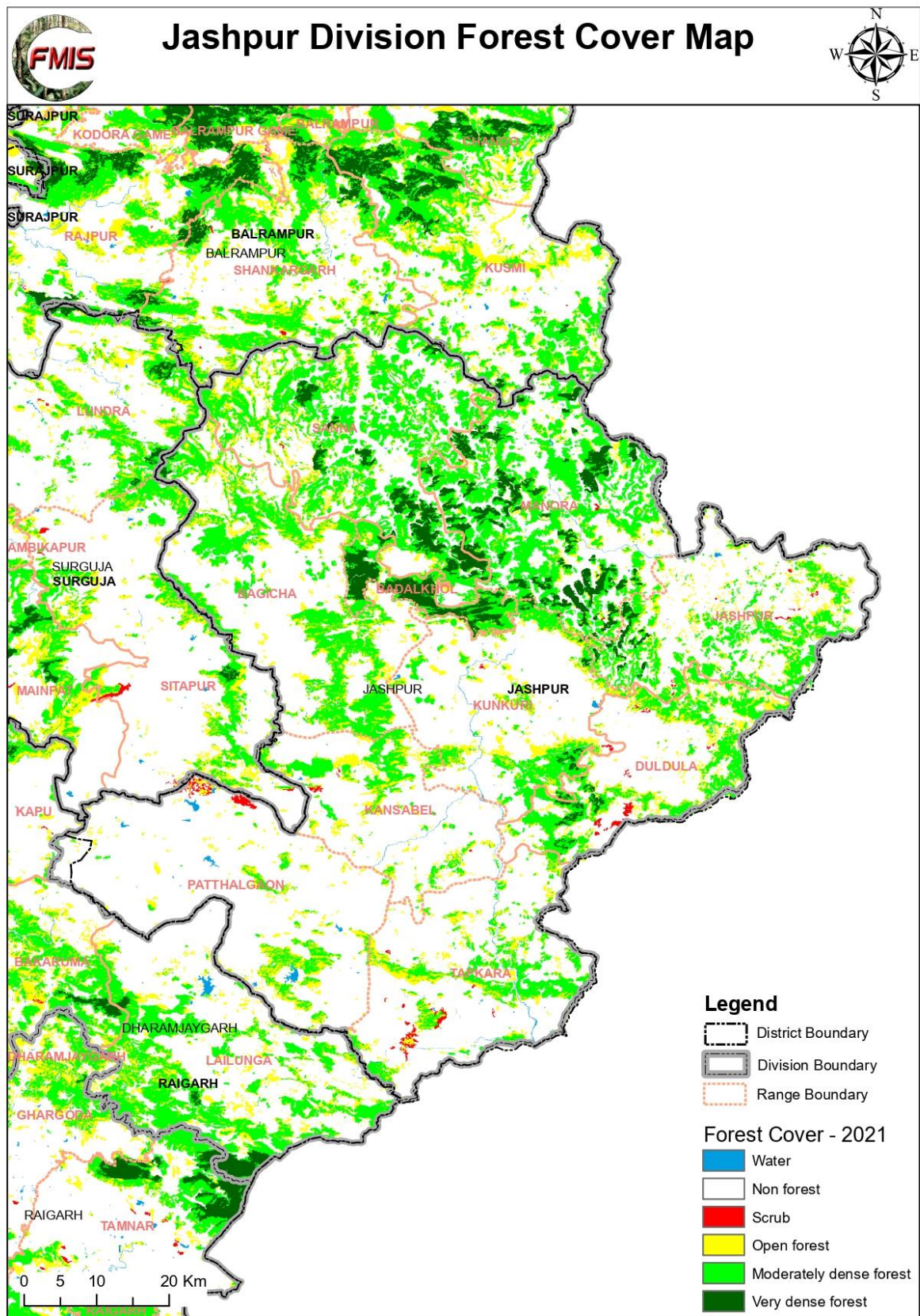
Jashpur Division Background

Jashpur Forest Division is situated in the northeastern part of Chhattisgarh, India, and is a significant ecological zone within the state. The division is geographically positioned between latitudes 22.17°N to 23.15°N and longitudes 83.30°E to 84.30°E. It forms part of the Chhota Nagpur Plateau, which is known for its undulating terrain, highlands, and valleys that contribute to the region's rich biodiversity and diverse landscape. The topography of Jashpur is marked by a mix of dense forests, rolling hills, and plateaus, with elevations ranging from 250 meters to over 1,160 meters above sea level. The terrain is also interspersed with rivers and streams, which are crucial for maintaining the local ecosystems. The division's geographical setting provides a unique environment that supports a variety of forest types and a wide range of flora and fauna.

Jashpur Forest Division is characterized by its diverse forest types, including tropical moist deciduous forests, dry deciduous forests, and bamboo forests. The moist deciduous forests are predominantly found in the higher elevations and are home to tree species such as Sal (*Shorea robusta*), Teak (*Tectona grandis*), and various other hardwoods. The dry deciduous forests, which are found in the lower elevations and drier areas, consist of species like Sal, Mahua (*Madhuca longifolia*), and Tendu (*Diospyros melanoxylon*). Bamboo forests are also a significant component of the division's forest cover, contributing to the region's biodiversity and providing critical resources for both wildlife and local communities. These forests are vital for maintaining ecological balance, supporting a wide variety of wildlife species, and providing livelihoods for the local population.

The forests of Jashpur are rich in biodiversity and serve as a habitat for numerous wildlife species. The region is home to several large mammals, including tigers, leopards, and elephants, which are among the most prominent species in the division. Additionally, the forests support various species of deer, such as sambar and chital, as well as numerous bird species, reptiles, and insects. The presence of these species highlights the ecological significance of the Jashpur Forest Division, making it a critical area for wildlife conservation. The division's forests are part of larger wildlife corridors that facilitate the movement of animals, particularly elephants, between different regions in Chhattisgarh and neighboring states.

Division Map



Division Profile

Particulates		Details		
Total Forest area		1143.338 km ²		
Major forest types and area				
Sl.No.	Range Name, Address / Telephone Number of Range office	No. of Beat	No. of Circle	No.of Compartments
1	Tamor, Tamor Pingla Sanctuary Dist-Surajpur (C.G.)	18	5	62
2	Pingla, Tamor Pingla Sanctuary Dist-Surajpur (C.G.)	16	6	70
3	Khond, Tamor Pingla Sanctuary Dist-Surajpur (C.G.)	19	7	72
4	Kodoura, Semarsot Sanctuary Dist-Balrampur (C.G.)	19	5	56
5	Balrampur, Semarsot Sanctuary Dist-Balrampur (C.G.)	21	4	61
6	Narayanpur, Badalkhol Sanctuary Dist- Jashpur (C.G.)	20	5	32
Total No of JFMCs/EDC				
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area				
Enclose Vegetation Map (if available)				
No of projects in APO 2019-20		18		

**Category wise sampled strata for Monitoring & Evaluation – Jashpur Division
APO 2019-2020**

Sl. No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantation	8	2
2	Wildlife Management plan	0	0
3	Other mandatory work	0	0
4	Bamboo works	0	0
5	Improvement of growing stock in orange area	0	0
6	Sacred groves	0	0
7	Soil and moisture conservation work	8	2
8	Nursery development	0	0
9	Upgradation of timber depot	0	0
10	Civil and construction works	2	1
11	Awareness and trainings	0	0
Total		18	5

Analysis

Key Insights:

- Three key project categories: Compensatory Afforestation Plantation, Soil and Moisture Conservation Work, and Civil and Construction Works are covered in this division APO projects. These categories indicate a focus on environmental restoration and infrastructure development within forest areas.
- The projects vary in scale, with significant areas covered under Soil and Moisture Conservation Work (e.g., 1,291 hectares and 3,391 hectares), reflecting large-scale environmental interventions.
- Compensatory Afforestation Plantation projects are also substantial, covering areas of 10 and 15 hectares, highlighting efforts to restore forest cover.

Success Rates:

- The success rate of the projects is generally high. For instance, the Oxyvan Plantation projects have success rates of 92.1%, indicating successful maintenance and growth of planted areas.
- Soil and Moisture Conservation Work shows varying success, with an average of 81.7% of completion.
- Civil and Construction Works include projects like the construction of a forester residential quarter, which is reported to have a 79% success rate, demonstrating effective project completion.
- Focus on Environmental Restoration:

- The high number of projects in afforestation and soil conservation underscores a strong emphasis on restoring and maintaining environmental health. These efforts are crucial for combating deforestation and land degradation.

Effective Implementation:

- The generally high success rates indicate effective implementation and management of the projects. The success of these projects likely results from well-coordinated planning, adequate resources, and favorable environmental conditions.
- While the evaluation highlights success in certain areas, it also points to potential gaps or areas that could be expanded. For example, similar projects could be extended to other regions or include additional categories like wildlife management or bamboo cultivation, which were not covered in this sample.

Conclusion:

The evaluation reflects a well-structured approach to environmental conservation, with successful projects in afforestation, soil conservation, and infrastructure development. The high success rates and strategic distribution of projects suggest effective management and significant positive environmental impacts. However, there is room for further expansion and diversification of project categories to cover more aspects of environmental management.

**Detailed results of Monitoring & Evaluation for selected sites – Jashpur
Division APO 2019-2020**

Sl. N o.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Artificial Regeneration NPV Plantation	Oxyvan Plantation 2nd year Maintenance	22.94 7554	83.64 5522	PF 1393	10 hac.	93.15%
2	Artificial Regeneration NPV Plantation	Oxyvan Plantation 5th year Maintenance	22.49 1763	83.94 601	RF 862	15 hac.	91%

Sl. N o.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
3	Soil and moisture conservation work	SMC Works - Birla Nala	23.51 274	84.33 031	RF326, RF327, RF328, P461, P384	1291 hac.	Optimum
4	Soil and moisture conservation work	SMC Works - IB Nadi	23.13 6243	83.71 8493	P 101, P104, P103, P184, P187, P188, P108, RF14	3391	Optimum
5	Civil and construction works	Forester Residential quarter	22.82 7497	84.26 1805	Aara	1 Nos	Optimum

Koriya: Division Assessment

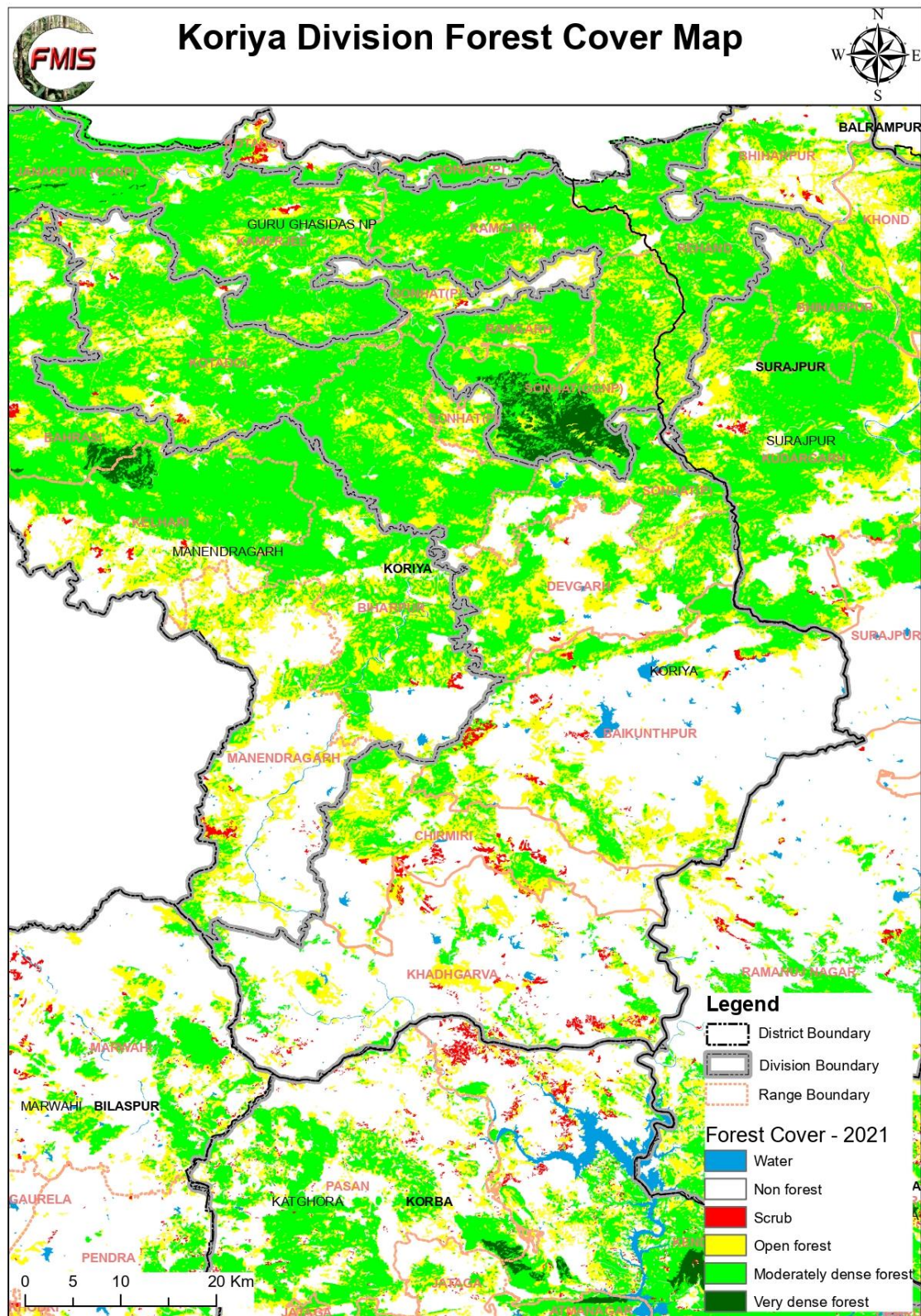
Koriya Division Background

Koriya Forest Division is situated in the northern part of Chhattisgarh, India, with geographical coordinates approximately between 22.65°N to 23.55°N latitude and 81.80°E to 82.75°E longitude. The division is part of the Koriya district, characterized by a diverse landscape that includes dense forests, rolling hills, and river valleys. The terrain is largely hilly, being part of the northern extension of the Chhota Nagpur Plateau. This region is rich in natural resources, with significant forest cover that plays a crucial role in the local ecology and supports a variety of flora and fauna. The terrain and elevation contribute to the district's cool climate, making it one of the more temperate regions in Chhattisgarh. The area is crisscrossed by rivers such as the Gopad and Hasdeo, which are vital for sustaining the local ecosystems and supporting agriculture in the surrounding areas.

The Koriya Forest Division likely covers a diverse range of ecosystems, including forests, grasslands, and water bodies. It is home to various species of flora and fauna, including trees, mammals, birds, reptiles, and amphibians. Forest divisions like Koriya play a crucial role in environmental conservation, wildlife protection, and sustainable forest management practices. They are responsible for activities such as afforestation, wildlife conservation, soil and water conservation, prevention of illegal logging, and promoting eco-tourism.

Efforts within Koriya Forest Division are aimed at maintaining ecological balance, preserving biodiversity, and ensuring the sustainable use of forest resources for the benefit of both present and future generations. Community participation and stakeholder engagement are often key components of forest management strategies within divisions like Koriya, as they help foster local support for conservation efforts and ensure the effective implementation of forest management

Division Map

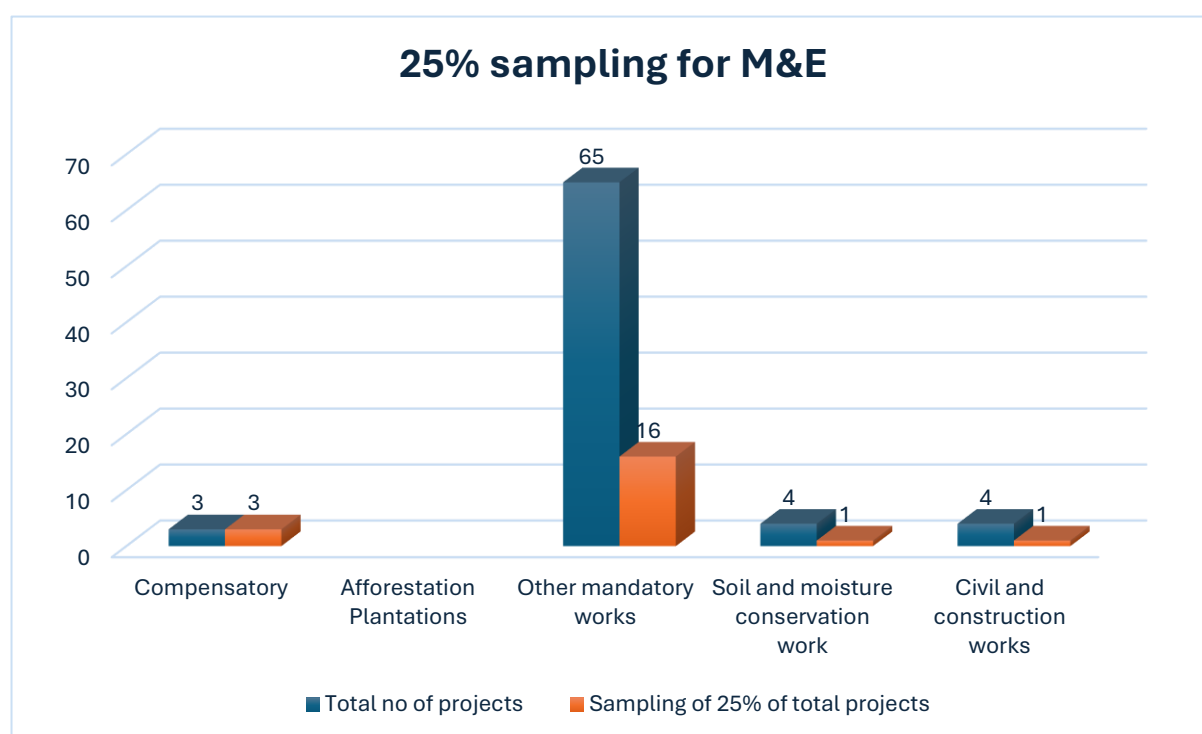


Division Profile

Particulates		Details	
Total Forest area		165002.070 hec	
Major forest types and area		Sal	40.40%
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Baikunthpur Range Moble. No. 7489086346		106
2	Sonhat Range Moble. No. 7999423811		85
3	Deogarh Range Moble. No. 8817882689		164
4	Chirmiri Range Moble. No. 8817882689		61
5	Khadgaon Range Moble. No. 7441144540		87
6	Kotadol Range Moble. No. 7489959011		175
Total No of JFMCs			
No of projects in APO 2019-20			76

**Category wise sampled strata for Monitoring & Evaluation – Koriya Division APO
2019-2020**

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantations	3	2
2	Silvicultural operations	65	16
3	NPV Plantation		1
4	Soil and moisture conservation work	4	1
5	Civil and construction works	4	1
Total		76	21



Analysis

1. Compensatory Afforestation Plantations

The Compensatory Afforestation Plantation projects exhibit varied success rates, ranging from 73.75% to 93%. For instance, the plantation in Compartment 192 achieved a high success rate of 93%, while Compartment 455A recorded a lower rate of 73.75%. This variation in success suggests differences in site conditions, species selection, or maintenance practices.

The high success rate in certain compartments indicates effective afforestation strategies, particularly in species selection and site preparation. However, the lower success rate in Compartment 455A highlights the need for a closer examination of site-specific challenges such as soil quality, water availability, and ongoing maintenance practices. Addressing these factors could help improve the outcomes in less successful areas.

2. Silvicultural Operations

Silvicultural Operations aimed at improving forest health and productivity show success rates ranging from 76% to 89%. Compartments such as 456 and 481 achieved high success rates of 89%, reflecting strong outcomes in these interventions. However, lower success rates (e.g., 76% in Compartment 593) suggest that some operations face challenges that could be impacting their effectiveness.

The overall effectiveness of silvicultural operations is evident, with the majority of compartments showing success rates above 80%. However, the variability in success rates indicates that certain factors, such as site-specific environmental conditions or the adequacy of follow-up care, may be influencing the outcomes. A more tailored approach to silvicultural practices, taking into account the unique characteristics of each site, could help enhance the success rates across all compartments.

3. Soil and Moisture Conservation Work

The Soil and Moisture Conservation Work in the Saktahiya Nala area achieved a high success rate of 89%, covering a significant area of 7492 hectares. This indicates that the soil conservation techniques employed were effective in reducing erosion and improving soil moisture retention.

The success of the soil and moisture conservation work demonstrates the effectiveness of these interventions in stabilizing soil and enhancing the overall health of the ecosystem. This success can be attributed to well-implemented conservation techniques and possibly favorable environmental conditions. Expanding these efforts to other erosion-prone areas could further contribute to landscape restoration and agricultural productivity.

4. Civil and Construction Works

The Civil and Construction Works category, specifically the WBM road construction project, recorded a success rate of 83%. This project involved constructing 6800 RM (running meters) of road, which is essential for improving access to remote areas and supporting conservation efforts.

The success of the road construction project highlights the importance of infrastructure development in supporting both conservation and community access. While the project was successful, maintaining the roads and ensuring their durability will be crucial to sustaining their benefits over the long term. Incorporating sustainable construction practices and regular maintenance schedules can help preserve the integrity of these infrastructures.

The projects analyzed in this document demonstrate a range of success rates across different categories. While many of the projects, such as those involving silvicultural operations and soil conservation, show high levels of success, there are also areas where outcomes vary, indicating potential challenges that need to be addressed.

1. **Afforestation Variability:** The success of compensatory afforestation varies significantly across compartments. This suggests a need for more targeted interventions that consider site-specific conditions, species suitability, and ongoing maintenance practices.
2. **Silvicultural Consistency:** Silvicultural operations generally show strong results, but some compartments underperform, likely due to localized issues. A more customized approach to these operations could help bring all areas up to higher success rates.
3. **Effective Soil Conservation:** Soil and moisture conservation work has proven highly effective, particularly in large-scale interventions. Expanding these efforts and applying lessons learned to other areas could enhance environmental stability across the region.
4. **Infrastructure Development:** The success of the civil and construction works indicates the critical role of infrastructure in conservation efforts. Ensuring the sustainability of these projects through proper maintenance and use of durable materials will be essential.

By focusing on these insights, future projects can build on the successes achieved so far while addressing the challenges to improve overall outcomes.

Detailed results of Monitoring & Evaluation for selected sites – Koriya Division APO 2019-2020

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area	Success rate
1	Compensatory Afforestation Plantations	Additional Compensatory Afforestation Plantations Maintenance	23.35 1778	82.52 2703	455A	30.920 Hac	73.75%
2	Compensatory Afforestation Plantations	Additional Compensatory Afforestation Plantations Maintenance	22°58' 57" N	82°11' 31" E	600, 601	15	87.14%
3	NPV Plantation	Mixed Plantation	23°40' 13" N	82°25' 584" E	192	25	93.00%

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
4	Silvicultural operations	Removal of invasive alien species- Lantana	23.34 8023	82.52 5452	455A	190	Good
5	Silvicultural operations	Removal of invasive alien species- Lantana	23.29 208	82.44 1848	456	200	Good
6	Silvicultural operations	Removal of invasive alien species- Lantana	23.34 7956	82.48 7953	460	230	Good
7	Silvicultural operations	Removal of invasive alien species- Lantana	23.27 2245	82.46 6894	475	200	Good
8	Silvicultural operations	Removal of invasive alien species- Lantana	23.26 2176	82.56 3533	245	208	Optimum

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
9	Silvicultural operations	Removal of invasive alien species- Lantana	23.48 3981	82.56 6446	241	112	Good
10	Silvicultural operations	Removal of invasive alien species- Lantana	23.38 0674	82.52 5019	415	80	Good
11	Silvicultural operations	Removal of invasive alien species- Lantana	23'14' 082" N	82'30' 086" E	481	160	Good
12	Silvicultural operations	Removal of invasive alien species- Lantana	22'57' 48" N	82'17' 3" E	623	100	Optimum
13	Silvicultural operations	Removal of invasive alien species- Lantana	23.04 6977	82.18 139	595	30	Optimum
14	Silvicultural operations	Removal of invasive alien species- Lantana	23.06 4098	82.16 1334	593	30	Optimum
15	Silvicultural operations	Removal of invasive alien species- Lantana	22'57' 9" N	22'14' 14" E	603	35	Optimum
16	Silvicultural operations	Removal of invasive alien species- Lantana	22'57' 29" N	82'13' 39" E	604	31	Good
17	Silvicultural operations	Removal of invasive alien species- Lantana	22'59' 37" N	82'16' 29" E	608	30	Optimum
18	Silvicultural operations	Removal of invasive alien species- Lantana	23.08 1243	82.31 2195	580	105	Optimum

Sl.No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
19	Silvicultural operations	Removal of invasive alien species- Lantana	23.65 1851	82.13 78	78	38	Optimum
20	Soil and moisture conservation work	SMC Works - Saktahiya Nala	23.39 4363	82.41 4322	256, 257, 258,323, 324, 335,336, 337, 338,339, 340, 341B, 344, 345,346, 396, 399, 400,401, 402, 407,406	7492 Hac	Good
21	Civil and Construction Works	Upgradation of Existing Forest Roads WBM Road	23.58 9447	82.16 1361	151, 154	6800 RM	Good

Manendragarh: Division Assessment

Division Background

Manendragarh is a city located in the state of Chhattisgarh, India, and serves as the administrative headquarters of the Manendragarh-Chirmiri-Bharatpur district. The city is situated near the Chhattisgarh-Madhya Pradesh state border, at coordinates approximately 23.19°N latitude and 81.53°E longitude. This strategic location places Manendragarh close to significant transportation routes and natural resources, making it an important hub in the region.

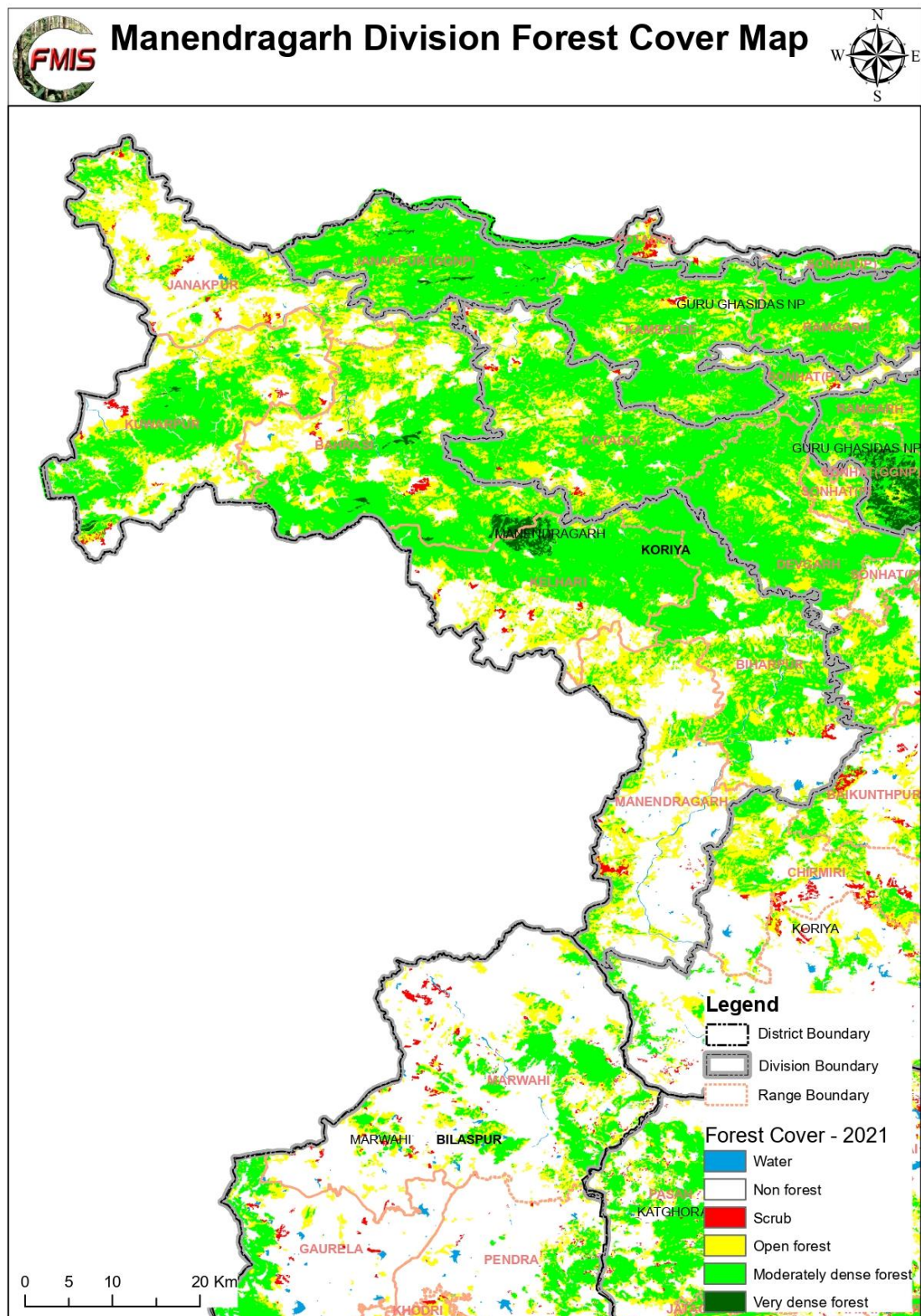
Originally part of the Koriya district, Manendragarh has a rich history, particularly linked to coal mining. The area surrounding the city is dotted with several coal mines, including Rajnagar and Ramnagar in Madhya Pradesh, and Haldibadi, West Jhagrakhand, Khongapani, South Jhagrakhand, Ledri, Nai Ledri, and North Jhagrakhand collieries in Chhattisgarh. The city's development was significantly influenced by the British Raj, which established coal excavation operations in the Jhagrakhand collieries and developed infrastructure such as roads and railway lines. This development was spearheaded by Bengali engineer Shri B.B. Lahidi, who played a crucial role in the establishment of the coal industry in the region.

Manendragarh is a city situated in the northern part of Chhattisgarh, India, and serves as the administrative headquarters of the Manendragarh-Chirmiri-Bharatpur district. The city is strategically located near the Chhattisgarh-Madhya Pradesh state border, at coordinates approximately 23.19°N latitude and 81.53°E longitude. This location places Manendragarh within a region rich in natural resources and well-connected by major transportation routes.

Manendragarh Railway Station is a key stop on the Anuppur-Chirmiri rail route, providing vital connectivity to the surrounding coalfields and contributing to the area's economic growth. National Highway 43 also passes through Manendragarh, further enhancing its accessibility and importance as a transportation hub.

Manendragarh is home to several cultural and natural attractions, making it a destination for both residents and visitors. Notable sites include the Sirrouli temple, located near Udalkachar railway station, and the Amrit Dhara Waterfall, a popular nearby attraction. The "Sidh-Baba" mount, known for its Shiva temple, and the Shiv Dhara waterfall, nestled within deep forests, are also well-known picnic spots in the area.

Division Map



Division Profile

Particulates		Details	of Range office		
Total Forest area		175787.3 Ha.	6		
Major forest types and area		RF/PF	RF-106157.15 Ha./// PF -69630.136 Ha.		
Sl.No.	Range Name	Address/ Telephone Number	RA circle	Beat	No.of Compartments
1	Manendragarh	7999876482	5	20	89
2	Blharpur	7987826792	5	23	107
3	Kelhari	9301222132	4	13	124
4	Bahrasi	9340076002	5	18	169
5	Kunwarpur	9617338162	4	19	138 (32638.543 Ha.)
6	Janakpur	7587015505	4	14	90
Total No of JFMCs		202			
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area					
Enclose Vegetation Map (if available)					
No of projects in APO 2019-20			52		

Category wise Category wise sampled strata for Monitoring & Evaluation – Manendragarh Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Soil and moisture conservation work	42	11
2	Construction & Maintenance of Forest assets	3	1
3	Forest/Fire Protection Works	6	3
Total		51	15

Analysis

Based on the summary of the projects evaluated for Monitoring & Evaluation (M&E) in the 2019-20 period, the following analysis provides insights into the effectiveness and outcomes of the various CAMPA initiatives, particularly focusing on soil moisture conservation, construction and maintenance of forest assets, protection measures, and other mandatory works.

1. Soil Moisture Conservation Projects (NARWA Yojna)

The NARWA Yojna initiative, which focuses on soil moisture conservation across several compartments, has shown promising success rates, ranging from 82.6% to 90%. The projects, covering significant areas from Koilaribari (762) to Baghmandal Nala (1357), have effectively contributed to water retention, erosion control, and enhanced forest regeneration. For example, the project in Turrapani Nala (Compartment 1043) achieved a 90% success rate, indicating the efficacy of the soil moisture conservation techniques employed. Overall, the high success rates reflect the strategic site selection and implementation of conservation practices that are well-suited to the local environmental conditions.

Key Insights:

- **Consistency in Success Rates:** Most projects under NARWA Yojna exhibit success rates above 85%, demonstrating a consistent and effective approach to soil moisture conservation. The variation in success rates, although slight, suggests that some sites may require more tailored interventions or additional follow-up maintenance to reach optimal outcomes.
- **Geographical Suitability:** The diverse locations of these projects, spanning different compartments, highlight the program's adaptability to various terrains and environmental conditions. This adaptability is crucial for expanding the scope of soil moisture conservation efforts across the region.

2. Construction & Maintenance of Forest Assets

The construction and maintenance of forest assets, particularly the WBM road in Compartment 773, achieved an 85% success rate. This project was integral in improving access to forest areas, facilitating better management and conservation activities. The success of this infrastructure project underlines the importance of durable and well-maintained roads in supporting forest conservation efforts.

Key Insights:

- **Infrastructure's Role in Conservation:** The successful construction of the WBM road demonstrates how critical infrastructure can enhance the effectiveness of forest management. Proper maintenance of these assets is essential to ensure their long-term utility, especially in forested areas where access can be challenging.

3. Protection Measures (Chain Link Enclosures)

The chain link enclosure projects aimed at protecting specific forest areas from encroachment and illegal activities achieved success rates ranging from 83% to 87%. These enclosures, implemented in compartments such as 1266 and 1032/1031, play a vital role in safeguarding regenerating forests and preventing biotic pressure from grazing and human interference.

Key Insights:

- **Effectiveness of Physical Barriers:** The high success rates of chain link enclosures highlight their effectiveness in forest protection. However, the variation in success rates suggests that continuous monitoring and possibly enhancing the structural integrity of these enclosures may be needed to maintain their protective function.

4. Other Mandatory Work (Fire Watchers)

The deployment of fire watchers across six ranges and 107 beats resulted in a success rate of 89%. This initiative is crucial for early detection and prevention of forest fires, which pose significant threats to forest ecosystems.

Key Insights:

- **Critical Role in Fire Prevention:** The success of the fire watcher program underscores its importance in protecting forest areas from fire-related damage. Continued investment in this area, along with regular training and adequate resources for fire watchers, will be vital in mitigating the risk of forest fires.

Overall Summary

The projects assessed in this analysis demonstrate a high level of effectiveness in achieving their objectives, particularly in soil moisture conservation, forest asset maintenance, and protection measures. The consistently high success rates, ranging from 82.6% to 90%, indicate that the strategies and practices implemented are largely successful. However, there remains room for improvement in areas such as ongoing maintenance, tailored interventions for specific sites, and enhanced protection measures to ensure long-term sustainability. The geographical diversity of these projects highlights the adaptability of CAMPA initiatives to different environmental conditions, making them well-suited for broader application across the region. Continued focus on monitoring, maintenance, and community engagement will be essential for sustaining these positive outcomes.

Detailed results of Monitoring & Evaluation for selected sites – Manendragarh Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Soil and moisture conservation work	SMC Works	23.40 49476	82.27 366371	jamti thihayi nala {812} 809, 815, 823, 824, 825, 826, 833, 834, 835	1567 ha	Good
2	Soil and moisture conservation work	SMC Works	23.39 2907	82.28 3383	hathichul nala {810 A} 809, 814, 815, 836	708 ha	Good
3	Soil and moisture conservation work	SMC Works	23.61 1733	81.99 0436	Jamad nadi {1099} P1025	184 ha	Good
4	Soil and moisture conservation work	SMC Works	23.35 99908	82.29 15751	Koilaribari {762} 763, 771, 772, 773, 810A, 813	952 Ha	Good
5	Soil and moisture conservation work	SMC Works	23.39 297768	82.27 510066	belhayiha nala {809} 812, 815, 823, 824, 824, 836	490 ha	Good
6	Soil and moisture conservation work	SMC Works	23.38 2912	82.26 8533	lalmathha {811} 812	45.8 ha	Good
7	Soil and moisture conservation work	SMC Works	23.47 295683	82.11 096	Khatmbar nala {910}	298 ha	Good
8	Soil and moisture conservation work	SMC Works	23.57 11194	81.92 68417	Turrapani nala {1043}	153 ha	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
9	Soil and moisture conservation work	SMC Works	23.62 5781	81.75 8508	Badki nala {1244} 1208, P1178, 1249, 1243	366 ha	Good
10	Soil and moisture conservation work	SMC Works	23.63 1804	81.75 7708	Badki nala {1249} 1244, 1250	100 ha	Good
11	Soil and moisture conservation work	SMC Works	23.77 169444	81.67 016667	Baghmandal nala {1357}	17.6 ha	Good
12	Construction & Maintenance of Forest assets	Upgradation of Existing Forest Roads (WBM Road)	23.36 870278	82.30 643056	Forest (WBM) road 773	1 KM (3800 sq.m.)	Good
13	Forest/Fire Protection Works	Chain link enclosure	23.72 061389	81.78 955833	1266	180 sq.m.	Good
14	Forest/Fire Protection Works	Chain link enclosure	23.62 5212	81.96 5871	P 1031, P 1032	3600 sq.m.	Good
15	Forest/Fire Protection Works	fire watcher	23.31 7192	82.38 1458	6 Range	107 beat	Good

Surajpur: Division Assessment

Division Background

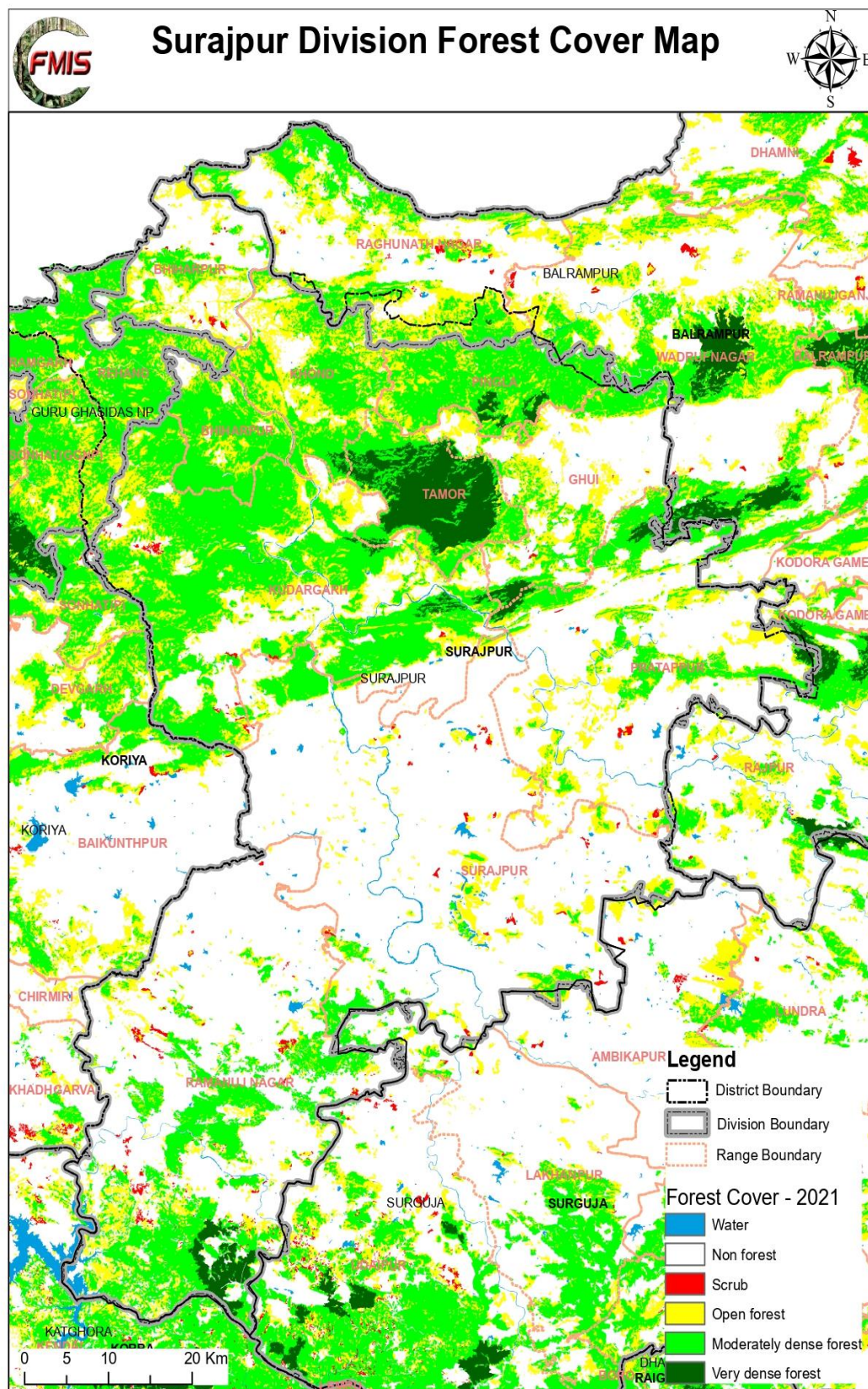
The Surguja Forest Division is a prominent ecological zone located in the northern part of Chhattisgarh, India, covering six districts: Surguja, Koriya, Manendragarh, Surajpur, and Jashpur. Geographically, the division is situated between approximately 22.50°N to 24.00°N latitude and 81.00°E to 84.00°E longitude, encompassing a vast area of 22,237 square kilometers. This region is predominantly forested and hilly, forming part of the northern extension of the Chhota Nagpur Plateau. The terrain is characterized by dense forests, rolling hills, and rich natural resources, including bauxite, forest products, and extensive paddy cultivation.

The Surajpur Forest, within this division, plays a critical role in the local ecology. It is bordered by Uttar Pradesh to the north, Madhya Pradesh to the west, and other districts of Chhattisgarh to the south and east. The Surajpur Forest Division alone spans a significant forested area of approximately 1,655.72 square kilometers, which is further divided into three primary categories: Reserved Forest (RF), Protected Forest (PF), and Orange Area. These forest types are integral to the conservation of biodiversity, providing habitats for a variety of flora and fauna.

The forests within the Surguja Division are crucial for maintaining the ecological balance of the region. The area is rich in wildlife, including several endangered species, and supports diverse ecosystems. The division's forests are not only a vital source of natural resources but also play a key role in the livelihoods of the local tribal communities who rely on them for sustenance and economic activities.

In addition to its ecological significance, the region is noted for its mineral wealth, particularly bauxite, which is extensively mined in some parts of the division. The combination of natural resources, including the fertile land for paddy crops, makes the Surguja Division a critical area for both conservation and economic development in Chhattisgarh. The forest management practices in the division are focused on sustainable use, conservation, and protecting the rich biodiversity of this forested landscape.

Division Map



Division Profile

Particulates		Details		Remarks if any	
Total Forest area		1655.72246Sq KM			
Major forest types and area		RF , PF , Orange Area			
Sl. No	Range Name	Address	Section / RA circle	Beat	No. of Compartments
1	Surajpur	Forest Range office Surajpur(Gram Panchayat - Surajpur) Block Surajpur	7	24	115
2	Ramanujnagar	Forest Range office Ramanujnagar, Block Premnagar	6	22	123
3	pratappur	Forest Range office pratappur,Block- Pratappur	7	23	133
4	Ghui	Forest Range office Ghui Block – pratappur	3	13	57
5	Kudargarh	Forest Range office kudargarh,Block- odgi	6	23	198
6	Biharpur	Forest Range office biharpur,Block- odgi	3	14	76
Total No of JFMCs/ EDCs EDCs and community memberships			No of JFMCs/ EDCs Associated with CAMPA WORKS		306
No of projects in APO 2019-20		23			

Category wise sampled strata for Monitoring & Evaluation – Surajpur Division APO 2019-2020

Sr. No.	Category of Projects	Total no. of projects	Sampled sites
1	Compensatory Afforestation Plantation	8	1
2	Soil and moisture conservation work	9	2
3	Green Cover Plantation	3	1
4	Wildlife Management Plan		1
5	Civil and Construction Works		1
6	Nursery & Development	2	1
7	Other Mandatory Works	1	1
Total		23	8

Analysis

The Surajpur Forest Division has undertaken several CAMPA (Compensatory Afforestation Fund Management and Planning Authority) projects during the 2019-2020 period, aimed at enhancing biodiversity, promoting sustainable forest management, and improving soil and moisture conservation. The total forest area in the Surajpur division spans approximately 1,655.72 square kilometers, categorized into Reserved Forest (RF), Protected Forest (PF), and Orange Area. This analysis delves into the specifics of these efforts, highlighting their scope, execution, and impact.

Forest Area and Types

The forest division comprises multiple ranges, including Surajpur, Ramanujnagar, Pratappur, Ghui, Kudargarh, and Biarpur, each further divided into numerous compartments. These compartments are the focal points for various afforestation and conservation activities.

Plantation Projects

Several plantation projects were undertaken to compensate for deforestation and enhance the region's biodiversity. Key projects include Mixed Plantation and Green Cover Plantation. 40 hectares of CA Mixed Plantation was done with the survival rate of 96.9%. The species planted were Siris, Teak, Arjun, Khamhar, Mahua, Mango, Amla, Bamboo, Imli, Sal etc. Similarly, 50 hectares of Green Cover Plantation was done with the survival rate of 92.7%. The high survival rates (around 96.9%) indicate the effectiveness of the plantation efforts, reflecting appropriate species selection and effective maintenance practices.

Soil and Moisture Conservation (SMC)

The SMC works were extensive, focusing on preventing soil erosion and enhancing water retention. Activities included: Boulder Check Dams (BWCD), Loose Boulder Check Dams (LBCD), Gabion Structures, Earthen Tanks (ECT), Stone Check Dams (SCD), Contour Trenches (SCT) and Dykes.

Most SMC works were evaluated as "Good," indicating successful implementation. These structures played a crucial role in stabilizing soil, reducing erosion, and improving water availability for plantations.

Nursery Development

Nursery development was crucial for ensuring a steady supply of healthy seedlings for plantation projects. Despite achieving only 3% of the financial target, the nursery maintained adequate infrastructure, including:

- Sufficient resources for seedling growth
- Water facilities (though needing improvement)
- Seed rooms (though needing improvement)

General Observations

- Record Maintenance: Plantation journals and records were meticulously maintained, ensuring transparency and accountability.
- Site Selection: Appropriate sites were selected for plantations, considering factors like soil type, water availability, and ecological suitability.
- Species Selection: The choice of species was well-suited to the local environment, contributing to high survival rates.
- Irrigation Facilities: Adequate irrigation facilities were developed, ensuring the healthy growth of plants.

Economic Benefits

The afforestation projects provided several economic benefits to local communities, including Fodder for livestock, Fuelwood and Non-timber forest products (NTFP). These benefits contributed to the livelihoods of local inhabitants, fostering community support for the conservation efforts.

Impact:

- Biodiversity: The plantation enhanced local biodiversity, creating a healthier and more resilient ecosystem.
- Economic Benefits: Local communities benefited from the project through the provision of fodder, fuelwood, and other NTFP.
- Community Involvement: The success of the project fostered community involvement and support for future conservation efforts.

Detailed results of Monitoring & Evaluation for selected sites – Surajpur Division APO 2019-2020

Sl. No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Success rate
1	Compensatory Afforestation Plantation	Surajpur	Compensatory Afforestation Plantation	23.40134	82.951553	P 1628	40 Ha	81%
2	Green Cover Plantation	Surajpur	Green Cover Plantation	23.12722	82.872318	P 1762	50 Ha	87%

Sl. No.	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
3	Soil and moisture conservation work	Ghui	SMC Works - Bonganala	23.62184	83.084025	P 233,234,236	550 Ha	Good
4	Soil and moisture conservation work	Ghui	SMC Works - Rampanala	23.05622	82.703665	P 1782,1783, 1784,1793, 1794	2553 Ha	Good
5	Integrated Wildlife Management Plan	Surajpur	Ketki underground project Construction of earthen tank	23.11088	82.89747	P 1761, P 1762	20 Ha (6094.445)	Good
6	Nursery & Development	Surajpur	Nursery & Development	23.21648	82.88735	P 1736	1	Good
7	Civil and Construction Works	Ramanujanagar	High Teck Barrier	22.83438	82.737348	P 1985	1 (3000 Sq.Ft)	Good
8	Other Mandatory Works	Pratappur	Avi Fauna Development	23.50647	83.133722	P 110,111,112, 113,120,131,132	5.3	Optimum

Surguja: Division Assessment

Division Background

Surguja Forest Division is located in the northern part of Chhattisgarh, within the Surguja district, which is known for its rugged terrain, dense forests, and rich biodiversity. The district lies in the northeastern corner of the state and shares its borders with the states of Uttar Pradesh to the north, Jharkhand to the east, and Madhya Pradesh to the west. Surguja is characterized by a mix of hilly regions, plateaus, and plains, with elevations ranging from about 600 to 1,200 meters above sea level. The Maikal and Vindhya ranges run through the district, contributing to its varied topography.

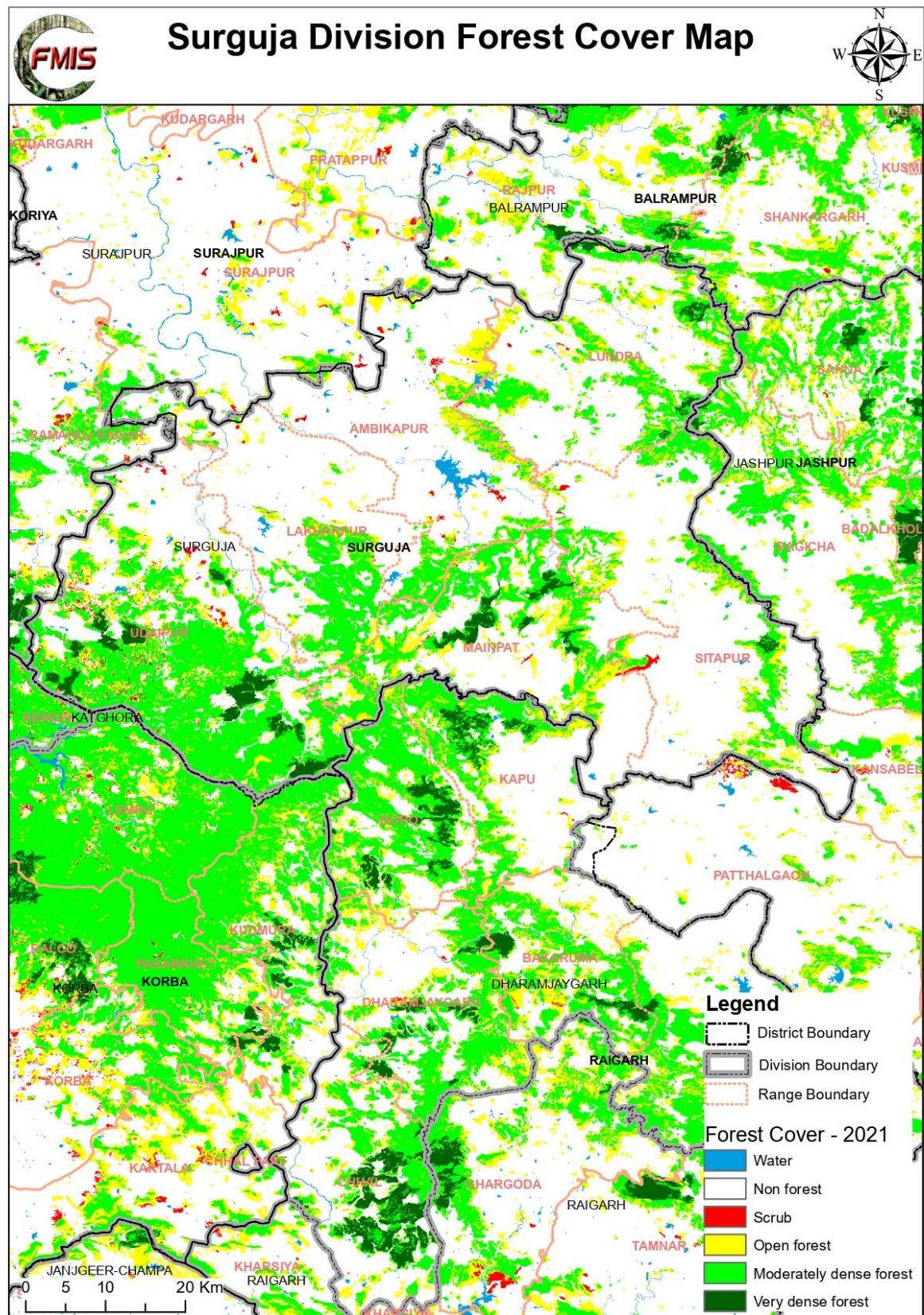
The region is also crisscrossed by several rivers, including the Kanhar, Rihand, and Mahan rivers, which play a crucial role in sustaining the local ecosystems and providing water for agriculture and other activities. The climate in Surguja is generally tropical, with hot summers, a monsoon season that brings heavy rainfall, and mild winters. The diverse geographical features and climatic conditions make Surguja an important area for forestry and biodiversity conservation in Chhattisgarh.

Surguja Forest Division is known for its extensive forest cover, which includes tropical moist deciduous forests, tropical dry deciduous forests, and patches of evergreen forests in certain areas. The forests are home to a wide variety of tree species, with Sal (*Shorea robusta*) being the most dominant, along with Teak (*Tectona grandis*), Bamboo (*Bambusoideae*), and other hardwood species.

The forests of Surguja are also a part of the larger Central Indian Forest Belt, which is one of the most significant ecological zones in India. This region is known for its rich biodiversity, including several endangered species of flora and fauna. The forests provide habitat for a variety of wildlife, including tigers, leopards, elephants, sloth bears, and numerous species of deer and birds. The presence of these species highlights the importance of conservation efforts within the division.

The forest division is divided into several ranges for effective management and conservation. These ranges are responsible for the protection of the forests, implementation of afforestation and reforestation programs, and enforcement of laws against illegal activities such as poaching and logging. These tribal communities rely heavily on the forest for their livelihoods, engaging in activities such as agriculture, collection of non-timber forest products (NTFPs), and traditional crafts.

Division Map



Division Profile

Particulates		Details	
Total Forest area		149078.927 Ha.	
Major forest types and area		RF – 135404.8 PF- 13674.127	
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments	
1	Ambikapur , prtappur chouk ambikapur, Mo.No. 7999754790	77	
2	Lundra, Main bus stand Lundra, Mo.N. 8962350836	86	
3	Sitapur ,Near to bus stand sitatpur, Mo.No. 9109383500	118	
4	Lakhanpur , just beside the lakhanpur police station, Mo.N. 9301054479	75	
5	Udaipur, near to bus stand Udaipur, Mo.N. 9479182095	231	
6	Mainpat (kamleswarpur), Infront of kamleshwarpur police station, Mo.N. 9424262516		
Total No of JFMCs		352	
No of projects in APO 2019-20			42

Category wise sampled strata for Monitoring & Evaluation – Surguja Division APO 2019-2020

Sl.No	Category of Projects	Total no of projects	Sampled sites
1	Integrated Wildlife management plan	15	3
2	Silvicultural operations	13	4
3	Forest/Fire Protection Works	1	1
4	Soil and moisture conservation work	7	3
5	Civil and Construction work	5	1
Total		42	12

Analysis of CAMPA Projects in Surguja Division (2019-2020)

The CAMPA (Compensatory Afforestation Fund Management and Planning Authority) projects in the Surguja Division reflect a well-rounded approach to ecological management and forest conservation. These projects encompass wildlife habitat improvement, silvicultural operations, soil and moisture conservation, and infrastructure development, addressing both environmental and operational priorities.

- Under the Wildlife Management Plan, significant efforts were made to construct ponds in the Suyiya Jungle at Kedma (A) and Sayar, each with a capacity of 234,136.9 cubic feet. These ponds have become essential water sources for wildlife, particularly during dry periods, contributing to biodiversity support. Additionally, the formation of the Hathi Mitra Dal in Udaipur demonstrates proactive efforts to mitigate human-elephant conflicts, fostering harmony between local communities and wildlife.
- Silvicultural operations focused on the removal of invasive alien species like Lantana in three compartments (P-2496, P-2580, and P-2671), covering a total of 150 hectares. These efforts are crucial for restoring native vegetation and enhancing forest health. Complementing this was the improvement of growing stock in orange areas at Dharmapur, spanning 20 hectares, which promotes sustainable forest productivity and supports livelihoods.
- Efforts to protect sacred groves, such as the one at Budha Sarna in Parsa, emphasize the cultural and ecological significance of these biodiversity hotspots. Preserving sacred groves not only protects unique ecosystems but also strengthens the connection between local communities and conservation efforts.
- Soil and moisture conservation (SMC) works were conducted at Bagicha Nala, Kendali Nala in Sitapur, and Gundru Darha Nala, addressing soil erosion and water retention challenges. These projects spanned areas of 2,492.91 sqm, 271.33 sqm, and 585.06 sqm, respectively, enhancing land productivity and contributing to watershed management.
- Infrastructure development was another highlight, with the construction of a residential building for the Van Parichetra Adhikari (Forest Officer) in compartment P2029, covering 180 sq. meters. This facility improves living conditions for forest staff, supporting their operational efficiency and facilitating better forest management.

Detailed results of Monitoring & Evaluation for selected sites – Surguja Division APO 2019-2020

Sl. No	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Integrated Wildlife management plan	Pond construction work Suyiya Jungal, Kedma (A)	22.7781	83.0255	P 2225	234136.9 cubic feet	Good
2	Integrated Wildlife management plan	Pond construction work Suyiya Jungal, Sayar	22.7849	83.0099	P 2040	234136.9 cubic feet	Good
3	Integrated Wildlife management plan	Hathi mitra dal	-	-	Udaipur—231 compartment	-	Good
4	Silvicultural operations	Removal of invasive alien species- Lantana	23.0434	83.2798	P-2496	50	Good
5	Silvicultural operations	Removal of invasive alien species- Lantana	23.139	83.2172	P-2580	50	Good
6	Silvicultural operations	Removal of invasive alien species- Lantana	23.2285	83.4953	P-2671	50	Good
7	Silvicultural operations	Improvement of growing stock in orange area Sitapur	22.4746	83.318	Oranges area dharmapur	20 Ha.	Good
8	Forest/Fire Protection Works	Protection of Sacred Groves - Sarnadev Sitapur	23.0314	83.3258	budha sarna parsa	0.02	Good
9	Soil and moisture conservation work	SMC Works - Bagicha naala	22.8358	83.1368	P 2285	2492.91 Sqm	Good
10	Soil and moisture conservation work	SMC Works - Kendali nala, Sitapur	22.8202	83.5963	P 2440	271.33 Sqm	Good
11	Soil and moisture conservation work	SMC Works - Gundru darha Nala	22.8122	83.2184	P 2330	585.06 Sqm	Good
12	Civil and Construction work	Van Parichetra Adhikari Awasiya bhawan nirman karya	22.9116	82.9522	P2029	180 sq. meter	Good

ATR Bilaspur: Division Assessment

Division Background

Achanakmar Tiger Reserve, located in the Bilaspur district of Chhattisgarh, India, is one of the most significant and ecologically rich tiger reserves in central India. Geographically, the reserve is positioned between latitudes 22.15°N to 22.58°N and longitudes 81.25°E to 82.02°E, covering an extensive area of approximately 914.01 square kilometers. The reserve is part of the larger Achanakmar-Amarkantak Biosphere Reserve, which spans across Chhattisgarh and Madhya Pradesh, encompassing diverse landscapes that include dense forests, hilly terrains, and river valleys. The topography is characterized by the Maikal range of the Satpura Hills, contributing to the area's rich biodiversity and scenic beauty.

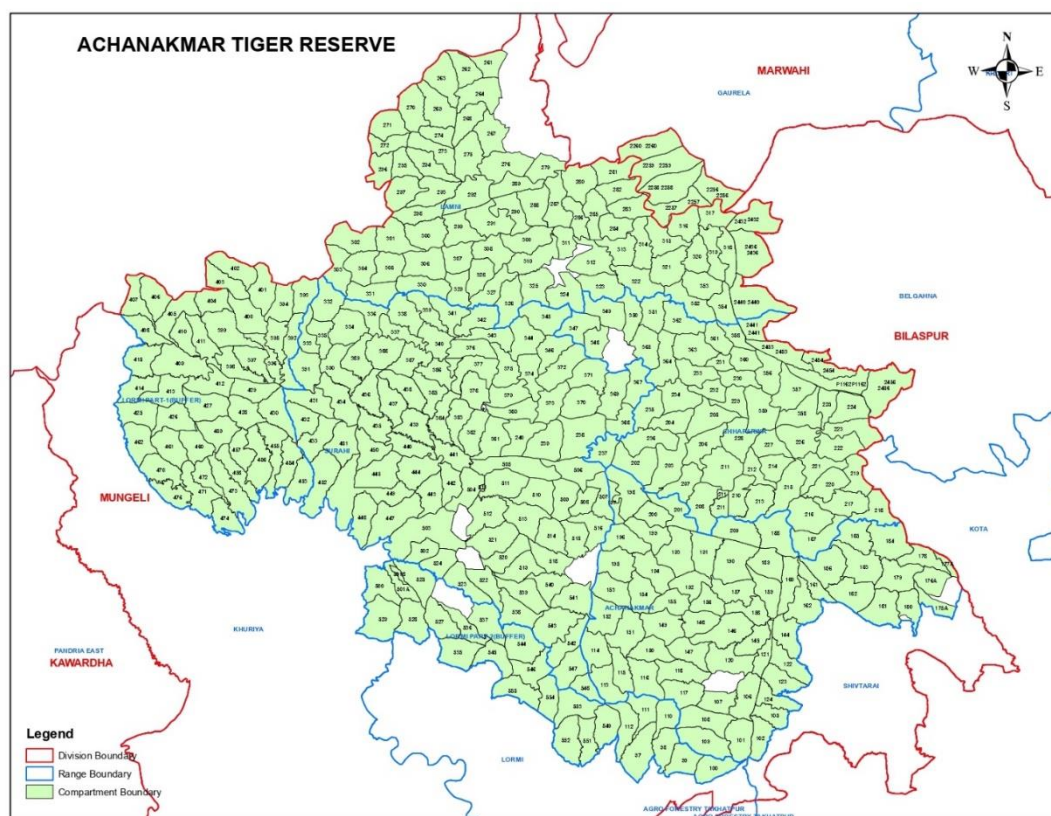
The forests in Achanakmar Tiger Reserve are primarily tropical moist deciduous, with a diverse range of flora. The dominant tree species include Sal (*Shorea robusta*), Teak (*Tectona grandis*), and Bamboo (*Bambusoideae*), along with other species like Mahua (*Madhuca longifolia*), Tendu (*Diospyros melanoxylon*), and Arjun (*Terminalia arjuna*). These forests are crucial for maintaining ecological balance, supporting a wide variety of wildlife, and serving as a significant carbon sink.

The dense forest cover in the reserve provides a critical habitat for numerous species of fauna, including the Bengal tiger (*Panthera tigris tigris*), which is the flagship species of the reserve. Other notable wildlife includes leopards, Indian bison (Gaur), wild boars, sloth bears, and several species of deer such as chital and sambar. The reserve is also home to a rich diversity of bird species, reptiles, and insects, contributing to its status as a biodiversity hotspot.

Achanakmar Tiger Reserve is part of India's Project Tiger initiative, which aims to protect and conserve the Bengal tiger and its habitat. The reserve's management focuses on habitat preservation, anti-poaching measures, and community involvement in conservation efforts. Regular monitoring of wildlife populations, habitat restoration projects, and the prevention of illegal activities like logging and poaching are key components of the conservation strategy.

The reserve's integration into the larger Achanakmar-Amarkantak Biosphere Reserve further enhances its ecological significance, providing a continuous habitat for wildlife and facilitating the movement of species across the landscape. This connectivity is vital for maintaining genetic diversity and the overall health of the tiger population.

Division Map



Division Profile of Achanakmar Tiger Reserve

Particulars		Details		Range office	
Total Forest area		914.017Sqm		7	
Major forest types and area		RF/PF	RF-87607.197 Ha./// PF -3892.015 Ha		
Sl.No.	Range Name	Address/ Telephone Number	RA circle	Beat	No.of Compartments
1	Achanakmar	7354091839	6	17	51
2	Chhaparwa	9685499848	4	18	54
3	Lamni	9770433880	6	19	65
4	SURAH	9131525704	5	26	81
5	Kota Buffer	9424143510	3	8	22
6	Keonchi Buffer	8889441590	2	5	24
7	Lormi Buffer Part 1,2	8770614131	5	16	72
Total No of JFMCs/EDC		31			
No of projects in APO 2019-20		34			

**Category wise sampled strata for Monitoring & Evaluation – Achanakmar
Bilaspur Division Wildlife Circle APO 2019-2020**

Sl. No.	Category of Projects	Total no. of projects	Sampled sites
1	Forest/Fire Protection Works	1	1
2	Soil and moisture conservation work	6	2
3	Silvicultural operations	16	4
4	Wildlife Habitat Improvement	11	3
Total		34	10

Analysis of Projects in Achanakmar Tiger Reserve (2019-2020)

1. Forest/Fire Protection Works

The deployment of fire watchers across 109 beats in buffer zones such as Achanakmar Chhapparwa, Lamni, Surhi, Kota Buffer, Keonchi Buffer, and Lormi Buffer reflects a proactive approach to forest fire management. This strategy ensures constant monitoring of vulnerable areas and helps mitigate fire risks, which are particularly high during dry seasons. However, the reliance on manpower alone could present challenges, including inconsistencies in monitoring and delayed responses to fire outbreaks. While fire watchers serve as a frontline defense, the integration of advanced fire detection technologies, such as remote sensors and satellite imagery, would complement these efforts and enable quicker, more accurate interventions. This project aligns with the broader objective of safeguarding the reserve's ecosystem, but its long-term impact requires detailed reporting and analysis of fire incidence trends.

2. Soil and Moisture Conservation Works

Significant investments were made in soil and moisture conservation (SMC) activities, covering 652 hectares at Maniyari Nala and an impressive 2050 hectares at Rakshachhak Nala. These efforts play a crucial role in preventing soil erosion, improving groundwater recharge, and stabilizing the hydrological cycle in the reserve. The focus on SMC works demonstrates a commitment to ensuring the long-term health of forest ecosystems. However, the vast areas treated indicate the necessity of regular follow-up to assess the effectiveness of interventions. Metrics such as changes in soil moisture levels, vegetation cover, and reduction in siltation rates should be documented to evaluate the impact comprehensively. Furthermore, expanding similar efforts to other critical areas within the reserve could amplify benefits, particularly in regions with high erosion risks or where water availability directly impacts wildlife habitats.

3. Silvicultural Operations

The removal of invasive alien species spanned 110 hectares across compartments like Satapani, Atariay, Matinala, and Sambhardhasan. This project addresses a critical ecological challenge, as invasive species can outcompete native flora, disrupt ecosystems, and reduce biodiversity. By targeting these species, the reserve promotes the regeneration of native vegetation, which serves as a foundation for healthy forest ecosystems. However, the areas treated are relatively small compared to the potential scale of invasive species infestation across the reserve. Moreover, without adequate post-removal management, there is a risk of reinfestation. Additional measures, such as replanting treated areas with native species and conducting community awareness programs, can ensure sustained results. Collaborations with ecological experts could further enhance the effectiveness of these operations by identifying priority areas and developing long-term management strategies.

4. Wildlife Habitat Improvement (Grassland Development)

Grassland development projects covered a total of 95 hectares across Jalda, Jampani, and Ranjki compartments, focusing on enhancing forage availability for herbivores. These interventions directly support prey species, ensuring a stable food chain that benefits apex predators like tigers. By improving habitat quality, these efforts contribute to the overall goal of ecological restoration and wildlife conservation. However, the scale of grassland development appears modest relative to the reserve's size, and a more extensive coverage could yield greater benefits. Additionally, periodic assessments of forage quality and wildlife usage of these grasslands are essential to understand their impact. Integrating water sources into grassland areas and connecting these habitats with other ecological zones could further enhance their functionality. Monitoring wildlife activity through camera traps and GPS-based tracking systems would provide valuable data on the success of these interventions.

The analysis highlights the need for a more holistic and integrated approach to conservation, incorporating advanced technologies, community participation, and robust impact evaluation frameworks. Expanding successful initiatives like soil conservation and grassland development to cover more areas while ensuring continuous monitoring and maintenance would further enhance the reserve's ecological health. By addressing these gaps, the Achanakmar Tiger Reserve can achieve more sustainable and impactful conservation outcomes.

Detailed results of Monitoring & Evaluation for selected sites – Achanakmar Tiger Reserve Bilaspur Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ treatment of details	Qualitative Assessment
1	Forest/Fire Protection Works	Fire watcher	22° 32' 54.40	81° 43' 16.93	Achanakmar Chhapparwa, lamni, Surhi, Kota Buffer, Keonchi Buffer, Lormi Buffer	109 Beat	Optimum
2	Soil and moisture conservation work	SMC Works - Maniyari Nala	22° 20 08.4"	81°50' 40.6"	101 RF Sihawal	652 Ha.	Good
3	Soil and moisture conservation work	SMC Works - Rakshachhak Nala	22 33.76	81 41. 612	RF 299 Ranjki Beat	2050 Ha.	Excellent
4	Silvicultural operations	Removal of invasive alien species	22.23.28.9	81.50. 34.9	Satapani compt. 157 RF	30 Ha.	Good
5	Silvicultural operations	Removal of invasive alien species	22°23'40.9"	81°42' 55.3"	Atariay 539 RF	50 Ha.	Good
6	Silvicultural operations	Removal of invasive alien species	22,34,30	81.45.7	Matinala compt. 288	20 Ha.	Good
7	Silvicultural operations	Removal of invasive alien species	22028'32.28	81052' 5.41'	Sambhardhasan 358	10 Ha.	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ treatment of details	Qualitative Assessment
8	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	22.22.20.2	81.47. 12.0	Jalda 151	20 Ha.	Good
9	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	22°22'08.5"	81°44' 50.9"	Jampani compt. 543	25 Ha.	Good
10	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	22.34.41	81.48. 20	Ranjki compt. 272	50 Ha.	Good

Elephant Reserve Surguja: Division Assessment

Division Background

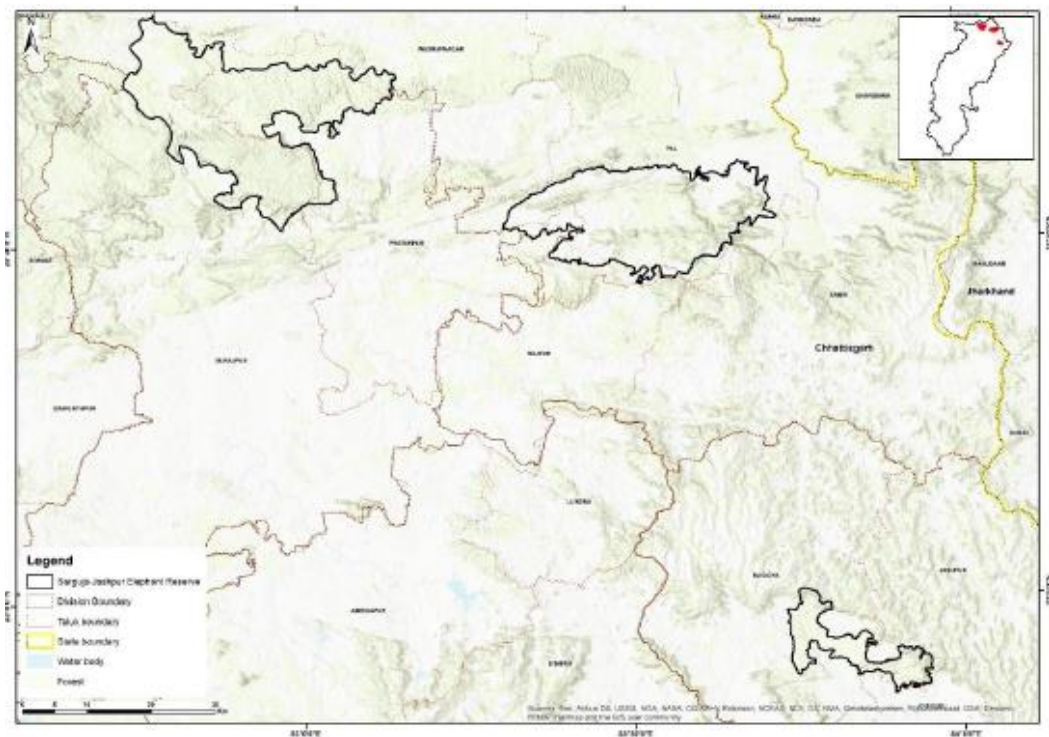
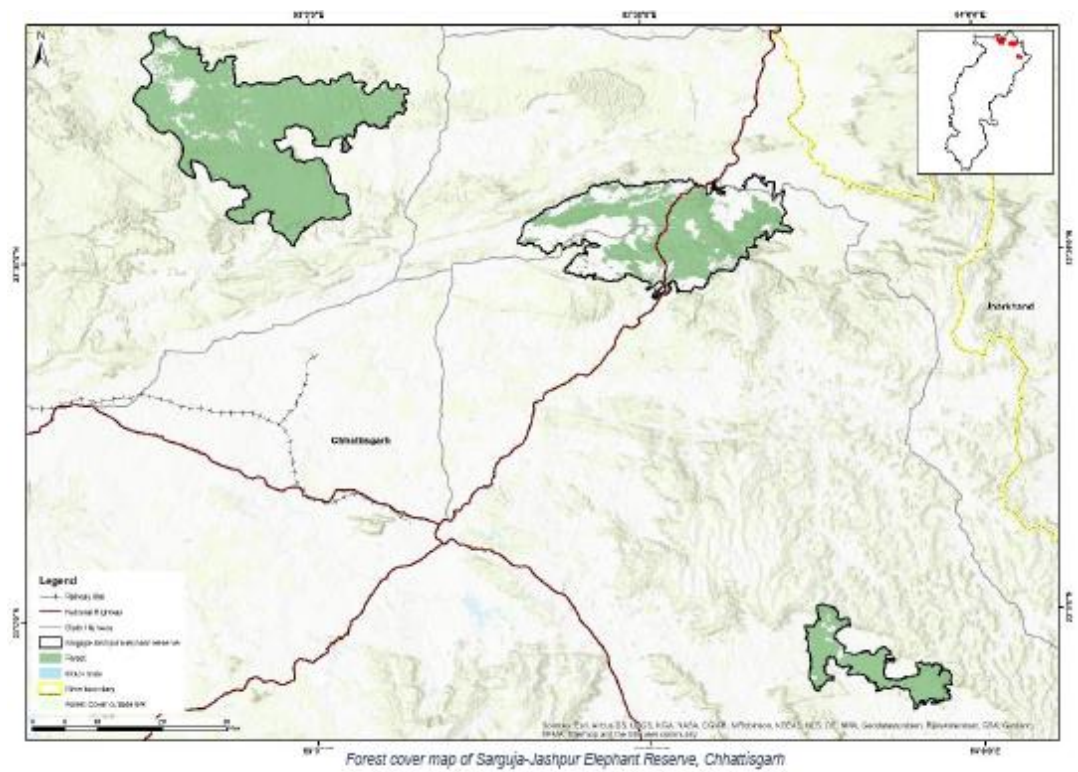
The Surguja-Jashpur Elephant Reserve, located in the northern part of Chhattisgarh, spans an area of 1,143.34 square kilometers. The reserve was officially notified on 15th September 2011 by the Chhattisgarh Forest Department in line with the guidelines provided by the Project Elephant Division of the Ministry of Environment, Forest, and Climate Change (MoEF&CC), Government of India. Geographically, the reserve is positioned between latitudes 22.50°N to 23.50°N and longitudes 83.00°E to 84.50°E, covering parts of the North Surguja, East Surguja, and Jashpur Forest Divisions.

The terrain within the reserve is predominantly hilly and forested, forming part of the larger Chhota Nagpur Plateau. The reserve's landscape includes a mixture of reserve forests and protected areas, with significant portions covered by Semarsot, Tamor-Pingla, and Badalkhol Wildlife Sanctuaries. These sanctuaries contribute to the ecological richness and biodiversity of the region, providing critical habitats for a variety of wildlife species, including elephants. According to the Forest Survey of India (FSI) Forest Type (2009) data, the Surguja-Jashpur Elephant Reserve encompasses a diverse range of forest types. These include:

- Southern Moist Mixed Deciduous Forest: Characterized by a variety of hardwood species, this forest type is found in the moister regions of the reserve and supports a rich biodiversity.
- Dry Peninsular Sal Forest: Dominated by Sal (*Shorea robusta*), this forest type is prevalent in the drier areas and plays a crucial role in the ecology of the region.
- Northern Dry Mixed Deciduous Forest: This forest type includes a mix of deciduous tree species adapted to the drier conditions in the northern parts of the reserve.
- Dry Deciduous Scrub: Found in areas with poor soil and lower moisture levels, this forest type consists of thorny shrubs and small trees.
- Dry Bamboo Brake: Bamboo-dominated areas within the reserve, providing important habitat for wildlife and contributing to the structural diversity of the forests.

The diversity of forest types within the Surguja-Jashpur Elephant Reserve creates a complex mosaic of habitats, each supporting different species of flora and fauna. The presence of these varied ecosystems is essential for maintaining the ecological balance and supporting the reserve's elephant population.

Division Map

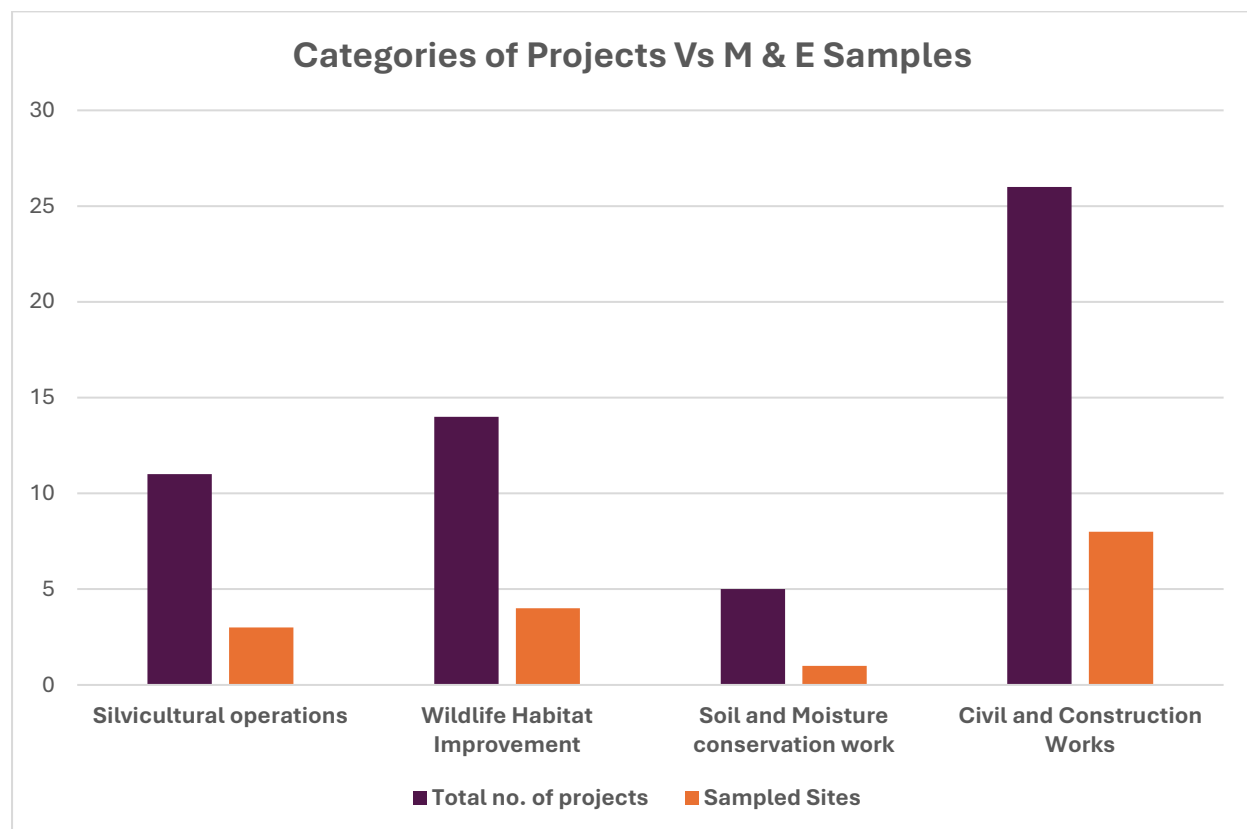


Division Profile

Particulars		Details	Remarks if any		
Total Forest area		1655.72246Sq KM			
Major forest types and area		RF , PF , Orange Area			
Sl. No	Range Name	Address	No.of Beat	No.of Circle	No. of Compartments
1	Tamor	Tamor Pingla Sanctuary Dist-Surajpur (C.G.)	18	5	62
2	Pingla	Tamor Pingla Sanctuary Dist-Surajpur (C.G.)	16	6	70
3	Khond	Tamor Pingla Sanctuary Dist-Surajpur (C.G.)	19	7	72
4	Kodoura	Semarsot Sanctuary Dist-Balrampur (C.G.)	19	5	56
5	Balrampur	Semarsot Sanctuary Dist-Balrampur (C.G.)	21	4	61
6	Narayanpur	Badalkhol Sanctuary Dist-Jashpur (C.G.)	20	5	32
Total No of JFMCs/ EDCs EDCs and community memberships		No of JFMCs/ EDCs Associated with CAMPA WORKS			
No of projects in APO 2019-20		56			

**Category wise sampled strata for Monitoring & Evaluation – Elephant Reserve
Surguja Division APO 2019-2020**

Sr. No.	Category of Projects	Total no. of projects	Sampled Sites
1	Silvicultural operations	11	3
2	Wildlife Habitat Improvement	14	4
3	Soil and Moisture conservation work	5	1
4	Civil and Construction Works	26	8
Total		56	16



Analysis

The analysis of the sampled CAMPA projects across various categories offers a detailed view into the diverse efforts aimed at forest conservation and infrastructure enhancement. The projects span a wide range of activities, from civil and construction works to ecological restoration and invasive species management.

Civil and Construction Works

The civil and construction works constitute a significant portion of the projects, encompassing road upgrades, fencing, and building construction. These projects are crucial for improving access and security within forest areas, which in turn supports conservation and management activities.

Road Upgrades: The projects focused on upgrading forest roads, both C.C. (cement concrete) and Mitti Murum (gravel) roads, have achieved success rates ranging from 81% to 88%. This high level of success indicates robust construction and maintenance practices, although the variability suggests that certain areas might benefit from reviewing construction techniques or materials to enhance road durability and functionality.

Building Construction: The construction of official and residential buildings at forest campuses and rescue centers has success rates generally around 82%, signifying effective construction practices aligned with the needs of forest management personnel.

Fencing Works: The installation of chain link fencing and high-tech barriers has also shown strong outcomes with an 88% success rate, emphasizing the importance of these structures in securing protected areas and minimizing human-wildlife conflicts.

Soil and Moisture Conservation

The soil and moisture conservation work, highlighted by an 89% success rate, reflects the project's commitment to enhancing ecological sustainability. The construction of percolation tanks and stop dams under the Narwa Vikas Yojna is instrumental in improving groundwater recharge and reducing runoff, which is vital for maintaining the hydrological balance in forest areas.

Invasive Species Management

The management of invasive species like Lantana, though slightly less successful with rates between 78% and 81%, remains a critical ecological challenge. The variability in success rates points to the need for adopting more comprehensive and perhaps innovative removal strategies, possibly incorporating biological control measures or community-led removal drives which can enhance effectiveness and sustainability.

Habitat Development

Habitat development projects, particularly those focused on grassland development, show success rates from 81% to 88%. These projects are key to improving forage availability and habitat quality for wildlife, contributing significantly to biodiversity conservation in protected areas.

Detailed results of Monitoring & Evaluation for selected sites – Elephant Reserve Surguja Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
1	Silvicultural operations	Removal of invasive alien species- Lantana	23°34'18.3	83°32'49.1	RF 500	10 Ha.	Good
2	Silvicultural operations	Removal of invasive alien species- Lantana	23.555063	83.333579	RF 74	20 Ha.	Good
3	Silvicultural operations	Removal of invasive alien species- Lantana	23.697908	82.895568	RF-932	50 Ha.	Good
4	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23.704136	82.913469	RF-946	30 ha.	Good
5	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23.666621	82.933196	RF-950	30ha.	Good
6	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23.711034	82.962472	RF- 961	30 Ha.	Good
7	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23.719149	82.959517	RF-962	30 Ha.	Good
8	Soil and Moisture conservation work	SMC Works - Baniyadhur Nala- Stop Dam	23.652932 23.687344	82.939393 82.99012	RF- 854 RF-970	25 mt.	Very good
9	Civil and Construction Works	Construction of Hightech Barrier	23.647717	82.997654	Ramkola	01 Nos	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
10	Civil and Construction Works	Chain Link Fencing Work	23.486963	83.595508	Sitarampur Forest Campus	950 rmt	Good
11	Civil and Construction Works	Construction of Boundary Wall	23.529189	83.394738	Kodoura Campus	380 rmt.	Good
12	Civil and Construction Works	Upgradation of Forest Road (WBM)	23.723525	82.967548	Dhuriya to Jhanjhpaijan	03 Km	Good
13	Civil and Construction Works	Upgradation of Forest Road (Mitti-Murum Road)	23.659442	83.002908	Main Road to Rescue Centre Pingla	02 Km	Good
14	Civil and Construction Works	Upgradation of Forest Road (C.C. Road)	23.647729	82.99779	Ramkola Forest Campus	100 mtr	Good
15	Civil and Construction Works	Pul-Puliya (Culvert/Causeway) Construction of Rapta	23.659511	83.003034	Rescue Centre Pingla	01 Nos	Good
16	Civil and Construction Works	Construction of Residential Building	23.65897	83.002895	Rescue Centre Pingla	01 Nos	Good

GGNP: Division Assessment

Division Background

Renowned for its rich biodiversity, Guru Ghasidas National Park, also known as Sanjay National Park, is a sprawling national park situated in the Koriya district of Chhattisgarh and Sidhi, Singrauli districts of Madhya Pradesh. The park spans an impressive area of 1440.71 square km. It forms a significant part of the Narmada Valley dry deciduous forests ecoregion and is also a component of the Sanjay-Dubri Tiger Reserve. It was declared as a National park in the year of 1981. The park has been renamed after the Satnami reformist hero, Guru Ghasidas.

Guru Ghasidas National Park is declared the 4th Tiger Reserve in Chhattisgarh and the 53rd in India. The proposal of the Chhattisgarh government was approved by the National Tiger Conservation Authority (NTCA) owing to its strategic importance as a corridor for tigers migrating between Bandhavgarh (Madhya Pradesh) and Palamu Tiger Reserve (Jharkhand). The Park is home to a diverse range of flora and fauna, making it a significant attraction in Chhattisgarh.

Flora

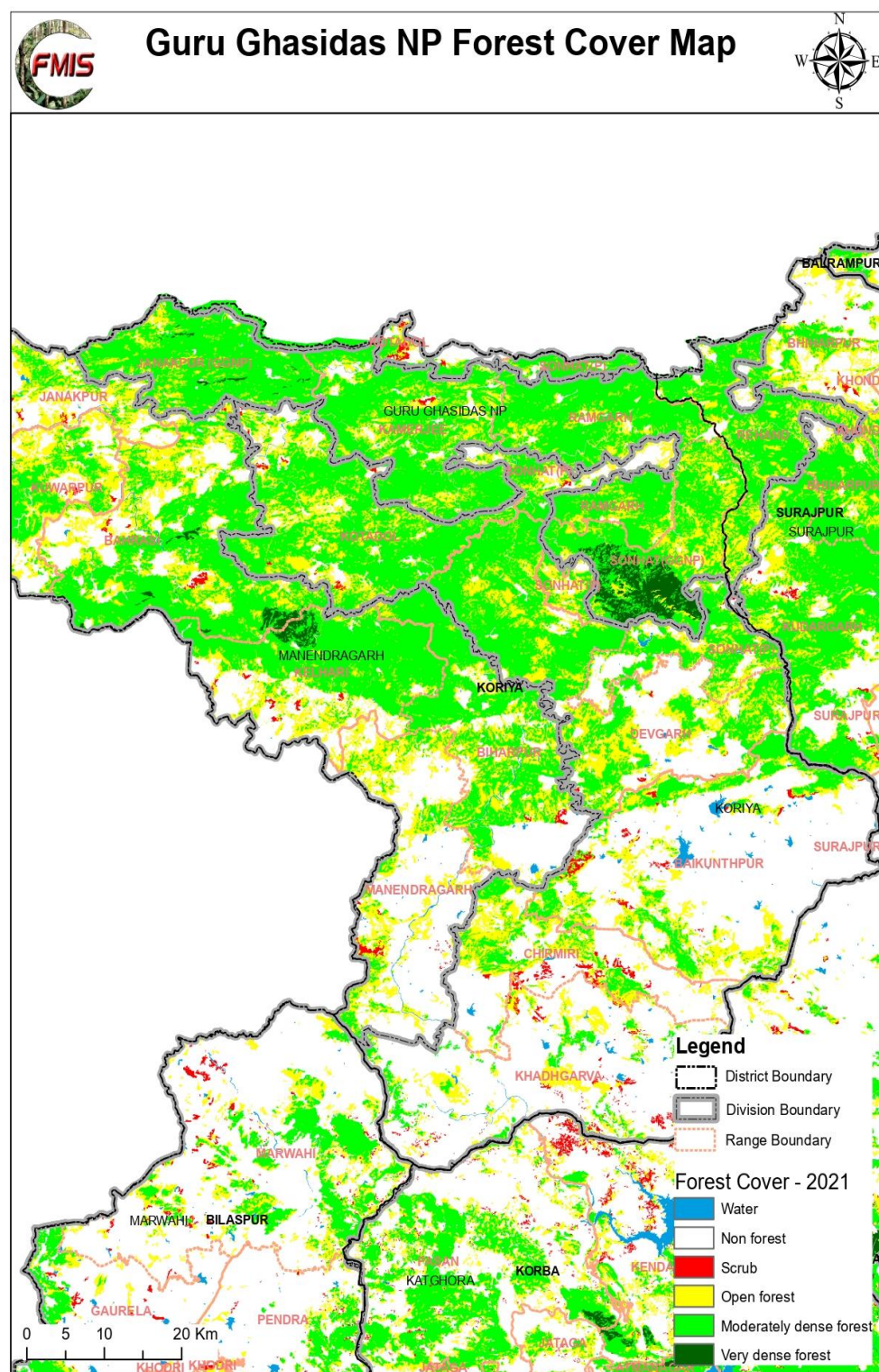
Guru Ghasidas National Park is predominantly covered by sub-tropical and deciduous forests. The primary species of flora in the National Park is the Sakhua or Sal trees. Other types of vegetation found include teak, Saja, Salai, Mahua, Sisham, Kari, Gurjan, Achar, Tendu, and Bamboo, among several others.

Fauna

The park and tiger reserve is teeming with wildlife of all sorts and is home to a varied and healthy ecosystem. The park is a habitat for mammals like tigers, leopards, nilgai, jackal, antelope, wild boar, bison, hyena porcupine, and various other species. The park also hosts bird species like parakeets, bulbuls, Rufus tree pie, red-headed vulture, and racket-tailed drongo. Additionally, various species of reptiles like the cobra, monitor lizard, and python have also made this park their home.

Guru Ghasidas National Park is an important conservation area and provides habitat for several endangered species. It also serves as an important corridor for wildlife movement in the region.

Division Map

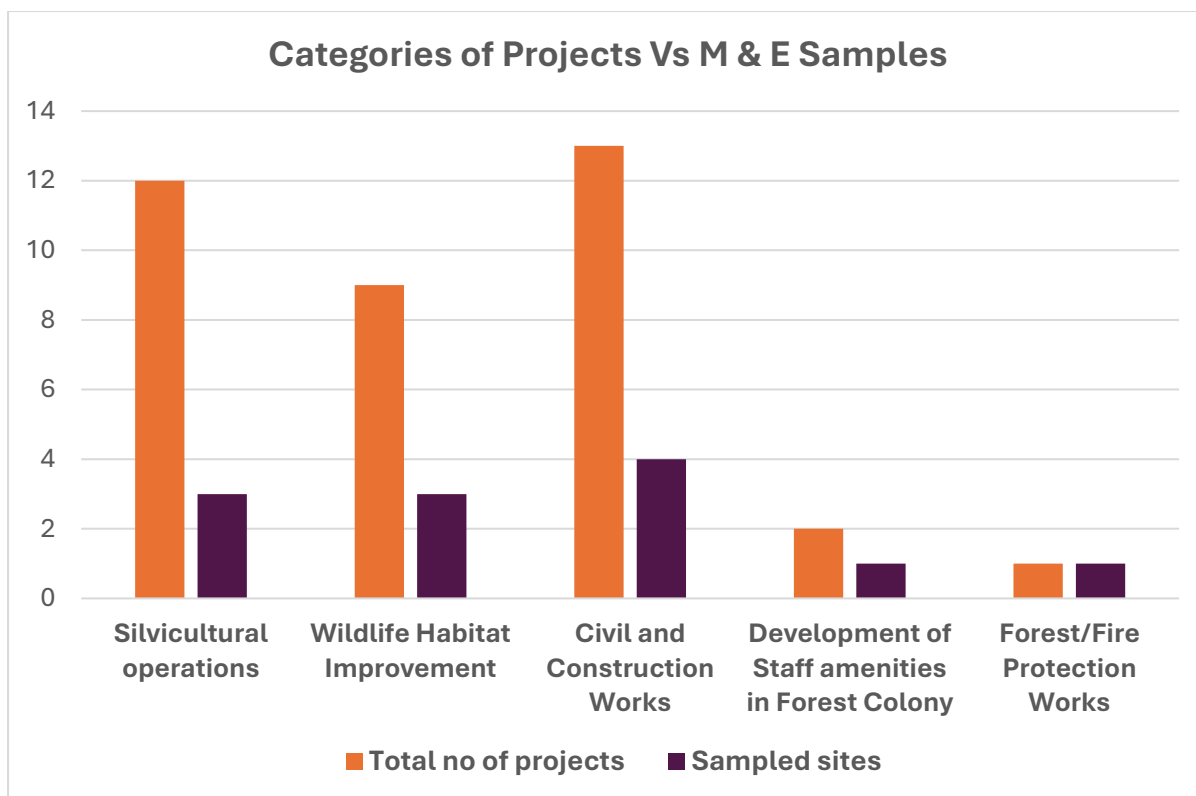


Division Profile

Particulars		Details
Total Forest area		
Major forest types and area		
Sl.No.	Range Name, Address / Telephone Number of Range office	No. of Compartments
1	Sonhat, Sonhat, Distt-Korea (C.G.)	81
2	Ramgarh, Ramgarh, Distt-Korea (C.G.)	85
3	Janakpur, Janakpur, Distt-MCB (C.G.)	106
4	Kamarji, Kotadol, Distt-MCB (C.G.)	130
5	Rehnad, Mahuli, Distt-Surajpur (C.G.)	70
Total No of JFMCs		5
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area		
No of projects in APO 2019-20		37

Category wise sampled strata for Monitoring & Evaluation – GGNP, Surguja Division APO 2019-2020

Sl. No.	Category of Projects	Total no of projects	Sampled sites
1	Silvicultural operations	12	3
2	Wildlife Habitat Improvement	9	3
3	Civil and Construction Works	13	4
4	Development of Staff amenities in Forest Colony	2	1
5	Forest/Fire Protection Works	1	1
Total		37	12



Analysis of Projects in GGNP, Surguja Division (2019-2020)

The Monitoring and Evaluation (M&E) data for Guru Ghasidas National Park (GGNP) in the Surguja Division highlights significant efforts to balance ecological management with infrastructural development. These projects address a broad spectrum of conservation challenges and operational needs, focusing on habitat improvement, invasive species management, and resource security.

Silvicultural operations concentrated on the removal of invasive alien species, specifically Lantana, in compartments P20, 176, and 297, covering 25 hectares each. This initiative plays a critical role in restoring native biodiversity, reducing resource competition, and enhancing the overall health of forest ecosystems. Expanding these efforts to additional affected areas could further strengthen ecological recovery.

Wildlife habitat improvement projects focused on grassland development in compartments 345, 139, and 40, covering 20, 10, and 30 hectares, respectively. These grasslands provide essential forage and support habitat conditions for herbivores and their associated predator species. Expanding the scope of these projects can significantly boost the carrying capacity and ecological resilience of the park.

Civil and construction works were pivotal in enhancing forest management infrastructure. Key projects included the development of a high-tech barrier at Mendra (1,749.21 sq. ft.) to improve security, and the construction of forest quarters at Pariyojna Colony-1 and Muluknar (682 sq. ft. each) and a Range Officer's quarter at Sonhat (2,640 sq. ft.) to provide essential accommodations for staff. Routine maintenance of these facilities will ensure their longevity and effectiveness in supporting conservation activities.

The installation of a solar pump at Sonhat, reaching a depth of 300 feet, demonstrates a commitment to sustainable resource management. Solar-powered amenities not only improve water access for staff but also reduce dependence on conventional energy sources, aligning with eco-friendly principles. Expanding such initiatives can further strengthen the division's sustainability credentials.

Forest fire protection was bolstered by the deployment of 47 fire watchers across all five ranges. This proactive approach ensures early detection and mitigation of forest fires, safeguarding both biodiversity and forest resources. Training and equipping fire watchers with advanced tools can further enhance their effectiveness in managing fire-related threats.

Conclusion

The projects in GGNP, Surguja Division, showcase a comprehensive approach to forest and wildlife management, balancing ecological restoration with infrastructure development and fire prevention. By scaling up successful initiatives and maintaining robust systems, the division can strengthen its contribution to sustainable conservation and biodiversity preservation.

Detailed results of Monitoring & Evaluation for selected sites – GGNP, Surguja Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Silvicultural operations	Removal of invasive alien species- Lantana	23 784676	82 397854	P 20	25 Hec.	Good
2	Silvicultural operations	Removal of invasive alien species- Lantana	23 33985	82 273167	176	25 Hec.	Good
3	Silvicultural operations	Removal of invasive alien species- Lantana	23 752457	82 110753	297	25 Hec.	Good
4	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23 649089	82 227158	345	20 Hec.	Good
5	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23 58712	82 528115	139	10 Hec.	Good
6	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development	23 753553	82 407584	40	30 Hec.	Good
7	Civil and Construction Works	High tech Barrier	23 311127	82 302815	Mendra	1749.21 Sq. Ft	Good
8	Civil and Construction Works	Forest Quarter	23 265213	82 552844	Pariyojna Colony-1	682 Sq. Ft	Good
9	Civil and Construction Works	Forest Quarter	23 782003	82 138963	Muluknar	682 Sq. Ft	Good
10	Civil and Construction Works	R.O. Quarter	23 28 35	82 31 17	Sonhat	2640 Sq. Ft	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
11	Development of Staff amenities in Forest Colony	Solar Pump	23 31 10.68	82 30 28.48	Sonhat	300 Feet	Good
12	Forest/Fire Protection Works	Fire watcher	-	-	All 5 range	47	Good

ITR Bijapur: Division Assessment

Division Background

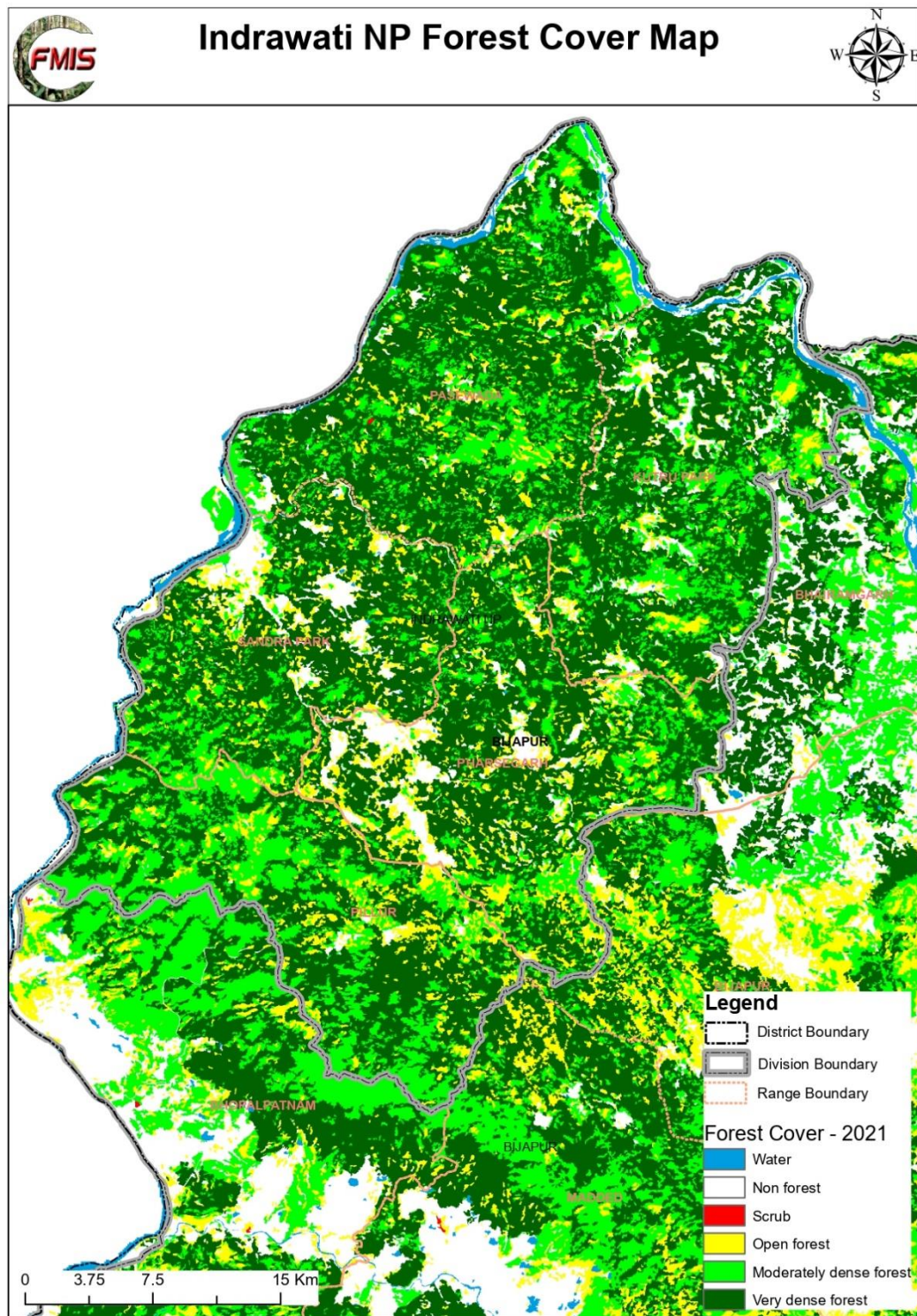
Indravati Tiger Reserve, located in the Bijapur district of Chhattisgarh, is one of the most important and biologically diverse protected areas in central India. Named after the Indravati River, which flows through the reserve, this sanctuary covers an expansive area of approximately 1,258 square kilometers. The reserve is part of the larger Dandakaranya region and is characterized by a mix of dense tropical moist and dry deciduous forests, interspersed with open grasslands, making it an ideal habitat for a variety of wildlife. The Indravati Tiger Reserve is renowned for its significant population of tigers, which are the flagship species of this protected area. Besides tigers, the reserve is home to other endangered species such as leopards, wild dogs (dhole), sloth bears, and a wide array of herbivores including chital, sambar, and gaur. The riverine and forest ecosystems also support a rich diversity of birdlife, reptiles, and smaller mammals, making it a crucial area for biodiversity conservation in the region.

Geographically, the reserve's terrain is varied, featuring hilly regions, valleys, and flatlands, which contribute to its ecological richness. The Indravati River, which meanders through the reserve, plays a vital role in maintaining the ecological balance, providing water to the flora and fauna, and supporting the livelihoods of local communities living in and around the reserve.

Demographically, the area surrounding Indravati Tiger Reserve is predominantly inhabited by tribal communities such as the Gond, Maria, and Muria tribes, who have traditionally lived in harmony with the forest. These communities rely on the forest for their livelihoods, including agriculture, collection of minor forest produce, and traditional hunting and gathering practices.

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Division Map

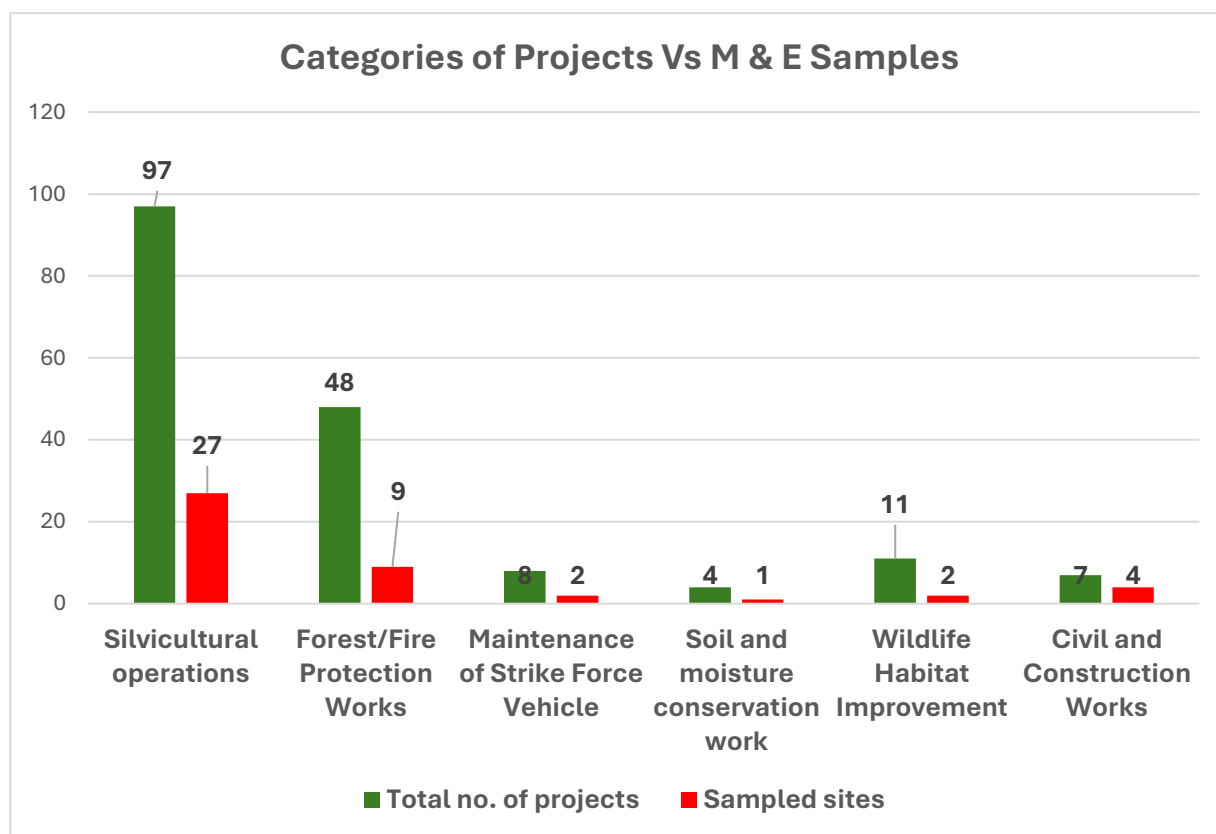


Division Profile

Particulars		Details		Remarks if any		
Total Forest area		Sq KM				
Major forest types and area		RF , PF , Orange Area				
Sl.No.	Range Name	Address	Telephone Number	Section / RA circle	Beat	No.of Compartments
1	Bijapur Buffer			3	11	72
2	Maded Buffer			4	18	173
3	Pharsegarh			3	12	65
4	Kutru Core			3	12	63
5	Kutru Buffer			3	10	
6	Sendra			2	12	
7	Dharmaram			3	13	
8	Pujarikanker			3	11	
9	Bhairamgarh Sanctuary			3	10	38
10	Pillor			3	12	
11	Pasewada			3	12	
Total No of JFMCs/ EDCs EDCs and community memberships			No of JFMCs/ EDCs Associated with CAMPA WORKS			
No of projects in APO 2019-20		175				

Category wise sampled strata for Monitoring & Evaluation – Indravati Tiger Reserve Bijapur Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled sites
1	Silvicultural operations	97	27
2	Forest/Fire Protection Works	48	9
3	Maintenance of Strike Force Vehicle	8	2
4	Soil and moisture conservation work	4	1
5	Wildlife Habitat Improvement	11	2
6	Civil and Construction Works	7	4
Total		175	45



Analysis of the Monitoring & Evaluation Data

1. Civil and Construction Works

- **Scope and Scale:** The construction of RO offices, forester residences, and other infrastructure demonstrates significant investments in operational capacity. These structures span large areas (e.g., 126.953 Ha for office buildings) and enhance administrative functionality.
- **Geographic Concentration:** Activities are centralized in Bhairamgarh Sanctuary, focusing on improving the infrastructure in forest colonies.

2. Forest/Fire Protection Works

- **Activities:** Deployment of fire watchers and sacred grove protection across various ranges (e.g., Bhairamgarh Sanctuary, Bijapur Buffer).
- **Impact:** These measures are vital for biodiversity preservation and cultural heritage protection. Sacred groves reflect the integration of ecological and cultural priorities.
- **Area-Specific Challenges:** No data on fire incidents or effectiveness metrics were recorded, suggesting a need for improved monitoring frameworks.

3. Soil and Moisture Conservation (SMC) Work

- **Komla Nala:** Focused intervention in Kutru Buffer for water conservation. The absence of detailed area metrics limits the ability to assess ecological impact comprehensively.

4. Silvicultural Operations

- **Removal of Invasive Alien Species:** Extensive efforts in Bijapur Buffer (e.g., Kandulnar, Toynar) and Bhairamgarh Sanctuary, covering areas up to 113.64 Ha. The systematic removal of invasive species across compartments such as Mormed West C.No. 166 (48.215 ha) and Toynar C.No. P126 (48.215 ha) reflects the commitment to restoring native vegetation.
- **Geographic Spread:** A wide distribution of activities suggests targeted interventions in areas with varying levels of invasive species infestation.
- **Second-Year Performance:** Larger areas treated in the second year indicate an expanding scope of operations.
- **Opportunities:** Incorporating baseline biodiversity and soil fertility metrics would help evaluate the outcomes of these operations.

5. Wildlife Habitat Improvement

- **Grassland Development:** Concentrated in Bijapur Buffer, with projects like Kandulnar-P 167 (24.12 Ha). These efforts are critical for supporting wildlife foraging and habitat restoration.
- **Scalability:** Limited scale of interventions might restrict broader ecosystem benefits. Expanding coverage could amplify ecological impacts.

Key Observations

- **Comprehensive Coverage:** The data highlights diverse ecological interventions, ranging from infrastructure development to invasive species removal.
- **Geographic Focus:** Bijapur Buffer and Bhairamgarh Sanctuary emerge as focal points, reflecting strategic targeting of vulnerable regions.
- **Lack of Quantitative Impact Metrics:** While the activities are well-documented, the absence of concrete impact measures (e.g., reduction in invasive species density, water table improvements) limits the ability to assess long-term success.

Detailed results of Monitoring & Evaluation for selected sites – Indravati Tiger Reserve Bijapur Division APO 2019-2020

Sl. No	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
1	Civil and Construction Works	Bhairamgarh Sanctuary	Construction of RO Office Buildings	19.00722222	81.06083333	Forest Colony Bhairamgarh	126.953 Ha	Good
2	Civil and Construction Works	Bhairamgarh Sanctuary	Construction of Forester Residence Building	19.00694444	81.06138889	Forest Colony Bhairamgarh	51.76 Ha	Good
3	Civil and Construction Works	Bhairamgarh Sanctuary	Construction of Puliya	19.0075	81.06111111	Forest Colony Bhairamgarh	1.2 m	Good
4	Civil and Construction Works	Bhairamgarh Sanctuary	CC Road in Forest Colonies	19.0075	81.06111111	Forest Colony Bhairamgarh	1500 Rm	Good
5	Forest/Fire Protection Works	Bhairamgarh Sanctuary	Fire Watchers (04 Month)	19.00958	81.06095	Bhairamgarh		Good
6	Forest/Fire Protection Works	Bijapur Buffer	Fire Watchers (04 Month)	18.79647	80.81452	Bijapur Buffer		Good
7	Forest/Fire Protection Works	Madded Buffer	Fire Watchers (04 Month)	18.77679	80.53639	Madded Buffer		Good
8	Maintenance of Strike Force Vehicle	Bhairamgarh Sanctuary	Forest Protection- Strike Force- Vehicle No.-CG 02-F-0161	17.922493°	81.077816°	Bhairamgarh		Good

Sl. No	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
9	Maintenance of Strike Force Vehicle	Pasewada	Forest Protection- Strike Force- Vehicle No.-CG 02-F-6175	18.388364°	81.657218°	Pasewada		Good
10	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.93989167	80.68312222	MandemC.No. 142	65.105 Ha	Good
11	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.94302778	80.69977778	Mormed East C.No. 141	71.621 Ha	Good
12	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	19.02855833	80.64659444	Mandem West C.No. 151	70.313 Ha.	Good
13	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.92355556	80.64644444	Mormed West C.No. 166	69.016 Ha	Good
14	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.99055	80.65640833	Mandem WestC.No 149	67.709 Ha.	Good
15	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.90777778	80.65806111	KandulnarC.No. 136	65.105 Ha	Good
16	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.94302778	80.68311111	Toynar RF 129	63.808Ha.	Good
17	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-2nd Year	18.88928611	80.71893889	Toynar RF 130	63.808 Ha	Optimum

Sl. No	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
18	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.92069444	80.67326111	Kandulnar, Compt.No. -140	48.215 Ha	Good
19	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.93138889	80.69583333	Toynar, Compt. No. P-125	48.215 Ha	Optimum
20	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.91438889	80.7142	Toynar, Compt. No. P-126	48.215 Ha	Good
21	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.89735	80.72504722	Toynar, Compt. No. P-128	48.215 Ha	Good
22	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.89735	80.72504722	Toynar, Compt. No. P-127	48.215 Ha.	Good
23	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.89518611	80.72099444	Mandem East, Compt. No. - 151	48.215 Ha	Good
24	Silvicultural operations	Bijapur Buffer	Removal of Invasive Alien Species-1st Year	18.93403611	80.632425	Mormed West, Compt. No. - 166	48.215 Ha	Good
25	Silvicultural operations	Bhairamgarh Sanctuary	Removal of Invasive Alien Species-2nd Year	19.05972222	80.90305556	JaigurC.No. 82	113.64 Ha	Excellent
26	Silvicultural operations	Bhairamgarh Sanctuary	Removal of Invasive Alien Species-2nd Year	19.04861111	80.95027778	Odrigunda, Compt. No. 106	100 Ha	Good

Sl. No	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
27	Silvicultural operations	Kutru Buffer	Removal of Invasive Alien Species-1st Year	19.095	80.73861111	compt.no. - 54	19.285 Ha.	Optimum
28	Silvicultural operations	Kutru Buffer	Removal of Invasive Alien Species-1st Year	19.13388889	80.79916667	compt.no. - 47	48.214 Ha.	Optimum
29	Silvicultural operations	Kutru Buffer	Removal of Invasive Alien Species-1st Year	18.93027778	80.78472222	compt.no. - 74	24.107 Ha.	Optimum
30	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.25527778	80.57111111	Netikakler East Compt.no.P-1294	28.9286 Ha	Good
31	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.18472222	80.47527778	Cherpalli, Compt.no.p-1247	48.2143 Ha	Good
32	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.28472222	80.48277778	Pengunda, Compt.no.p-1266	28.9286 Ha	Good
33	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.23861111	80.4925	Pasewada East, Compt.no.p-1243	48.2143 Ha	Good
34	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.33777778	80.54305556	Karkawada west, Compt.no.p-1280	48.2143 Ha	Good

Sl. No	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
35	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.20222222	80.51944444	Cherpalli, Compt.no.p-1232	48.2143 Ha	Good
36	Silvicultural operations	Pasewada	Removal of Invasive Alien Species-1st Year	19.20861111	80.42611111	Pasewada west, Compt.no.p-1254	28.9286 Ha	Optimum
37	Wildlife Habitat Improvement	Bijapur Buffer	(Forage/Pasture)-Grassland Development	18.91539722	80.65542222	Kandulnar-P 167	24.12 Ha	Good
38	Wildlife Habitat Improvement	Bijapur Buffer	(Forage/Pasture)-Grassland Development	18.92152778	80.65668056	Mormed East, C.No. P144	24.12 Ha	Optimum
39	Forest/Fire Protection Works	Bijapur Buffer	Protection of sacred groves	18.89166667	80.77944444	Matagudi-Toynar	140 Rm	Optimum
40	Forest/Fire Protection Works	Bijapur Buffer	Protection of sacred groves	18.89444444	80.78083333	Shivmadir-Toynar	1	Optimum
41	Forest/Fire Protection Works	Bijapur Buffer	Protection of sacred groves	18.92972222	80.72722222	Gamamgudi-Toynar	1	Optimum
42	Forest/Fire Protection Works	Bijapur Buffer	Protection of sacred groves	18.92833333	80.72861111	Sachamma divi Mandir-Toynar	160 rm.	Optimum
43	Forest/Fire Protection Works	Bijapur Buffer	Protection of sacred groves	18.92916667	80.72805556	Hinga Vange Mussa Mura Dev-Toynar	160 rm.	Optimum

Sl. No	Category of Projects	Range	Activity	Latitude	Longitude	Place / Compartment No	Total area/ Treatment of details	Qualitative Assessment
44	Forest/Fire Protection Works	Kutru Buffer	Protection of sacred groves	19.078285	80.716737	Ranibodli-Change (Pegdapalli-Sant.)	Sq.2000 Ft	Optimum
45	Soil and moisture conservation work	Kutru Buffer	SMC Works - Komla Nala	18.96271	80.84020	Komla Nala		Optimum

Kanger Ghati Jagdalpur: Division Assessment

Division Background

Kanger Ghati National Park, also known as Kanger Valley National Park, is situated in the Bastar district of Chhattisgarh, India. This protected area is one of the state's most significant national parks, celebrated for its rich biodiversity, stunning landscapes, and unique geological formations. Spanning an area of approximately 200 square kilometers, the park is a vital ecological zone, playing a crucial role in preserving the natural heritage of the region.

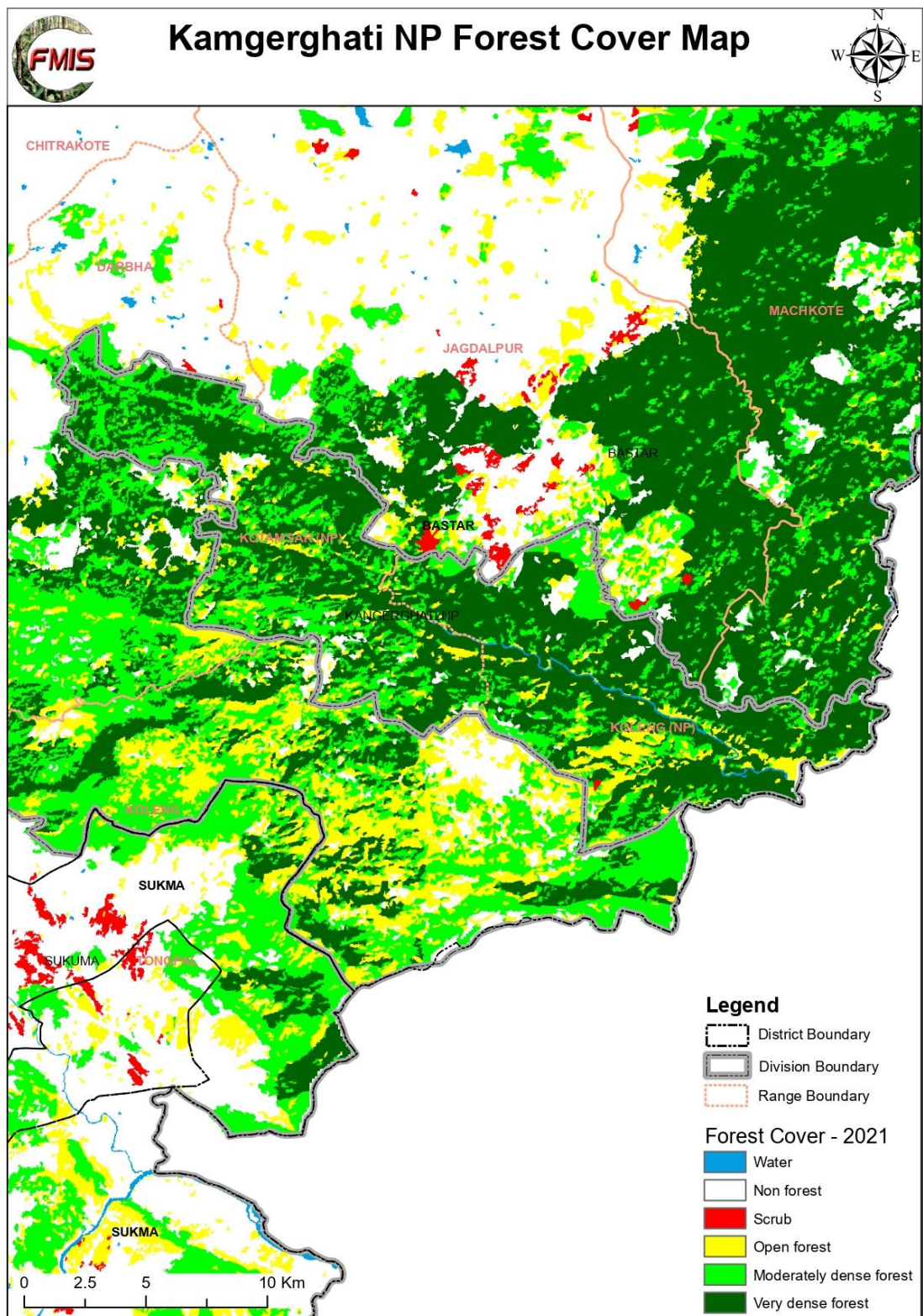
Kanger Ghati National Park is surrounded by a number of tribal communities that have lived in harmony with the natural environment for centuries. The region around the park is predominantly inhabited by indigenous tribal groups such as the Gond, Maria, Dhurwa, and Halba tribes. These communities are deeply connected to the forest, relying on it for their daily subsistence through agriculture, the collection of non-timber forest products (NTFPs), and traditional crafts.

The tribal population in the vicinity of the park has a rich cultural heritage, with traditions, languages, and rituals that are intricately tied to the natural environment. Festivals and rituals often revolve around the cycles of nature, with many ceremonies dedicated to the worship of natural elements such as trees, rivers, and animals, which they consider sacred. The Gond tribe, for instance, celebrates the festival of Keslapur Jathra, which is closely associated with their agrarian lifestyle and forest-related activities.

The tribal communities living near Kanger Ghati National Park typically engage in subsistence farming, cultivating crops such as rice, millet, and pulses. However, agriculture in this region is largely rain-fed and dependent on the monsoon season, making it vulnerable to fluctuations in rainfall and climate change. As a result, many tribal families also rely on the collection of forest products like tendu leaves, mahua flowers, and medicinal herbs, which they gather and sell to supplement their income. These non-timber forest products are not only vital for the local economy but also play a significant role in traditional medicine and local customs.

Despite the rich natural resources, the region faces significant socio-economic challenges. The literacy rates among the tribal communities are generally low, and access to education and healthcare remains limited. The remote location of these villages, coupled with inadequate infrastructure, has contributed to the persistence of poverty and a lack of opportunities for economic advancement. The local population often lives in small, scattered hamlets with basic housing and limited access to modern amenities.

Division Map

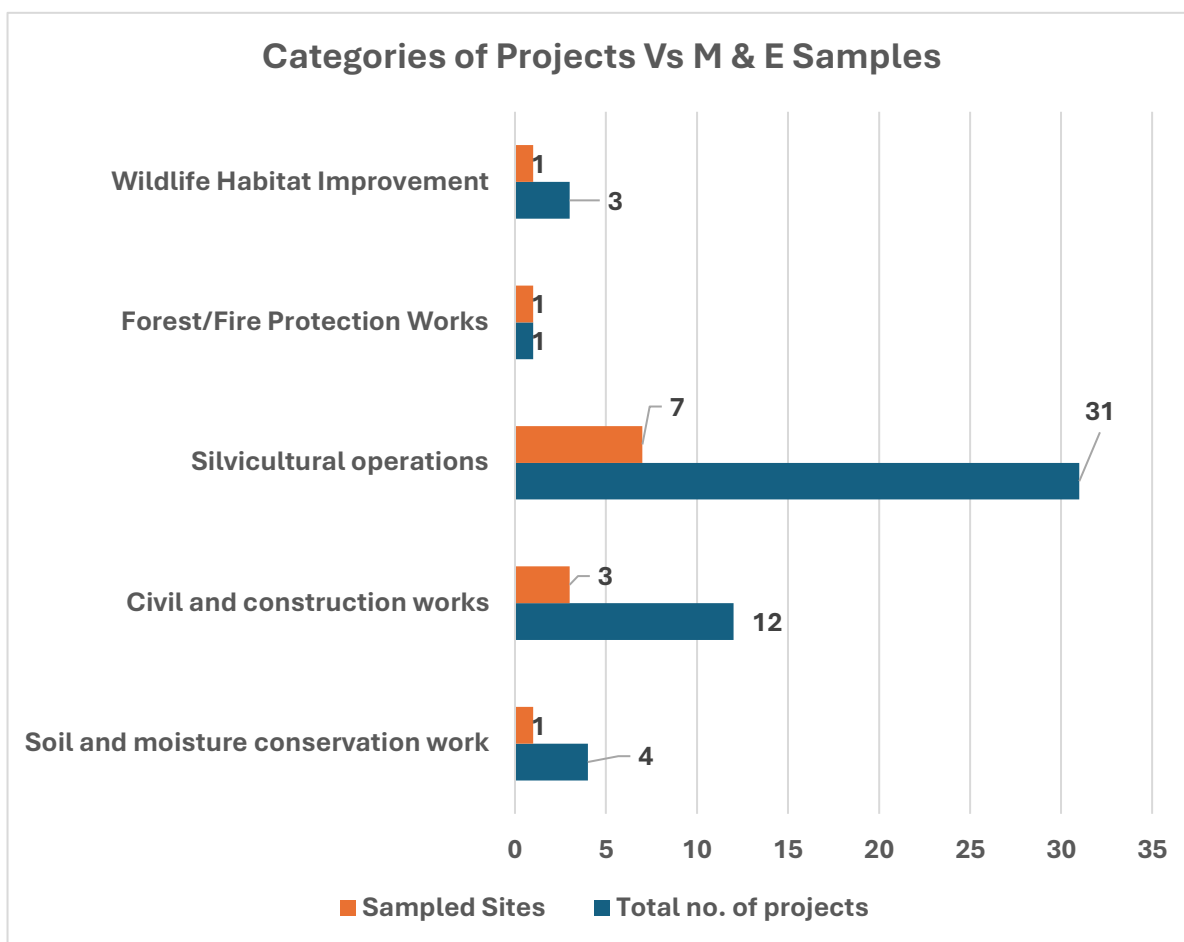


Division Profile

Particulates		Details	
Total Forest area		200 Sq.Km.	
Major forest types and area		RF, PF	
Sl.No.	Range Name, Address / Telephone Number of Range office		No.of Compartments
1	Kotamsar Range, jagdalpur /		42
2	Koleng Range, jagdalpur /		48
Total No of JFMCs/EDCs		18	
Enclose Forest Map (Territorial Boundary) Showing Ranges and wildlife overlapping area			
Enclose Vegetation Map (if available)			
No of APO projects 2019-20		51	

Category wise sampled strata for Monitoring & Evaluation – Kangerghati Jagdalpur Division APO 2019-2020

Sl.No.	Category of Projects	Total no. of projects	Sampled Sites
1	Soil and moisture conservation work	4	1
2	Civil and construction works	12	3
3	Silvicultural operations	31	7
4	Forest/Fire Protection Works	1	1
5	Wildlife Habitat Improvement	3	1
Total		51	13



Analysis of Monitoring & Evaluation Data: Kangerghati Division

1. The **Soil and Moisture Conservation (SMC) work** at Kokdi Jhodi Nala (RF - 290) covered an area of 35 hectares. These interventions are critical for mitigating soil erosion, improving water retention, and supporting sustainable watershed management. The targeted approach in RF - 290 indicates a strategic focus on areas with pressing restoration needs, ensuring that resources are utilized effectively to address ecological challenges.
2. The **Civil and Construction Works** included building a boundary wall at Devgudi (150 meters) and installing Hi-Tech barriers at Tirathgarh and Kamanar. These projects serve dual purposes: protecting forest boundaries from encroachment and enabling better visitor management. Hi-Tech barriers, in particular, enhance infrastructure to manage human impact on sensitive ecosystems, contributing to both conservation and sustainable tourism.
3. Extensive **Silvicultural Operations** were carried out to remove invasive Lantana species across several forest reserves (RF). Key areas such as RF - 84, RF - 93, and RF - 163 covered 200 hectares each, while other reserves like RF - 334 and

RF - 338 addressed smaller but significant infestations. The large-scale operations underscore the emphasis on restoring forest health and biodiversity. Removing invasive species helps native plants thrive, improves soil quality, and strengthens overall ecosystem resilience.

4. **Wildlife Habitat Improvement** was undertaken in Koleng, focusing on grassland development to enhance food availability for herbivores. While the specific area coverage is not mentioned, this initiative is vital for improving habitat quality, which benefits both prey and predator species. Grassland development ensures the ecological balance necessary for sustaining diverse wildlife populations.
5. The **Forest/Fire Protection Works** in Koleng and Kotamsar involved deploying fire watchers and funding strike force operations. These measures are crucial for preventing forest fires, safeguarding biodiversity, and maintaining ecological stability. However, detailed metrics on fire prevention outcomes would enhance the evaluation of these interventions.

Detailed results of Monitoring & Evaluation for selected sites – Kangerghati Division APO 2019-2020

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
1	Soil and moisture conservation work	SMC Works - KokdiJhodi Nala	18.84242	81.93287	RF - 290	35.00 Hac.	Excellent
2	Civil and construction works	Devgudi Boundri Wall Construction	18°54'65"	81°51'85"	164	150 Mtr.	Good
3	Civil and construction works	Hi-Tech Barrier, Tirathgarh	18.91244	81.864527	164	1 Nos.	Good
4	Civil and construction works	Hi-Tech Barrier, Kamanar	18.92778	81.893806	90	1 Nos.	Good
5	Silvicultural operations	Removal of Invasive Alien Species (Lantana)	18.7635	82.0546	RF- 333	33 Ha.	Good
6	Silvicultural operations	Removal of Invasive Alien Species (Lantana)	18.8045	82.029	RF- 338	42.561 Ha.	Good

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
7	Silvicultural operations	Removal of Invasive Alien Species (Lantana)	18.7672	82.1054	RF- 334	33 Ha.	Good
8	Silvicultural operations	Removal of Invasive Alien (Lantana)	18°55' 6.85"	81°52' 12.45"	RF- 163	200 Ha.	Good
9	Silvicultural operations	Removal of Invasive Alien Species (Lantana)	18°53' 0.14"	81°55' 758"	RF- 85	25 Ha.	Good
10	Silvicultural operations	Removal of Invasive Alien Species (Lantana)	18°51' 41.75"	81°57' 49.36"	RF - 84	200 Ha.	Good
11	Silvicultural operations	Removal of Invasive Alien Species (Lantana)	18.9073	81.9335	RF - 93	200 Ha.	Good
12	Wildlife Habitat Improvement	Equipments (Crocodile Conservation)	18°49'32"	82°0'58"	Koleng	-	Good
13	Forest/Fire Protection Works	Fire Watcher/ POL and other expenditure for strike force	-	-	Koleng/ Kotamsar	-	Optimum

UTR Raipur: Division Assessment

Division Background

Udanti-Sitanadi Tiger Reserve is located in the Raipur district of Chhattisgarh, India. The reserve spans an area of approximately 1,842.54 square kilometers, making it one of the most important protected areas in the region. Geographically, the reserve lies between latitudes 20.00°N to 20.55°N and longitudes 81.00°E to 82.00°E. The reserve is named after the two rivers, Udanti and Sitanadi, which flow through the area, playing a crucial role in sustaining the local ecosystems. The terrain is primarily undulating with a mix of hills, plains, and river valleys, providing a diverse habitat for wildlife.

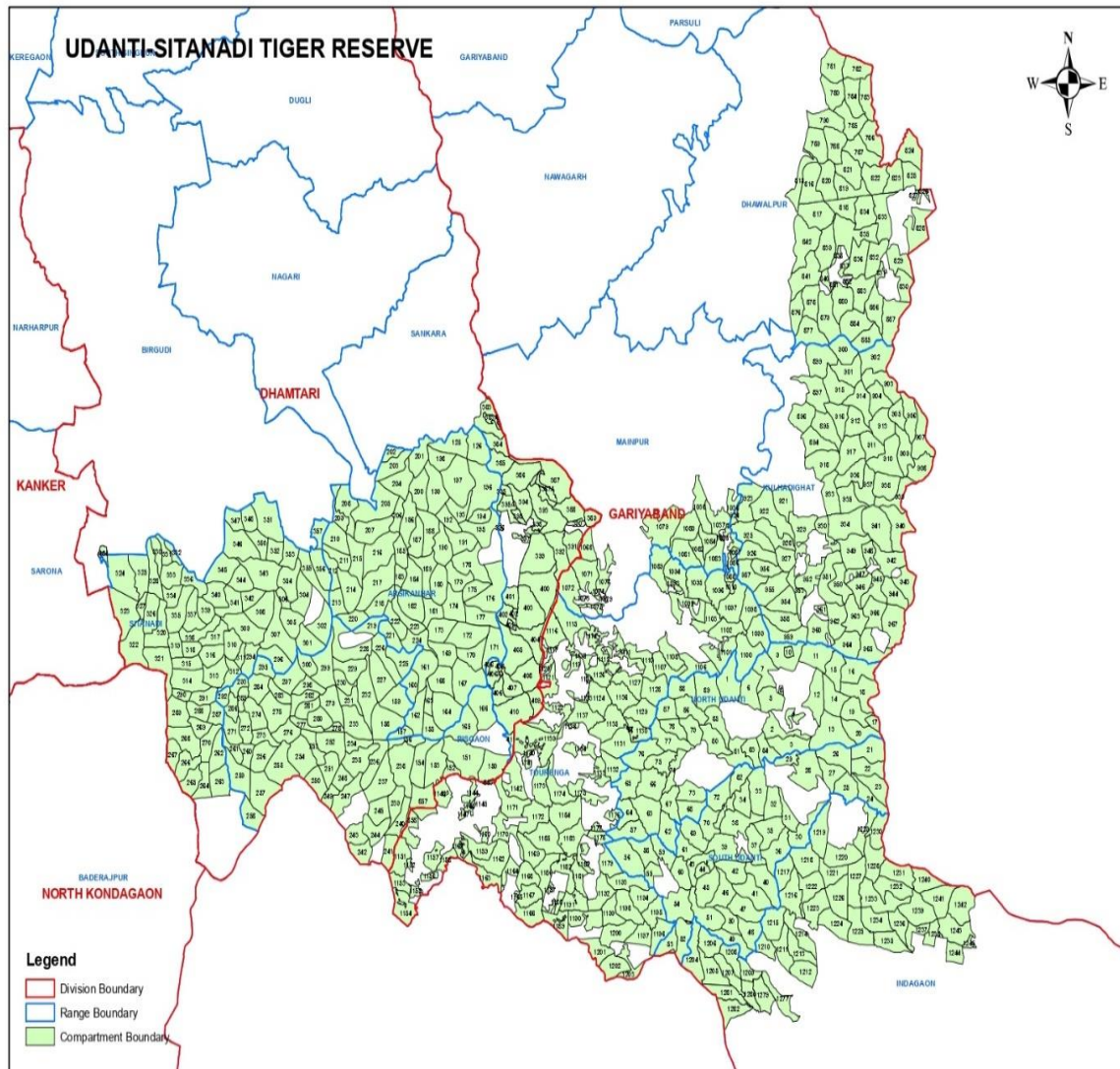
The forests within Udanti-Sitanadi Tiger Reserve are primarily tropical dry deciduous, with significant stretches of teak (*Tectona grandis*) and sal (*Shorea robusta*) forests. The flora of the reserve also includes bamboo, tendu (*Diospyros melanoxylon*), mahua (*Madhuca longifolia*), and various other species that are typical of the central Indian landscape. These forests are vital for maintaining the ecological balance of the region, offering shelter and sustenance to a wide range of wildlife.

The diverse forest types provide essential habitat for a variety of species, including the Bengal tiger (*Panthera tigris tigris*), which is the flagship species of the reserve. In addition to tigers, the reserve is home to other significant wildlife species such as leopards, wild buffalo (*Bubalus arnee*), Indian bison (*Gaur*), sloth bears, chital, sambar, and numerous bird species. The presence of these species underscores the biodiversity and ecological importance of the Udanti-Sitanadi Tiger Reserve.

Conservation strategies in the reserve include habitat restoration, anti-poaching patrols, and the establishment of wildlife corridors that connect with other protected areas. These efforts are crucial for maintaining the genetic diversity of the tiger population and ensuring their long-term survival. The reserve is also focused on the conservation of the wild buffalo, a critically endangered species that is a key conservation target within Udanti. The protection and monitoring of this species are central to the reserve's management practices.

Division Map

Udantisitanadi Tiger Reserve Raipur Division, Wildlife Circle



Division Profile

Particulars		Details
Total Forest area		1,84,254 Ha
Major forest types and area		162021 Ha
Sl.No.	Range Name, Address / Telephone Number of Range office	No.of Compartments
1	Kulhadighat, Forest Colony Mainpur, 7067924289	14
2	Tourenge, Forest Colony Mainpur, 9617313929	17
3	North Udanti, Forest Colony Mainpur, 9424295589	10
4	South Udanti, Forest Colony Mainpur, 9754344373	12
5	Indagaon, Dhurwagudi, 8305266511	8
6	Arsikanhar, Forest Colony Sankara Nagari, 6261230586	32
7	Risgaon, Sankara Nagari, 7587464011	24
8	Sitanadi, Sihawa, Nagari 7587464011	26
Total No of JFMCs		133
No of projects in APO 2019-20		73

Category wise sampled strata for Monitoring & Evaluation – Udanti Sitanadi Tiger Reserve Raipur Division APO 2019-2020

Sl.No.	Category of Projects	Total no of projects	Sampled Sites
1	Training	0	0
2	Development of Staff amenities in Forest Colony	28	4
3	Wildlife Habitat Improvement	34	8
4	Silvicultural operations	9	4
5	Assisted Natural Regeneration	2	2
6	Equipment's	0	0
Total		73	18

Analysis of Monitoring & Evaluation Data: Udanti Sitanadi Tiger Reserve (2019-2020)

The Assisted Natural Regeneration (ANR) projects have shown significant success in the third year of implementation, covering extensive areas in Compartments 1079 (233.160 Ha) and 1195 (139.770 Ha). Both projects achieved an impressive success rate of 95%, reflecting effective execution and favorable environmental conditions. These efforts contribute to enhancing forest density and biodiversity by fostering the growth of native species, making it a cornerstone of the conservation strategy.

The Development of Staff Amenities projects focused on improving the living and working conditions of forest staff. Infrastructure improvements included borewell digging in Bahigaon, the construction of CC roads in Indagaon and Dhurwagudi, and the installation of a 1000-liter water tank in Pipalkhunta. These initiatives aim to support staff welfare, which is critical for the long-term effectiveness of conservation efforts. Better facilities ensure motivated and efficient teams, which directly impacts conservation success.

Silvicultural operations concentrated on removing invasive Lantana species across multiple compartments, such as 201 (76.000 Ha), 253 (38.000 Ha), and 317 (67.000 Ha). The widespread geographic distribution of these efforts highlights a targeted approach to addressing areas with heavy infestation. Removing invasive species not only restores ecological balance but also improves soil health and enables native flora and fauna to thrive, thereby enhancing overall forest health.

The Wildlife Habitat Improvement initiatives, particularly grassland development, played a crucial role in enhancing forage availability and habitat quality for herbivores. These projects were categorized based on whether seed sowing was employed, with notable interventions in Compartment 960 (50.000 Ha with seed sowing) and Compartment 17 (100.000 Ha without seed sowing). The resulting improvements in habitat quality benefit the entire ecosystem by supporting herbivore populations and their predators, contributing to a balanced food chain.

In summary, the monitoring and evaluation data indicate a robust and integrated conservation strategy in the Udanti Sitanadi Tiger Reserve. High success rates in ANR projects, coupled with strategic interventions in silviculture and wildlife habitat improvement, demonstrate significant ecological gains. Moreover, the focus on staff amenities underlines the importance of human resource development in achieving conservation goals. Opportunities for further enhancement include scaling successful projects, quantitative monitoring of biodiversity impacts, and engaging local communities in conservation efforts to ensure long-term sustainability and ecosystem health.

**Detailed results of Monitoring & Evaluation for selected sites – Udanti Sitanadi Tiger Reserve Raipur Division APO
2019-2020**

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Success rate
1	Assisted Natural Regeneration	ANR 3 rd Year Work	N20°14'55.0"	E82°12'45.3"	1079	233.160 Ha	95%
2	Assisted Natural Regeneration	ANR 3 rd Year Work	N20.013098	E82.194475	1195	139.770 Ha	95%

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
3	Development of Staff amenities in Forest Colony	Bore Digging & Pipe Works in Forest Colony	N20.18681	E81.917502	Bahigaon	40 m deep and 6 inches diameter	Good
4	Development of Staff amenities in Forest Colony	Construction of CC Road in Forest Colony	N20° 4' 50"	E82° 22' 22"	Van Parisar Indagaon	2286.465 Sq.Ft	Good
5	Development of Staff amenities in Forest Colony	Construction of CC Road in Forest Colony	N19.996307	E82.427313	Van Parisar Dhurwagudi	1958.328 Sq.Ft	Good
6	Development of Staff amenities in Forest Colony	PayjalVyavastha Work	N19.982685	E82.325222	Van Parisar Pipalkhunta	Area of tank (vol 1000 lit)	Good
7	Silvicultural operations	Removal of Lantana Species 2 nd Year Works	N20°16'54.0"	E82°02'17.7"	201	76.000 Ha	Good
8	Silvicultural operations	Removal Of Invasive Species/ Lantana	N20° 07' 44"	E081° 56' 47"	253	38.000 Ha	Optimum

Sl. No.	Category of Projects	Project Description	Latitude	Longitude	Compartment	Total area/ Treatment of details	Qualitative Assessment
9	Silvicultural operations	Removal Of Invasive Species/ Lantana	N20°11'44.5"	E81°53'30.5"	317	67.000 Ha	Good
10	Silvicultural operations	Removal Of Invasive Species/ Lantana	N20.178751	E82.198655	1111	26.000 Ha	Good
11	Wildlife Habitat Improvement	(Forage/Pasture) - Grassland Development 2 nd Year	N20° 16' 13"	E82° 0' 17"	205	20.000 Ha	Optimum
12	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development 2nd Year	N20.11642	E81.850742	267	30.000 Ha	Optimum
13	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development Without seed sowing	N20°09'09.76"	E82°23'31.92"	17	100.00 Ha	Optimum
14	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development Without seed sowing	N20°10'48.9"	E82°01'26.8"	221	15.00 Ha	Good
15	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development Without seed sowing	N20.181907	E82.197967	1111	25.00 Ha	Good
16	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development Without seed sowing	N20°14'52.56"	E82°19'33.13"	922	25.00 Ha	Optimum
17	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development Without seed sowing	N20.01096	E82.40929	1236	20.00 Ha	Good
18	Wildlife Habitat Improvement	(Forage/Pasture)- Grassland Development Without seed sowing	N20°11'33.0"	E82°23'18.5"	960	50.00 Ha	Good

Annexure - Chhattisgarh Forest Department- CAMPA M&E- 2019-20
Activity wise Monitoring Formats

Form-1	Trainings
Form-2	Engineering Works (SMC,Civil Works & Habitat Improvement)
Form-3	Nursery
Form-4	Removal of Invasive / Un wanted species
Form-5	Plantation & fencing
Form-6	Equipment

Sl.No.	Type of Works Matched with APOs	M&E Format No.
1	Trainings/ Awareness Programme	Form-1
2	Civil and construction works	Form-2
3	Wildlife management plan works	Form-2
4	Fireline	Form-2
5	Forest Protection Works	Form-2
6	Creation of safety Zone	Form-2
7	Chain-link fencing (Without Plantation)	Form-2
8	Protection of sacred groves (Non Plantation Works)	Form-2
9	Contour trenches	Form-2
10	Contour bunding	Form-2
11	Afforestation	Form-2
12	Checkdams	Form-2
13	Vegetative barriers	Form-2
14	Nalabunds	Form-2
15	Pul-puliya (Culvert/bridge/K.T weirs	Form-2
16	Percolation tank/pond	Form-2
17	Gully plugging	Form-2
18	Farm bunding	Form-2
19	Up-gradation of Timber Depots	Form-2
20	Construction of hi-tech barriers	Form-2
21	Upgradation of forest road (WBM)	Form-2
22	Construction of official and residential buildings	Form-2
23	Block boundaries Pillars	Form-2
24	Protection Wall	Form-2
25	Construction of nursery	Form-3
26	Upgradation of nursery	Form-3
27	Expansion of nursery	Form-3

Chhattisgarh Forest Department- CAMPA M&E- 2019-20/2020-21
Activity wise Monitoring Formats

Sl.No.	Type of Works Matched with APOs	M&E Format No.
28	Development of Seed Collection/Production Center / Hightech Seed center	Form-3
29	Removal of invasive alien species / Unwanted Growth /Silvicultural operations/ Thinning /Cleaning of old Bamboo plantations	Form-4
30	All Type of Plantation (Irrigated / Unirrigated)	Form-5
31	Fencing along with plantation	Form-5
32	Compensatory Afforestation Plantations	Form-5
33	Plantations below Transmission line	Form-5
34	CA Plantation maintenance	Form-5
35	Artificial regeneration - River Bank Plantation	Form-5
36	Artificial regeneration (General Plantations)	Form-5
37	Irrigated plantations	Form-5
38	Multi-tier plantation	Form-5
39	Penal CA Plantations	Form-5
40	Regeneration work – ANR	Form-5
41	Plantation for Avi-Fauna Development	Form-5
42	Plantation for Forage/pasture development	Form-5
43	Plantation for Wildlife habitat	Form-5
44	Conservation and development of Biodiversity	Form-5
45	Plantation for development of Biodiversity	Form-5
46	Plantation for sacred groves	Form-5
47	Irrigated Bamboo plantations	Form-5
48	Unirrigated Bamboo plantations	Form-5
49	Fruit Bearing Plantation	Form-5
50	Improvement of growing stock in orange area	Form-5
51	GIS / IT	Form-6
52	Survey, Mapping & DPR for Wildlife Corridor	Form-6
53	Patrolling in most sensitive areas	Form-6

Form -1

Monitoring Format: **Training & Capacity Building Programmes**

Division: APO :2019-20/202-21

1. Performance of the Division in Trainings

Sl.No.	Parameter
1	Total No. of Trainings approved in APO: _____
2	Total No. of Trainings conducted: _____ (_____% Completion)
3	Total expenditure Approved in APO _____, for Training.
4	Funds Utilised% _____

2. Total list training programmes conducted

Sl.No.	APO Sl.No,	Name of the Training	Dates & Venue of the Training	No. of Days Conducted	No. of Participants Targeted	No. of Participants Actually attended	% Variation (+/-)

3. Evaluation Chart – (25%) Selected Training programmes by third party for Evaluation

Sl.No.	APO Sl.No,	Name, Dates & Venue of the Training	Course/ Training material given (Yes/ No)	List of Subjects Resource persons deputed available (Yes/ No)	Practical / Field visit/ Demo Organised (Yes/ No)	List of participants, Photograph of seminar available (Yes/ No)	Feedback/ Follow-up formats available (Yes/ No)	Total (Yes) Points secured out of 5

4. Total expenditure Approved in APO _____, for Training.

Funds Utilised%_____

Signature

Name:

Designation:

Forest Department Representative

Evaluator

Evaluation Format for Engineering Works
(Habitat Improvement, Civil Works, Soil and Moisture Conservation Etc.,)
Form-2

APO: 2019-20/2020-21

1. General Information

- a. Division:
- b. Range:
- c. Beat:
- d. Compartment no.:

2. Quantitative assessment

A. Wildlife Habitat Improvement:

GPS Location -----

Wildlife Habitat Improvement					
Sl.No.	Habitat Development ID No./ APO Sr. No.	Area as per Measurement book/ Office Record in Ha.	Actual area in field in Ha.	% Variation (+/-)	Remarks

B. Civil Works: (Office, Residential quarter, Barricade, Forest Camp, Pump House, Road etc.)

Utility / type of Building / structure	
Building ID no./ APO Sl.No.	
GPS Location	
Area of Construction Sanctioned	Sq.Ft
Area of Construction Completed	Sq.Ft (% Completed)
Variation	Sq.Ft (%)
Site location	Good / Fair/ Poor
Purposeful/ functional	Good / Fair/ Poor
Structurally sound and free of cracks, dampness, and leakage	Good / Fair/ Poor
Overall finish and look	Good / Fair/ Poor

C. Status of Soil and Moisture Conservation (SMC) Works - Sampling

Name of the Nala/ Project/ Work: _____

Sl. No. in APO _____

GPS Location -----

Description of sub components in Project

Sl.No.	Type of activity / SMC	Total in number (activity type)	10 % sample of category

Details of Evaluation - Sampled Works						
Sl.No.	Type of activity	Sample Site GPS Location	Cubic feet/ Sft as per Measurement Book	Actual Cubic feet/ Sft in the field	Variation %	Status Good/ fair/ Poor
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

3. Internal monitoring Report available: Yes / No

4. Whether the work site registered online at <http://egreenwatch.nic.in> ? Yes/no

5. Protection and maintenance of assets/ security provided: Yes / No

6. Maintenance of records (MB/ Project report/ User guide etc): Yes/No

7. Constraints & limitations Reported: (Tick appropriate)

1. Funds Not sufficient
2. Time not sufficient
3. Natural damages/ calamities
4. Community attack/ encroachment/ political pressures
5. Poor management by contractual staff
6. Any other Specify _____

8. Suggestions for management:

Field Evaluator	Forest Department Representative
Name	Name, Designation
Signature	Signature

Format-3**Evaluation formats for Nursery activities****APO 2019-20/2020-21**Project Name: **Establishment/upgradation/extension of nurseries**

Division:

Range:

Work location:

GPS coordinates**1. Performance**

Sl.No.	Parameter	Target	Achievement	% of achievement
1	No. of Plants / Seedlings Production Target under APO			
2	Production of seed Kgs			
3	Expenditure in the APO			
4	Distribution of Plants to different stake holders as per APO including Department utilisation			
5	Any other Target as per APO Pls Specify			

2. Management of nursery

Sl.No.	Parameter	Status	Remarks
1	Board for Public Display and species signages	Available/ Not Available	
2	Sufficient Office facility,	Available/ Not Available	
3	Equipment, Tools & Stores as required	Available/ Not Available	
4	Manpower Skilled & Staff adequate	Available/ Not Available	
5	Registers of works, stock, distribution,	Available/ Not Available	
6	Adequate Water facility	Available/ Not Available	
7	Protection / Fencing	Available/ Not Available	
8	Seed Room / Sample plots	Available/ Not Available	
9	Inspection/ Monitoring by Superior officials	Available/ Not Available	
10	Shade net, Polyhouse as required	Available/ Not Available	

Total Score _____ out of 10

3. Infrastructure / Civil works in the Nursery

Sl.No.	Work ID no. APO Sl.No.	Description of Civil work (Board, building, polyhouse, shade net, water tank etc.,)	Functional/ Not Functioning	Area (ha) as per measurement book	Actual area (ha) in the field	% Variation (+/-)

Average % of variation is calculated for all works

4. Plants Raised

Sl.No.	APO Sl.No.	Species raised	Bag Size/ Type of Plant	No. of seedlings/ plants as per book / Register	No. of live seedlings	Survival rate (%)

Field Evaluator

Forest Department Representative

Name	Name, Designation
Signature	Signature

Form -4

Monitoring Format: **Removal of unwanted growth /invasive alien species**

APO: 2019-20/ 2020-21

Division:	Range:
Beat:	Compartment Work location:
GPS Coordinates	
Total Area approved in APO: _____ Ha.	
Area Sanctioned for this location _____ Ha (_____%0	

Sl.No.	Work ID no if any/ APO Sl.No,	Species removed	Area (in ha) as per measurement book	Area Cleaned / treated (in ha) in field	% Variation (+/-)

Re growth of Invasive Species observed _____%

Signature

Name:

Designation :

Forest Department Representative

Evaluator

Evaluation Format of Plantations & Fencing

FORM-5

APO: 2019-20/2020-21

1. General Information

- a. Division: Range: Beat:
- b. Compartment no.: APO Sr. No.:

2. Information of the Plantation Site

- a. Name of the Plantation Site:
- b. Type of Irrigation: Irrigated / Un-irrigated
- c. Type of Plantation: Tick any one

1	CA Plantation maintenance	9	Forage/pasture development
2	Compensatory Afforestation Plantations	10	Bamboo plantations
3	Plantations below Transmission line	11	Fruit Bearing Plantation
4	Artificial regeneration - River Bank Plantation	12	Sacred groves Plantation
5	Artificial regeneration (General Plantations)	13	Chainlink fencing
6	Multi-tier plantation	14	Plantation in Wildlife habitat
7	Regeneration work – Aided Natural Regeneration	15	Plantation for Biological diversity and biological resources enrichment
8	Plantation for Avi-Fauna Development	16	Any other Specify _____

- d. Medicinal plants /Grasses growing/Forage Development /Biodiversity enrichment:
- e. GPS Location of Plantation Site of main gate/ Centre:
- f. _____Month& _____ Year of Plantation/activity:

Evaluation Format of Plantations & Fencing

3. Quantitative Assessment

Note:

- a. (Block, Linear,): **Survival and Growth of Plantation in sample plot 0.1 ha or based on 10 th plant**
- b. **(Artificial/ Natural / Aided – Regeneration, Root Stock Development, saplings of native/main species: In 0.1 ha plot)**

Sr. No.	Species	No. of Plants Planted	No. of Live Plants	No. of Dead Plants	Survival %	Average height/ Health of Live Plants (ft)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
Total						

Evaluation Format of Plantations & Fencing

4. Status of Plantation

(i) Physical

Area of Plantation recorded (ha):	Area of actual Plantation (ha)	Variation of area (Ha)	Variation (%)

(ii) Financial - Approximate

Approved in APO (Rs.)	Expenditure Incurred (Rs.)	Un utilized Fund (Rs.)	Variation of Funds (%)

5. General Observations on Plantation

Sl.No.	Parameter	Response/ Observation
1	Whether plantation journal has been maintained and posted up to date?	Yes/ No
2	Whether a surveyed sketch / Map of the plantation has been pasted in the plantation journal?	Yes/ No
3	Whether inspecting officials of the implementing agency like DFO, CF, CCF, APCCF or PCCF have recorded their observations/comments in the plantation journal?	Yes/ No
4	Whether site selected for project is good?	Yes/ No
5	Whether species planted at the site was suitable?	Yes/ No
6	Whether sufficient irrigation / Watering facility developed / Deployed	Yes/ No
7	Economic benefit (Fodder/fuel/NTFP/to local inhabitants	Yes/ No
8	Overall outcome/impact of the project:	Good/ Fair/ Poor
9	Coverage of plantation:	fully/ Optimum / partial
10	Any other comment:	

6. Status of fencing for each plantation site

GPS Location -----

	Barbed wire fencing					
Sr.No.	Barbed Fencing Id/No. APO Sr.No.	Length in Measurement book (Feet)	Actual length in field (Feet)	% variation (+/-)	Present status- Intact/Worn out	Effectiveness of the fence (Very /moderate/not effective)

Evaluation Format of Plantations & Fencing

Chain Link wire fencing						
Sr.No.	Chain Fencing Id/No./ APO Sr.No.	Height x Length in Measurement book SFT	Actual height x length in field SFT	% variation (+/-)	Present status- Intact/Worn out	Effectiveness of the fence (Very /moderate/not effective)

7.Critical Comments of Evaluator

1. Project constraints/Limitations:

What were the constraints/limitations faced by the project authority based on evaluator? Specify

1. Funds Not sufficient
2. Time not sufficient
3. Natural damages/ calamities
4. Community attack/ encroachment/ political pressures
5. Poor management by contractual staff
6. Any other Specify _____

2. Suggestions for improvement:

1. Whether there is any scope of improving the project output **Yes / No**
2. Whether the project authorities modified any parameter: **Yes / No**
3. Whether the people of the project area feel any need to improve any particular aspects of the project? Specify: **Yes / No**
4. Whether the project should be continued on same lines or some modifications are necessary? **Yes / No**

3. Any other relevant recommendations

Field Evaluator

Name :

Signature :

Date :

Forest Department Representative

Name & Designation :

Signature :

Date :

Form-6 (Division level Data)
Evaluation Format of Equipment/ Movable Assets

Division Name: **APO: 2019-20/2020-21**

Vehicles/ equipment/ Fittings/ Furniture Purchased (Computer, GPS, Lab equipment, Vehicle, Camera , Xerox machine, Drone, Printer, Smart TV. Racks/ tables Etc.,)

Sr. no.	APO Sl.No.	Equipment Type/ Manufacturer name	Working Condition (Yes/No)	Present location of Equipment (Lat-long) / Office Location	Registration No./ Asset No. if any
	Total				

*Note: This information needs to be collected from the Divisional office level only

Total Number of Assets : _____ Working Condition _____ (%)

Major reasons for nonfunctioning: (Eg: Lack of training, Spares not available)

Field Evaluator

Forest Department Representative

Name	Name, Designation
Signature	Signature