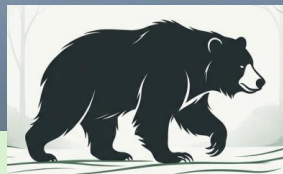




Participatory Conservation of Sloth Bear (*Melursus Ursinus*) in Community Forest Resource (CFR) Areas of Central Indian Landscape

6-Monthly Report (July-25 to January-26)



Grantee: Mr. Pankaj Bhure (46556-1)

Other team members: Mr. Sagar Deshpande, Mr. Pramod Hatwar, Ms. Tejaswini Adhav, and local community members



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Summary

This six-month reporting period focused on assessing the ecological status of the Sloth Bear population and associated biodiversity, alongside evaluating the human-wildlife interface within the Mandri Community Forest Resource (CFR) area. A systematic sign survey across 10 grids (1 sq. km each) documented 51 sloth bear-related sign records, including scat, digging marks, pugmarks, claw marks, den sites, and instances of property damage. The predominance of foraging signs and repeated scat records indicates active habitat use and confirms continued residency within core and transitional forest patches. Denning evidence in further highlights the conservation importance of the study area.

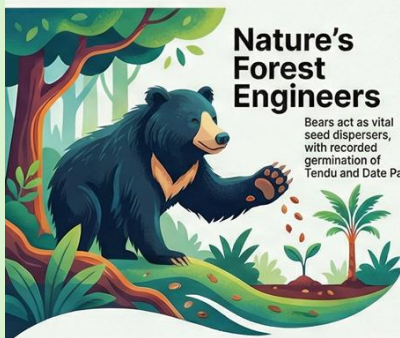
Scat analysis revealed a diet dominated by termites and seasonal forest fruits such as *Ziziphus mauritiana*, *Diospyros melanoxylon*, and *Phoenix sylvestris*, reinforcing the species' dual ecological role as both insect predator and seed disperser. Observations of seed germination from scat underline its contribution to forest regeneration. Camera trap data confirmed the co-existence of diverse wildlife species including the Leopard, Striped Hyena, Jungle Cat, Four-horned Antelope, and Wild Boar, indicating a functionally intact trophic structure.

Parallel social surveys with 96 respondents across 5 villages revealed high spatial overlap between human activities and sloth bear movement, with significant psychological and economic impacts reported from sloth bear encounters. Evidence of property damage, plastic ingestion risks, and hunting traps highlights increasing anthropogenic pressures. Overall, the findings underscore the CFR landscape as a dynamic socio-ecological system where coexistence persists but requires strengthened habitat protection, conflict mitigation, waste management, and corridor monitoring to ensure long-term sustainability.

Coexisting with the Sloth Bear: Insights from the Mandri Forest Landscape

This infographic summarizes a six-monthly conservation report from the Mandri Community Forest Resource area, highlighting the Sloth Bear's vital ecological role and the socio-economic realities of human-wildlife coexistence.

The Ecological Role of the Sloth Bear



Activity Level

High Activity: 25 Records
Moderate Activity: 16 Records
Low Activity: 3 Records

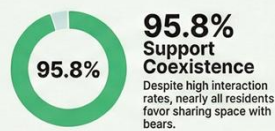


A Biodiversity Refuge

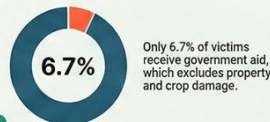
Camera traps confirm bears coexist with Leopards, Hyenas, and Four-horned Antelopes.



The Paradox of Coexistence



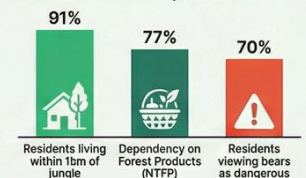
A Struggle for Compensation



Seasonal Conflict Peaks



Forest Community Statistics



Introduction

Community Forest Resource Areas (CFRAs) in Central India play a crucial role in supporting both biodiversity conservation and the livelihoods of forest-dependent communities. In the North Bastar Kanker district of Chhattisgarh, these forests form an important ecological landscape that sustains several threatened wildlife species while providing vital Non-Timber Forest Products (NTFPs) to local communities, particularly the Gond community. Species such as Sloth Bear, Indian Leopard, Striped Hyena, and Four-horned Antelope inhabit these forests, which also function as an important wildlife corridor connecting the Sitanadi-Udanti Tiger Reserve and the Indravati Tiger Reserve. These corridors are particularly significant for the movement of large mammals such as Asian Elephant and Bengal Tiger.

In recent years, local communities have secured their traditional forest rights under the Forest Rights Act, 2006, enabling them to manage their Community Forest Resources through locally developed management plans. These forests also support community livelihoods through the sustainable harvesting of NTFPs such as *Terminalia chebula* (Haritaki), *Terminalia bellirica* (Bibhitaki), *Madhuca longifolia* var. *latifolia* (Mahua), and *Diospyros melanoxylon* (Tendu). However, increasing pressures such as forest fires, unsustainable harvesting practices, and chemical-based agriculture are gradually degrading forest habitats. Such ecological stress often leads to resource competition between wildlife and humans, which can escalate into human–wildlife conflict.

Recognizing these challenges, the present project aims to integrate wildlife conservation considerations into the management of CFR areas. Traditionally, most CFR management plans have focused primarily on livelihood enhancement, often overlooking the ecological dimensions of wildlife conservation. This project therefore emphasizes generating scientific evidence on wildlife presence, habitat conditions, and community perceptions in order to inform more holistic and wildlife-inclusive management strategies.

The project particularly focuses on the Sloth Bear as an umbrella species due to its ecological importance and frequent interactions with local communities. Through methods such as wildlife sign surveys, habitat assessments, and community-based social surveys, the study seeks to understand sloth bear distribution, food preferences, and potential zones of human–bear interaction within the CFR areas. The insights generated will help identify high-risk zones, strengthen community awareness on conflict mitigation, and support the development of participatory conservation strategies.

By building awareness and strengthening the capacity of Community Forest Resource Management Committees, the project aims to promote a model of participatory wildlife conservation that aligns biodiversity protection with community-led forest governance. Ultimately, the initiative seeks to demonstrate how CFR areas outside protected areas can play a significant role in sustaining wildlife corridors and promoting long-term human–wildlife coexistence in the Central Indian landscape.



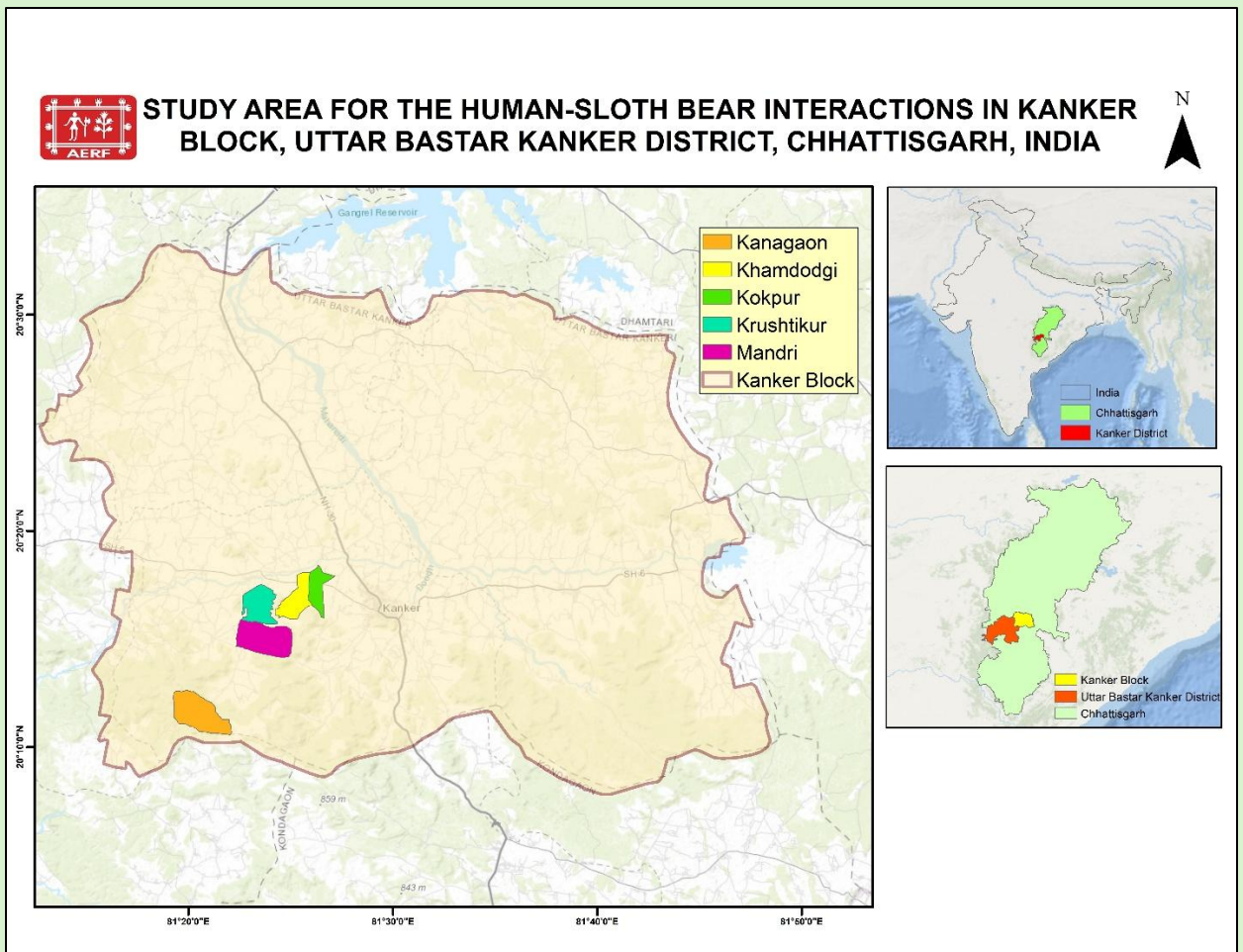
Study Area

The initial scope of our project focused on studying the sloth bear-human interactions within two Community Forest Resource (CFR) areas of Mandri and Kanagaon village, the villages that originally inspired the research. However, as fieldwork progressed, unexpected insights emerged, prompting us to expand the study to include a wider range of perspectives. Consequently, we extended our social survey to five villages namely, Kokpur, Khamdodgi, Krushtikur, Mandri, and Kanagaon. And, the sign survey of sloth bear was conducted within the Mandri Community Forest Resource (CFR) area.

Together, these five villages comprise approximately 450 to 500 households, predominantly inhabited by members of the indigenous Gond tribe. Notably, Khamdodgi, Mandri, and Kanagaon have formally secured rights to their Community Forest Resources under India's Forest Rights Act, 2006. These villages were chosen based on their proximity to the wildlife corridor linking the Sitanadi-Udanti and Indravati Tiger Reserves in Chhattisgarh, as well as the diverse narratives surrounding sloth bear encounters in the region.

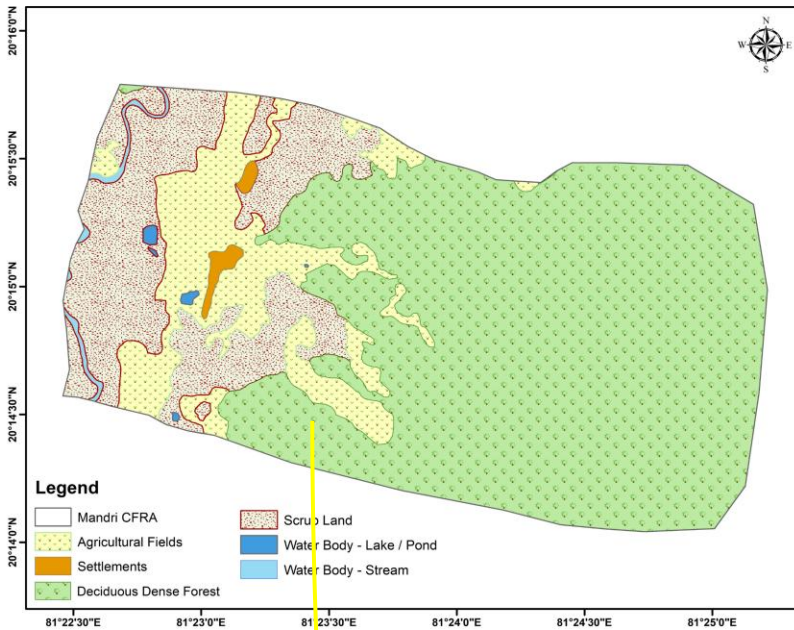
The CFR area comprises a mosaic of dry deciduous forest, agricultural fields, seasonal water sources, rocky outcrops, and human settlements. The area supports diverse fauna ranging from apex predators to herbivores and avifauna, while also sustaining forest-dependent livelihoods such as NTFP collection, fuelwood extraction, and cattle grazing. This overlapping land-use pattern makes these CFR areas- a critical site for understanding human-wildlife coexistence and guiding community-led conservation interventions within the broader Central Indian forest landscape.

Map showing the location of these five villages is as follows:

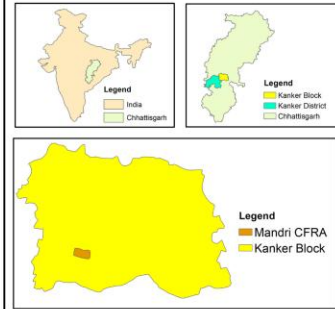




LAND USE LAND COVER (LULC) MAP OF MANDRI CFRA, KANKER BLOCK, UTTAR BASTAR KANKER DISTRICT, CHHATTISGARH STATE



Location Map



Mandri CFRA

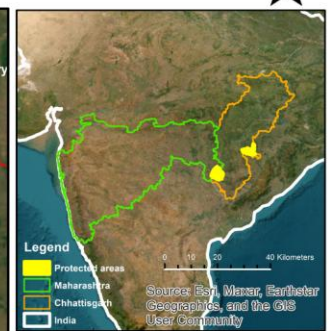
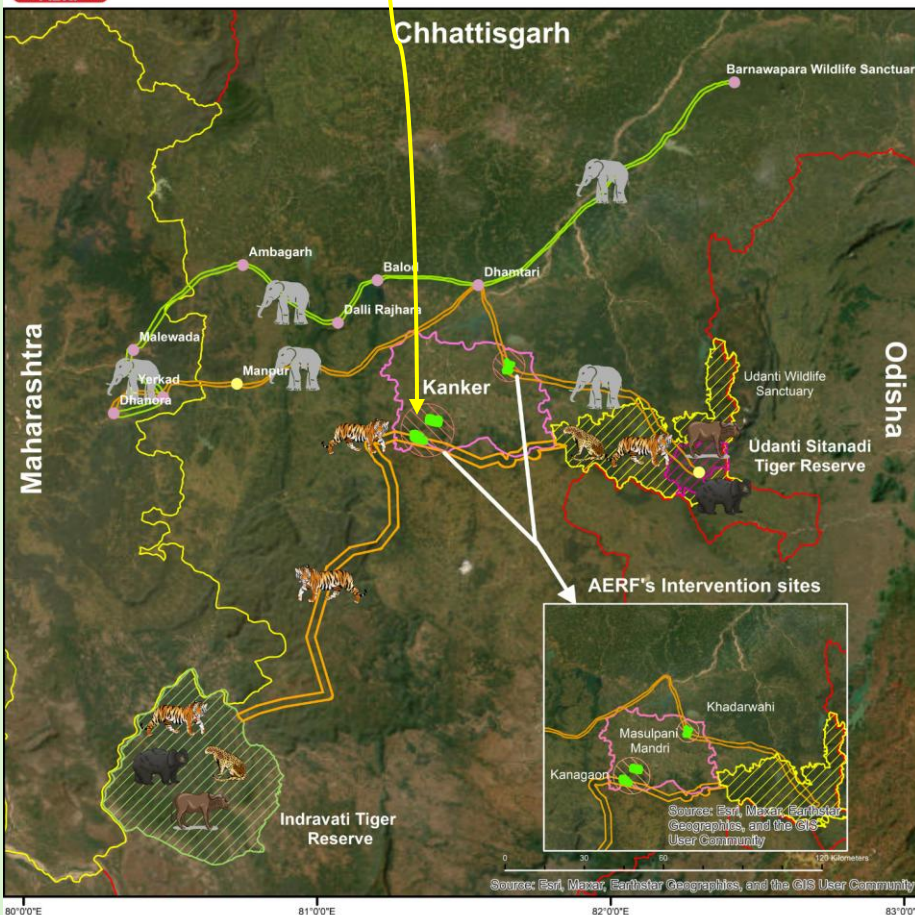
Total area- 1155 Ha

- Agricultural Fields- 169.95 Ha
- Settlements- 4.87 Ha
- Deciduous Dense Forest- 721.30 Ha
- Scrub Land- 209.5 Ha
- Water Body (Lake/Pond)- 2.56 Ha
- Water Body (Stream)- 6.79 Ha

Source: BHUVAN LULC, ISRO, INDIA



AERF'S PROJECT AREA ACROSS THE WILDLIFE CORRIDOR IN CENTRAL INDIAN LANDSCAPE



Area of Tiger corridor - 68706.34 ha
Area of AERF's intervention sites - 2940.867 ha

Focal Species_Sloth Bear (*Melursus ursinus*)

Bears (Family: Ursidae) are among the most widely distributed large mammals, occupying diverse ecosystems across the Northern Hemisphere and parts of the Southern Hemisphere.

Among the eight extant bear species, the sloth bear (*Melursus ursinus*) is unique in its evolutionary adaptations, ecology, and restricted geographic range. Endemic to the Indian subcontinent, the sloth bear occurs primarily in India, Nepal, Sri Lanka, and marginally in Bhutan, inhabiting a variety of tropical and subtropical forest types, grasslands, and human modified landscapes. Despite its relatively wide distribution, the species exhibits a patchy occurrence, largely corresponding to the extent and quality of forest cover.

The sloth bear is morphologically and behaviorally specialized for a myrmecophagous diet, feeding predominantly on ants and termites, supplemented seasonally by fruits, honey, and other plant resources. Distinct adaptations such as reduced upper incisors, a broad palate, protrusible lips, and long, curved foreclaws enable efficient exploitation of social insects, setting the species apart from other members of Ursidae. These specializations have allowed sloth bears to occupy ecological niches characterized by high insect availability, particularly in tropical deciduous forests.

Ecologically, sloth bears are largely solitary and predominantly nocturnal, especially in landscapes with high human disturbance. Their elusive behavior and nocturnal foraging patterns have limited direct observation, resulting in a reliance on indirect methods such as scat analysis and sign surveys to study their feeding ecology, habitat use, and movement patterns. Consequently, much of the existing knowledge on sloth bear ecology is derived from localized studies, often within protected areas, with comparatively limited information from non protected and human-dominated landscapes.

Although sloth bears are classified as Vulnerable by the IUCN, they face increasing threats from habitat loss, forest fragmentation, infrastructure development, and escalating human–bear conflict.



Sloth Bear *Melursus ursinus*

POPULATION TREND		NOT EVALUATED		DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	 < VULNERABLE >	ENDANGERED	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
↓		NE	DD	LC	NT	VU	EN	CR	EW	EX	

Participatory conservation of sloth bears in the CFR areas of Central Indian Landscape

Methodology

1. Social Survey Methodology

The social survey was conducted to understand patterns of human–sloth bear interactions, perceptions toward wildlife, and livelihood dependence on Community Forest Resource (CFR) areas. A structured questionnaire was developed covering themes such as encounter history, location of sightings, economic losses, psychological impacts, compensation access, and seasonal forest-use practices (NTFP collection, grazing, fuelwood extraction).

A total of 96 respondents were interviewed across 5 villages from the Kanker block of Uttar Bastar Kanker district. Respondents were selected using stratified sampling to ensure representation of households from high-interaction zones as well as relatively less-affected areas, covering all the hamlets/paras of the targeted village. Efforts were made to include women, elderly members, and forest-dependent households to capture diverse perspectives.

Data collection was carried out through face-to-face interviews in the local language by field researchers. In cases of reported conflict incidents, follow-up verification was conducted through field visits and cross-checking with other community members. Responses were recorded and later compiled for quantitative and thematic analysis.

2. Sloth Bear Sign Survey Methodology

A systematic sign survey was conducted to assess the presence, distribution, and activity patterns of the Sloth Bear and associated wildlife across the Mandri CFR landscape. The study area was divided into grids of approximately 1 sq. km each (some grids might be a little less than 1 sq. km) to ensure spatially representative sampling. We have not covered grids M10, M11 and M12 during this cycle of the reporting.

Within each grid, transects and opportunistic search paths were walked covering forest trails, agricultural edges, water sources, termite mounds, rocky outcrops, and settlement peripheries. Survey teams recorded both direct and indirect evidence of sloth bear presence, including scat, pugmarks, digging marks, claw marks, den sites, and signs of property damage. GPS coordinates were recorded for each sign to enable spatial mapping and grid-wise intensity analysis.

Scat samples were visually examined in the field to identify dietary components such as termites, fruit seeds, and anthropogenic materials (e.g., plastic). Observations of seed germination from scat were also documented to assess ecological roles such as seed dispersal. Den sites were identified based on structural characteristics (rock crevices, burrows, sheltered slopes) and surrounding sign evidence.

In addition, camera traps were deployed strategically in selected grids, particularly high-sign-density areas and movement corridors, to validate species presence and document associated biodiversity. All data were compiled and analyzed grid-wise to interpret habitat use, movement patterns, conflict hotspots, and ecological associations.

Software like Google Earth Pro, Google NotebookLM were used to produce maps and illustrations.

Together, the integrated social and ecological methodologies provide a comprehensive socio-ecological assessment of sloth bear presence, biodiversity status, and human–wildlife interface dynamics within the CFR landscape.

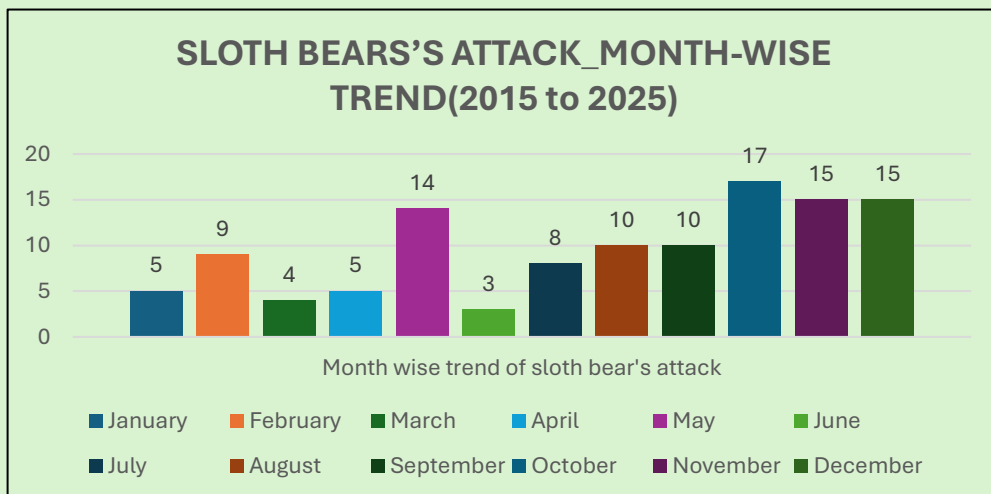
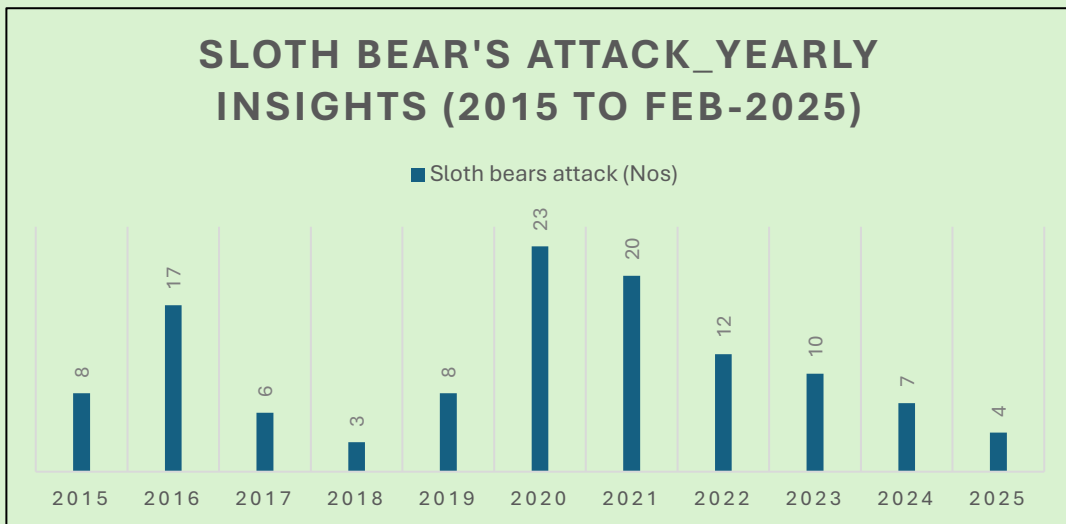
Field team in action...



Key Findings

1. Human-Sloth Bear's unpleasant interaction in Kanker Forest Division

Between 2015 and February 2025, the **Kanker Forest Division** documented **118 sloth bear attacks** on humans, which included **9 fatalities**. Data from the Kanker Forest Division shows a noticeable surge in incidents during 2020 and 2021, coinciding with the global pandemic. This increase is likely linked to two factors: an initial reduction in human activity near forest edges, followed by a significant increase in community reliance on forest resources for livelihoods as economic conditions shifted.



The frequency of interactions is likely to be influenced by the seasonal activities of both humans and sloth bears:

- **Post-Monsoon/Early Winter (October–December):** This period marked the **highest frequency of attacks**. The peak aligns with the harvest season for various local non-timber forest products (NTFP), leading to increased human presence and activity in forested habitats.
- **Summer Peak (May):** A secondary spike in incidents occurs in May, driven by sloth bears **actively exploring the region for water and food** during the peak of summer.
- **Monsoon Shift (June–August):** Recorded attacks in the forest are at their lowest in June, as local communities shift their focus to **Kharif season agricultural activities**.

2. Social Survey insights

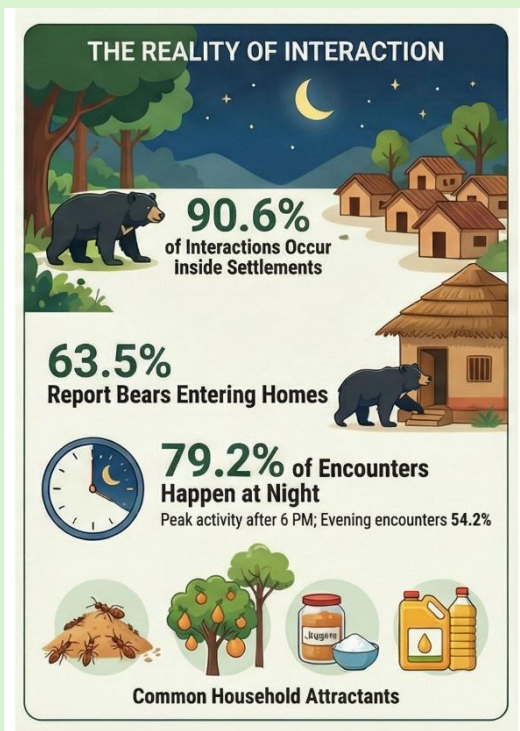
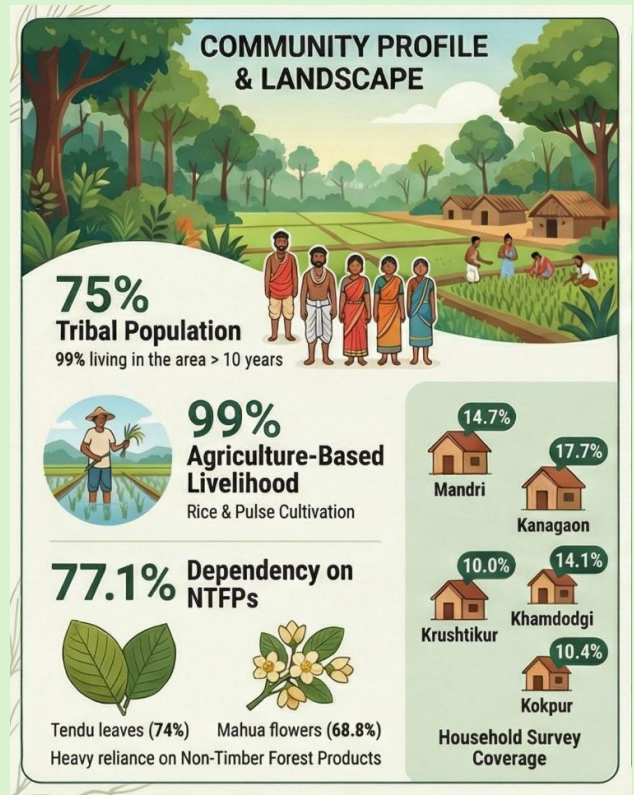
2.1. Community Profile and Forest Dependency

The survey covered **96 households** across five key villages, namely Mandri, Kanagaon, Krushtikur, Khamdodgi, and Kokpur, from the Kanker block of Uttar Bastar Kanker district.

The demographic is predominantly **tribal (75%)** and consists of long-term residents, with **99%** having lived in the area for over a decade. This indicates a community with deep-rooted traditional knowledge and a long history of sharing space with wildlife.

Livelihoods are inextricably linked to the landscape. While **99%** engage in farming (primarily rice and pulses), there is a staggering **77% dependency on Non-Timber Forest Products (NTFP)** like Tendu (*Diospyros melanoxylon*) leaves, Mahua (*Madhuca indica*) flowers, Haritaki (*Terminalia chebula*) fruits, and others.

Because **91%** of households live within 1 km of the jungle boundary, daily life and economic survival necessitate frequent entry into the CFR areas.



2.2 Dynamics of Sloth Bear Interactions

Interaction with Sloth Bears is not a rare event but a regular part of life for these villagers. **90.6%** of respondents have observed Sloth Bears near their hamlets.

Spatial Patterns: Most interactions occur in or around **settlements (90.6%)** and **farmlands (62.5%)**, rather than deep inside the forest.

Temporal Patterns: Interactions are most frequent at **night (79.2%)** and in the **evening (54.2%)**, coinciding with the bears' nocturnal activity and their attraction to village resources like fruit trees, oil, jaggery, and termites.

Residential Intrusions: A significant **63.5%** of respondents reported bears actually entering their houses, highlighting a high-intensity conflict zone.

2.3 Burden Vs Compensation

The burden of coexisting with Sloth bears is felt more in psychological and economic terms than in direct physical harm.

Although 6.9% of respondents reported physical injuries, a much larger proportion (41.7%) experienced mental trauma, and 13.9% incurred financial losses.

Despite these significant impacts, the compensation mechanism remains largely inaccessible or underutilized. Only 6.7% of eligible affected individuals reported receiving any government compensation, and this support is **limited to cases of physical injury, excluding financial losses such as damage to houses and property.**

1



2

3



5



4



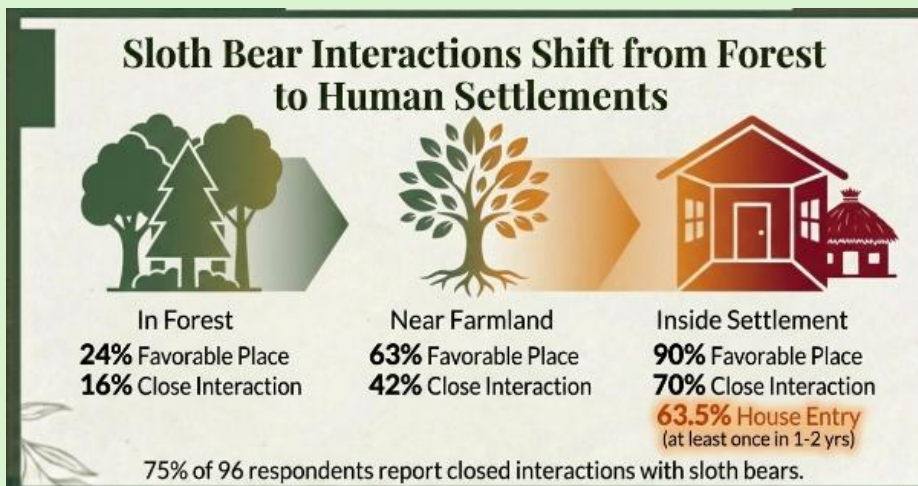
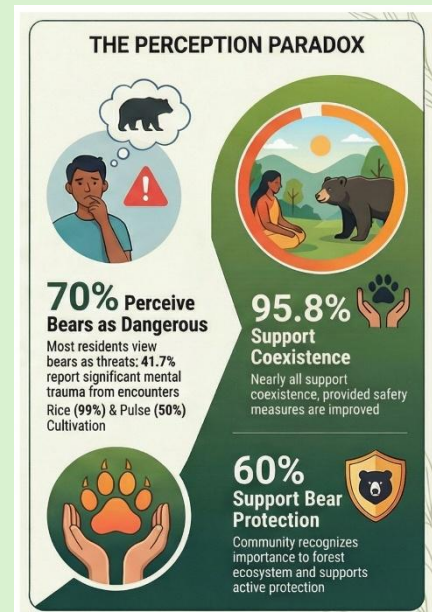
Clockwise- 1) Women with broken door (Sloth bear damaged it earlier), 2) Sloth bear's claw marks over the ration shop, 3) Sloth bear damaged the mud house wall to enter the kitchen, 4) Sloth bear's attempt to enter the local Aaganwadi (Nursery school), 5) Sloth bear's claw marks over the mud house wall.

2.4 Conservation Attitudes: The Paradox of Coexistence

There is a sharp contrast between perceived danger and conservation support:

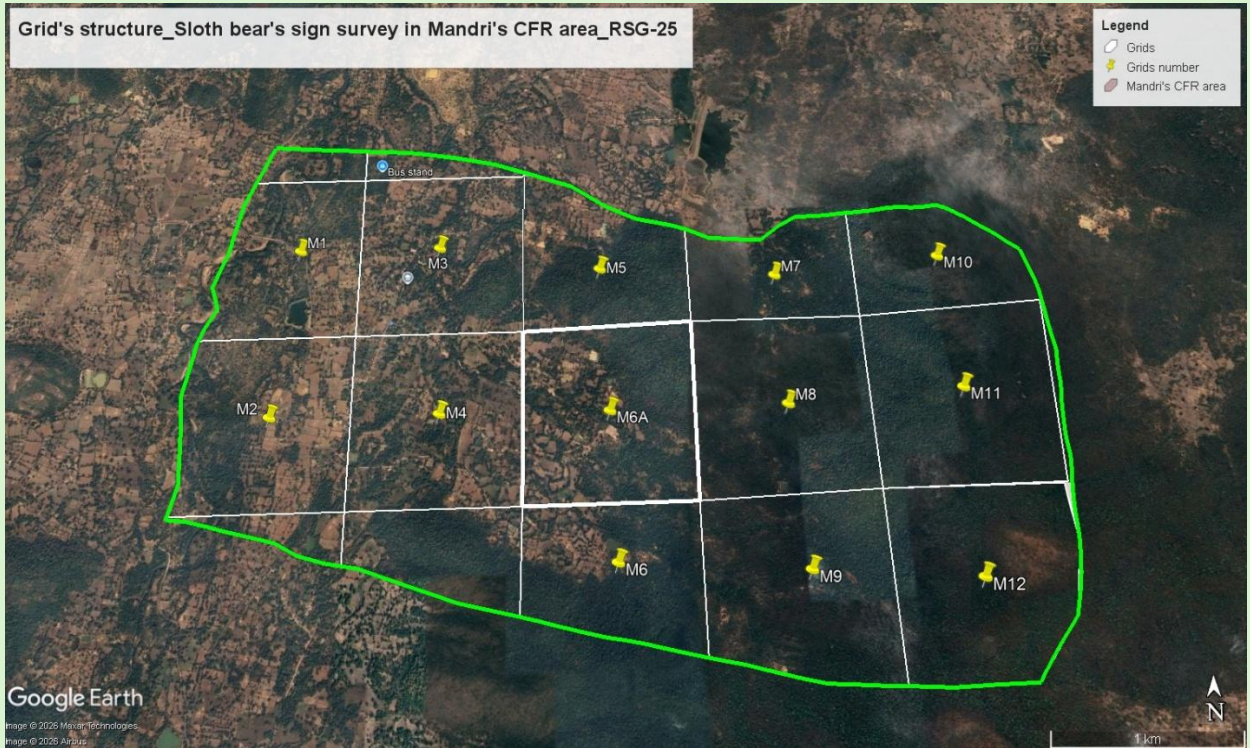
- **Perception of Risk:** 70% of the community views Sloth Bears as dangerous.
- **Support for Protection:** Despite the fear, 60% believe the species should be protected, and recognize their importance to the forest ecosystem.
- **Coexistence:** Most remarkably, 95.8% of respondents expressed support for human-bear coexistence. This suggests that the community does not want the bears removed or harmed; rather, they likely require better mitigation strategies to reduce the risks associated with sharing their space.

1) Wounds of a victim of a sloth bear's attack, 2) Sloth bear raids the corn field shown below:



3. Sloth Bear's Sign Survey Insights

During the current reporting period, a systematic sign survey was conducted across **10 grids (1 sq. km or less each)**, named as M1, M2, M3, M4, M5, M6, M6A, M7, M8, and M9 across Mandri CFR area to assess the presence, activity patterns, and distribution of the Sloth Bear (*Melursus ursinus*) and other wildlife within the project landscape.



3.1 Survey Effort and Overall Findings

A total of **51 sloth bear-related sign records** were documented across the 10 grids during this cycle. The survey recorded both direct and indirect indicators of bear presence, including:

- **Scat (23 records)** – Most frequently encountered sign
- **Digging marks (14 records)** – Indicative of foraging behaviour
- **Pugmarks (3 records)**
- **Claw marks (2 records)** – Connection with *Terminalia arjuna* and *Boswellia serrata*
- **Damage to property (4 records)** – Human-bear conflict indicators
- **Potential Den sites (2 records)**
- **Regenerated plants from scat (3 records)** – Ecological role evidence

The predominance of **scat and digging signs** suggests:

- 1) **Active foraging and**
- 2) **Regular habitat use** across multiple grids by the sloth bears.



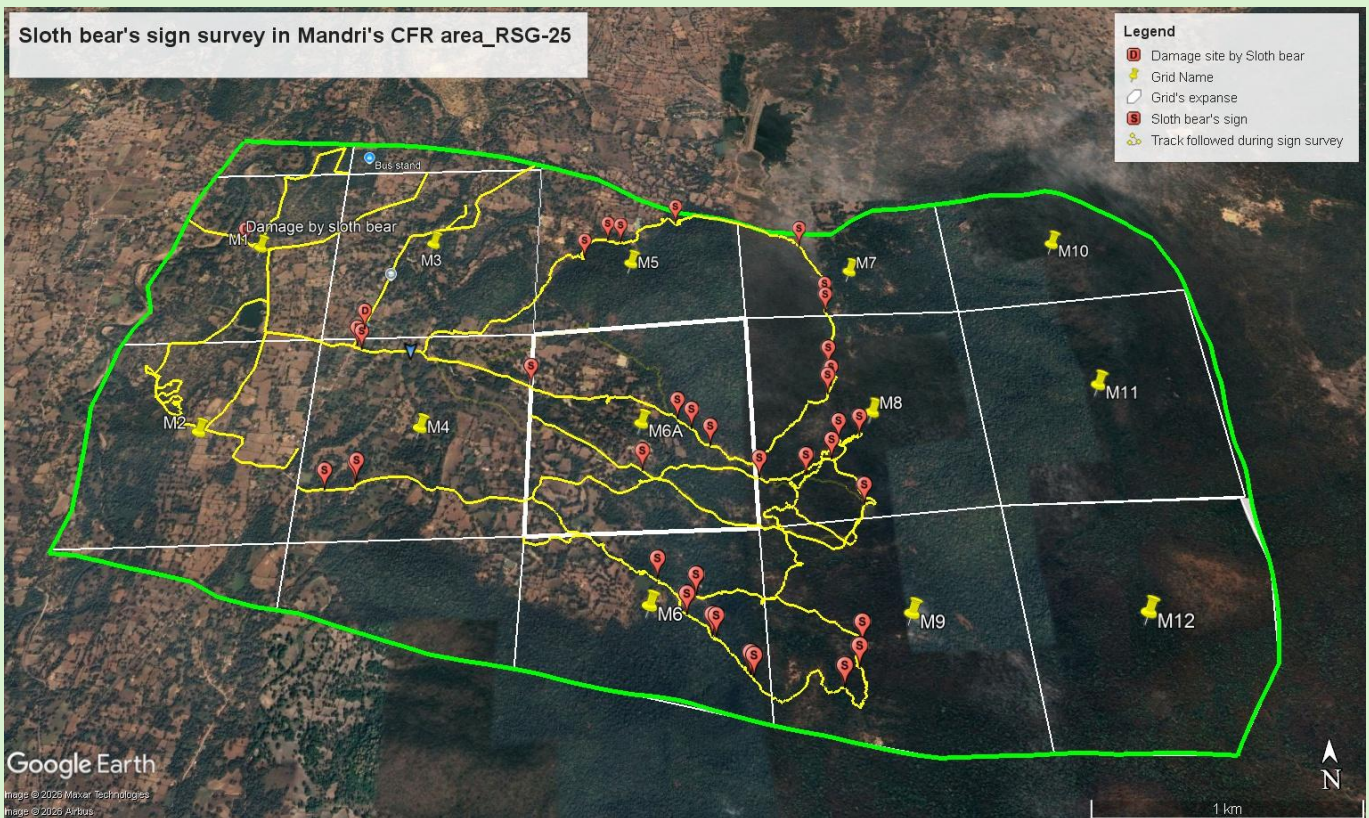
3.2 Grid-wise Distribution and Intensity of Activity

The distribution of signs was not uniform across the landscape.

- **High-Activity Grids**
 - a) M8 (9 records)– Highest sign density
 - b) M4 and M5 (8 records)
 - c) M6 (7 records)
- **Moderate Activity**
 - a) M6A (5 records)
 - b) M7 (4 records)
 - c) M9 (3 records).
- **Low Activity Grids**
 - a) M1, M2 and M3 (1 record each)



Various signs of sloth bear like scat, pugmarks and claw marks are shown above



Map shows tracks taken during the field surveys and mapped signs of the wildlife

3.3 Habitat Profile and Landscape Connectivity

The study area exhibits a clear ecological gradient. The western grids (M1, M2, M3, and M4) are characterized by high levels of human activity, including settlements, farmland, and community infrastructure. Notably, M1 and M2 are affected by soil erosion and infestation by the invasive *Dedonaea viscosa*, which also reflects in the lowest sloth bear activity in this area during our sign survey.

In contrast, the eastern grids (M7, M8, and M9) host intact dry deciduous forest patches with native tree populations, serving as the conducive and core habitat for the local sloth bear population and other wildlife.

Interestingly, central grids (M5, M6, and M6A) seem to serve as a transition zone from a high human activity zone to the core habitat. Also, active movement routes were identified in M5 and M6 based on the multiple scats and diggings across the track.

In general, the CFR areas contain several large and small water ponds that benefit both the community and wildlife. Additionally, termite mounds are scattered throughout these areas, often supported by trees such as Karra and Saja, as well as by rock boulders. The CFR area also hosts tree species that provide food for sloth bears, like Tendu, Jamun, Bael, Bhalumusal, Ber, Wild dates, Mahua, etc. Thus, these CFR area becomes a conducive and crucial habitat for the sloth bear.



3.4 Foraging Ecology and Ecosystem Services

The dominance of digging signs reflects termite and insect foraging, which aligns with the known feeding ecology of sloth bears. Also, 9 out of 23 scats (40%) contained termites, which reflects the sloth bear's termites' foraging nature. The other 8 (35%) scat samples contained seeds of **Ber (*Ziziphus mauritiana*)**, **Chhind/Wild date (*Phoenix sylvestris*)**, **Tendu (*Diospyros melanoxylon*)**, **Beeba/Bhilwa (*Semecarpus anacardium*)**, **Mokaiya (*Ziziphus oenoplia*)**, and **Bhalumusal/Bahava (*Cassia fistula*)**. 3 scat samples contained both seeds and termites. One of the scat samples contained plastic too, reflecting foraging on a nearby dumping site, and poses a threat to the wildlife.

Sloth bears in this landscape act as both **predators of social insects and vital seed dispersers**:

Dietary Staple: Termites were found in scat samples across **M5, M6, M6A, M8, and M9**, correlating with frequent digging signs in these areas.

Frugivory: Bears consume a variety of forest fruits, including **Ber, Chhind, Tendu, Beeba, Mokaiya, and Bhalumusal**.

Seed Dispersal: A significant ecological finding is the observation of a **regenerated plant** growing directly out of sloth bear scat, demonstrating their role in forest regeneration. Our field team came across germination of **Tendu seeds (*Diospyros melanoxylon*)**, **Chhind/ Wild date palm seeds (*Phoenix sylvestris*)**, and **Guava (*Psidium guajava*)** as shown in the following images.



Tree Species (Local Name)	Scientific Name	Active Fruiting Season	Peak Availability
Ber/Indian Jujube	<i>Ziziphus mauritiana</i>	January – April	February – March
Chhind/ Wild Date	<i>Phoenix sylvestris</i>	July – September	August
Tendu	<i>Diospyros melanoxylon</i>	May – June	May (Late Summer)
Beeba / Bhilwa	<i>Semecarpus anacardium</i>	December – March	January – February
Mokaiya/Jackal Jujube	<i>Ziziphus oenoplia</i>	August – February	October – December
Bhalumusal / Bahava	<i>Cassia fistula</i>	December – May	March – April
Peru/Jaam/Guava	<i>Psidium guajava</i>	August – November	September – October

Tree species preferred by sloth bear as per the sign survey with their respective fruiting period.

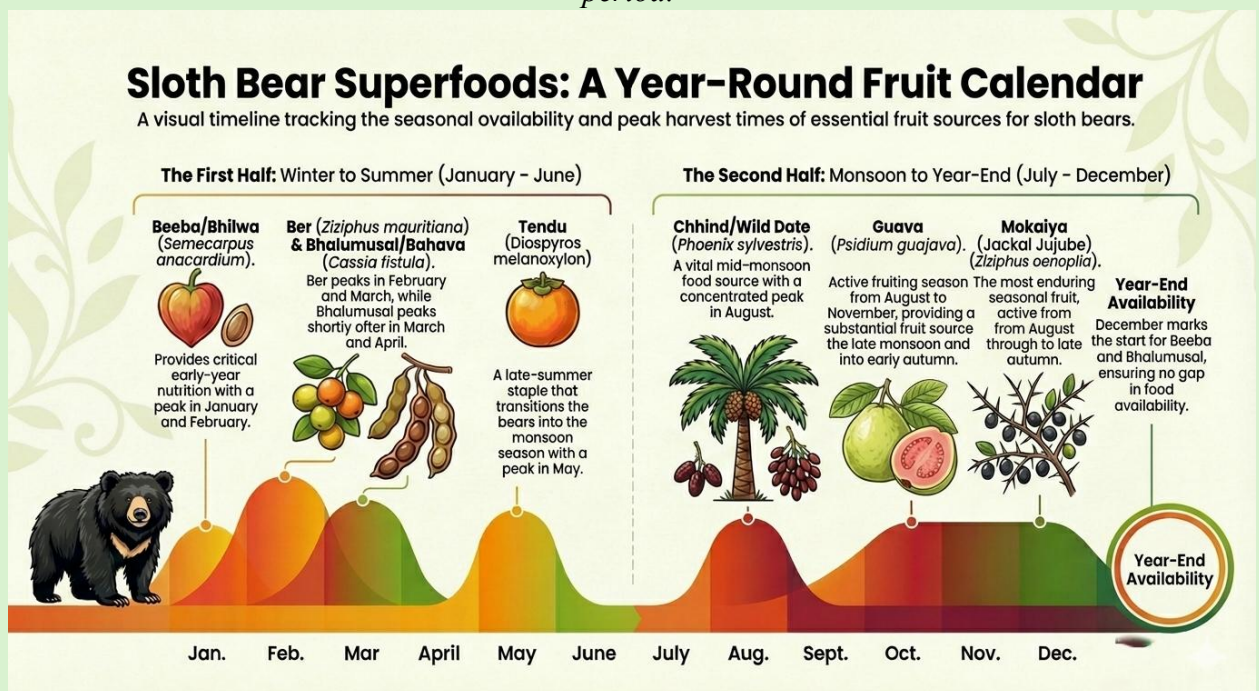


Illustration showing the seasonal fruit calendar for sloth bears based on the scat analysis during the sign survey



ANTHROPOGENIC IMPACTS

Evidence of plastic material was found within bear scat samples in high-human-activity zones.

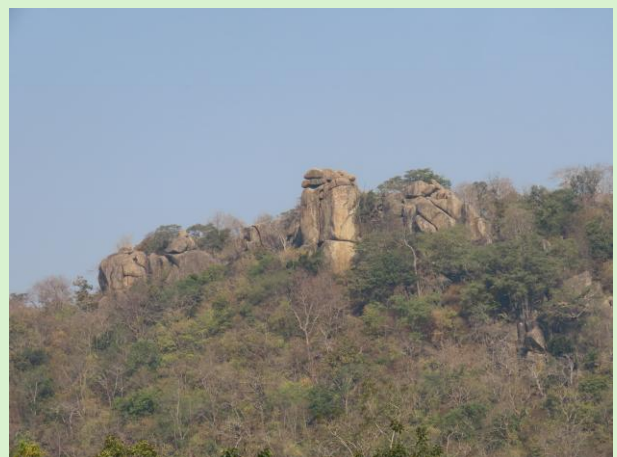
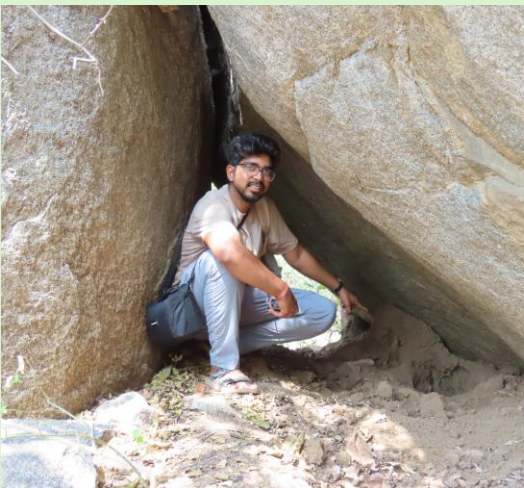
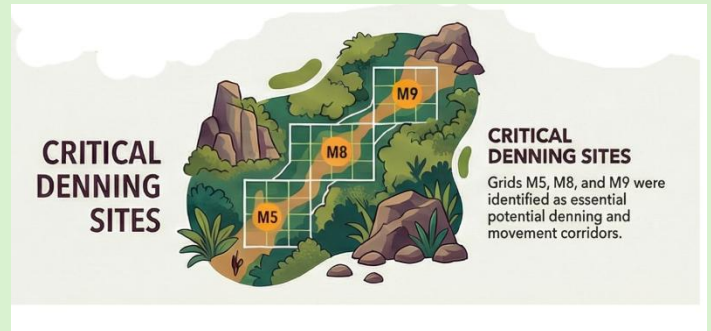


Habitat study for the sloth bear under the same project, which is being conducted right now in the field, explores the population and regeneration of these tree species within the CFR areas. This study will provide more insights into the health of the habitat for sloth bears and provide necessary inputs on the priority species for the plantation within the CFR areas while planning for the restoration activities.

3.5 Denning Evidence

During systematic sign surveys across the Mandri CFR grids, three Sloth Bear den records were documented, including confirmed den sites in M5 and M8 and a potential den in M9. These dens were located within relatively undisturbed dry deciduous forest patches characterized by rocky hills and boulders, indicating suitable microhabitat conditions for resting and possible breeding.

The spatial clustering of denning evidence within eastern and transitional grids reinforces the importance of these areas as core habitat and refuge zones within the landscape. The identification of active and potential dens also confirms the continued residency of sloth bears in the project area. It highlights the conservation value of protecting these microhabitats from disturbance, grazing, and opportunistic hunting.



Hilly and rocky terrain provides various denning sites refuge to wildlife, including Sloth bears as shown above

4. Human–Sloth Bear (and other wildlife) Interface in CFR areas

The Community Forest Resource (CFR) areas of Mandri continue to represent an active and complex human–wildlife interface, with substantial spatial overlap between local livelihood activities and wildlife movement, particularly of the Sloth Bear. Six grids (M1, M2, M3, M4, M6, and M6A) show consistent human presence in the form of settlements, agricultural fields, fuel-wood extraction, and daily forest access routes. Meanwhile, three grids (M7, M8, M9) exhibited evidence of cattle grazing and the presence of hunting traps, indicating anthropogenic pressure even within relatively intact forest patches. Seasonal collection of Non-Timber Forest Produce (NTFPs), fuelwood harvesting, and livestock grazing extend human activity deeper into core and transitional habitats, increasing the likelihood of encounters.

Field evidence indicates that wildlife and community members frequently use overlapping pathways. Scats, digging marks, and pugmarks of sloth bears were recorded along commonly used walking trails, suggesting shared movement corridors. Camera traps installed within human settlements captured not only sloth bears but also species such as the Striped Hyena and the Jungle Cat, underscoring the permeability of settlement boundaries and the adaptability of wildlife to modified landscapes.

High human-density grids (M1, M3, and M4) reported direct conflict manifestations. Sloth bears damaged mud house walls while foraging for termites and accessed stored food items such as sugar and oil from a local ration shop, indicating resource-driven incursions. In M4, scat analysis revealed plastic fragments, highlighting risks associated with unmanaged solid waste and the potential health threats to wildlife. Additionally, hunting traps discovered near ant mounds in M5, M7, M8, and M9, likely set for birds, rodents, or pangolins, pose unintended threats to non-target species, including sloth bears.

Overall, the CFR landscape reflects a tightly interwoven socio-ecological system where livelihood dependence on forest resources intersects with critical wildlife habitats. While coexistence remains functional, increasing anthropogenic pressures, waste-related attractants, and opportunistic hunting elevate the risk of negative interactions. Strengthening community-led conflict mitigation, regulating waste disposal, monitoring shared corridors, and promoting sustainable forest-use practices will be essential to maintaining ecological integrity while safeguarding local livelihoods.



Hunting trap beside the termite mound that was set up in the CFR area, a rodent was observed trapped inside it (encircled with yellow)

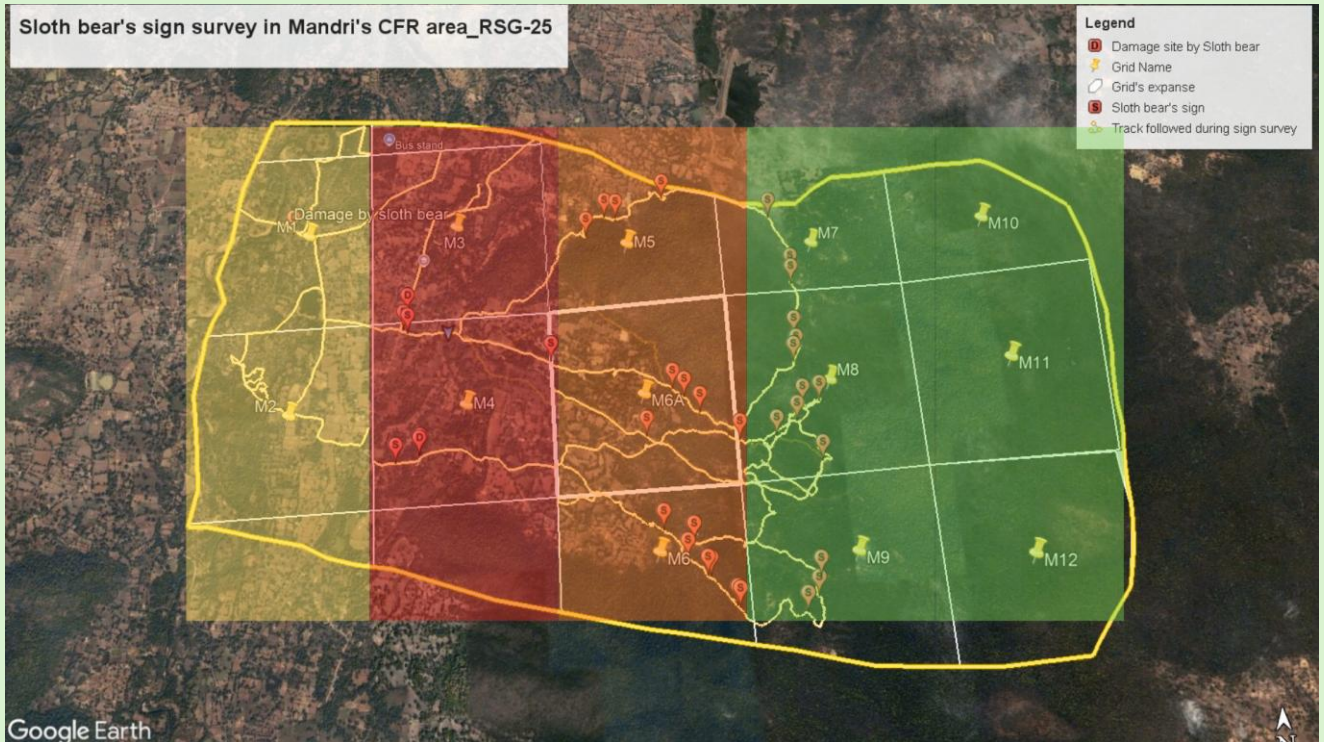






A camera trap installed within the human settlement captured 1) Sloth bear, 2) Striped hyena, 3) Jungle cat, and 4) locals with their domesticated dog



A camera trap installed in M4 grid captured 1) Jungle cat with her three cubs, 2) Civet, 3) Indian leopard, 4) Porcupine, and 5) Locals with their livestock

Based on this preliminary understanding, the CFR area under our study can be divided into zones as shown in the following illustrative map for their respective management.



-  The Yellow zone (Degraded and infested with invasive weeds) shows the potential area for restoration within the CFR area.
-  The Red zone (Active human presence) shows the vulnerable area/sensitive area for human-sloth bear unpleasant interaction.
-  The Orange zone (Mix of farmlands and forest) shows the transition of the CFR area towards the core habitat of the sloth bear and other habitats.
-  The Green zone (Forest, Grazing and NTFP collection) shows the core habitat of the sloth bear and other wildlife with their active presence, relatively high vegetation, and dens.



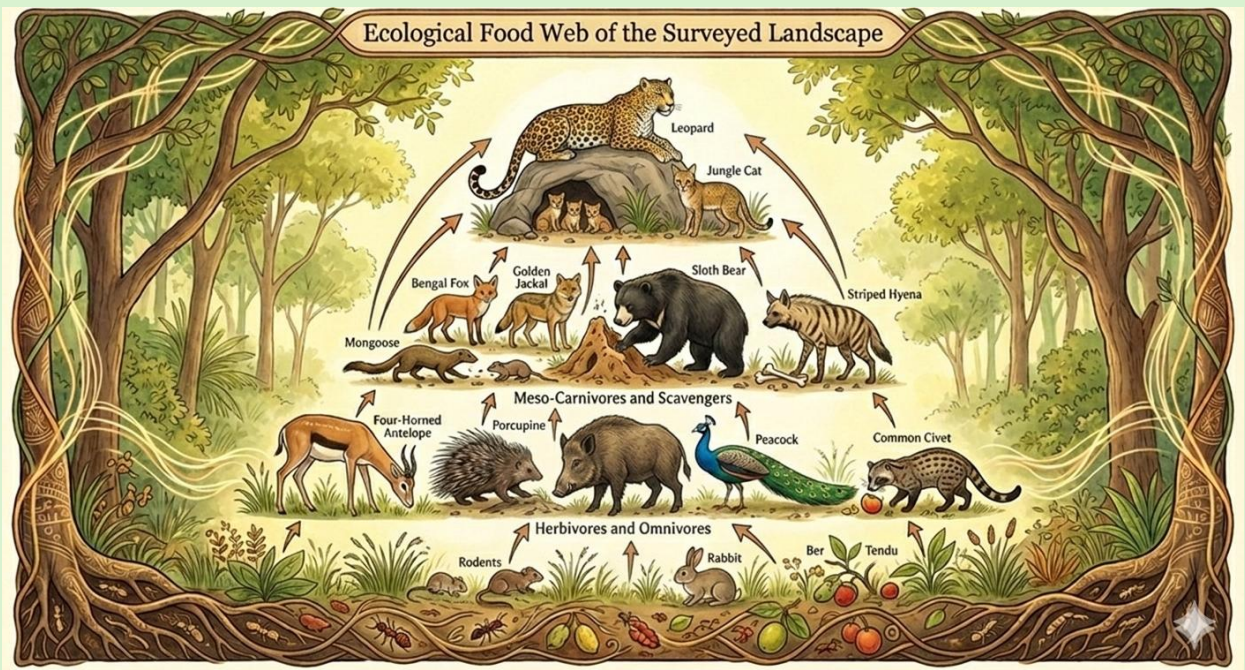
5. Biodiversity within CFR areas

The CFR landscape supports a rich assemblage of co-existing wildlife species, reflecting a functionally diverse dry deciduous forest ecosystem. Camera trap evidence and indirect signs confirm the presence of apex and mesopredators such as the Leopard, Striped Hyena, and Jungle Cat, alongside omnivores like the Sloth Bear. Herbivores, including the Four-horned Antelope and Wild Boar, utilize transitional and core forest patches, contributing to vegetation dynamics and sustaining higher trophic levels. Earlier studies by AERF's wildlife researchers have also confirmed the presence of 112 bird species in these CFR areas.

The sighting of sensitive species such as the four-horned antelope indicates relatively undisturbed microhabitats within eastern grids, while widespread termite mounds, fruiting tree species, and water sources provide essential ecological resources. This multi-trophic presence underscores the CFR area's role not only as a source of livelihood for the locals but also as a habitat for sloth bears, rather as a broader biodiversity refuge within a human-dominated landscape, beyond protected areas.



Camera trap captures of Wild boar, Indian peafowl, Jungle cat, a pair of Golden jackals, Four-horned antelope, and Indian grey mongoose from Mandri CFR area



Concluding Remarks

The first six months of the project have laid a strong foundation for integrating wildlife conservation within Community Forest Resource Areas (CFRAs) in North Bastar Kanker, Chhattisgarh. Through preliminary ecological assessments and community engagement, the project has helped generate important baseline information on wildlife presence, habitat conditions, and local perceptions related to human–wildlife interactions. Evidence of species such as the Sloth Bear, Indian Leopard, Striped Hyena, and Four-horned Antelope confirms the conservation significance of these CFR areas, which form part of a critical wildlife corridor linking the Sitanadi-Udanti Tiger Reserve and the Indravati Tiger Reserve.

During this reporting period, the project has also successfully initiated dialogue with local communities and CFR Management Committees to highlight the ecological importance of their forests beyond livelihood values.

The findings from the initial field surveys and social survey will serve as an important basis for identifying potential human–wildlife interaction zones and developing locally appropriate mitigation strategies. In the coming months, the project will continue to strengthen participatory research, refine habitat assessments, awareness activities and interactions with villagers to build a shared understanding of the ecological role of wildlife, particularly the Sloth Bear, and the need for coexistence strategies in landscapes where human settlements and wildlife habitats overlap, and support the integration of wildlife conservation considerations into community-led CFR management plans.

Overall, the project demonstrates that CFR areas governed under the Forest Rights Act, 2006 have significant potential to contribute to landscape-level biodiversity conservation while sustaining local livelihoods. Continued collaboration with local communities will be key to ensuring that conservation efforts remain inclusive, scientifically informed, and sustainable in the long term. The progress achieved during this initial phase provides encouraging momentum for advancing participatory wildlife conservation and promoting long-term human–wildlife coexistence in the Central Indian landscape.

Thus, these CFR areas seem to hold a promise of co-existence in their true nature. It's timely to collaborate with the local community to sustainably manage, protect, and restore these lands as per India's legislation of the Forest Rights Act, 2006.