PLAN VIVO

PV Climate

validation report

Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand

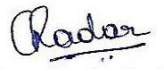
Version 2.1

7 August 2026

PLAN VIVO

Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand

Project Title:	Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand
Location:	Country: India States: West Bengal and Jharkhand Districts: Birbhum and Dumka.
Project scale	☒ Macroscale ☐ Microscale
Version of this validation report:	2.1
Project Coordinator/ Client	Mr. Jasmeet Singh, Director Fair Climate Fund India Private Limited (FCF) Email: jsingh@fcfindia.in Phone Number: +919560018494
Project Participants:	These are small holder farmers belonging to the marginalized tribal communities, often migrating to neighbouring cities for daily-wage labour.
Validator:	4k Earth Sciences Private Limited (4KES)
Validation Date of Issue:	7th August 2026
Project Period (crediting period):	Start date: 01 June 2020. Crediting period: 30 years (and will be renewed to 20 more years to cover up to 50 years, which is in line with section 3.15 of the PV's Project Requirements, v5.5).
Methodology:	PM001 "Agriculture and Forestry Carbon Benefit Assessment Methodology v1.0"
Expected Carbon Benefit:	The project is proposed to remove 1,433,894 tCO_2e (without buffer deduction) or 1,147,115 tCO_2e (after 20% buffer deduction) from the atmosphere over the course of 30 years.
Expected Ecosystem Benefit:	The project is anticipated to generate positive ecosystem impacts through the establishment of tree plantations and mixed agroforestry systems on farms and degraded lands. The proposed increase in tree cover is expected to contribute to emission reductions, improved micro-climatic conditions, including provision of shade, moderation of local temperatures, and reduction in wind impact. In addition, the incorporation of leaf litter and plant residues is expected to enhance soil organic matter, thereby improving soil structure, supporting soil biota, and increasing soil moisture retention capacity. The VVB concludes that such benefits are consistent with the nature of afforestation and agroforestry interventions.
Expected Livelihood Benefit:	The project is expected to generate additional income opportunities for participating households through multiple interventions, including the cultivation and sale of mangoes, promotion of sericulture using Arjuna trees as host species, and the production of timber from species such as Sonajhuri and Teak.

	The Project Coordinator (PC) indicates that households engaged in sericulture activities may earn an additional annual income of approximately INR 80,000 per hectare (a detailed case study and evidence (sale slip) was submitted as evidence). The VVB notes that Arjuna plantation has currently been implemented on a pilot scale over 10 ha, with proposed expansion based on site suitability and farmer participation. Additional income is expected from the periodic harvesting of Sonajhuri (approximately every 12 years) and Teak (approximately every 25 years), which are intended for use in furniture and construction, thereby providing medium- to long-term financial returns. The PC also identifies carbon revenue as an additional income stream for participating households. The project is expected to benefit approximately 8,000 families through these interventions. The VVB considers the described livelihood benefits to be plausible and consistent with the proposed activities.
Approved by:	Ms. Chandrakala  Director

PLAN VIVO

Contents

1 INTRODUCTION

1.1 Objective and Scope

4K Earth Science Pvt. Ltd. (4KES) has been contracted by Fair Climate Fund India Private Limited (FCF) (PC) to carry out the validation of the Plan Vivo (PV) project "Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand". The purpose of the validation is to provide an independent third-party assessment of the project to determine its compliance with the applicable validation criteria, as set out in the guidance documents listed in Section 1.2 of this report.

The validation involves a systematic and objective review of the project design, including the baseline scenario, demonstration of additionality, monitoring plan, stakeholder engagement processes, benefit-sharing arrangements, and agreements between the PC and participating households. The assessment also covers compliance with applicable host country regulations, environmental and social safeguard requirements, and alignment with sustainable development objectives.

The validation has been conducted in accordance with the Plan Vivo Climate Project Requirements v5.5 /1/, Validation and Verification Procedures Manual v1.4 /6/, and other relevant PV guidance documents. A risk-based approach has been applied, focusing on areas with higher potential impact on the project's implementation and the generation of emission reductions/removals.

The scope of the validation includes:

- Assessment of the project and its baseline scenario;
- Evaluation of project activities, stakeholder engagement, and implementation processes;
- Review of land tenure, management rights, and carbon rights;
- Identification of applicable GHG sources, sinks, and reservoirs;
- Assessment of applicable Plan Vivo Certificates (PVCs);
- Review of agreements, monitoring and reporting framework; and
- Assessment of the proposed crediting period.

Furthermore, the assessment team used additional documentation by third parties like reports referring to the project design or to the basic conditions and technical data available on public domain to assess the following: -

- Compliance with relevant law and regulations
- LULC data
- Land title documents (issued by the competent authorities in the region and carbon agreements between the landowners and PC
- Safeguards section in PDD

The assessment team has checked all the above-mentioned details and confirms that all the information provided is accurate.

The validation is not intended to provide consultancy to the PC. However, requests for clarification, corrective actions, and forward actions have been raised, where required, to

ensure that the project design meets the applicable requirements and can support credible issuance of carbon units.

1.2 Method and Criteria

The project activity applies approved PV methodology PM001," Agriculture and Forestry Carbon Benefit Assessment Methodology V1.0". This validation was undertaken as per PV Requirements v5.5 /1/, and its associated tools as well as applying standard auditing techniques and Validation and Verification Procedures Manual v1.4 /6/.

The validation process is undertaken by validation team that involves the following:

- Contract review and appointment of audit team.
- Completeness Check of the documents and templates used.
- The desk review of documents and evidence submitted by the PC in context of the reference PV rules and guidelines. (Example: Project conformance to the applied methodology, including the procedure for the demonstration of additionality specified in the methodology)
- Design the sampling plan for audit.
- Undertaking site visit, interview, and interactions with the representative of the PC, project employees and local communities/beneficiaries and other relevant stakeholders. The viewpoints collected in these interviews were considered by VVB along with onsite observation, objective evidence gathering, data production, and recorded analysis when reaching a validation opinion.
- To ensure the risk of auditing error is minimized to a reasonable level and ensure effectiveness & efficiency, a project specific validation and sampling plan was developed to guide the validation process. The methodology of the validation and sampling plan is based on the PV guidance documents and ISO 14064-3:2019. Any modifications applied to the plan were made based upon the conditions observed for monitoring to detect the processes with highest risk of material discrepancy. The samples were observed and validated in selected sample plots through on-site assessment and satellite imageries analysis.
- Reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate.
- Preparation of final validation opinion.
- TR Comments and findings.
- Issuance of final validation report.

The scope of the validation and verification is defined as an independent and objective review of the PDD, where methodological deviations and the project's compliance in relevant sections of PDD are reviewed against the requirements of the PV Climate requirements. 4KES has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of emission reductions/carbon sequestration.

The criterion for validation was the Plan Vivo Climate version 5, including the following documents:

- Project requirements version 5.5 /1/
- Methodology requirements version 1.2 /63/
- Procedures Manual version 3.9 /2/
- Plan Vivo Validation and Verification Requirements version 1.1 /3/
- PV Climate Validation and Verification Procedures Manual version 1.4 /6/

The assessment was performed against the most recent version of the relevant PV documents.

1.3 Level of Assurance

The assessment was conducted to provide a reasonable level of assurance of conformance against the defined audit criteria and materiality thresholds within the audit scope. Based on the audit findings, a positive evaluation statement reasonably assures that the project GHG assertions are materially correct and is a fair representation of the GHG data and information.

1.4 Summary Description of the Project

The project titled "Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand" is being implemented in the districts of Birbhum in West Bengal and Dumka in Jharkhand. The project targets degraded upland areas affected by soil erosion, slope-related degradation, erratic rainfall, and limited irrigation facilities. These lands are primarily owned and managed by small and marginal farming households with landholdings of approximately 2 ha or less.[1] These farmers are highly susceptible to climate change, and the project aims to empower them by involving local communities and Indigenous people, who possess valuable cultural knowledge and traditional practices, in all project stages.

The project adopts a participatory Integrated Natural Resource Management (INRM) planning approach, involving local communities including women members of existing Self-Help Groups (SHGs)/Women Livelihood Committees (WLCs) in resource mapping and planning of interventions such as land development, soil and moisture conservation, irrigation infrastructure, and plantation activities. These community institutions are pre-existing and have not been formed by the PC, rather, they have been established under government-supported programs such as the National Rural Livelihoods Mission (NRLM) and the National Cooperative Development Corporation (NCDC), with support from financial institutions such as NABARD. A portion of the project beneficiaries are members of these institutions and contribute to the implementation of project interventions.

The project also plans to engage with existing Farmer Producer Organizations (FPOs), which operate through established governance structures. The FCF India team coordinates with these leadership structures for planning and implementation. In addition, local youth are trained and engaged through these FPOs as service providers or entrepreneurs, supporting livelihood generation and strengthening community-based service delivery.

The project is expected to deliver climate, ecosystem, and livelihood benefits. The project is expected to remove approximately 1,147,115 tCO_2e (with 20% buffer deduction) over 30 years. Ecosystem benefits are expected through plantation of species such as Mango, Arjun, Sonajhuri, and Teak, with biodiversity baseline assessment and monitoring proposed every

[1] https://www.pib.gov.in/newsite/PrintRelease.aspx?relid=188051&reg=3&lang=2

five years. Livelihood benefits are expected through fruit production, sericulture, timber harvest, wage labour, intercropping, and carbon revenue.

Key activities and inputs required for the project include:

1. Species Selection: Native species like Mango, Arjun, and Sonajhuri are chosen for planting to enhance biodiversity. Teak is also considered for its long-term benefits. /60/

2. Establishment:

- Sonajhuri plantations require an initial input cost of approximately INR 1,07,000 per hectare, covering pre-plantation, plantation, and post-plantation activities. Each tree is sold for at least INR 3,000 after 12 years, with replanting of harvested trees. /53/
- Disease-Free Layings (DFLs) for sericulture are procured from local cooperatives, costing INR 75-100 per DFL, which contains about 2,500 eggs. /50/ and /51/

3. Long-term Management:

- Biodiversity is monitored every five years.
- Income from sericulture is significant, with potential earnings of INR 60,000 to INR 1.3 lakh per hectare per season from cocoon sales, and annual gross income ranging from INR 1.2 lakh to INR 2.6 lakh per hectare. [2]
- Revenue from carbon sequestration is expected to remove 1,147,115 tCO2e (with 20% buffer deduction) over 30 years crediting period.
- The project supports sustainable rural livelihoods through plantation activities, providing immediate income from wage labor and intercropping, and long-term returns from mango, sericulture, and timber.

The VVB further notes that the total proposed project area is 4,000 ha, while the first instance covers 841.61 ha, of which 720.091 ha has already been implemented (out of planned plantation of 4,000 ha till 2028) and 121.51 ha is planned for implementation in 2026 /10/. Based on the information reviewed, the project boundaries, implementation locations, and proposed interventions are described in the PDD /8/.

The project enhances participants' resilience to climate impacts and contributes to sustainable development by leveraging existing community institutional frameworks rather than creating new ones. The FCF and FIT Climate Foundation teams maintain regular engagement with these institutions, including participation in monthly meetings of the above-mentioned village level organizations and periodic planning and review sessions. Records of stakeholder participation are maintained, and the list of FPOs and SHGs/WLCs /56/ involved in project activities has been provided to the VVB for review. A few participating SHGs members were also interviewed during the VVB's site visit.

As the agroforestry systems mature, the project plans to further support FPOs in strengthening aggregation, marketing linkages, and value addition. Capacity-building and training activities are designed to enhance both individual and institutional capabilities, ensuring effective implementation, monitoring, and long-term sustainability of project interventions.

[2] Profit estimates, cost details, and a total benefits analysis have been provided by the PC for the VVB's review. Based on the data and supporting secondary information provided, as well as site visit discussions, it is concluded that the projected benefits from the trees are reasonable and are expected to contribute positively to climate, community, and biodiversity aspects within the project area.

2 VALIDATION PROCESS

2.1 Validation team, technical reviewers and approver

Role	Name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
			Desk/document review	On-site visit	Interviews	Validation findings
Lead validator and Local Expert	Ma Paa Puratchikkanal	4KES-Central Office	×	×	×	×
Validator	Swati S Acharya	4KES-Central Office	×	-	-	×
Validator	Praveen Babu S	4KES-Central Office	×	-	-	×
Technical and Local Expert	Zainab Hassan	4KES-Central Office	×	×	×	×
Technical reviewer	Chetan Swaroop Sharma	4KES-Central Office	-	-	-	×
TE for TR	Nandagopal Paramesh	4KES-Central Office	-	-	-	×
Approver	Chandrakala R	4KES-Central Office	-	-	-	-

2.2 Document Review

The validation is performed to check the project conformance with Plan Vivo Climate requirements and guidelines, and applied methodology PM001 “Agriculture and Forestry Carbon Benefit Assessment Methodology” v1 /19/. The validation team has checked the project design on-site and reviewed the project documentation submitted by project coordinator. Further cross-check and independent desk reviews were performed to conclude the assessment and state the final validation opinion.

To address the corrective actions and new information request that arose from the desk review, the PC revised the project description document version 1 and developed a final version. The supporting documents that were reviewed are all listed in Annex 1 of this report. VVB cross checked and compared them with the relevant sections of the PDD /8/.

2.3 Site visits and Interviews

The VVB conducted the site visit from 30/07/2025 to 01/08/2025 in the project districts of Dumka (Jharkhand) and Birbhum (West Bengal), India, in accordance with the approved audit plan shared with the PC. The sampling of sites and beneficiaries was pre-selected by the VVB to ensure representative coverage of the project area, considering geographical spread,

intervention types, and implementation status (both existing, new and planned plantations areas). The same was also shared with the PV in advance for their consideration and review.

The site visit included an opening meeting with the PC, followed by field inspections and stakeholder consultations across selected locations. The VVB undertook on-site verification of project implementation by visiting sampled plots and interacting directly with participating farmers and community members. Key aspects assessed during the visit included land ownership and eligibility, baseline conditions, plantation activities, species selection, and implementation of interventions as described in the PDD. The VVB also evaluated the application of the benefit-sharing mechanism, stakeholder engagement processes (including FPIC), and safeguards implementation.

Interviews were conducted with project representatives, monitoring staff, beneficiaries, and local stakeholders to cross-check information provided in the PDD and shared evidence to assess consistency between reported and observed practices. The VVB further reviewed historical land use, cropping patterns, and potential leakage risks through discussions with beneficiaries. Monitoring systems, data collection practices, and quality assurance/quality control procedures were also assessed during the visit.

Figure 1: Glimpse of the sites visited

The audit plan and that the sampled locations provided adequate representation for the purpose of validation. The information obtained during the visit was used to substantiate the assessment of project design, implementation, and compliance with the applicable PV requirements.

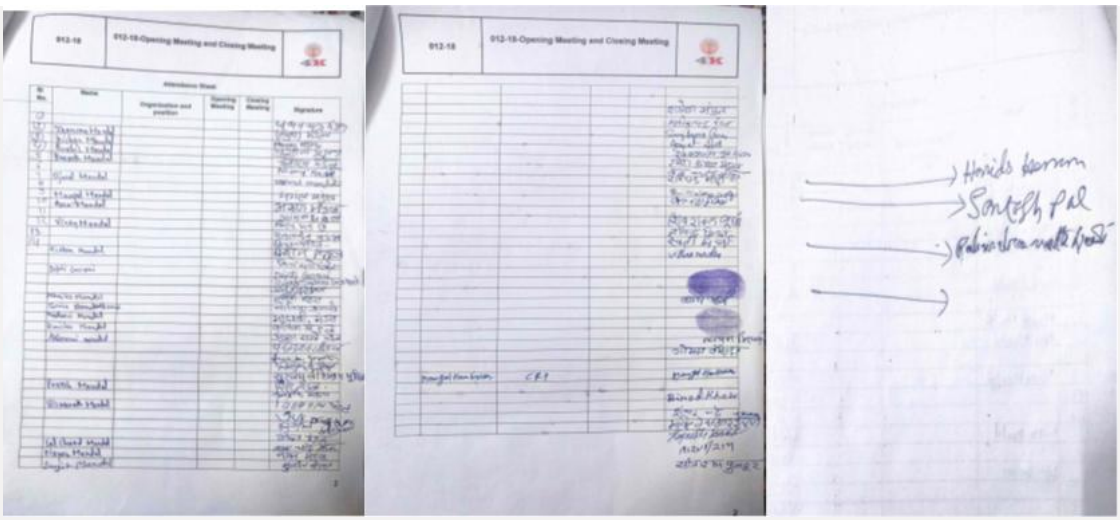


Figure 2: Attendance taken during the site visit

Duration of the on-site inspection: 30/07/2025 – 01/08/2025					
Name	**Role**	**Organization/Community**	**Site location**	**Date**	**Audit member**
Mr Sachin Rohilla	Manager NbS	FCF India	Dumka/ Birbhum	30/07/2025 – 01/08/2025	Zainab Hassan Ma Paa Puratchikkanal
Mr Revanth Raj	Lead- State Jharkhand	FCF India	Dumka/ Birbhum	30/07/2025 – 01/08/2025	
Mr Umesh	District Coordinator- Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Mr Arup	District coordinator- Birbhum	FCF India	Dumka	31/07/2025 – 01/08/2025	
Mr Rakshit Mandal	CRP, Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Mr Dinesh Mallik	CRP, Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Ms Khusboo Devi	CRP, Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Mr Samuel Marandi	CRP, Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Mr Mangal Soren	CRP, Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Ms Saumitra Devi	CRP, Dumka	FCF India	Dumka	31/07/2025 – 01/08/2025	
Mr Piyush Majhi	CRP, Birbhum	FCF India	Birbhum	01/08/2025	

Mr Mrityunjay Murmu	CRP, Birbhum	FCF India	Birbhum	01/08/2025	

Farmers interviewed during the visit

Sl. no.	Name of the farmer	state	district	block	village
1	Ram Kishore	Jharkhand	Dumka	Jama	Chachne
2	Sanatan mondal	West Bengal	Birbhum	Rajnagar	Bhurkunda
3	Paku Hemram	West Bengal	Birbhum	Rajnagar	Laujor
4	Rambha devi	Jharkhand	Dumka	Jarmundi	Narganjo udal phari
5	Gomosh hansda	Jharkhand	Dumka	Masalia	Pahrudih
6	Sarwani devi	Jharkhand	Dumka	Masalia	Thari
7	Usha kiran soren	Jharkhand	Dumka	Shikaripada	Sitasal
8	Mukesh kumar ray	Jharkhand	Dumka	Jarmundi	Baghmari
9	Maichael murmu	Jharkhand	Dumka	Shikaripada	Sitasal
10	Mithun mirdha	Jharkhand	Dumka	Raneshwar	Kodma
11	Tarni ray	Jharkhand	Dumka	Jarmundi	Mhara
12	Yamuna prasad manjhi	Jharkhand	Dumka	Jarmundi	Bara
13	Sarswati Devi	Jharkhand	Dumka	Jarmundi	Chotabasbarva
14	Raja Ram choudhary	Jharkhand	Dumka	Jarmundi	Thekchaghongha
15	Vishwajeet kumar mandal	Jharkhand	Dumka	Raneshwar	Kodma
16	Manik chandra mandal	Jharkhand	Dumka	Raneshwar	Kadma
17	Shant devi	Jharkhand	Dumka	Jarmundi	Keshri
18	Ramesh Kumar Mandal	Jharkhand	Dumka	Dumak	Bansjora
19	Mina Rani mandal	Jharkhand	Dumka	Shikaripara	Gamra
20	Santosh Pal	West Bengal	Birbhum	Rajnagar	Adampur
21	Basanti besra	Jharkhand	Dumka	Masalia	Ranga bandh
22	Sunil	Jharkhand	Dumka	Saraiyahat	

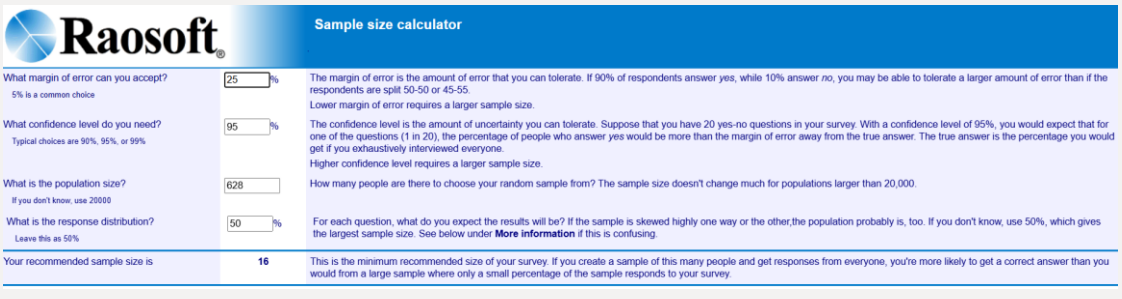
23	Sunil mal	West Bengal	Birbhum	Rajnagar	Lauberia
24	Arun saha	Jharkhand	Dumka	Ramghar	Anguthiya
25	Nomita Mandal	Jharkhand	Dumka	Jarmundi	Keshri
26	Somai murmu	West Bengal	Birbhum	Rajnagar	Manikdihi
27	Paresh Maji	West Bengal	Birbhum	Rajnagar	Sundarkhela
28	Biswanath pujahar	Jharkhand	Dumka	Jarmundi	Baratand
29	Mangal Tudu	Jharkhand	Dumka	Ramgarh	Harwa dangal
30	Binod	Jharkhand	Dumka	Saraiyahat	
31	Hari	Jharkhand	Dumka	Saraiyahat	
32	Raju	Jharkhand	Dumka	Saraiyahat	
33	Vidhan Mandal	Jharkhand	Dumka	Masalia	Thari

2.4 Sampling approach

Sample Plan for audit

The sampling plan utilized the PV Validation and Verification Procedures Manual, Version 1.4, and the Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities Version 09.0[3]/36/. Random sampling was conducted using a 95% confidence level and 25% margin of error, in accordance with Section 27 of the applied Sampling Tool.

27. When the project participants or the coordinating/managing entity have not applied a sampling approach, the DOE may apply a sampling approach, choosing a different confidence/precision than the ones indicated in paragraph 11 above, provided that samples are randomly selected and are representative of the population.



[3] https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20210531160756223/Meth_Stan05.pdf

The project area comprises 792 polygons which include existing, new and future plantations. There are 3 separate KMLs submitted by the PC to ensure transparency in area identification. The land is owned by farmers. Detailed land delineation has been shared separately with the VVB, specifying the landholding of each individual farmer along with the corresponding block and village details. Accordingly, the VVB applied random sampling across the total parcels. Sampling was used to select specific parcels for checking parameters such as parcel size and location, baseline land use practices, ownership (land documentation), plantation start date in accordance with the PDD, agreements between the PC and landowners, and to ensure compliance with net-no-harm and safeguard requirements of PV for both direct and indirect stakeholders.

As part of the validation process, the validation team conducted random sampling of 16 polygons. Additional 2 polygons were also assessed. In total 18 polygons were covered during the site visit. The assessment involved both field visits and remote sensing analysis. Additionally, the VVB reviewed 100% of the land parcels through remote sensing, including a comprehensive Land Use and Land Cover (LULC) analysis to confirm land eligibility and historical land use.

The sequence of the validation is given in

The sequence of the validation is given in the Table 1 below*:*

Topic	Date
Contract signed	11/06/2025
Site Visits	30/07/2025 to 01/08/2025
Draft Findings first round	08/09/2025
Draft Findings second round	14/01/2026
Draft Findings third round	10/03/2026
Draft Findings fourth round	18/04/2026
Draft findings fifth round	23/04/2026
Draft validation report for TR Comments	26/04/2026
Technical review on draft of the validation report	30/04/2026
Submission to Plan Vivo	12/05/2026
Final Corrections and Finalising the validation report for Plan VIVO submission	07/08/2026

2.5 Resolution of Findings

Non-conformances raised throughout the assessment are summarized as follows:

- Corrective Action Request (CAR): Issued where requirements of the Plan Vivo Standard were not fully met and required correction prior to completion of validation. All CARs must be satisfactorily closed before the validation opinion is issued. CARs may be converted into FARs where appropriate.
- New Information Request (NIR): Raised where additional clarification, supporting documentation, or evidence was required by the validator to complete the

assessment. All NIRs must be adequately addressed and reviewed prior to validation closure.

- Forward Action Request (FAR): Raised for issues that do not prevent validation at this stage but require attention to ensure future compliance. FARs are to be addressed within an agreed timeframe with Plan Vivo and, where applicable, the Validation and Verification Body (VVB).
- Observations: The assessment team may identify potential risks or areas for improvement that do not currently constitute non-conformities but could lead to future issues if unaddressed. Observations are recorded for follow-up in subsequent audits and do not require immediate corrective action.

Summary of Findings

The total number of findings raised during the validation assessment are as follows:

- CARs: 72
- NIRs: 20
- FARs: 3
- Observations: 0

Resolution Process

The resolution of findings was undertaken through a structured and iterative review process, which included:

- Requests for additional documentation and clarifications from the Project Coordinator;
- Desk-based review of revised versions of the Project Design Document (PDD) and associated annexes;
- Detailed assessment of supporting materials, including technical annexes, monitoring plans, stakeholder consultation records, and geospatial data;
- Iterative engagement with the Project Coordinator to ensure alignment with Plan Vivo Standard requirements and templates.

Particular attention was given to revised sections of the PDD relating to:

- Stakeholder engagement and FPIC processes
- Baseline scenario and carbon accounting methodologies
- Environmental and Social Safeguards and ESMP
- Monitoring framework and indicators
- Benefit-sharing mechanisms and governance arrangements

Outcome of Assessment

Following the review process:

- All NIRs and CARs have been addressed and closed.
- 3 FARs were raised for next verification.

- The revised PDD and annexes are considered to be substantially compliant with the requirements of the Plan Vivo Standard at the screening stage.

Areas of validation findings	No. of NIR	No. of CAR	No. of FAR
GENERAL INFORMATION			
Project Interventions	0	2	0
Management Rights	2	2	1
STAKEHOLDER ENGAGEMENT			
Stakeholder Analysis and Consultation	2	8	0
Project Coordinator and Project Participant	1	3	0
Participatory Design	1	1	0
Free, Prior and Informed Consent (FPIC)	2	0	0
PROJECT DESIGN			
Baseline Scenario	0	4	0
Carbon Baseline	0	1	1
Livelihood baseline	1	0	0
Ecosystem Baseline	1	1	0
Theory of change	0	3	0
Technical specification	0	1	0
Project activities	0	1	0
Additionality	0	1	0
Carbon Benefits	0	3	0
RISK MANAGEMENT			
Environmental and Social Safeguards	1	3	0
Achievement of Carbon Benefits	0	2	0
Reversal of Carbon Benefits	0	2	0
Double Counting and participation under other programs	0	1	0
MONITORING AND REPORTING			
Carbon indicators	0	0	0
Livelihoods indicators	1	1	0
Ecosystem Indicators	0	3	0
Monitoring Plan	0	13	0
GOVERNANCE AND ADMINISTRATION			
Governance Structure and legal compliance	0	3	1
Financial Plan and Management	0	1	0
Others (please specify)	4	10	0
Total	20	72	3

2.6 Forward Action Requests

3 FARs were raised during validation.

2.7 Public Comments

No public comments were raised during the public comment period.

3 VALIDATION FINDINGS

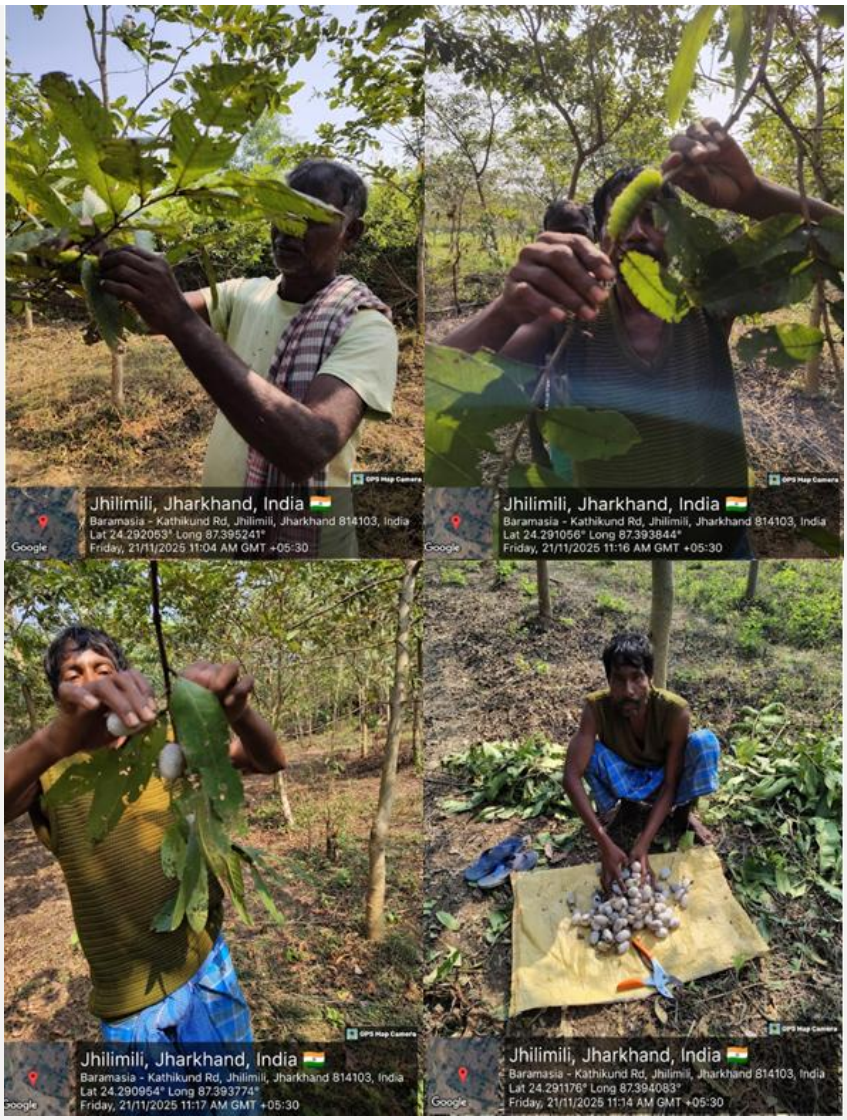
GENERAL INFORMATION

3.1 Project Interventions

The project "Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand" implements a set of integrated interventions aimed at restoring degraded uplands and enhancing community livelihoods.

Key interventions include:

- **Participatory INRM Planning:** The project adopts a participatory planning approach involving local communities, particularly women-led SHGs and WLCs (PC has shared the complete lists of SHGs and future FPOs. Resource mapping is undertaken to identify suitable areas for land development, soil and moisture conservation, irrigation, and plantation activities.
- **Agroforestry and Plantation Activities:** Establishment of multi-species plantations including mango (fruit), Arjun (sericulture host), Sonajhuri and teak (timber), designed to provide both ecological and economic benefits.
- **Sericulture-Based Livelihoods:** Promotion of tasar sericulture using Arjun plantations, supported through access to inputs and market linkages via institutions such as Tasar Development Foundation. /50//51// and /52/.



- **Community Institution Strengthening:** Formation and engagement of local institutions to support implementation, monitoring, and long-term sustainability.

In addition to livelihood benefits, the project demonstrates strong environmental and climate mitigation potential. It is estimated to sequester approximately 1,147,115 tCO_2e over a 30-year period through biomass accumulation in agroforestry and timber systems. The use of native species contributes to biodiversity enhancement, supported by periodic monitoring at five-year intervals, while soil and water conservation measures reduce land degradation and improve ecosystem productivity. Based on the evidence assessed, the validation concludes that the project delivers clear and credible livelihood benefits that substantially exceed income from Plan Vivo Certificate sales or project employment. The participatory INRM approach, combined with strong community institutions and integration of traditional knowledge, provides a robust foundation for long-term sustainability and local ownership in line with Plan Vivo principles. The integrated system of agroforestry, land restoration, and livelihood diversification is expected to ensure permanent and additional carbon sequestration while generating positive ecosystem impacts. Overall, the project is consistent with Plan Vivo requirements, demonstrating strong greenhouse gas mitigation potential, significant livelihood co-benefits, enhanced ecosystem services, and a high likelihood of sustainability beyond reliance on carbon finance.

Sample CPT intervention implemented

Sample water conservation interventions implemented

Sample pictures of plantation activities

The planned project interventions are described in the PDD /8/ and assessed based in the review of this document, the discussion with the Project Coordinator and the visit to the plantation areas and the areas where other project interventions will be implemented.

The PC has also submitted detailed survey records and implementation sheets /71//28/ and /46/, including information on beneficiaries and supporting documentation (e.g., image below).

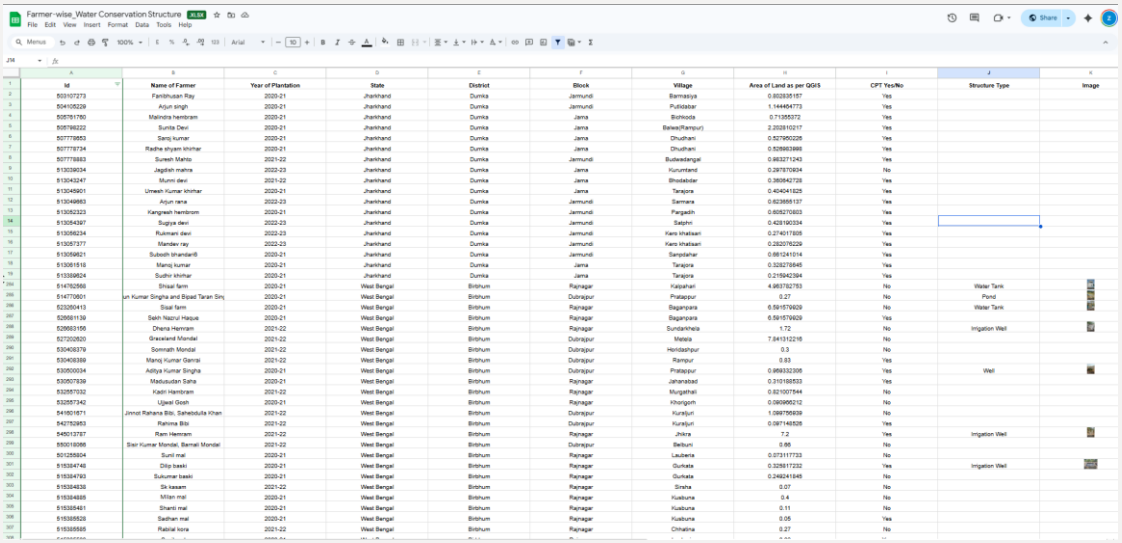


Figure 3: sample of excel showing records of water conservation structure built in the project area as part of the project activity

These interventions were cross-checked during site observations, and it was therefore concluded that they are being implemented as described.

3.2 Management Rights

3.2.1 Project Boundaries

The project operates entirely on the lands individually owned by the farmers /47/. Participation requires voluntary land allocation from these stakeholders, with land parcels typically ranging from 0.4 to 2 hectares (farmers belong under the category of marginal and

small scale per the categories defined by the host country[4]). Baseline surveys were conducted to document land ownership, boundaries, and use, ensuring transparency and preventing disputes /28/. Each landowner has a formal agreement with the project, which includes 30-year land-use contracts /12/. All the parcels that were visited during the site visit the formal contract was checked and soft copies of the agreement were also submitted. However, agreements for all project participants/parcels were not available during validation. Approximately 400 agreements were signed till validation was concluded. Therefore, the PC shall provide complete copies and records of all landowner agreements covering the entire project area prior to the first verification. The completeness, validity, and consistency of these agreements during the first verification activity shall be checked. FAR 01 has been raised in this regard.

The project intervention is located in West Bengal and Jharkhand states of India. In the initial phase, the PC is working on 841.61 hectares, of which 720.091 hectares have already been implemented, and the remaining 121.51 hectares will be implemented in 2026. To cover this area, two districts, Birbhum in West Bengal and Dumka in Jharkhand, were targeted. The blocks include: Jama, Jarmundi, Masalia, Shikaripada, Kathikund, Ramgarh, Dumka, Raneswar, Saraiyahaat and Gopikandar blocks in Dumka, Jharkhand and Rajnagar and Dubrajpur of Birbhum, West Bengal.

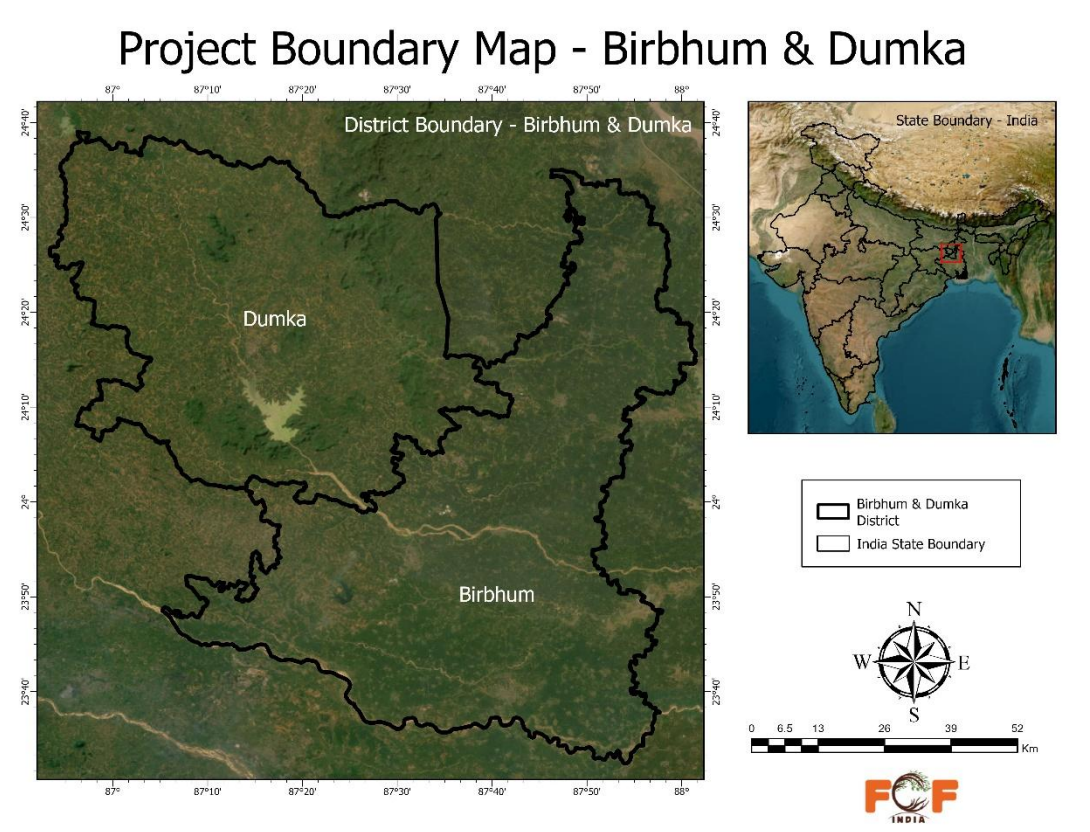


Figure 4. Project Boundary Map provided by the PP

[4] https://www.pib.gov.in/newsite/PrintRelease.aspx?relid=188051&reg=3&lang=2

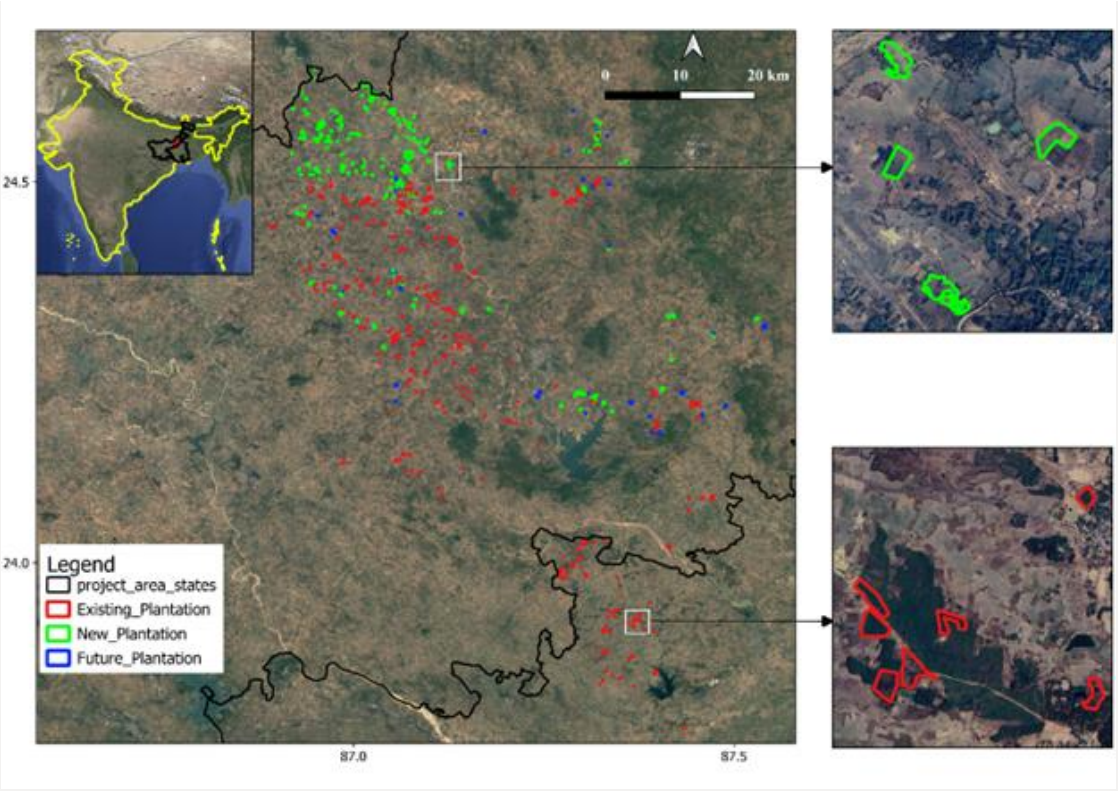


Figure 5: Location map showing Project area and Project polygons - independent assessment of the intervention areas assessed by the VVB

All the issues identified, described as findings in Annex 2 (see CAR 03 and NIR 01), have been clarified and closed based on the new evidence provided: the last version of the PDD /8/ and the last version of the GIS files with the currently onboarded farmers. The validation team concluded that the project boundaries comply with PV Climate requirements.

Hence, in line with the requirements of section 1.2 of the Project Requirements, Version 5.5, the described project Interventions are taking place within defined Project Area (s) for which the PC have statutory that enable them to implement land management activities and benefit from the sale of PV Certificates.

3.2.2 Land and Carbon Rights

The VVB assessed the ownership, tenure, and user rights of the project area through a review of the PDD supporting documentation /12/ and /16/, and stakeholder interviews conducted during the site visit. The project area comprises privately owned lands /16/ located in the project area, where land ownership rests with individual farmers participating in the project. The VVB reviewed evidence of land ownership, including title deeds held by the farmers, and cross-verified this information through interactions with beneficiaries during the field visit.

The VVB further assessed the linkage between land ownership and carbon rights. As the lands are privately owned, the rights to carbon benefits arising from project activities are attributed to the individual landowners. The VVB verified that participating farmers have entered into carbon rights agreements /12/ with the PC, thereby formalizing the allocation and recognition of carbon rights. These agreements were reviewed as part of the validation

process to confirm that they clearly define the rights and responsibilities of the parties involved. This agreement provides a legal basis for the implementation of project activities and for claiming carbon benefits.

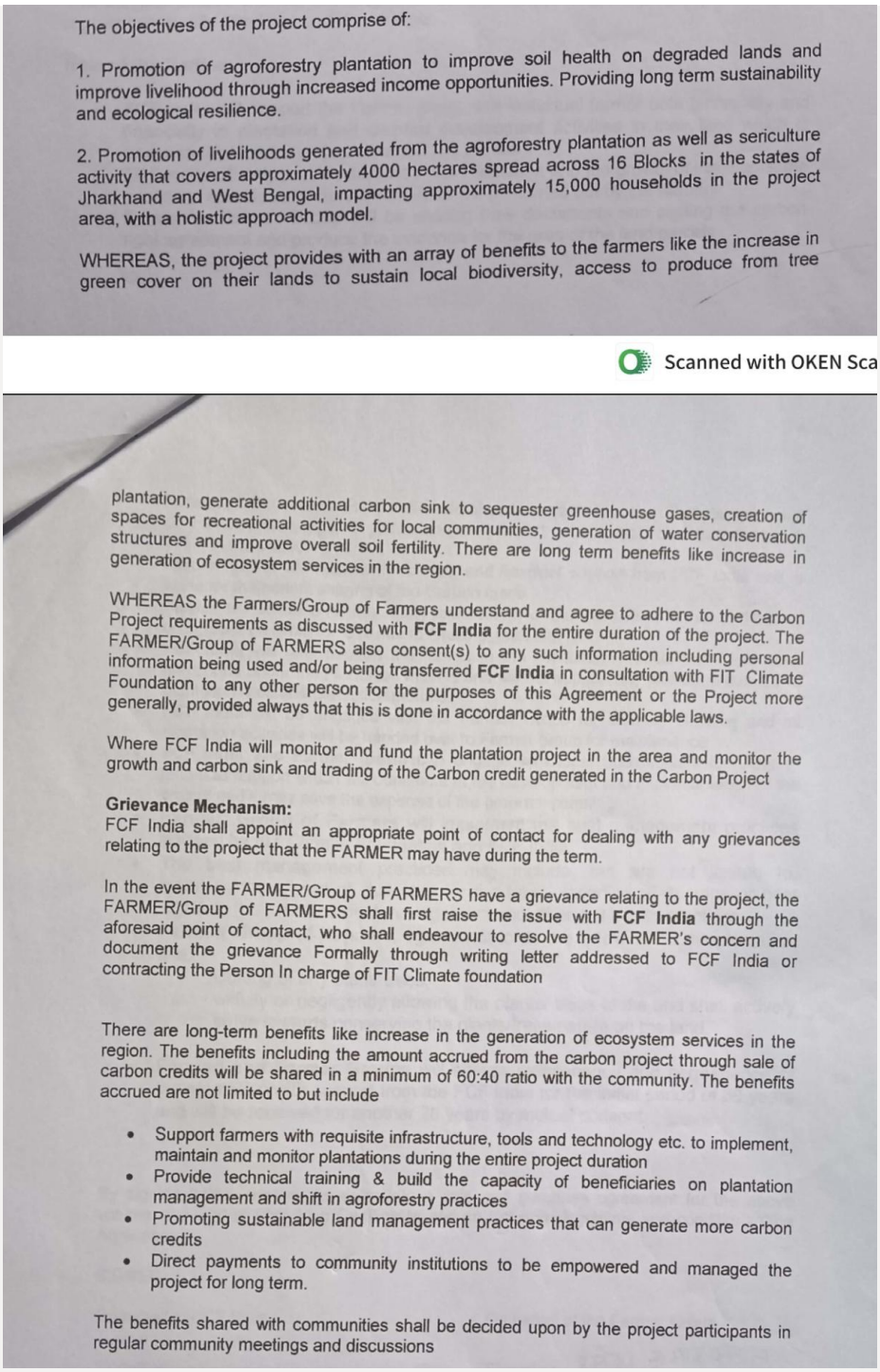
During the site visit, the VVB cross-checked landownership and user rights at sampled locations through direct interaction with landowners and review of available records. The findings conclude that there is consistency between the information presented in the PDD and the situation observed on the ground.

Explanation is provided below to give a brief overview on how landownership is governed in India: Land ownership in India is governed by a mix of constitutional provisions, central guidelines, and state-specific land laws. Under the Constitution of India[5], land falls under the State List, meaning individual states regulate land tenure, transfer, and use. Broadly, land is held under private (individual or joint family), community, and government ownership. Individual ownership of farmland is the dominant form, particularly following post-independence land reforms such as the Zamindari Abolition Acts, which dismantled intermediary tenures and transferred ownership rights to cultivators. Today, most agricultural land is held by small and marginal farmers (≤2 hectares), with ownership documented through land records such as Record of Rights (RoR), Patta, or Title Deeds maintained at the state level.

Legally, individual landownership is recognized through registered titles and land records systems, governed by laws such as the Registration Act 1908[6] and Transfer of Property Act 1882[7]. These frameworks enable buying, selling, leasing, and inheritance of farmland, subject to state-specific restrictions (e.g., land ceiling laws, tenancy regulations, and restrictions on transfer to non-agriculturists in some states). Digitization initiatives like Digital India Land Records Modernization Programme aim to improve transparency, tenure security, and access to land records, which is critical for farmers' access to credit, subsidies, and participation in development or carbon projects.

From a participatory and governance perspective, India has increasingly integrated community-led and decentralized frameworks into land and natural resource management. Institutions such as Panchayati Raj Institutions[8] play a key role in local decision-making, particularly in rural areas. Additionally, laws like the Forest Rights Act 2006[9] recognize individual[10] and community rights over forest land for Indigenous and forest-dependent communities. Participatory approaches through Self-Help Groups (SHGs), cooperatives, and watershed committees, are widely used in rural development and natural resource management programs, enabling collective planning while retaining individual land ownership. This combination of legally recognized private tenure and participatory governance frameworks[11] supports both tenure security[12] and community-driven land management initiatives.

[5] https://www.constitutionofindia.net/schedules/list-ii-state-list/
[6] https://dolr.gov.in/act-rules/
[7] https://www.indiacode.nic.in/bitstream/123456789/2338/1/A1882-04.pdf
[8] https://www.india.gov.in/topics/governance-administration/panchayati-raj
[9] https://www.indiacode.nic.in/bitstream/123456789/8311/1/a2007-02.pdf
[10] NITI Aayog (2020) Model Agricultural Land Leasing Act
[11] World Bank (n.d.) Land Governance Assessment Framework and India Studies
[12] LAND TENURE SYSTEMS AND THEIR IMPACT ON AGRICULTURAL DEVELOPMENT: A LEGAL PERSPECTIVE



The objectives of the project comprise of:

1. Promotion of agroforestry plantation to improve soil health on degraded lands and improve livelihood through increased income opportunities. Providing long term sustainability and ecological resilience.

2. Promotion of livelihoods generated from the agroforestry plantation as well as sericulture activity that covers approximately 4000 hectares spread across 16 Blocks in the states of Jharkhand and West Bengal, impacting approximately 15,000 households in the project area, with a holistic approach model.

WHEREAS, the project provides with an array of benefits to the farmers like the increase in green cover on their lands to sustain local biodiversity, access to produce from tree

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plantation, generate additional carbon sink to sequester greenhouse gases, creation of spaces for recreational activities for local communities, generation of water conservation structures and improve overall soil fertility. There are long term benefits like increase in generation of ecosystem services in the region.

WHEREAS the Farmers/Group of Farmers understand and agree to adhere to the Carbon Project requirements as discussed with **FCF India** for the entire duration of the project. The FARMER/Group of FARMERS also consent(s) to any such information including personal information being used and/or being transferred **FCF India** in consultation with FIT Climate Foundation to any other person for the purposes of this Agreement or the Project more generally, provided always that this is done in accordance with the applicable laws.

Where FCF India will monitor and fund the plantation project in the area and monitor the growth and carbon sink and trading of the Carbon credit generated in the Carbon Project

Grievance Mechanism:
FCF India shall appoint an appropriate point of contact for dealing with any grievances relating to the project that the FARMER may have during the term.

In the event the FARMER/Group of FARMERS have a grievance relating to the project, the FARMER/Group of FARMERS shall first raise the issue with **FCF India** through the aforesaid point of contact, who shall endeavour to resolve the FARMER's concern and document the grievance Formally through writing letter addressed to FCF India or contracting the Person In charge of FIT Climate foundation

There are long-term benefits like increase in the generation of ecosystem services in the region. The benefits including the amount accrued from the carbon project through sale of carbon credits will be shared in a minimum of 60:40 ratio with the community. The benefits accrued are not limited to but include

- Support farmers with requisite infrastructure, tools and technology etc. to implement, maintain and monitor plantations during the entire project duration
- Provide technical training & build the capacity of beneficiaries on plantation management and shift in agroforestry practices
- Promoting sustainable land management practices that can generate more carbon credits
- Direct payments to community institutions to be empowered and managed the project for long term.

The benefits shared with communities shall be decided upon by the project participants in regular community meetings and discussions

Figure 7. Sample CRA

Although FCF India retains carbon rights and benefits from selling carbon credits in the voluntary market, the livelihood benefits for local communities outweigh the direct financial gains from these credits. Farmers receive payments, secure land titles, access to credit, and improved land value, benefits that endure beyond the sale of PV Certificates (PVCs). This structure ensures a sustainable, equitable model where ecosystem service payments drive environmental conservation while materially improving the lives of local people.

Based on the above assessment, the VVB concludes that the ownership, tenure, and user rights of the project area have been appropriately established and that the associated carbon rights have been adequately defined and formalized. The VVB also concludes that appropriate land management practices and plans, as described in the PDD, have been developed and are being implemented by the project participants in line with the project objectives.

Table 1. Land and Carbon Rights

Project Area	Ownership and user rights status	Carbon rights	Validation Assessment
Project lands owned by individual farmers	The project is implemented on privately owned lands where participating farmers hold legal ownership, primarily through inherited title deeds. A sample of land ownership documents was reviewed by the VVB, and ownership status was further cross verified through interactions with farmers during the site visit. No land tenure disputes or conflicting claims were identified in the sampled locations. Farmers confirmed that the land is free from legal, customary, or communal conflicts and that their participation in the project is voluntary.	Carbon rights are contractually assigned to the PC through signed carbon rights agreements with participating farmers. These agreements define the transfer/assignment of carbon benefits (PVCs) for the project duration, while ownership of land and non-carbon benefits (e.g., crops, timber, and other plantation outputs) remains with the individual landholders. Additionally, per the benefit sharing mechanism with respect to carbon revenue distribution, a minimum of 60% of the revenue generated from the sale of carbon credits is allocated directly to the participating communities, in line with their role	The VVB assessed land and carbon rights through review of the PDD, carbon rights agreements /12/, and legal land documents /16/ of the participating farmers, along with stakeholder consultations conducted during the site visit. Sample of agreements was reviewed to conclude that the allocation of carbon rights to the PP. More than 400 agreements were signed till the time of validation and have been checked. Not all the agreements were signed at the time of validation for which FAR 01 has been raised. Land ownership and user rights were verified through field interactions and document checks at sampled locations. No evidence of disputes or competing claims was identified. The VVB concludes that participating farmers have clear legal rights over land and associated resources and that and PC had entered into a legally binding agreement with the beneficiaries providing a valid basis for project implementation. The VVB further concludes that the carbon rights framework is appropriately defined and formalized. Land management practices and implementation plans, as described in the PDD, were found to be in place and consistent with observations during the site visit.

		as primary beneficiaries and custodians of the plantations.	With respect to the BSM, the VVB reviewed the PES agreements together with the PD's detailed benefit-sharing framework (refer section 9.3 of this report). The VVB notes that the PES agreements already specify that a minimum 60:40 share of carbon revenue will be allocated to participating communities and further describe that community benefits extend beyond direct monetary payments to include implementation support, plantation establishment and maintenance, provision of inputs and technology, technical training, capacity building, and strengthening of community institutions. The detailed BSM further demonstrates how these benefits will be delivered through project implementation and community engagement, with approximately 72% of the overall project budget allocated specifically towards community benefit-sharing activities /58/. To ensure full alignment with Requirement 3.16.6[13] of the PV Project Requirements, FAR 01 has been raised requiring the PC to update the existing agreements through an addendum and to incorporate these requirements into the revised PES agreement template for all future participants. The revised agreements will explicitly summarize the BSM, including the minimum benefits available to PP, the conditions under which such benefits are provided, and the consequences where the agreed conditions are not met. With respect to the carbon rights agreements, the VVB identified that certain information required

13 3.16.6 A summary of the *Benefit Sharing Mechanism* with details of the minimum amount the *Project Participant* is eligible to receive if monitoring targets and other dependencies are met, and consequences if targets are not met, must be included in each *Project Agreement*.

			under the current PV Climate Standard, including the project start date, crediting period (section 3.15.4)[14], and indicative estimated annual emission reduction (section 3.18.2)[15] should be explicitly incorporated into the agreements. Accordingly, FAR 01 has been raised. The PC has committed to execute addenda for the existing agreements and to incorporate these requirements into all future carbon rights agreements prior to the next verification.

STAKEHOLDER ENGAGEMENT

3.3 Stakeholder Analysis and Consultation

The VVB reviewed evidence of stakeholder consultations conducted during the project design phase, including records of meetings, community interactions, and engagement processes /23/. During the site visit, the VVB conducted interviews with project participants, local community members, and representatives of community institutions (including SHGs, WLCs, and FPOs) to cross-check the information provided in the PDD. The stakeholders confirmed their awareness of the project activities, voluntary participation, and involvement in planning and implementation processes. The consultation approach was found to be participatory in nature, including aspects related to stakeholder engagement, benefit-sharing mechanisms, safeguards, and project interventions.

Primary stakeholders include local village households, Women Collectives (SHGs, FPOs, Panchayati Raj Institutions (PRI) Representatives. Secondary stakeholders like - Government departments including Forest, Agriculture, Sericulture etc. Their roles and relationships to the project are well defined, including land contributions, governance, and enforcement.

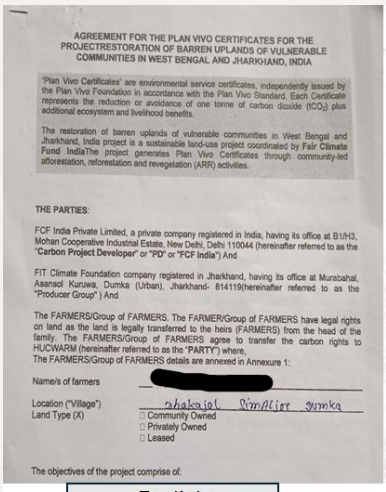
No cases of disputed land or resource conflicts were identified during the validation. Stakeholders interviewed during the site visit confirmed that the project activities are being implemented on privately owned lands without conflicts or competing claims and their participation is voluntary. Accordingly, no specific grievance or dispute resolution cases were required to be assessed.

During the site visit, it was also observed that most of the participating farmers belong to economically vulnerable groups and have limited financial capacity. In this context, the project is expected to play an important role in supporting their livelihoods while contributing to the sustainability of the plantation activities implemented on their lands.

14 3.15.4 The *Crediting Period* and *Start Date* must be stated in each *Project Agreement*.

15 3.18.2 *Project Agreements* must include estimates of the expected annual *Carbon Benefit* (in t CO_2e) from the *Project Area* (after deduction of the *Risk Buffer*) for each year of the *Crediting Period*.

During the site visit, the VVB conducted interviews with beneficiaries, local community members, and representatives of community institutions (including SHGs and FPOs) to cross-check the information provided in the PDD. The stakeholders confirmed their awareness of the project activities, voluntary participation, and involvement in planning and implementation processes. The consultation approach was found to be participatory in nature, including aspects related to stakeholder engagement, benefit-sharing mechanisms, safeguards, and project interventions. The stakeholder consultations were conducted in local languages as well as Hindi to ensure clear understanding of the project concept and requirements. Similarly, the agreements between the PC and beneficiaries are provided in English as well as in local languages, Bengali for beneficiaries in West Bengal and Hindi for those in Jharkhand to facilitate informed and transparent participation (based on beneficiary's preference and understanding of language).



AGREEMENT FOR THE PLAN VIVO CERTIFICATES FOR THE PROJECTRESTORATION OF BARREN UPLANDS OF VULNERABLE COMMUNITIES IN WEST BENGAL AND JHARKHAND, INDIA

'Plan Vivo Certificates' are environmental service certificates, independently issued by the Plan Vivo Foundation in accordance with the Plan Vivo Standard. Each Certificate represents the reduction or avoidance of one tonne of carbon dioxide (tCO_2) plus additional ecosystem and livelihood benefits.

The restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand, India project is a sustainable land-use project coordinated by Fair Climate Fund IndiaThe project generates Plan Vivo Certificates through community-led afforestation, reforestation and revegetation (ARR) activities.

THE PARTIES:

FCF India Private Limited, a private company registered in India, having its office at B1/H3, Mohan Cooperative Industrial Estate, New Delhi, Delhi 110044 (hereinafter referred to as the "Carbon Project Developer" or "PD" or "FCF India") And

FIT Climate Foundation company registered in Jharkhand, having its office at Murabahal, Asansol Kurjwa, Dumka (Urban), Jharkhand- 814119(hereinafter referred to as the "Producer Group") And

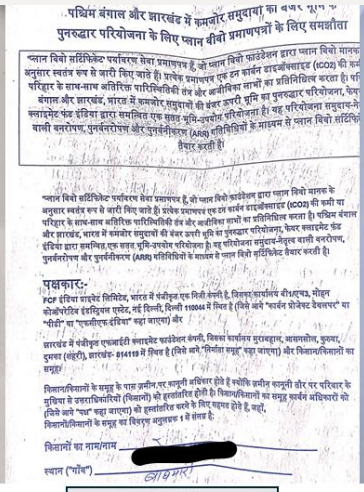
The FARMERS/Group of FARMERS. The FARMER/Group of FARMERS have legal rights on land as the land is legally transferred to the heirs (FARMERS) from the head of the family. The FARMERS/Group of FARMERS agree to transfer the carbon rights to HUCWARM (hereinafter referred to as the "PARTY") where,
The FARMERS/Group of FARMERS details are annexed in Annexure 1:

Name/s of farmers [redacted]

Location ("Village") Jhakajal Simaljor Sumka
Land Type (X)
☐ Community Owned
☐ Privately Owned
☐ Leased

The objectives of the project comprise of:

English



पश्चिम बंगाल और झारखंड में कमजोर समुदायों का बंजर भूमि पुनरुद्धार परियोजना के लिए प्लान वीवो प्रमाणपत्रों के लिए समझौता

"प्लान विवो सर्टिफिकेट पर्यावरण सेवा प्रमाणपत्र हैं, जो प्लान विवो फाउंडेशन द्वारा प्लान विवो मानक के अनुसार स्वतंत्र रूप से जारी किए जाते हैं। प्रत्येक प्रमाणपत्र एक टन कार्बन डाइऑक्साइड (tCO2) की कमी या परिहार के साथ-साथ अतिरिक्त पारिस्थितिकी लाभ और आजीविका लाभों का प्रतिनिधित्व करता है। पश्चिम बंगाल और झारखंड, भारत में कमजोर समुदायों की बंजर ऊसर भूमि का पुनरुद्धार परियोजना, फेयर क्लाइमेट फंड इंडिया द्वारा समर्थित एक सतत भूमि-उपयोग परियोजना है। यह परियोजना समुदाय-नेतृत्व वाली वनरोपण, पुनर्वनरोपण और पुनर्वनीकरण (ARR) गतिविधियों के माध्यम से प्लान विवो सर्टिफिकेट तैयार करती है।

"प्लान विवो सर्टिफिकेट" पर्यावरण सेवा प्रमाणपत्र हैं, जो प्लान विवो फाउंडेशन द्वारा प्लान विवो मानक के अनुसार स्वतंत्र रूप से जारी किए जाते हैं। प्रत्येक प्रमाणपत्र एक टन कार्बन डाइऑक्साइड (tCO2) की कमी या परिहार के साथ-साथ अतिरिक्त पारिस्थितिकी लाभ और आजीविका लाभों का प्रतिनिधित्व करता है। पश्चिम बंगाल और झारखंड, भारत में कमजोर समुदायों की बंजर ऊसरी भूमि का पुनरुद्धार परियोजना, फेयर क्लाइमेट फंड इंडिया द्वारा समर्थित,एक सतत भूमि-उपयोग परियोजना है। यह परियोजना समुदाय-नेतृत्व वाली वनरोपण, पुनर्वनरोपण और पुनर्वनीकरण (ARR) गतिविधियों के माध्यम से प्लान विवो सर्टिफिकेट तैयार करती है।

पक्षकार:-

"FCF इंडिया प्राइवेट लिमिटेड, भारत में पंजीकृत एक निजी कंपनी है, जिसका कार्यालय बी1/एच3, मोहन कोऑपरेटिव इंडस्ट्रियल एस्टेट, नई दिल्ली, दिल्ली 110044 में स्थित है (जिसे आगे "कार्बन प्रोजेक्ट डेवलपर" या "पीडी" या "एफसीएफ इंडिया" कहा जाएगा) और

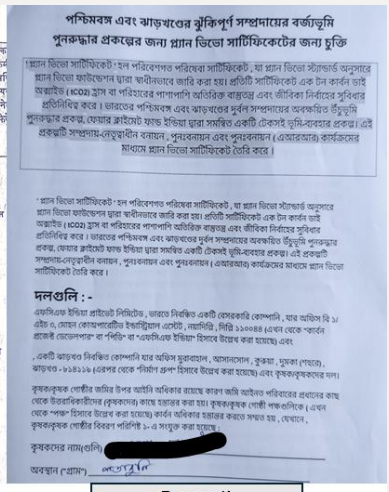
झारखंड में पंजीकृत एफआईटी जलवायु फाउंडेशन कंपनी, जिसका कार्यालय मुरराबहाल, आसनसोल, कुरुवा, दुमका (शहरी), झारखंड- 814119 में स्थित है (जिसे आगे "निर्माता समूह" कहा जाएगा) और किसान/किसानों का समूह।

किसानों/किसानों के समूह के पास जमीन पर कानूनी अधिकार होते हैं क्योंकि जमीन कानूनी तौर पर परिवार के मुखिया से उत्तराधिकारियों (किसानों) को हस्तांतरित होती है। किसान/किसानों का समूह वर्तमान अधिकारों को (जिसे आगे "भाग" कहा जाएगा) की हस्तांतरित करने के लिए सहमत होते हैं, जहाँ,
किसानों/किसानों के समूह का विवरण अनुलग्नक 1 में संलग्न है:

किसानों का नाम/नाम [redacted]

स्थान ("गाँव") झाझारी

Hindi



পশ্চিমবঙ্গ এবং ঝাড়খণ্ডের ঝুঁকিপূর্ণ সম্প্রদায়ের বর্জ্যভূমি পুনরুদ্ধার প্রকল্পের জন্য প্লান ভিভো সার্টিফিকেটের জন্য চুক্তি

'প্লান ভিভো সার্টিফিকেট': হল পরিবেশগত পরিষেবা সার্টিফিকেট, যা প্লান ভিভো স্ট্যান্ডার্ড অনুসারে প্লান ভিভো ফাউন্ডেশন দ্বারা স্বাধীনভাবে জারি করা হয়। প্রতিটি সার্টিফিকেট এক টন কার্বন ডাই অক্সাইড (tCO2) হ্রাস বা পরিহারের পাশাপাশি অতিরিক্ত বাস্তুতন্ত্র এবং জীবিকা সুবিধার প্রতিনিধিত্ব করে। ভারতের পশ্চিমবঙ্গ এবং ঝাড়খণ্ডের দুর্বল সম্প্রদায়ের অনুর্বর উঁচুভূমি পুনরুদ্ধার প্রকল্প, ফেয়ার ক্লাইমেট ফান্ড ইন্ডিয়া দ্বারা সমর্থিত একটি টেকসই ভূমি-ব্যবহার প্রকল্প। এই প্রকল্পটি সম্প্রদায়-নেতৃত্বাধীন বনায়ন, পুনঃবনায়ন এবং পুনঃবনায়ন (এআরআর) কার্যক্রমের মাধ্যমে প্লান ভিভো সার্টিফিকেট তৈরি করে।

দলগুলি : -

এফসিএফ ইন্ডিয়া প্রাইভেট লিমিটেড, ভারতে নিবন্ধিত একটি বেসরকারি কোম্পানি, যার অফিস বি ১/এইচ ৩, মোহন কোঅপারেটিভ ইন্ডাস্ট্রিয়াল এস্টেট, নয়াদিল্লি, দিল্লি ১১০০৪৪ এখান থেকে "কার্বন প্রজেক্ট ডেভেলপার" বা "পিডি" বা "এফসিএফ ইন্ডিয়া" হিসাবে উল্লেখ করা হয়েছে) এবং

একটি ঝাড়খণ্ড নিবন্ধিত কোম্পানি যার অফিস মুরারবাহাল, আসানসোল, কুরুয়া, দুমকা (শহরে), ঝাড়খণ্ড- ৮১৪১১৯ এরপর থেকে "নির্মাতা গ্রুপ" হিসাবে উল্লেখ করা হয়েছে) এবং কৃষক/কৃষকের দল।

কৃষক/কৃষক গোষ্ঠীর জমির উপর আইনি অধিকার রয়েছে কারণ জমি আইনত পরিবারের প্রধানের কাছ থেকে উত্তরাধিকারীদের (কৃষকদের) কাছে হস্তান্তর করা হয়। কৃষক/কৃষক গোষ্ঠী পক্ষগুলিকে (এরপর থেকে "পক্ষ" হিসাবে উল্লেখ করা হয়েছে) কার্বন অধিকার হস্তান্তর করতে সম্মত হয়, যেখানে,
কৃষক/কৃষক গোষ্ঠীর বিবরণ পরিশিষ্ট ১-এ সংযুক্ত করা হয়েছে:

কৃষকের নাম(গুলি) [redacted]

অবস্থান ("গ্রাম") [redacted]

Bengali

Governance structures such as SHGs/WLCs, FPOs are described. Women collectives support FPIC and community meetings, plan plantation and restoration activities, participate in village decision-making, monitor plantation maintenance, and help submit village development plans.

FPOs support farmers and women's groups by providing inputs, technical guidance, market linkages, and assisting in aggregation, storage, processing, and marketing of project produce.

PRIs provide institutional oversight, approve FPIC and Gram Sabha processes, village development plans, land-based activities, land record verification, farmer consent, and coordinate between the community, women's groups, and the project team.

The secondary stakeholders, including relevant government departments (e.g., Forest, Agriculture, and Sericulture), play a supportive role in project implementation. These departments contribute by facilitating awareness of ongoing government schemes, providing technical guidance, and supporting capacity building activities through training programs, on-site demonstrations, and exposure visits. Planned engagement with these departments, including technical support and collaborative initiatives, is considered appropriate to strengthen project implementation and enhance the technical capacity of beneficiaries.

The validation team concluded that the project complies with PV Climate requirements regarding stakeholder analysis.

Figure 8: LSC (2023 - 2025) pictures provided by PP

FCF INDIA PLAN VIVO

Fair Climate Fund (FCF India Pvt. Ltd.)
Date:

To. D.F.O., Dumka
S.F. Division

Subject: Invitation for Local Stakeholder Consultation Meeting – DUMKA Project

Dear Ma'am/Sir,

We are pleased to invite you to a Local Stakeholder Consultation meeting for the DUMKA project, undertaken by Fit Climate Foundation and Fair Climate Fund (FCF) India Pvt. Ltd. The project aims to restore 4,000 hectares of barren uplands and strengthen the socio-economic and ecological resilience of vulnerable communities located in West Bengal and Jharkhand, with a special focus on Dumka and Birbhum districts. This initiative employs an integrated approach combining intensive plantations, soil and water conservation measures, and livelihood enhancement specifically targeting marginalized smallholder and tribal farmers.

Fit Climate Foundation, along with FCF India, is dedicated to supporting smallholder farmers in implementing agro forestry on their farmland through this project. As the on-ground implementing partner, Fit Climate Foundation, a social NGO, is mobilizing farmers at the grassroots level to participate in project activities. FCF India, a social enterprise, is developing a carbon project in collaboration with the on boarded farmers, helping them build climate resilience while also enabling them to earn secondary revenue through the sale of carbon credits generated by the **"Restoration of Barren Uplands of Vulnerable Communities in West Bengal and Jharkhand"** project.

Fit Climate Foundation, in partnership with FCF India, invites you to join a Local Stakeholder Consultation meeting for a carbon project being developed under Plan Vivo guidelines. The project will promote better agro forestry practices to increase farmer income and achieve carbon sequestration, helping farmers diversify their livelihoods and contribute to climate action.

Your feedback and suggestions are important as we share project details and explore ways to make the initiative meaningful for all stakeholders. The meeting will be held on **15th November 2025, 11:00 AM Rangalia Panchayat Bhawan, Ranishwar, Dumka** and a non-technical summary of the project is attached for your reference. You may also join virtually upon confirmation; please contact us for any queries or participation details.

Umesh Das
Fair Climate Fund India Pvt. Ltd.
Fit Climate Foundation- NGO Partner
https://fcfindia.in/
Mob:-7992322147

Figure 10. Sample Invitation Letter

FCF PLAN VIVO

"Local Stakeholder Consultation- Restoration of barren uplands of Vulnerable Communities in West Bengal and Jharkhand"

Feedback Form

1. Name:	राम किशोर राय
2. Designation/ Profession:	ग्राम प्रधान पुतलीडाबर
3. How did you find the presentation?	बहुत अच्छा।
4. Were the speakers able to clear all the concepts?	yes
5. Were the speakers able to respond to the questions?	yes
6. Any suggestions on the project for improvement?	शिक्षित निवारण व्यवस्था जिला के अन्य प्रखंड स्तर में स्थापित किया जाए।
7. Do you have any other suggestions? If yes, please mention.	

राम किशोर राय
ग्राम प्रधान
पुतलीडाबर

FCF PLAN VIVO

"Local Stakeholder Consultation- Restoration of barren uplands of Vulnerable Communities in West Bengal and Jharkhand"

Feedback Form

1. Name:	[illegible]
2. Designation/ Profession:	जिला परिषद, सदस्य
3. How did you find the presentation?	Good
4. Were the speakers able to clear all the concepts?	Yes
5. Were the speakers able to respond to the questions?	Yes
6. Any suggestions on the project for improvement?	पानी का भी उपाय कीजिए।
7. Do you have any other suggestions? If yes, please mention.	

Figure 11: Sample feedback form

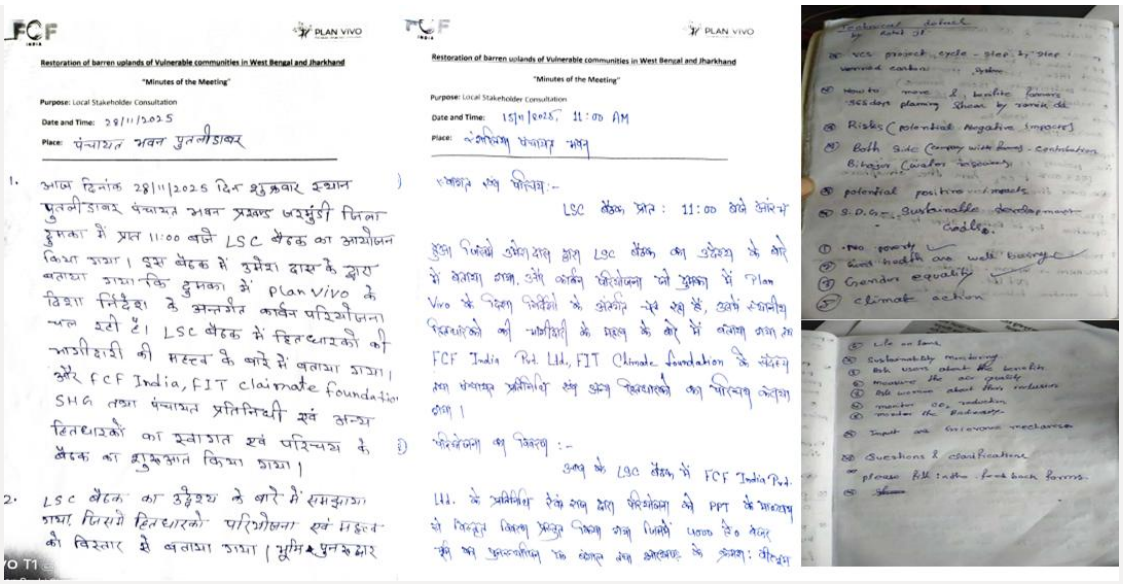


Figure 12: Sample MOM of the Stakeholder Consultation

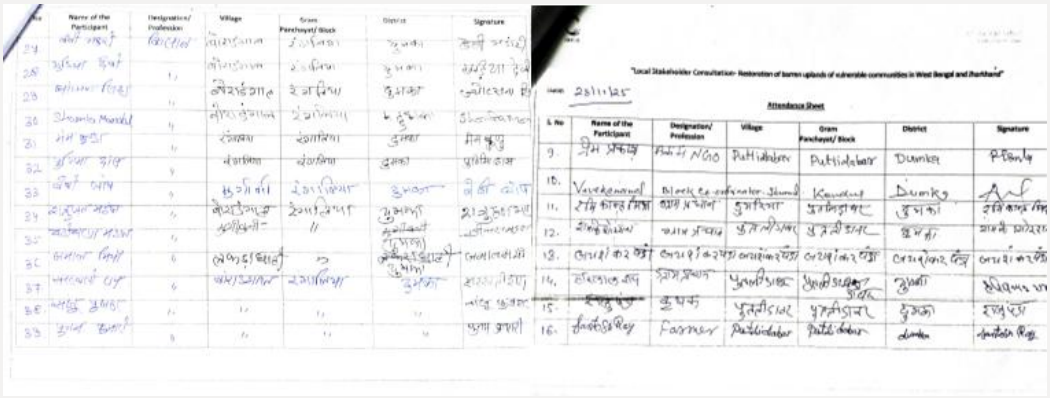


Figure 13: sample attendance sheets from the stakeholder consultations carried out from 2023 - 2025

The VVB also assessed the proposed approach for ongoing stakeholder engagement. The project design includes continued interaction with stakeholders through existing institutional platforms such as FPO meetings, SHGs, and periodic planning and review sessions. This approach is considered appropriate for ensuring continuous stakeholder involvement, feedback, and adaptive project management. Based on the above assessment, the VVB concludes that the project has correctly identified the relevant stakeholder groups and has conducted stakeholder consultations in line with the applicable requirements at the initial stage of the project in line with the requirements of section 2.1 of the Project Requirements v5.5.

The VVB further concludes that an appropriate and structured approach has been established for ongoing stakeholder engagement throughout the project implementation period.

Table 2. Stakeholder Analysis and Evaluation

Activity	Stakeholder Group	Validation Assessment (Evidence checked)
Livelihood planning for identifying and selecting suitable land for project intervention Identifying Private nurseries for sourcing of saplings Planting of trees Tree Maintenance Tree Growth Monitoring	Primary stakeholders – beneficiaries, SHGs, WLCs, FPOs Secondary – government departments	For all stakeholder groups, Section 2 of the PDD /8/ and the supporting documents were reviewed. Interviews were conducted with the PC and relevant stakeholders to conclude the identification and analysis of stakeholder groups. The VVB considers these to be the primary stakeholder groups and conducted several interviews to assess their influence on, and impact from, the project. Based on the secondary and primary data assessment it was concluded that stakeholders are aware of the project activities and are actively involved in its implementation. The VVB reviewed procurement-related information and discussed nursery selection practices with the PC during the site visit. Engagement with local nurseries and support from relevant government departments for technical guidance were verified through interviews. The involvement of these stakeholders in sourcing quality planting material is considered appropriate. Field interactions and discussions with beneficiaries and project staff ensured that plantation activities are implemented in line with the participatory approach described in the PDD, with adequate stakeholder involvement.

		The maintenance activities are primarily carried out by farmers, supported by technical guidance and training provided through PP, FIT, community institutions and relevant government departments. This was substantiated through training records and stakeholder consultations. The VVB also reviewed the monitoring plan and discussed monitoring practices with the PC and field staff. Interviews with beneficiaries mention their awareness of, and involvement in, monitoring activities. The role of government departments and technical experts in providing guidance/training (e.g., on soil health and tree growth) was also noted. Monitoring practices were found to be consistent with the PDD. Overall, the VVB concludes that the identified stakeholder groups are appropriate and that their roles, impacts, and involvement in project planning, implementation, and monitoring have been adequately assessed and verified during the validation.

3.4 Project Coordination and Project Participant

The VVB identified Fair Climate Fund India Pvt. Ltd. (FCF India)[16] as the Project Applicant and Project Coordinator, responsible for overall project coordination, management, and compliance with the Plan Vivo Standard. VVB also identified FIT Climate Foundation (FIT) as the implementation partner, responsible for on-ground execution, stakeholder mobilization, and capacity building of project participants. The roles and responsibilities of both entities were reviewed through the PDD and supporting documentation (MoU between FCF and FIT /14/), including the defined allocation of project coordination and management functions.

[16] https://fcfindia.in/

The VVB assessed the identification and justification of project participants based on the PDD and supporting evidence. The project participants are identified as small and marginal farmers (Type I participants) residing within the project area (Birbhum district in West Bengal and Dumka district in Jharkhand). These participants manage and utilize land for subsistence and small-scale agricultural activities, with typical landholdings of less than 2 hectares. The VVB concludes that the classification of participants as Type I is appropriate, as they reside within the project region and are directly involved in land and resource management activities.

The VVB reviewed documentation related to project participant identification, including project participant listings, landholding characteristics, and agreements between the PC and participants. During the site visit, interviews were conducted with sampled beneficiaries across project locations to verify their residency, land ownership/use, and participation in project activities. The interactions helped in concluding that the participants are residents within the project area and are directly engaged in project implementation activities. The VVB also reviewed carbon agreements, legal land title documents of the beneficiaries and participation records to conclude formal inclusion of participants in the project.

The VVB further assessed the institutional structure supporting project coordination and participant engagement. FIT, through village-level institutions such as SHGs and FPOs, facilitates community mobilization, technical capacity building, and implementation support. The involvement of these institutions in planning, implementation, and monitoring was concluded through stakeholder consultations and field observations.

The VVB also reviewed relevant documentation, including company registration details of FCF India, project agreements with participants, and institutional arrangements described in the PD. These were cross-checked through discussions with the PC and field-level stakeholders during the site visit.

Based on the above assessment, the VVB concludes that the project coordination and management structure is clearly defined and appropriate for the scale and nature of the project. The roles of FCF and FIT are adequately justified and supported by documented responsibilities. The identification and classification of project participants as Type I are appropriate and consistent with their residency and land-use characteristics. The VVB concludes that project participants are correctly identified, reside within the project area, and are suitably engaged in project implementation through a structured and participatory approach.

2.2 Project Coordinator (CAR 10)

The identified CAR has been closed, the Project coordinator and Project participants are correctly justified for this project, as assessed during the review of the PDD, in the on-stie visit and on the different performed interviews.

3.5 Participatory Design

The VVB assessed the participatory design process through a review of the PDD, supporting documentation (including Participatory Rural Appraisal (PRA) /48/ outputs, community

engagement records, and institutional details), and stakeholder consultations conducted during the site visit.

Based on the information reviewed, the project adopts a participatory approach centered around local community leadership, with a strong emphasis on the involvement of women through SHGs/WLCs /56/ and /47/.

Figure 14: interaction with SHGs members during the audit site visit

These committees, comprising primarily local and tribal women, play a key role in planning and implementation. The VVB noted that community representatives, including WLC members and trained community volunteers, were actively involved in the development of project interventions using participatory tools and techniques.

The VVB reviewed documentation related to participatory planning, including PRA outputs such as social mapping, wealth ranking, livelihood analysis, vision building, and watershed planning exercises. These tools were used to identify priority interventions and ensure inclusion of vulnerable groups, including small and marginal farmers, women, and socially marginalized communities. Evidence of such processes (e.g., PRA records and annexed outputs) was assessed as part of the validation.

Figure 15: participatory resource mapping on the project sites

During the site visit, the VVB conducted interviews with beneficiaries, community leaders, and representatives of local institutions (including SHGs and FPOs) to verify the implementation of the participatory design approach. Stakeholders confirmed their involvement in planning activities and decision-making processes, and that their inputs were considered in identifying project interventions. The VVB observed consistency between the participatory processes described in the PDD and the practices implemented on the ground. It was further noted that participants and local community members demonstrated a clear understanding of the project activities, including the locations of ongoing interventions, potential areas for future plantations, and the corresponding land ownership. This indicates that local stakeholders are well-informed and actively engaged in the project.

The VVB also noted that the participatory approach is supported by continuous engagement mechanisms, including regular consultations, capacity-building initiatives, and structured involvement of community institutions. Measures such as grievance redress mechanisms and inclusive consultation processes were found to be in place to address stakeholder concerns and minimize potential conflicts.

Based on the above assessment, the VVB concludes that the participatory design process has been appropriately implemented and is well-justified for the project. The involvement of stakeholders in the design phase is considered adequate, inclusive, and consistent with the project objectives. The VVB confirms that the participatory approach adopted by the project effectively incorporates stakeholder inputs and supports equitable and informed decision-making.

3.6 Free, Prior and Informed Consent (FPIC)

VVB reviewed the PDD and supporting evidence to assess the identification and implementation of the FPIC process. The project appropriately identifies relevant

international frameworks, including United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), International Labor Organization (ILO) Convention 169, and the Convention on Biological Diversity (CBD), given the presence of indigenous and tribal communities (Santhal Tribes)[17] in the project area.

VVB assessed evidence of the FPIC process, including records of village-level consultations, PRAs, Focus Group Discussions (FGDs), Gram Sabha meetings, attendance sheets, meeting minutes, and signed agreements (including carbon rights agreements) /23//48/ and /12/. The documentation indicates that information on project objectives, potential impacts, risks, and benefits was shared with communities in advance and in local languages (Hindi and Bengali), allowing for informed decision-making.

During the site visit, the VVB conducted interviews with beneficiaries, community representatives, and members of local institutions to verify the implementation of the FPIC process. Stakeholders confirmed that they were informed prior to project implementation, that participation was voluntary, and that sufficient time was provided for internal discussions. The VVB observed that stakeholders demonstrated a clear understanding of the project activities and their roles.

The VVB further confirms that the FPIC process includes the participation of women and vulnerable groups through structured engagement with SHGs/WLCs and other community platforms. Consent has been formalized through community resolutions, documented meeting records, and individual agreements.

Figure 16: glimpse of FPIC process shared by PP

Based on the above, the VVB concludes that the FPIC process is appropriately designed and implemented and is consistent with section 2.6 of the PV Project Requirements v5.5. The

[17] https://www.britannica.com/topic/Santhal

process is considered adequate in ensuring that stakeholders are informed and able to participate meaningfully in decision-making.

Observation: While the FPIC process is generally robust, continued documentation of consultations and consent processes for newly added project areas will be important to ensure consistency and traceability over time.

No CARs were identified in the assessment.

PROJECT DESIGN

4 Baselines

4.1 Baseline Scenario

The baseline scenario for the project is identified as continued degradation and underutilization of upland areas, characterized by fallow land, soil erosion, declining groundwater levels, and low agricultural productivity. The description provided is broadly consistent with regional conditions in Birbhum (West Bengal) and Dumka (Jharkhand), where small and marginal farmers, primarily from tribal communities, depend on rainfed subsistence agriculture. In the absence of project interventions, land use is expected to remain largely unchanged, with seasonal, low-input cultivation limited to monsoon periods, continued soil degradation, and increasing socio-economic vulnerability, including migration. This baseline scenario aligns with typical “business-as-usual” conditions for degraded uplands and appears reasonable and plausible given the agro-climatic and socio-economic context described.

The project indicates that the baseline has been established in accordance with the applied methodology (PM001) /19/ and the "Combined tool to identify the baseline scenario and demonstrate additionality in Plan Vivo project activities, v1. /21/" The narrative includes relevant parameters such as land degradation status, absence of irrigation, limited investment capacity, and socio-economic constraints, which are appropriate factors under the methodology.

VVB's conclusion: Land-use scenarios for this Project have been identified using primary and secondary sources of information. Primary sources include social assessment activities undertaken on the project boundaries from April 2022 to June 2026. Several local interviews, baseline field surveys and land use records were checked for the land history in and around the project area. Secondary sources include online available data and independent spatial assessment of the project area per the historical timeline of 10 years (appx.).

Land-use scenarios for this Project have been identified using primary and secondary sources of information. Primary sources include social assessment activities undertaken on the project boundaries from April 2022 to June 2026. Several local interviews, field surveys and land use records were checked for the land history in and around the project area.

Subsistence agriculture, especially paddy cultivation, serves as the primary economic activity in the project area tribe,[18] predominantly involving marginal and smallholder farmers of tribal communities who belong to extremely poor categories. These small-scale farmers are facing challenges due to low agricultural output, making it increasingly difficult for them to sustain

[18] https://www.allresearchjournal.com/archives/2015/vol1issue11/PartE/1-11-21.pdf

their livelihoods.[19] Rice is the principal crop in the region[20], predominantly cultivated during the kharif season, which extends from June to September, covering about two-thirds of the total cropped area. However, the average crop yield falls below expectations due to climate-induced weather fluctuations.[21] Additionally, limited fertilizer usage further contributes to reduced crop yields.

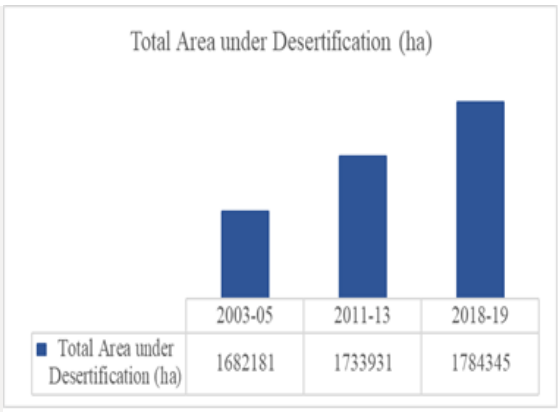
This situation is exacerbated by the fact that agriculture is their sole source of income and is currently not economically viable. The major issues for the low agriculture output are 1) Poor Water Management and irrigation coverage, 2) Subsistence Farming, 3) land degradation 4) small and fragmented land holding 5) limited access of inputs (high yield veraiety seeds, fertilizers, irrigation inputs), 6) poor market access & price realization, 7) poor socio-economic conditions, 8) poor land management and planning, 9) lack of awareness of best agricultural practices.[22]

Also, per Desertification and Land Degradation Atlas of India, 2021,

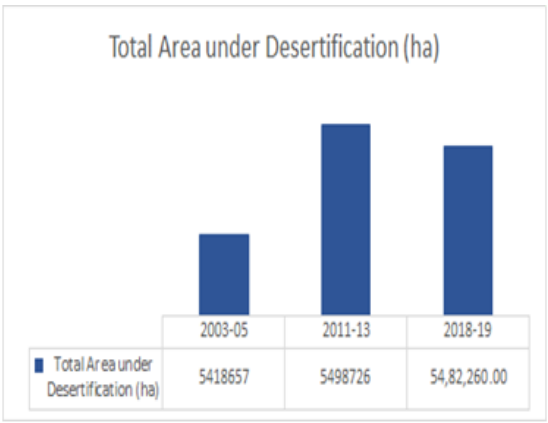
West Bengal: 1.78 million ha land representing 20.10 % of State's TGA is affected by various kinds of desertification and land degradation issues.[23] An increase of 0.56% (50,414 ha) in the area undergoing DLD is observed from timeframe 2011-13 to 2018-19. The DLD in the state is mainly due to Water Erosion (14.91%) followed by Vegetation Degradation (3.03%)

Jharkhand: 54,82,260 ha land representing 68.77% of State's TGA is affected by various kinds of desertification and land degradation issues.[24]. A slight decrease in the area undergoing DLD has been observed from timeframe 2011-13 to 2018-19. The DLD in the state is mainly due to water erosion (49.21%), followed by vegetation degradation (17.81%).

[19] https://www.counterview.net/2025/06/land-under-siege-silent-crisis.html
[20]https://sathee.iitk.ac.in/article/social-science/largest-rice-producing-states-in-india/
https://pmc.ncbi.nlm.nih.gov/articles/PMC9668713/
https://agriwelfare.gov.in/sites/default/files/JKD18-Dumka-31.03.2103.pdf
https://agriwelfare.gov.in/sites/default/files/WestBengal%203-Birbhum-31.12.2011_0.pdf
[21] https://www.theclimategroup.org/sites/default/files/2020-10/west_bengal_future_fund_report.pdf
https://sansad.in/getFile/loksabhaquestions/annex/185/AU3563_icpZ61.pdf
https://jsac.jharkhand.gov.in/Report_PDF/Land_DEGRADATION/Land_Diggradation_Report_Final.pdf
https://ceedindia.org/wp-content/uploads/2023/06/Brief-Note-17-June-2023.pdf
[22] https://www.ijfmr.com/papers/2023/3/2844.pdf
https://www.economicsdiscussion.net/agriculture/low-productivity/low-productivity-of-agriculture-in-india-14-causes/13215
https://journal.iujharkhand.edu.in/June-2021/Sustainable-Agriculture-and-Food-Security-Challenges-and-Policies-of-Jharkhand.html
[23] Desertification and Land Degradation Atlas of India, 2021
https://vedas.sac.gov.in/static/atlas/dsm/DLD_Atlas_SAC_2021.pdf
[24] Desertification and Land Degradation Atlas of India, 2021
https://vedas.sac.gov.in/static/atlas/dsm/DLD_Atlas_SAC_2021.pdf

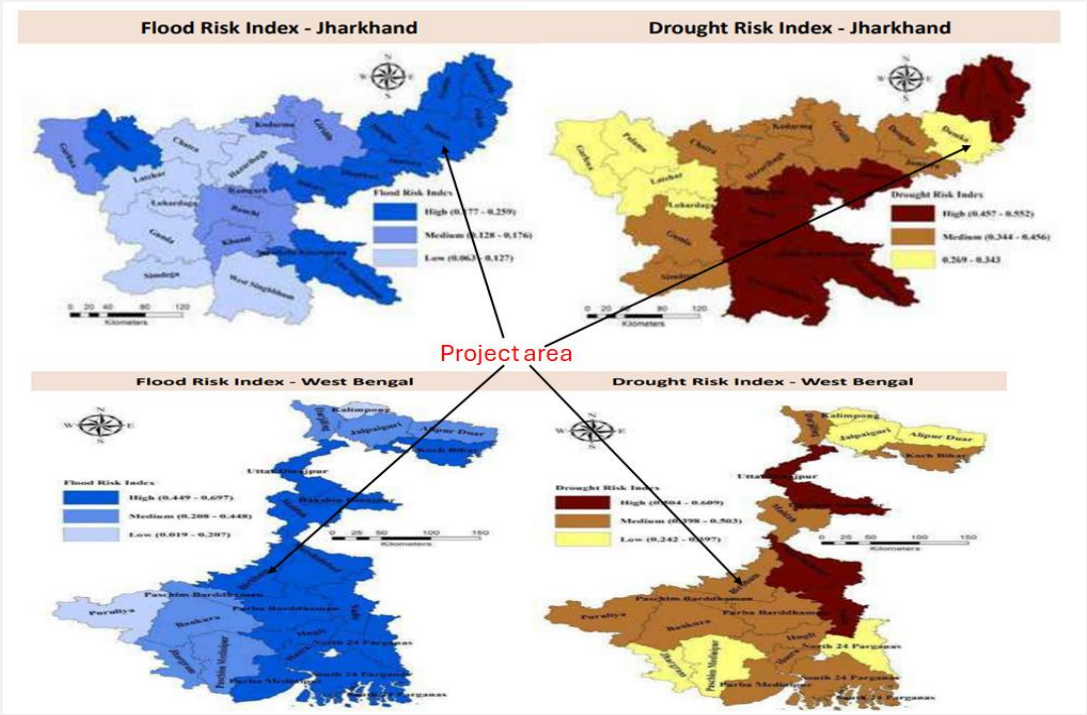


Total area under desertification in West Bengal (2003-05 2018-19)



Total area under desertification in Jharkhand (2003-05 – 2018-19)

Per the district vulnerability index Birbhum fall under “very high” and “high” risks category.. While Dumka falls under “high” drought risk and “low” flood risk categories.[25]



[25] https://dst.gov.in/sites/default/files/Full%20Report_District-Level%20Climate%20Risk%20Assessment%20for%20India_Mapping%20Flood%20and%20Drought%20Risks%20Using%20IPCC%20Framework.pdf

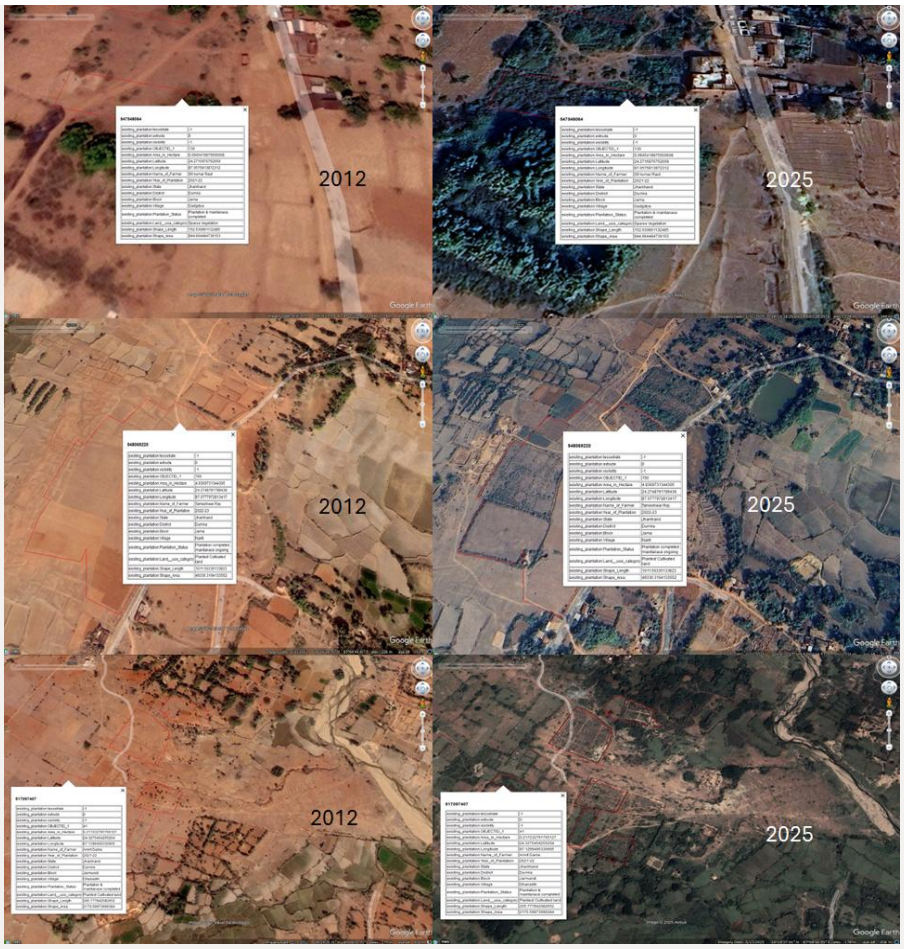


Figure 17: sample of existing plantation baseline and current scenario images

Figure 18: sample of new plantation baseline and current scenario images

Land cover: Land cover data for the project boundary is mapped with the MODIS land cover data for 2010 and 2020. The MODIS land use/land cover analysis for the project area indicates a strong dominance of cropland systems across both time periods. In 2010, the majority of parcels were classified as croplands, accounting for nearly all mapped features,

with a very small proportion represented by grasslands. By 2020, this pattern becomes even more pronounced, with croplands almost entirely dominating the landscape and no significant presence of other land cover classes observed. This suggests a high level of agricultural stability and continuity in land use over the decade.

The minimal variation between 2010 and 2020 highlights the persistence of agricultural practices within the project region, with negligible transitions to other land cover types. Such consistency in cropland dominance is indicative of sustained cultivation and limited land use change, which is important for understanding long-term land management patterns and planning agroforestry interventions within an already agriculture-driven landscape.

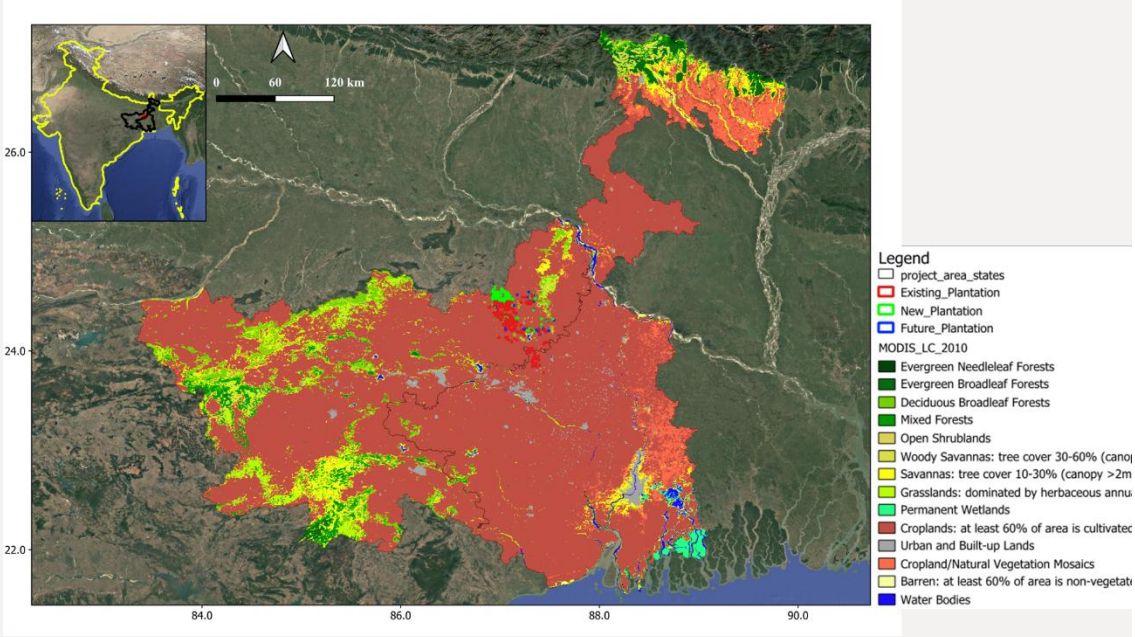


Figure 19: Map showing MODIS[26] land cover data for 2010

[26] https://cmr.earthdata.nasa.gov/search/concepts/C2484079608-LPCLOUD.html

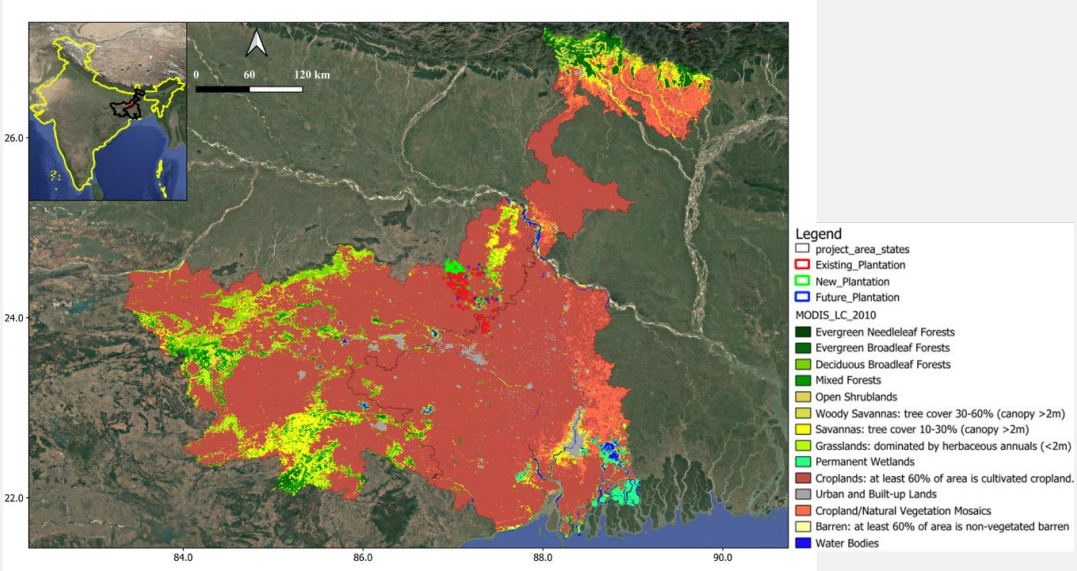


Figure 20: Map showing MODIS land cover data for 2023

In terms of evidence reviewed, the project references on-field observations, farmer interactions, and regional agricultural statistics (e.g., landholding size, cropping patterns, irrigation constraints, and groundwater depletion). During site visits, VVB assessment would rely on direct observations of land conditions (e.g., degraded uplands, fallow areas, erosion patterns) and interviews with local farmers and community members to confirm that current land use is indeed low-intensity and constrained by water and soil limitations. Discussions with stakeholders helped validate claims regarding migration, income limitations, and lack of alternative land-use investments. The sources of evidence are appropriate, the validation is backed by documented records such as baseline surveys, land-use maps, photographic evidence to substantiate the claims made.

Overall, the baseline scenario is conceptually sound and reasonably representative of what would occur in the absence of the project, and it is aligned with the requirements of the applied Plan Vivo methodology. The justification is fully robust upon provision of more structured and verifiable evidence demonstrating that all methodological steps have been rigorously applied, alternative scenarios have been adequately assessed and excluded, and field-level observations consistently support the baseline assumptions. Based on the supporting documentation and assessment, the baseline scenario is considered appropriate and correctly justified for the proposed project intervention.

During the validation, CAR 17, 18, 19, 20 were identified, which were closed with the new evidence provided in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

4.2 Carbon Baseline

The project identifies the baseline net greenhouse gas (GHG) emissions as zero across all years of the first crediting period, implying no significant change in carbon stocks under the baseline scenario. This assumption is based on the characterization of the project area as degraded uplands with minimal or no tree cover and limited active land management. The justification provided supported by Annex 6 (Carbon Calculations Spreadsheet) indicates that baseline conditions do not involve afforestation, harvesting, or other land-use changes that would materially alter carbon stocks over time. As such, the baseline represents a “static”

scenario with negligible biomass growth or emissions, which is consistent with degraded, fallow land conditions.

In line with the requirement of PU001 v1.1 section 5.1.2 and A/R Methodological tool "*Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities*" v4.1, section 5, point 11 has been considered to estimate the carbon stock in trees and shrubs

$\Delta C_{TREE\_BSL,t}$ is accounted as zero, due to the following given reasons:

- The Baseline trees are neither harvested, nor cleared, nor removed throughout the crediting period of the Project activity;
- The Baseline trees do not suffer mortality because of competition from trees planted in the project, or damage because of implementation of the Project activity, at any time during the crediting period of the project activity;
- The baseline trees are not included in the carbon stock monitoring along with the project trees. However, their continued existence, aligned with the baseline scenario, will be tracked throughout the project activity's crediting period. The baseline trees will be geotagged,

$\Delta C_{SHRUB\_BSL,t}$ conservatively is assumed to be zero in the baseline scenario, since changes in carbon stock of above and below ground biomass of non-tree vegetation in the project area baseline scenario is not possible. The non tree vegetation cover within the project area is mostly in the form of seasonal shrub and weeds that grows only in rainy season and dry out later and furthermore, the dried seasonal shrubs will be used as manure during the plantation activities.

Hence,

$$\boldsymbol{\Delta BSL, t = 0}$$

These assumptions are broadly aligned with the applied methodology and reflect an effort to ensure that any observed carbon stock changes can be attributed solely to project interventions.

In terms of evidence, the reference to Annex 6 suggests that technical calculations and methodological alignment have been considered. During site visits, observations of land conditions (e.g., absence of significant woody biomass, signs of degradation) and interviews with local stakeholders confirm the claim that the land remains largely static without intervention.

Overall, the baseline GHG scenario of zero net emissions/removals is methodologically plausible and conservative, particularly for degraded uplands with low biomass.

During the validation, CAR 21 was identified, which was closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

However, the PC has stated that if any scattered baseline trees, not established as part of the project activity, are identified within the project area, such trees will not be included in the project carbon stock monitoring along with the project trees. Instead, their continued existence under the baseline scenario will be monitored throughout the crediting period. The PC has further stated that these baseline trees will be geotagged. However, this activity has not yet been completed at the validation stage. Therefore, the same shall be checked and confirmed during verification. FAR 02 has been raised in this regard.

Table 3. Total net-greenhouse gas emissions under the baseline scenario

Year	Baseline emissions ($t CO_2e$)
1-30	0

4.3 Livelihood Baseline (initial status and expected change)

The VVB assessed the livelihood baseline and expected changes under the baseline scenario through a review of the PDD, supporting baseline socio-economic survey data, and stakeholder consultations conducted during the site visit.

Based on the information reviewed, the primary stakeholder group (small and marginal farmers, including tribal and scheduled caste communities) is characterized by high dependency on rainfed agriculture, wage labour, and forest resources. The VVB reviewed the socio-economic survey results, which covered approximately 30% of households in the project area, and noted key indicators such as limited cropping intensity (predominantly single-season cultivation), low average agricultural income, high reliance on wage labour (92% of respondents), and seasonal migration (reported by approximately 40% of households). Additional evidence reviewed includes household income data, employment patterns, and dependency on forest-based livelihoods. These findings were cross-checked during the site visit through interviews with beneficiaries and local community members, which confirmed the described livelihood conditions, including limited income sources, high vulnerability to climate variability, and reliance on migration for supplementary income.

The VVB further assessed the expected livelihood status under the baseline BAU scenario. The PDD indicates that, in the absence of the project, existing challenges such as low agricultural productivity, lack of irrigation, soil degradation, and limited livelihood diversification are expected to persist or worsen. Continued reliance on seasonal wage labour and migration, coupled with declining natural resource availability and limited access to markets, is expected to result in minimal improvement in household incomes and sustained economic vulnerability. These assumptions were found to be consistent with stakeholder feedback obtained during the site visit, where beneficiaries confirmed the constraints associated with current livelihood practices and limited opportunities for income enhancement.

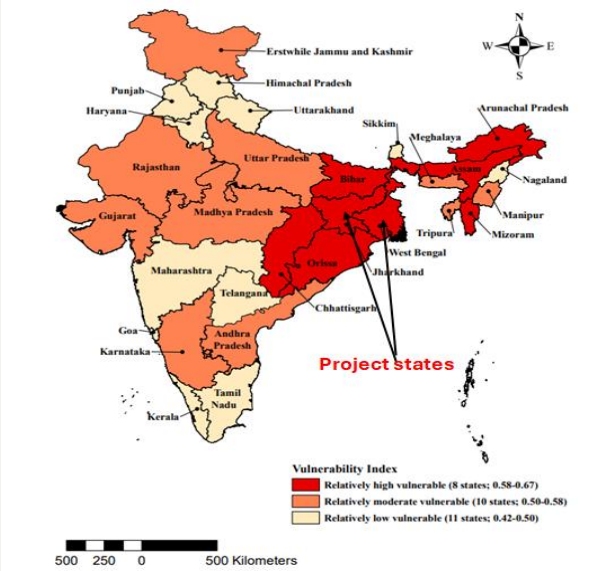
It was also observed and found that livelihood vulnerability of the project area is consistent with broader socio-economic trends observed among the Santhal tribal communities in Jharkhand and West Bengal. Secondary literature[27] indicates that these communities have

[27] https://ijpub.org/ijvra/papers/IJVRA2603879.pdf

been increasingly affected by land degradation, displacement, and loss of access to natural resources due to factors such as industrialization, deforestation, and unsustainable development practices. This has contributed to declining land productivity, reduced agricultural viability, and increased dependence on wage labour and seasonal migration.

The VVB understands that these structural challenges combined with climate change threat, erratic rainfall patterns, limited irrigation access, and soil degradation as observed in the project area have led to a gradual deterioration of both agricultural productivity and socio-economic conditions.

Based on an a 2020 published report "Climate Vulnerability Assessment for Adaptation Planning in India Using a Common Framework", the states are categorized among the top 5 States in the Host Country with respect to current climate risk and the main drivers of vulnerability.



These factors further reinforce the baseline scenario presented in the PDD, where livelihoods remain constrained, income opportunities are limited, and vulnerability to climate and economic shocks persists.

Based on the above assessment, the VVB concludes that the livelihood baseline is adequately described and supported by relevant socio-economic data and field-level verification. The expected livelihood changes under the baseline scenario are considered reasonable, consistent with observed conditions, and appropriately justified for the project context. The VVB confirms that the information provided is sufficiently accurate and complete for the purpose of validation.

During the validation, NIR 09 was identified, which was closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

4.4 Ecosystem Baseline (initial and expected change)

https://www.ijfans.org/uploads/paper/4b5f1286aa420afdffae1545e401d533.pdf
https://integralresearch.in/index.php/1/article/download/277/193/585
https://www.ijfmr.com/papers/2025/5/57273.pdf

The project provides a comprehensive qualitative description of the baseline ecological conditions across the two project regions, Birbhum (West Bengal) and Dumka (Jharkhand). The baseline ecosystem is characterized by upland, undulating terrain with lateritic and acidic soils, low moisture retention, and high susceptibility to erosion. Dumka is described as part of the Chota Nagpur Plateau with mixed forest patches dominated by species such as sal (Shorea robusta), mahua, and bamboo, supporting fauna including jackals, nilgai, and migratory elephants. Birbhum represents a semi-arid ecosystem with lateritic "khoai" landscapes, agricultural plains, and fragmented forest patches. Across both regions, ecosystems are under stress due to degradation, deforestation, overgrazing, and unsustainable land-use practices, with significant dependence on forest resources (NTFPs) by local communities.

As explained in section 4.1, and 4.3 in terms of expected ecosystem changes under the baseline (i.e., absence of the project), the project reasonably concludes that ecosystem degradation will continue or worsen. This includes increased soil erosion, declining soil fertility, reduced groundwater recharge, expansion of barren lands, and decreasing agricultural productivity. The narrative also highlights broader impacts such as reduced forest health, biodiversity loss, and increased climate vulnerability due to erratic rainfall and temperature changes. These projections are consistent with the baseline conditions described and reflect a logical continuation of current degradation trends.

Regarding assessment methods and evidence, the project appears to rely on secondary literature, regional statistics, and general ecological descriptions, with reference to site-specific baseline studies. During site visits, the validation team validated these claims through direct field observations (e.g., degraded uplands, sparse vegetation cover, erosion patterns) and interviews with local communities and forest-dependent households to confirm trends in forest resource availability and ecosystem health. Cross-checked with baseline maps, photographic evidence, and spatial assessment to substantiate the claims.

Overall, the ecological baseline and expected changes under the "without project" scenario are conceptually sound and broadly consistent with regional environmental conditions. The narrative provides a credible understanding of ecosystem degradation processes and risks. Based on the PDD reviewed and verification during site visits, the ecosystem baseline can be considered reasonable and appropriate.

During the validation, NIR 10 and CAR 22 were identified, which were closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

5 Theory of Change

5.1 Project Logic

The VVB assessed the project logic presented in section 3.6 of the PDD /8/, outputs, activities, assumptions, and identified risks, along with supporting documentation. The assessment was further substantiated through site visit observations and stakeholder interviews with beneficiaries, community institutions (SHGs/WLCs/FPOs), and project implementation staff.

The project logic presents a clear linkage between activities, outputs, outcomes, and impacts, aiming to restore degraded uplands and improve livelihoods through agroforestry

interventions. The VVB verified that the key activities include: (i) community engagement and institutional strengthening (e.g., SHGs, FPOs, and CRPs),

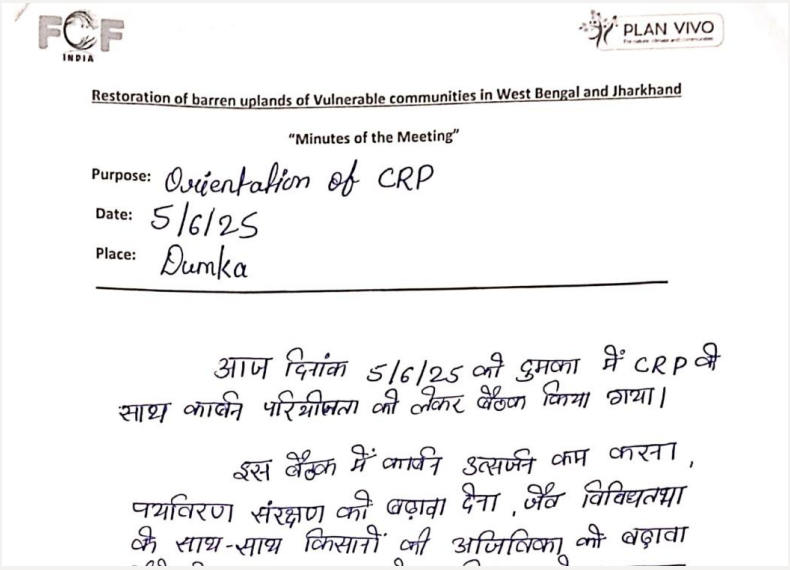


Figure 21: glimpse of orientation workshop for CRPs

(ii) participatory planning using PRA-based INRM approaches,

Figure 22: evidence/glimpse of PRAs conducted

(iii) capacity building and training, (iv) plantation establishment and soil-moisture conservation measures, (v) ongoing maintenance and monitoring of plantations, and (vi) integration with government schemes for long-term sustainability. These activities are logically linked to outputs such as strengthened community institutions and restoration of approximately 4.000 ha of uplands, leading to outcomes including carbon sequestration, improved ecosystem conditions, and enhanced livelihoods.

The VVB cross-checked the project logic with supporting evidence, including Section 3.6, stakeholder consultation records, and field observations. During the site visit, the VVB observed plantation activities, soil and water conservation measures, and community engagement processes consistent with the project design. Interviews with beneficiaries confirmed their involvement in planning, implementation, and maintenance activities, as well as awareness of livelihood benefits (e.g., mango production, sericulture, and timber harvesting of Sonajhuri and Teak). The VVB also verified that harvesting cycles are integrated into the project design with replanting provisions, ensuring continuity of carbon benefits.

The VVB further assessed the assumptions and risks identified in the project logic, including risks related to tree mortality (20%), climate variability, and institutional participation. The proposed mitigation measures such as replanting strategies, continuous engagement, training, and monitoring are considered appropriate and aligned with the project context. Field verification confirmed that these mitigation measures are being operationalized.

Overall, the causal relationships between activities, outputs, and outcomes are technically sound, internally consistent, and supported by evidence. The project logic adequately integrates environmental, social, and economic dimensions, including carbon benefits, livelihood improvements, and ecosystem restoration.

During the validation, CAR 23, CAR 24 and CAR 25 were identified, which were closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

6 Technical Specification

The project provides a structured outline of technical specifications across key interventions, including planning, nursery selection, plantation, maintenance, and monitoring. Overall, the interventions are logically defined and broadly aligned with good practice under Plan Vivo.

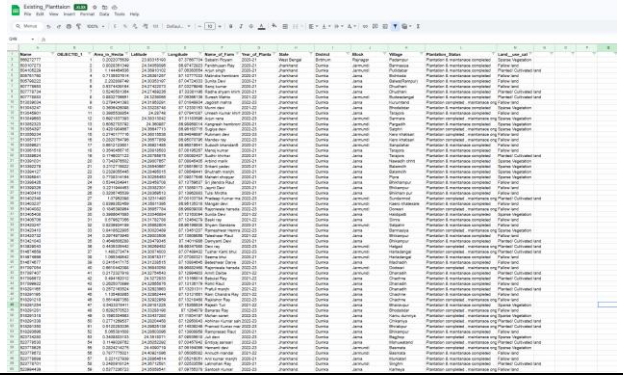
6.1 Project Activities

The Project Coordinator has accurately outlined the intervention and the requisite activities for its successful execution. During the on-site visit to the selected farms and nurseries, as well as the interviews conducted with the farmers and project staff, it was confirmed that the implementation is being carried out in accordance with the project documents, which commenced with the planting activities.

Overall, the VVB concludes that the technical specifications for the identified project interventions are conceptually appropriate and aligned with Plan Vivo requirements, demonstrating a coherent approach to land restoration, plantation management, and monitoring.

During the validation, CAR 27 was identified, which was closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

Table 4 Project Activity Summary

Project Intervention	Project Activities	Validation Assessment
Restoration of Barren Uplands	Planting of trees and maintenance	Evidence such as field registers, plantation records /60/, and labour payment logs /69/ are verified to substantiate implementation. The VVB reviewed plantation activity descriptions and input requirements. 

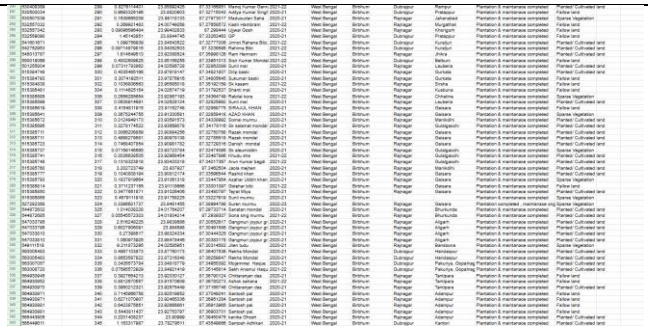
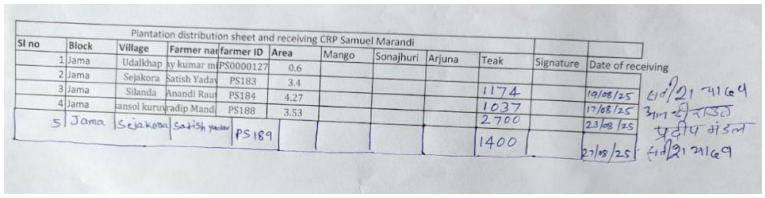


Figure 23: sample plantation record keeping of the project areas



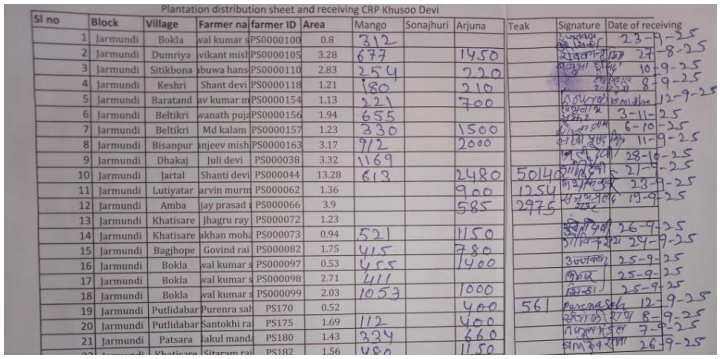


Figure 24: sample sapling distribution record keeping of the project areas

Figure 25: sample photographs of the project sites

		During the site visit, sampled plots were visited to cross check the plantation activities. Beneficiaries confirmed their involvement in land preparation and planting. Based on site observations and discussions it was concluded that the implementation of plantation practices as described in the PD.
	Tree maintenance	The plantation and maintenance interventions are described with standard silvicultural practices, including pit preparation, composting, pest treatment, and ongoing care (watering, weeding, pruning, etc.). These are appropriate and necessary for ensuring survival and growth. The inclusion of inputs (labour, saplings, organic treatments) is adequate. Field observations indicated ongoing maintenance practices, and training support from the PP/FIT Climate Foundation was checked.
	Community led INRM and Livelihoods planning for identifying and selecting suitable land	For the community-led INRM and livelihoods planning intervention, the use of Participatory Rural Appraisal (PRA) /48/ tools and ridge-to-valley planning is appropriate and consistent with participatory project design requirements. The land selection criteria for uplands unused for a decade, exclusion of recently forested land, and avoidance of native ecosystem destruction, are relevant and aligned with additionality and eligibility conditions. The VVB reviewed Section 6 (Technical Specification) and participatory planning documentation. Interviews with beneficiaries and community institutions (SHGs/ FPOs) confirmed that land selection is carried out through participatory approaches and aligns with criteria defined in the PDD (uplands, long-term fallow, non-forest land). Field observations confirmed consistency with described practices.
	Identifying Private nurseries for sourcing of saplings	For nursery identification and sapling sourcing, the intervention appropriately emphasizes proximity, species suitability, and seedling quality /37/. Field verification of nurseries is a strong inclusion. During site visits, the VVB verified nursery selection processes and assess whether species selected are indeed native and suitable for local agro-climatic conditions. The VVB reviewed procurement procedures and nursery selection criteria /37/. Discussions with the PC and field staff confirmed that nurseries are selected based on proximity, species availability, and quality. Evidence reviewed includes nursery identification records and procurement planning. The VVB notes that saplings are sourced from registered nurseries (e.g., National Horticulture Board approved), which supports quality assurance.
	Tree Growth Monitoring	For tree growth monitoring, the project outlines relevant parameters (DBH, height, mortality, pest incidence, etc.) and includes provisions for data verification, storage, and analysis. This aligns well with MRV requirements. The robustness of this component depends on the presence of standardized monitoring protocols, sampling design, frequency of

		measurement, and data quality assurance/quality control (QA/QC) procedures, which is available in the PDD /8/. The emphasis on long-term data archiving is appropriate given the project duration, and implementation arrangements are clearly demonstrated.
	Stakeholder engagement, capacity building, and training (including CRPs, SHGs, FPOs)	The VVB reviewed training records /27/, stakeholder engagement processes /23/, and institutional arrangements. Interviews confirmed regular training, awareness programs, and involvement of community institutions. The participatory approach was verified during the site visit.
	Livelihood support activities including intercropping, sericulture, and capacity building	The VVB assessed livelihood-related activities through documentation and interviews. Beneficiaries confirmed intercropping practices in early plantation years and participation in training programs, livelihood sources from sale of timber and fruits. The linkage between plantation and livelihood enhancement is considered appropriate and consistent with the project design.

6.2 Additionality

For the assessment and demonstration of additionality and the identification and justification of the baseline scenario are described using the "Combined tool to identify baseline scenario and demonstrate additionality in A/R CDM project activities", v1 /21/, which is an applicable tool under the applied methodology PM001 /19/, v1, section 2.2.

Following steps were taken to conclude the baseline scenario and project additionality:

STEP 0. Preliminary screening based on the starting date of the A/R project activity

The starting date of the project activity is 6th June 2020, which is after 31st December 1999.

As this is a retroactive project, the VVB assessed documentary evidence, including the agreement between the PC and beneficiaries /12/, the MoU between FCF India and FIT Climate Foundation /14/, and the LSC records /23/. The agreements, LSC records and the MoU demonstrate that carbon revenue and the carbon project were considered during the project design phase, prior to project implementation. Although the activities were conducted after project commencement, it further corroborates that participating beneficiaries were informed about the carbon project and its associated benefits before entering into this project.

To validate the project, start date of 6th June 2020, the VVB specifically reviewed the official MGNREGA records corresponding to sampled existing plantation farmers. These records demonstrate that plantation activities had commenced on or before 6 June 2020[28]. As an

[28] https://nrega.dord.gov.in/MGNREGA_new/Nrega_home.aspx The MGNREGA records indicate that all the plantation works listed below commenced on or before 6 June 2020. The recorded work start dates are 23 May 2020, 23 May 2020, 2 June 2020, and 4 June 2020, demonstrating that these activities were already

independent check, the VVB also reviewed historical Google Earth imagery for other representative project parcels. The imagery was assessed across different time periods to observe land conditions before and after the declared project start date, including evidence of land preparation and plantation establishment. The observations from the historical imagery were consistent with the declared project implementation timeline

Evidence Parcels:

Lat, long	Name of farmer	Remark	Image evidence
23.997753, 87.287470	Sisal farm	Historical imagery from February 2020 shows the parcel largely devoid of plantation activity, with no visible planting pits or organized plantation layout. In imagery acquired during November 2020, distinct pit structures arranged in regular spacing become clearly visible across the parcel. The observed transition indicates that land preparation activities occurred during the intervening period, which is consistent with plantation establishment initiated following the declared project start date. Clearly established plantations are visible by March 2025.	 Image date: Feb 2020

underway prior to the relevant date. For a conservative approach, 6 June 2020 has been considered by PC as the start date. The same was assessed and found to be appropriate by the VVB.

S. No.	District	Block	Panchayat	Beneficiary (Plantation Description)	Work Code	Work Start FY	Work Started	Kobo ID	Individual Beneficiary JCN	Status
1	Dumka	Jarmundi	Chamra Bahiyar	Plantation at Baijniha of Gori Rai (1 acre)	3411003006/IF/70809014 13128	2020–2021	04-06-2020	59346	JH-11-003-006-001172	Commenced before 06-06-2020
2	Dumka	Jarmundi	Haripur_Bazar	Plantation of Hirna Dangal of Tushar Kranti Bhui (1 acre)	3411003009/IF/70809013 99739	2020–2021	23-05-2020	51467	JH-11-003-009-00037	Commenced before 06-06-2020
3	Dumka	Jarmundi	Haripur_Bazar	Plantation of Sema Bhui (1 acre)	3411003009/IF/70809014 01492	2020–2021	23-05-2020	51467	JH-11-003-009-00834	Commenced before 06-06-2020
4	Dumka	Jarmundi	Kharbila	Plantation of Muni Kumar Purana Fatka (1 acre)	3411003014/IF/70809014 02888	2020–2021	02-06-2020	51443	JH-11-003-014-003119	Commenced before 06-06-2020

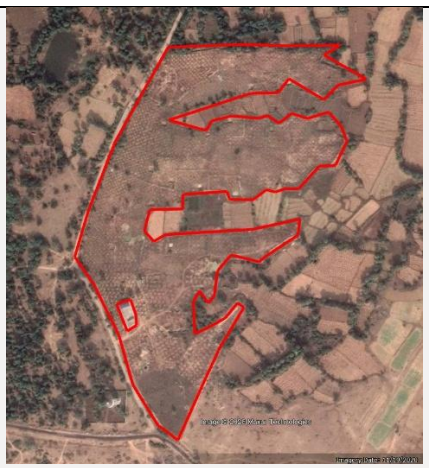
			 Image date: Nov 2020  Image date: March 2025
24.303626, 87.047232	Sunita Devi	Temporal imagery from November 2020 shows the parcel in the early stage of plantation establishment, with visible plantation pits indicating planting activities by June 2020. In the January 2025 imagery, the parcel exhibits a well-established plantation with a dense and uniform tree canopy, indicating successful growth over time. The progression from plantation preparation/early establishment in 2020 to a mature plantation by 2025 is consistent with plantation activities having commenced during the declared project implementation period.	 Image date: Nov 2020

			 Image date: Jan 2025
24.005739, 87.296606		The parcel shows plantation activities dating to November 2020; organized pit structures are visible across the parcel, indicating active plantation preparation. The observed change is consistent with plantation establishment activities undertaken after June 2020, and a clearly established plantation by March 2024.	 Image date: Nov 2020  Image date: March 2024

The VVB also cross-checked historical satellite imagery for the MGNREGA-listed parcels with reported start dates prior to 6 June 2020. The imagery indicates the presence of planting pits in November 2020, which is consistent with the plantation dates documented in the project records and supports the reported start dates.

Hence, across the reviewed representative parcels, historical imagery consistently demonstrates a transition from land with no visible plantation preparation in early 2020 to parcels exhibiting organized pit excavation and plantation layout during October–November 2020. While satellite imagery cannot determine the exact day on which plantation activities commenced, the observed land-use transition is consistent with implementation beginning after the declared project start date of 6th June 2020. The appearance of plantation pits within the same year provides reasonable visual evidence that project activities were initiated during the declared implementation period.

Sub-step 1a. Identify credible alternative land use scenarios to the proposed CDM project activity.

As mentioned in Section 3.3.4 of this report and Section 3.4 of the PDD, the project involves two types of land ownership: 1) private land owned by individual smallholder farmers, and 2) revenue wasteland owned by the revenue department. The PC has conducted a separate demonstration of additionality for each land ownership type. The VVB's assessment for each type is presented below in the table. This step includes identifying the credible land-use scenarios for the Project Area and assessing the consistency of each scenario based on local regulations. Following three scenarios were analysed:

Credible alternative land use scenarios	Description	VVB Assessment
SCENARIO 1: Continuation of pre-project land use: i.e., Subsistence low-output agriculture	Land-use scenarios for the project have been identified using both primary and secondary sources of information. Primary sources include social assessment activities undertaken within the project boundary from April 2022 to June 2026. The VVB reviewed evidence from local interviews, field surveys, and land-use records to assess the historical land-use patterns in and around the project area. As described in Annex 7 of the PDD and assessed in Section 4.1 of this report, subsistence agriculture represents the predominant land-use and primary economic activity in the project area, largely practiced by marginal and smallholder farmers. These farmers face multiple constraints, including low agricultural productivity, limited irrigation, and climate variability, which adversely affect crop yields. Rice is the principal crop cultivated during the Kharif season (June to September),	After validation of all the supporting documents and land records and and site visits investigation (discussions with local stakeholders, landowners and Project management team) it was confirmed continuity of Scenario 1 in the absence of the proposed

	covering a significant proportion of the cropped area; however, yields remain below potential due to erratic rainfall patterns and limited input use. The VVB further notes that agriculture serves as the primary source of livelihood for the local population, yet current practices are not economically sustainable under existing conditions. This situation is further compounded by the socio-economic vulnerability of local communities, including tribal groups such as the Santhal population, who have limited access to resources and alternative livelihood opportunities. Based on the review of primary data, stakeholder consultations, and relevant secondary literature, the VVB considers that the identified land-use scenario is credible, appropriate, and representative of the prevailing conditions in the project area.	project activity.
SCENARIO 02: Forestation of the land within the project boundary performed without being registered as the PLAN VIVO project activity	The VVB has assessed the land-use Scenario 2 identified by the PP, i.e., forestation of land within the project boundary without registration as a Plan Vivo project activity. The PC has provided evidence that activities such as forestry, agroforestry, horticulture, and sericulture are being promoted in West Bengal and Jharkhand through various government schemes and credit-linked programmes, and that these sectors have recognised financial potential. In PP's analysis it is evident that there is presence of such schemes in the region. Rather, the PC has explained that despite these initiatives, their effective implementation is limited by several practical challenges. These include limited availability of quality planting material, lack of awareness and extension support, reluctance of financial institutions to fund long-gestation plantation activities, gaps in storage and market infrastructure, and	After validation of all the supporting documents and land records and and site visits investigation (discussions with local stakeholders, landowners and Project management team) it was confirmed that Scenario 02 is feasible in the absence of the proposed project activity

	limited technical capacity at the local level. These constraints are also in line with broader sector-level observations. Plantation schemes in most of the Indian States including the project areas are often insufficient in increasing forest cover and helping local communities due to a combination of improper site selection, poor sapling survival rates, top-down implementation that ignores local needs, and high levels of biotic pressure. While the state records official forest cover increases in reports, on-ground realities often fail to match targets due to ecological and social failures.[29] In the case of Jharkhand, plantation on private land is supported through schemes such as the Mukhyamantri Jan Van Yojana. While such schemes aim to increase green cover and enhance farmer income, the VVB notes that they typically provide partial support and do not fully address long-term requirements such as irrigation, maintenance, and survival of plantations. As a result, successful plantation establishment remains dependent on site-specific conditions and the capacity of individual beneficiaries. The VVB further notes that the PC has highlighted several location-specific constraints within the project area, including low-income farming households, water scarcity, overexploited groundwater, dependence on monsoon rainfall, and low agricultural productivity. The PC has also presented evidence of past plantation failures in the area, including high mortality rates due to inadequate irrigation and maintenance. These observations are consistent with the information provided by the beneficiaries and	

[29] https://www.indiaspend.com/forest-rights/chop-trees-then-compensate-for-them-at-whose-cost-881786
https://www.thehindu.com/sci-tech/energy-and-environment/is-indias-forest-cover-really-increasing-official-maps-dont-tell-you-the-whole-truth/article38412109.ece
https://www.sciencedirect.com/science/article/abs/pii/S0921800921003657

	other local stakeholders general understanding that plantation activities in project regions carry significant risks in the absence of sustained technical and financial support. Based on the information reviewed, including the PP's justification, site-specific evidence, and supporting literature, the VVB considers Scenario 2 to be plausible but not viable in the absence of the project. Although plantation activities are promoted through various schemes, the available evidence indicates that establishing and sustaining plantations at scale on degraded uplands is constrained by financial, technical, and environmental limitations.	
Scenario 03: If applicable, activities similar to the proposed project activity on at least part of the land within the project boundary of the proposed PV AFOLU project at a rate resulting from: 1. Legal requirements; or 2. Extrapolation of observed similar activities in the geographical area with similar socioeconomic and ecological conditions to the proposed PV AFOLU project activity occurring in the period	For this scenario, the lands within the project boundary of the proposed PV ARR project are all with the same legal requirements, there are no legal requirements to carry out similar project activities. According to the PRA Report, the project area existed as degraded land for more than ten years before the project start date. So (iii) is not applicable.	After validation of all the supporting documents and land records and and site visits investigation it was confirmed non-feasibility of Scenario 03 in the absence of the proposed project activity

	beginning ten years prior to the project start date.		

The audit concluded that all alternative land use scenarios comply with national and international laws and regulations (listed in section Annex 10 of the PDD). Therefore, they meet the legal test requirements for privately managed forest lands in India and in the project area state of West Bengal and Jharkhand**.**

Outcome of sub-step 1a: The analysis shows that Scenario 1 and 2 alternative land use scenarios are feasible.

The audit confirmed that all alternative land use scenarios comply with national and international laws and regulations (listed in section 1.15 of the PD). Therefore,

Sub-step 1b: Consistency of credible alternative land use scenarios with enforced mandatory applicable laws and regulations.

Credible alternative land use scenarios	In compliance with national laws and regulations (Yes/No)
SCENARIO 01	Yes
SCENARIO 02	Yes
Scenario 03	NA

Outcome of sub-step 1b: The analysis shows that for, Scenarios 1 and 2 are feasible with enforced mandatory applicable laws and regulations. The audit confirmed through interviews with the stakeholders, the PDD review, supporting documentation, and on-site visit that all plausible baseline scenarios comply with the applicable national and regional laws and regulations and therefore meet the legal test requirements of privately managed forest lands in India.

The historical practice, common practice, land acquisition for conversion to real estate development, or acquisition for conversion to conservation lands all fall within legal project scenario alternatives. The audit team has verified that the project activity goes beyond these alternative scenarios, particularly in terms of CO_2 sequestration and other co-benefits like women empowerment, awareness generation and capacity building for climate change mitigation and adaptation, and diversification of land use.

STEP 2: **Barriers Analysis**

This step is to identify barriers and to assess which of the land use scenarios identified in the sub-step 1b are not prevented by the identified barriers

Sub-step 2a: Identification of barriers that would prevent the implementation of at least one alternative land use scenarios

The project identified three main barriers that would have prevented the project activity that was present when the project was initially considered as a carbon project (before the start date). The following are the three main barriers identified:

Barrier	Tyee 1
Investment – lack of awareness regarding ongoing schemes and policies related to plantation and land management, limited access to finance, lack of collateral, low financial literacy, reluctance of banks to provide long-term credit, and inadequate access to government schemes.	Scenario 2
Technological: Lack of irrigation systems, limited technical knowledge, poor soil management practices, inadequate extension services, and low adoption of agroforestry practices.	Scenario 2
Ecological Conditions: Rainfed agriculture, soil degradation, declining groundwater levels, drought and flood risks, and low land productivity in upland areas.	Scenario 2

Interviews with project personnel, in country local experts, and the local stakeholders and landowners confirmed that the proposed barriers are appropriate.

Sub-step 2b: Elimination of land use scenarios that are prevented by the identified barriers

This step is to determine which land use scenarios identified in the Sub-step 1b are prevented by at least one of the barriers listed in sub-step 2a.

The PC has analysed Scenario 2 against identified investment, technological, and ecological barriers. The project area faces significant investment, technological and ecological barriers and explained why it is not viable under the BAU scenario (as explained in step 1a Section 4.1 and 4.3 of this report).

The provision of sustainable financial services in remote and rural areas remains a significant challenge[30] and support from banks, combined with poor implementation of priority sector lending guidelines, limits access to funding, especially for tribal communities.[31] Many banks fail

[30] https://www.cifor-icraf.org/press/media-coverage/112/indias-agroforestry-starved-of-finance-despite-ambitious-50-mln-ha-target-by-2050/

[31] rural poverty is 46.3% in Jharkhand and 28.6 in West Bengal - https://socialjustice.gov.in/common/76672

to meet loan targets,[32] and funding from MGNREGA is insufficient for long-term sustainability.[33] Through independent assessment of the VVB it was concluded that that investments in indigenous species are often perceived as financially unattractive due to their long gestation periods, delayed revenue generation, and comparatively lower short-term returns. This perception, coupled with limited access to credit and higher perceived risks, discourages private investment in such plantation activities.[34]

From a technological and implementation perspective, the VVB observed and assessed that the PC has identified gaps related to availability of technical guidance, monitoring, and maintenance practices. Evidence provided indicates that plantation activities in the region are affected by low sapling survival rates due to inadequate irrigation, protection measures (e.g., fencing), and insufficient post-plantation care. The VVB also notes that plantation activities under government schemes faces sustainability challenges where long-term maintenance support is not provided only in the project area but across the host country. Technologically, the region lacks proper guidance, monitoring, and maintenance protocols. Poor sapling survival rates are common due to inadequate irrigation, fencing, follow-up care, and monitoring. Projects under government schemes, such as MGNREGA,[35] have failed due to neglect after the initial plantation phase, with no maintenance funding allocated beyond the first year. This technological gap contributes to the failure of plantation activities.[36] Smallholder farmers are often caught in a vicious cycle where low-intensity farming leads to low yields and insufficient profits, preventing them from making beneficial investments in technology or improved inputs.[37] Additionally, there are certain regulations and risks associated with agroforestry plantation in multiple states, such as transit regulations, a long

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Jharkhand
World Bank identified Jharkhand as one of the most poverty-stricken states in the country with a sharp contrast between rural and urban poverty - https://vdsa.icrisat.org/Include/reports/SSRN-id2330844.pdf
https://www.jetir.org/papers/JETIR2508416.pdf
Birbhum is considered one of the most backward and poverty-stricken districts in West Bengal
https://pmc.ncbi.nlm.nih.gov/articles/PMC9668713/
https://vdsa.icrisat.org/Include/reports/SSRN-id2330844.pdf

[32] https://economictimes.indiatimes.com/industry/banking/finance/banking/miles-to-go-for-banks-to-meet-farm-loan-targets/articleshow/534125.cms?from=mdr#:~:text=Similarly%2C%20for%20private%20sector%20banks,to%20a%20senior%20SBI%20official.

[33] https://www.google.com/search?q=MGNREGA+is+unsuccessful+in+managing+long+term+sustainability+of+plantation&oq=MGNREGA+is+unsuccessful+in+managing+long+term+sustainability+of+plantation&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCTE0OTM5ajBqOagCALACAQ&sourceid=chrome&ie=UTF-8

[34] https://anaxee.com/investment-structures-carbon-projects/
https://www.sciencedirect.com/science/article/abs/pii/S0167880916302596
https://theconversation.com/ambitious-tree-planting-goals-in-asia-lack-diverse-tree-seeds-from-native-species-174333

[35] https://www.drishtiias.com/daily-updates/daily-news-editorials/implementation-issues-with-the-mgnrega
https://www.effective-states.org/wp-content/uploads/briefing_papers/final-pdfs/esid_bp_1_NREGA.pdf

[36] https://link.springer.com/article/10.1007/s10457-024-00993-w

[37] https://www.ris.org.in/sites/default/files/Publication/DP-313_Pami_Dua.pdf
https://www.sciencedirect.com/science/article/pii/S0275531925004441

gestation period, market uncertainty, high initial costs, and the need for institute support and extension training for farmers.[38]

Additionally, from ecological perspective, the plantation and land-use investments in the region are constrained by low productivity, high climate variability, limited irrigation, and degraded soil conditions. These factors reduce expected financial returns and increase risk, thereby discouraging private investment, particularly in long-gestation activities such as indigenous species plantations. This is consistent with regional evidence indicating dependence on monsoon rainfall, declining groundwater levels, and limited adoption of improved agricultural practices.[39] Hence, lack of awareness, technological challenges, and ecological barriers[40] hinder the viability of Scenario 2, making it non-feasible without the support of carbon finance benefits.

Accordingly, the VVB concludes that while Scenario 2 is plausible, it is not likely to be implemented at a comparable scale and sustainability level in the absence of the project and therefore cannot be considered the most likely baseline scenario.

Outcome of sub-step 2b:

Scenario 2 is eliminated and the remaining scenario is 1. The PC has now proceeded to STEP 2C.

Sub-Step 2c: Determination of baseline scenario (if allowed by the barrier analysis) The decision to determine the outcome of the step is as follows:

Sub-step 2c. Determination of baseline scenario (if allowed by the barrier analysis)

18. Apply the following decision tree to the outcome of sub-step 2b:

Is forestation without being registered as an A/R CDM project activity included in the list of land use scenarios that are not prevented by any barrier?

→ ***If yes, then:***

Does the list contain only one land use scenario?

→ ***If yes, then the proposed A/R CDM project activity is not additional.***

→ ***If no, then continue with Step 3: Investment analysis.***

→ ***If no, then:***

Does the list contain only one land use scenario?

→ ***If yes, then the remaining land use is the baseline scenario. Continue with Step 4: Common practice test***

→ ***If no, then through qualitative analysis, assess the removals by sinks for each scenario and select one of the following options:***

Option 1: Baseline scenario is the land use scenario that allows for the highest baseline GHG removals by sinks. Continue with Step 4: Common practice test, .

Option 2: Continue with Step 3: Investment analysis.

[38] https://www.researchgate.net/publication/385092104_Agroforestry_Extension_A_Ready_Reckoner
[39] https://www.ceew.in/agroforestry
[40] https://www.sciencedirect.com/science/article/pii/S0308521X23002457
https://www.google.com/search?q=ecological+problems+leading+to+failure+of+forestry+schemes+in+jharkhand&oq=ecological+problems+leading+to+failure+of+forestry+schemes+in+jharkhand&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCTE4NTI5ajBqNKgCALACAA&sourceid=chrome&ie=UTF-8
https://www.researchgate.net/publication/280932970_Effects_of_Ecogeomorphological_Parameters_on_Environment_Case_Study_of_Birbhum_District_West_Bengal
https://link.springer.com/article/10.1007/s42452-025-07244-2

Subsequent to the analysis of Sub-step 2b, there is only one remaining land use scenario, Scenario 01, i.e., Continuation of pre-project land use: i.e., Subsistence low-output agriculture.

Hence, for Scenario 1 is the baseline scenario.

➞ Proceed to Step 4: Common Practice Test.

The PC has analyzed Common Practice as required by the tool. As part of the common practice analysis, the VVB has assessed whether the project activity represents a widely implemented practice in the region and whether similar activities occur without project incentives for both land use types.

Common practice test

The lands selected for the project are degraded upland fallow lands belonging to impoverished and tribal farmers. They have no additional incentives to plant trees on these lands. While cultivation is a common practice for the farmers in the state, the financial stability is still not present, and the farmers rely mostly on the subsistence agriculture practices. Adoption of agroforestry models comes with several incentives. However, without carbon incentives and financial aids of carbon investments, project activity for the proposed crediting period is not feasible.

As explained in step 1a for Scenario 2 assessment, there are plantation initiatives in the project state mainly through government plans and schemes. Despite several investments initiated by both state and national governments, plantations on smallholder and private farms are not materializing.[41] Most schemes and programs focus on specific target areas, with large-scale plantation efforts being limited. As outlined above and in Appendix 7 of the PDD, plantation activities in the project area are not easily feasible due to the land's infertility, water scarcity, technological limitations, and climate variability, which present major challenges to land use. From 2021 MGNREGA has frozen its funding for West Bengal creating a major gap in possibility of implementation of plantation and livelihood initiatives.[42] Additionally, plantation efforts are hindered by insufficient data, inadequate funding, and delays in fund approval and disbursement. [43]

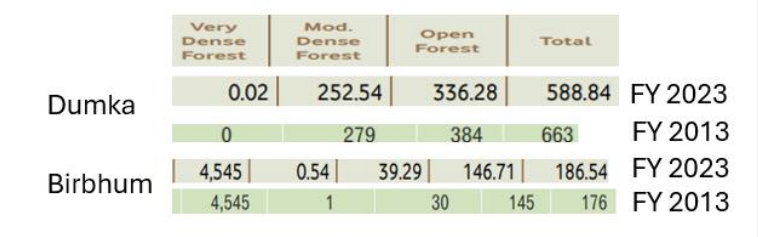
[41] per 2009 CAG report – in Jharkhand - non/delayed handing over of plantations to the respective territorial divisions by Social forestry/ Afforestation divisions resulted in loss of Rs 5.30 crore. Further, in one forest division, 883.85 hectares of plantations was handed over to territorial divisions without any survival report, rendering the expenditure of Rs 1.73 crore incurred thereon, doubtful.
https://www.cag.gov.in/uploads/download_audit_report/2010/Jharkhand_Civil_2009_chap1.pdf

[42] https://www.sanskritiias.com/current-affairs/mnrega-impasse-in-west-bengal-legal-and-political-hurdles
https://www.newsclick.in/CAG-Audits-West-Bengal-Reveal-Financial-Irregularities-Corruption

[43] https://www.thehindu.com/news/national/other-states/odisha-fails-to-carry-out-plantation-activities-in-50-of-the-targeted-area/article65712244.ece
https://www.business-standard.com/article/current-affairs/cag-finds-irregularities-in-odisha-forest-dept-s-plantation-activities-122080200578_1.html

The project activity, Scenario 2, involving sufficient financing and effective implementation of the proposed project is not common practice.[44] The independent assessment of several secondary literature citing the challenges and issues related to agroforestry and afforestation in the project area have been reviewed and concluded that the activity is not common practice in the project area[45] as well as in the host country.[46]

Also, per the available government data (Forest Survey of India – Indian State of Forest Report 2013[47] and 2023[48]:



The trends across the two districts are: Dumka shows a clear decline and Birbhum shows only a minor increase. The increase in Birbhum is not substantial and is not supported by improvement in higher-density forest classes, suggesting low-quality or fragmented gains. Over a 10-year period, the magnitude of change (both increase and decrease) is relatively small, indicating slow or negligible expansion of forest cover.

The PC has clearly demonstrated investment and other barriers in step 2 of Appendix 7 of the PDD. The results support the identification of Scenario 2 as being the most likely and most profitable use of the project areas identified. The audit team concludes the appropriateness of the geographic region used in the common practice analysis. Interviews with project personnel, stakeholders, and the onsite visit confirmed the reasonableness of assumptions underlying the demonstration of additionality.

Table 5 Additionality Assessment Summary

Project Intervention	Main Barriers	Validation Assessment
Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand through agroforestry interventions	**Investment Barrier**: The project area is characterized by small and marginal farmers with limited financial capacity and high vulnerability to climate and market risks. Farmers lack access to formal	The VVB has reviewed the barrier analysis presented in the PDD /8/, along with referenced policy documents and regional agricultural finance constraints. As assessed in Step 2b above, the

44 https://www.researchgate.net/publication/337167646_Agroforestry_systems_Opportunities_and_challenges_in_India

45 https://appforest.jharkhand.gov.in/fresearch/admin/file/research_109.pdf https://www.researchgate.net/publication/379643410_Cultivating_Sustainability_Exploring_Diverse_Agroforestry_Practices_in_West_Bengal

46 https://appforest.jharkhand.gov.in/fresearch/admin/file/research_109.pdf

47 https://fsi.nic.in/cover_2013/forest_tree_resources.pdf

48 https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf

	credit due to absence of collateral, unclear or informal land tenure arrangements, and restrictive tenancy laws such as the Chotanagpur Tenancy (CNT) Act and Santhal Pargana Tenancy (SPT) Act. Financial institutions perceive these farmers as high-risk borrowers due to small landholdings[49], irregular income streams, and dependence on rainfall. Additionally, low financial literacy and limited awareness of agroforestry as a viable economic activity further restrict access to institutional finance. Government schemes[50] and subsidies often fail to reach the most marginalized farmers, creating a gap between policy intent and implementation. As a result, farmers are unable to make upfront investments[51] required for plantation establishment, maintenance, and long-term land-use transition.	identified investment barriers are consistent with known systemic challenges affecting smallholder farmers in eastern India. Limited access to institutional credit, tenure-related constraints, and low awareness levels significantly restrict the ability of farmers to adopt agroforestry systems, which require upfront investment and have delayed financial returns. During validation, the VVB cross-checked these claims through (i) baseline socio-economic survey data, (ii) records related to access to institutional finance, (iii) interviews with farmers, SHGs, and local stakeholders, and (iv) evidence indicating reliance on informal credit sources. The VVB also assessed whether project-supported inputs (e.g., provision of saplings, labour support, and in-kind assistance) adequately address these barriers. Based on the evidence reviewed and field-level verification, the VVB considers the investment barrier to be credible, material, and sufficiently justified. It is unlikely that the proposed project interventions would be implemented at scale in the absence of the project.
Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand	**Technological Barrier**: The region faces significant technological and knowledge	The VVB has assessed the technological barriers based on the PDD /8/ narrative,

[49] https://www.researchgate.net/publication/347508987_Impact_of_small_ditches_Dhobha_in_rainfed_areas_in_Dumka_district_of_Santhal_Pargana_Jharkhand-A_case_study - Page 1-2

[50] https://www.nabard.org/auth/writereaddata/tender/0701205000PLP%202020-21%20Birbhum.pdf - Page 17

[51] https://www.nabard.org/auth/writereaddata/tender/0603202025Jharkhand.pdf

through agroforestry interventions	constraints that limit the adoption of improved land-use practices. Farmers largely rely on traditional, low-input agricultural systems with minimal access to modern agroforestry techniques, scientific soil management, or efficient irrigation systems such as drip or sprinkler irrigation[52]. There is inadequate availability of extension services, limited presence of trained technical personnel, and insufficient dissemination of best practices related to plantation design, species selection, and maintenance.[53] Soil degradation due to excessive use of chemical fertilizers, lack of organic inputs, and poor land management practices further reduces productivity. In addition, infrastructure gaps such as lack of irrigation facilities, poor water management systems, and inadequate access to soil testing services hinder adoption of sustainable practices.[54] These technological limitations are compounded by low capacity among farmers to interpret and apply technical knowledge, resulting in sub-optimal land-use decisions and low productivity.	supporting literature, and the regional agricultural context. As assessed in Step 2b above, the identified constraints - limited irrigation, lack of extension support, poor soil health management, and inadequate technical capacity are consistent with conditions typically observed in rainfed and degraded land systems. The VVB notes that agroforestry systems require specific technical knowledge (e.g., species selection, spacing, maintenance practices, and pest management), which is generally not available to farmers under the baseline scenario. During validation, these barriers were cross-checked through (i) review of training and capacity-building plans, (ii) assessment of institutional arrangements for technical support (including FIT Climate Foundation and FCF India), (iii) interviews with farmers to assess baseline knowledge levels, and (iv) verification of existing agricultural practices in the project area. The VVB also assessed whether the proposed project interventions such as training programs, extension services, and demonstration plots are adequate to address these

[52] https://www.researchgate.net/publication/347508987_Impact_of_small_ditches_Dhobha_in_rainfed_areas_in_Dumka_district_of_Santhal_Pargana_Jharkhand-A_case_study - Page 1-2

[53] https://www.switchon.org.in/wp-content/uploads/2024/06/Land-Restoration-Desertification-Drought-Resilience-in-Jharkhand.pdf - Page 8

[54] https://www.researchgate.net/profile/Gopal-Shukla/publication/379643410_Cultivating_Sustainability_Exploring_Diverse_Agroforestry_Practices_in_West_Bengal/links/661248307476d47e4445933c/Cultivating-Sustainability-Exploring-Diverse-Agroforestry-Practices-in-West-Bengal.pdf

		constraints. Based on the evidence reviewed and field-level verification, the technological barrier is considered credible, material, and sufficiently substantiated. This supports the conclusion that the project intervention would be unlikely to occur in the absence of the targeted technical support provided under the project.
Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand through agroforestry interventions	**Ecological Barrier**: The project area is characterized by challenging agro-ecological conditions, including degraded lateritic soils with low organic matter, high soil erosion, and poor moisture retention capacity. Agriculture is predominantly rainfed, with high dependence on monsoon rainfall and limited irrigation infrastructure. The region experiences frequent climatic stresses such as droughts, erratic rainfall, floods, and occasional cyclones, leading to high variability in crop productivity.[55] Groundwater levels are declining, and water availability for both agriculture and domestic use is increasingly constrained. Large areas of uplands remain fallow due to low productivity and poor soil quality.[56] Small landholding sizes further limit the ability of farmers to adopt improved practices or invest in land restoration. These ecological constraints reduce the viability of conventional agriculture and create disincentives for long-term investments such as agroforestry, which require stable environmental	The VVB has evaluated the ecological barriers based on the PDD /8/ description, referenced district-level data (Birbhum and Dumka), and the agro-climatic characteristics of the region. As assessed in Step 2b above, the identified constraints soil degradation, water scarcity, climate variability, and low land productivity are consistent with regional evidence and support the characterization of the project area as degraded and underutilized. During validation, the VVB verified these conditions through (i) site visits and direct field observations, (ii) review of LULC maps /15/ and baseline land-use data /28/, (iii) assessment of soil and water conditions, and (iv) interviews with farmers regarding historical land productivity and climate-related challenges. The observations were found to be consistent with the baseline conditions described in the PDD. The VVB also assessed whether the project design

[55] https://www.jetir.org/papers/JETIR1902268.pdf - Page 7-8
[56] https://www.jetir.org/papers/JETIR1902268.pdf - Page 10

	conditions for establishment and growth.	particularly soil moisture conservation measures, appropriate species selection, and the adoption of agroforestry systems is suitable to address these ecological constraints. Based on the evidence reviewed and field-level verification, the ecological barrier is considered credible, material, and sufficiently justified. This supports the conclusion that, in the absence of the project, the land would likely remain degraded or underutilized, and the transition to productive agroforestry systems would be unlikely.

6.3 Carbon Benefits

The VVB assessed the estimation of carbon benefits as presented in the PDD /8/ (Section 3.8 and Annex 6 - ERR sheet /9/) and validated compliance with the applied Plan Vivo methodology PM001, v1. The project is expected to generate approximately 1,147,115 tCO_2e (with 20% buffer deduction) removals over a 30-year crediting period, primarily through afforestation and agroforestry interventions on degraded uplands. A summary of the assessment of the key sections of the Technical specification related to carbon benefits is provided in the following list:

Carbon Pools and Emission Sources:

With respect to carbon pools and emission sources, the project primarily considers aboveground woody biomass as the main carbon pool, as inferred from the application of Plan Vivo Module PU001 /20/ and the use of long-term average biomass equations. AGB and BGB are the 2 only carbon pools considered. ABG in non-woody biomass, Litter, Deadwood and Wood products have been conservatively excluded as it was confirmed that these pools are expected to increase more in the project scenario (reforestation) than in the baseline (subsistence agriculture).

The emission sources mentioned in the methodology have been conservatively excluded, as confirmed in the document review and on-site visit. The potential emissions of these sources are expected to be insignificant, or higher in the baseline scenario compared to the project.

Baseline Emissions/Removals:

The baseline scenario assumes continuation of degraded upland conditions with minimal vegetation and low biomass accumulation. The VVB reviewed against 1) baseline land-use characterization (Section 3.1), 2) LULC data and supporting evidence and 3) baseline carbon stock assumptions (Section 3.2). please refer to section 4.2 of this report for the detailed assessemnt.

Expected Project Emission/Removals:

The project removals are estimated using the methodology-prescribed equation, accounting for carbon stock changes in above-ground woody biomass, below-ground biomass, non-woody biomass, litter, deadwood, soil organic carbon, and wood products. The PC has rightly applied equation 4 of the applied methodology

PRa,y = PRWB,a,y + PRNB,a,y + PRBG,a,y + PRLI,a,y + PRDW,a,y + PRSO,a,y + PRWP,a,y

The VVB notes that the PC has conservatively excluded certain carbon pools from the estimation. Specifically, litter (PR_{LI}), deadwood (PR_{DW}), soil organic carbon ($PR_{(SO)}$), and wood products ($PR_{(WP)}$) have been assumed to result in zero net removals. The justification provided indicates that litter and deadwood remain within the project boundary without active management, soil organic carbon is not accounted for under project activities, and wood products are excluded despite the potential long-term use of harvested biomass (e.g., *Acacia auriculiformis* and *Tectona grandis*). This treatment is considered conservative and appropriate.

The VVB confirms that ex-post estimation of biomass and carbon stocks will be based on allometric and/or volumetric equations, using monitored field data such as diameter at breast height (DBH) and tree height collected from permanent sample plots.

For ex-post estimation, the PC has applied the methodological tool “Estimation of Carbon Stocks and Change in Carbon Stocks of Trees and Shrubs in A/R CDM Project Activities” (AR-Tool 14, v04.2) /29/. In accordance with this tool, mean carbon stock in tree biomass within each estimation stratum is calculated using the relevant equations provided in the tool (e.g., Equations 12–14), which combine field data and growth projections to estimate biomass over time.

Estimation of Changes in Carbon Stock in Shrub Biomass:

Shrubs are not included in the project’s planting activities; therefore, their carbon stock change is assumed to be zero in both ex-ante and ex-post calculations. Additionally, the shrub cover in the project area is seasonal, occurring only during the rainy season. Given this temporary presence and its negligible contribution to long-term carbon sequestration, shrub biomass is excluded from the project's emission reduction calculations.

To estimate the carbon stock in tree biomass at a given point in time, the methodological tool “Estimation of Carbon Stocks and Change in Carbon Stocks of Trees and Shrubs in A/R CDM Project Activities” (Version 04.2) /29/ has been applied. According to Section 8.2 of this tool, this approach is used for ex-ante estimation (projection) of carbon stock in tree biomass. It combines existing data with tree growth models to predict tree growth and stand development over time.

For Ex-Ante

For all the species planted, tree specific allometric/volumetric equations and growth data has been used by the PC for Ex ante. The sources of data were checked and verified by the VVB.

The VVB notes that the PC has used species-specific or species-relevant equations for estimating stem volume/biomass for the planted species. The use of species-specific equations is considered appropriate in principle, as it reduces uncertainty compared to generic equations. However, the VVB assessed whether the selected equations are applicable to the project context, including species, age class, tree form, and agro-climatic conditions. The PC has indicated that preference was given to literature from the same or

similar agro-climatic zones, and where such data was unavailable, country-specific literature was used. Based on the assessment it was concluded that the allometric and volumetric equations used by the PC comply with the requirements for ex-ante ER calculation as outlined in CDM – AR Tool 14 /29/ Appendix 1 - section 7, AR-Tool-17 /66/ (Section 6) and AR-Tool-18 /68/ (Section 5), respectively.

Species	Equation	Reference	VVB Assessment
Mango	Y=2.886X^1.039	https://pdfs.semanticscholar.org/0b4d/5f25de88120690ff6a550ade6ca5283ed070.pdf	R2 – 0.971 N = 74 Hence, in line with sectio point c of AR Tool 18 /68/
Sonajhuri	V = 0.04235 - 0.74240*D + 7.26875*D2	https://fsi.nic.in/isfr-2021/refference-annxure-contribute.pdf	The equation is used in th national forest inventory, national GHG inventory, of the host Par Hence, in line with sectio point a of AR Tool 17 /67/
Teak	V=0.19112-3.25372*D+17.9194*D2-1.66117*D3	https://fsi.nic.in/isfr-2021/refference-annxure-contribute.pdf	The equation is used in th national forest inventory, national GHG inventory, of the host Par Hence, in line with sectio point a of AR Tool 17 /67/
Arjuna	V= (0.08565-1.51685*D+10.24871*D2)	https://fsi.nic.in/isfr-2021/refference-annxure-contribute.pdf	The equation is used in th national forest inventory, national GHG inventory, of the host Par Hence, in line with sectio point a of AR Tool 17 /67/

This approach is considered acceptable, subject to clear documentation of the source, units, input variable, and applicability of each equation in the calculation spreadsheet.

Default values considered

Data/Parameter	Unit	Description	Determination method
Root-to-Shoot Ratio (R)	dimensionless	Ratio of the weight of the roots to the weight of the top of the tree. Used for belowground tree biomass estimation.	In line with the applied methodology a default value of 0.25 has been applied. The Value is taken from AR Tool 14-Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities /29/.

Carbon Fraction of dry matter (CF)	tC t d.m -1	Biomass proportion corresponding to carbon. CF is used to convert biomass to carbon.	In line with the applied methodology, TOOL 14 /29/ and IPCC GPG LULUCF guideline /35/ which is an acceptable standard and guideline. A default value of 0.47 has been applied
CO_2e	tC-1	Factor applied to convert the tree carbon sequestered to tree CO2e sequestered.	In line with the applied methodology /18/ and default value considered as per the IPCC GPG LULUCF guideline /35/ which is an acceptable standard and guideline. Value of 44/12 or 3.66 has been applied.

The project applies Module PU001 to estimate long-term average removals in aboveground biomass, including considerations of rotation (e.g., harvesting of Sonajhuri/*Acacia auriculiformis* from year 12 onward with replanting and Teak/Tectona grandis from year 25).

LTA estimation

The VVB has assessed the application of the Long-Term Average (LTA) approach by the PC in accordance with the PV requirements Standard (PV Climate) and Module PU001 (v1.1) of methodology PM001 /19/. The assessment confirms that the use of the LTA approach is appropriate given the project design, which includes planned rotational harvesting and replanting cycles for selected species.

The VVB notes that *Acacia auriculiformis* (Sonajhuri) is scheduled for harvesting from year 12 onwards and *Tectona grandis* (Teak) from year 25 onwards, with replanting undertaken after each harvest cycle (for acacia). As a result, carbon stocks in aboveground biomass follow a cyclical pattern of growth, harvest, and regrowth, rather than a continuous increase. The application of the LTA approach ensures that net GHG removals are represented as a time-averaged estimate over the permanence period, thereby avoiding overestimation associated with peak biomass conditions.

The Long-Term Average net removal in aboveground biomass is calculated using the below given equation:

$$\mathrm{LTA}_{AGB} = \frac{1}{T}\sum_{t=1}^{T} \Delta C_{AGB,t}$$

Where:

- LTA_{AGB}= Long-Term Average net removal in aboveground biomass (tCO_2e)
- T = Length of the permanence period (years)
- t = Year index (t = 1 corresponds to the project start year: [insert year])
- $\Delta C_{AGB,t}$ = Net annual change in aboveground biomass carbon stock (tCO_2e), accounting for both growth and harvesting cycle

The VVB notes that the PC has incorporated species-specific growth curves and rotation cycles into the estimation of $\Delta C_{AGB,t}$, including assumptions related to harvesting age, regrowth, and replanting. Immediate replanting following harvest has been assumed, which supports the maintenance of continuous carbon stocks over time.

It is concluded that all calculations have been done following the selected PV Methodology with a conservative approach. The use of an approved methodological equation is appropriate; and the VVB finds that key inputs, such as growth rates, species-specific parameters, rotation lengths, and survival rates are described in sufficient detail in the excel sheet.

Potential Leakage:

The leakage assessment follows the procedures outlined in Plan Vivo Module PU004 /66/ and references AR-TOOL15 /29/. The Project activity does not expect any displacement of agricultural production, grazing activities, or fuelwood collection from within the Project Area due to the implementation of the project. As described in the PDD and leakage assessment (Section 3.12), leakage emissions are therefore considered insignificant and conservatively accounted as zero for the lifetime of the project.

Accordingly, for the project intervention:

Lk,t = 0

The following observations support the assumption of negligible leakage:

No displacement of agricultural activities: The project is implemented primarily on degraded, fallow, and low-productivity uplands (as evidenced in the baseline spatial analysis and interviews with the beneficiaries), which were either not under active cultivation. During the site visit, the VVB conducted interviews with multiple beneficiaries across sampled villages. It was consistently observed that:

- Farmers undertake agricultural activities only on their privately owned land parcels
- No evidence of shift or displacement of cultivation to areas outside the project boundary was observed
- In several cases, farmers continue to cultivate other land parcels (outside project plots) independently
- Project interventions (agroforestry) are supplementary, not replacing productive agricultural land

Figure 26: Figure 8: agriculture activities/intercropping carried out in the project plots of the farmer in the project area

Stakeholders confirmed that the project does not restrict their agricultural activities but rather enhances land productivity. These findings are consistent across interviewed beneficiaries, indicating that no displacement of agricultural production has occurred or is expected.

No displacement of grazing activities: The VVB assessed grazing-related leakage risks in line with PU004 conditions and verified the following during validation:

- Livestock ownership in the project area is limited, typically consisting of a small number of cows, goats, or pigs
- Stall feeding is the predominant practice, significantly reducing dependence on open grazing
- Designated Gochar lands (community grazing lands) and revenue wastelands are available and continue to be used for grazing

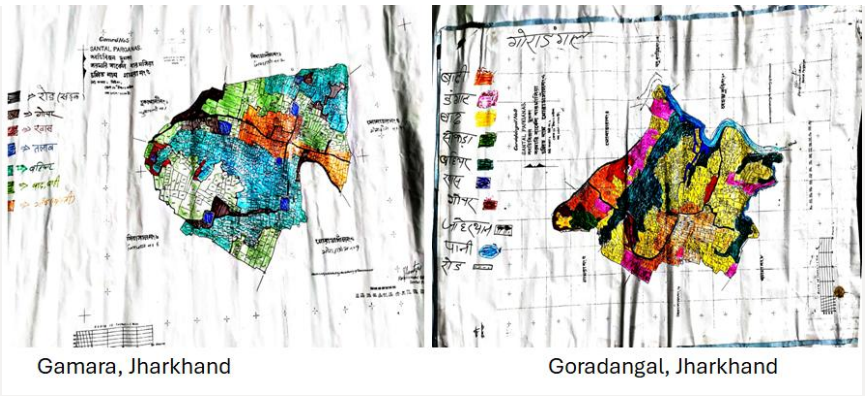


Figure 27: sample Gochar/grazing land allotted – resource management plan

Figure 28: glimpse of Gochar/ grazing land in different villages of the project area

These lands have adequate carrying capacity and are not impacted by project activities. Further, field observations and stakeholder discussions confirmed that:

- No livestock has been displaced to other grazing areas, forest lands, or croplands
- No pressure has been exerted on alternative grazing systems
- Traditional grazing practices (e.g., seasonal open grazing post-harvest) continue unaffected

The VVB also verified that project interventions are implemented on private lands and therefore do not reduce access to communal grazing areas. The availability of designated grazing areas and the continuation of existing land-use practices ensure that the project does not trigger indirect land-use change. VVB also concludes that the plantation activities are expected to increase biomass availability (fuelwood, NTFPs, etc.) over time, thereby reducing pressure on natural forests rather than displacing it.

Hence, based on review of the PDD and leakage assessment (PU004 /66/ and AR-TOOL15 /29/), verification of methodological conditions for zero leakage, site visit observations and sicussions the VVB concludes that there is no evidence of displacement of agricultural activities, grazing, or resource use due to project implementation. Leakage risks are negligible and appropriately assessed as zero

Accordingly, the assumption:

Lk,t = 0 is considered valid, conservative, and justified for the project.

Uncertainty:

In PDD Annex 7, PC has mentioned that the estimation of uncertainty will be carried out in accordance with Section 5 of the module, covering all applicable steps for uncertainty estimation and adjustment. The approach includes calculation of uncertainty for sampled values at a 90% confidence level using Equation 1, with appropriate statistical parameters such as standard deviation, sample size, and carbon density. Also, the PC has clarified that uncertainty will be estimated separately for each relevant value, including baseline, project, and leakage estimates, as well as for different monitoring time points. This is consistent with the requirements of PU005 /33/ for value level uncertainty estimation.

The PC has also described the application of the uncertainty adjustment using equation 4 of the module, which ensures that credited carbon benefits are conservatively adjusted based on the level of uncertainty. The definitions of parameters used in the adjustment are aligned with those specified in the methodology.

Based on the information provided, the VVB considers that the PP's approach to uncertainty estimation and adjustment is consistent with the requirements of PU005 , v1.1 /33/ and provides an appropriate framework for quantifying and conservatively accounting for uncertainty in the estimation of carbon benefits.

Expected Carbon Benefits:

The VVB assessed the estimation of expected carbon benefits in accordance with the applied PV methodology PM001, v1, as presented in the PDD /8/ and supporting calculations. The project applies Equation 7 (equation for removals) and 10 (equation for total carbon benefit) of the methodology to estimate total carbon benefits, incorporating carbon removals, emission reductions, and leakage adjustments.

The VVB verified that expected carbon benefits are calculated as the net difference between project and baseline scenarios, accounting for leakage, using a structured approach as specified in the applied methodology and too. Estimation of biomass growth (AGB and BGB), conversion to carbon stock using a factor of 0.47, and conversion to tCO_2e using 3.67. The calculations are based on species-specific growth data derived from secondary literature, along with plantation density, mortality 20% assumptions. The VVB cross checked these inputs against the ERR sheet and concluded consistency with the methodology.

The VVB also assessed that the calculation incorporates a 20% buffer deduction and applies a long-term average approach for species subject to harvesting, ensuring conservative estimation. Sampling and monitoring design (including stratified random sampling, DBH and height measurements) are defined to support ex-post verification of carbon benefits.

The project is expected to generate 11,47,115 tCO_2e over 30 years, with an average of 38,237 tCO_2e per year, which is considered reasonable given the scale and plantation models applied. The Annual Average tC/ha of the project is 2.60 after buffer deduction of 20% and 3.26 before 20% buffer deduction.

According to the ISFR 2023 by the FSI /43/ the average carbon stock in the AGB, BGB, SOC, Li, and DW carbon pools for forested areas in Jharkhand and West Bengal, is presented in the table below:

	tC category wise (FSI 2023

carbon pool	Jharkhand	WB	Plantation/ToF (open forest)
AGB	21.42	26.85	10.06
BGB	8.68	8.29	2.2
DW	0.68	1.27	1.97
Li	1.2	0.99	0.38
SOC	46.47	54.31	49.81
Total	**78.45**	**91.71**	**64.42**

The audit team, even when considering the most conservative estimate (Plantation – Open Forest category), observed that the sequestration potential is significantly higher than what has been estimated by the PP.

Based on the review of the PDD, ERR calculations, and methodological application, the VVB concludes that the estimation of expected carbon benefits is transparent, methodologically compliant, and conservatively applied, and is therefore accurate and adequately justified for the project.

During the assessment, some findings were identified that were solved and clarified during the validation process (see CAR 29, 30 and 31). Some errors were identified in the calculation process of AGB that were corrected in the last version of the PDD, Technical specifications and Excel calculation files.

Table 6 Validated Carbon Benefits Summary in the crediting period

Project Intervention	Baseline Emissions (t CO2e/ha)	Project Emissions (t CO2e/ha)	Leakage Emissions (t CO2e/ha)	Carbon Benefit (t CO2e/ha)
Afforestation /reforestation	0	0	0	0
	0	0	0	0
	0	3,655	0	3,655
	0	3,059	0	3,059
	0	5,343	0	5,343
	0	6,174	0	6,174
	0	3,085	0	3,085
	0	17,640	0	17,640
	0	49,191	0	49,191
	0	78,496	0	78,496
	0	100,125	0	100,125
	0	48,822	0	48,822
	0	50,182	0	50,182
	0	49,632	0	49,632
	0	43,840	0	43,840
	0	38,024	0	38,024
	0	48,213	0	48,213
	0	43,006	0	43,006
	0	55,406	0	55,406
	0	60,400	0	60,400
	0	69,043	0	69,043
	0	76,207	0	76,207

	0	73,969	0	73,969
	0	80,081	0	80,081
	0	84,811	0	84,811
	0	87,302	0	87,302
	0	82,718	0	82,718
	0	70,794	0	70,794
	0	51,746	0	51,746
	0	52,930	0	52,930
	0	**1,433,894**	0	**1,433,894**

Table 7 Validated Plan Vivo Certificate Potential

Project Intervention	**Carbon Benefit** (t CO_2e/ha)	**Project Area** (ha)	**Total Carbon Benefit** (t CO_2e)	**Risk Buffer** (t CO_2e/ha) (20%)	**Potential PVCs** (t CO_2e)
Afforestation/ Reforestation	0	152.5	0	0	0
	0	210.6	0	0	0
	3,655	307.1	3,655	731	2,924
	3,059	424.9	3,059	612	2,447
	5,343	428.7	5,343	1,069	4,274
	6,174	719.8	6,174	1,235	4,939
	3,085	1519.8	3,085	617	2,468
	17,640	2719.8	17,640	3,528	14,112
	49,191	4000	49,191	9,838	39,353
	78,496	4000	78,496	15,699	62,797
	100,125	4000	100,125	20,025	80,100
	48,822	4000	48,822	9,764	39,058
	50,182	4000	50,182	10,036	40,146
	49,632	4000	49,632	9,926	39,706
	43,840	4000	43,840	8,768	35,072
	38,024	4000	38,024	7,605	30,419
	48,213	4000	48,213	9,643	38,570
	43,006	4000	43,006	8,601	34,405
	55,406	4000	55,406	11,081	44,325
	60,400	4000	60,400	12,080	48,320
	69,043	4000	69,043	13,809	55,234
	76,207	4000	76,207	15,241	60,966
	73,969	4000	73,969	14,794	59,175

	80,081	4000	80,081	16,016	64,065
	84,811	4000	84,811	16,962	67,848
	87,302	4000	87,302	17,460	69,841
	82,718	4000	82,718	16,544	66,175
	70,794	4000	70,794	14,159	56,635
	51,746	4000	51,746	10,349	41,397
	52,930	4000	52,930	10,586	42,344
Total (tCO_2e)	**1,433,894**	**4000**	**1,433,894**	**286,779**	**1,147,115**
Annual average (tCO_2e)	**47,796**		**47,796**	**19,119**	**38,237**

7 Risk Management

7.1 Environmental and Social Safeguards

7.1.1 Exclusion List

The project identified and excluded ineligible activities as per the methodology applied, as indicated in the exclusion list (Annex 8 of the PDD /8/).

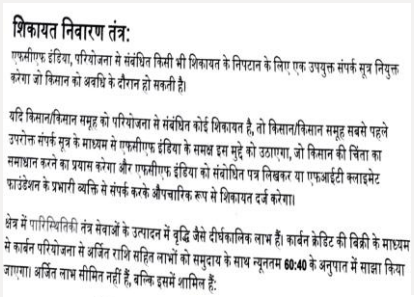
The project does not engage in commercial activities such as timber selling, buyer linkage, transport, or price negotiations, and that it does not derive any direct revenue from timber sales. At the same time, it acknowledges that harvesting and sale of Sonajhuri and Teak occurs at the farmer level as a pre-existing and traditional practice, and that the project's role is limited to plantation and replanting to maintain carbon benefits.

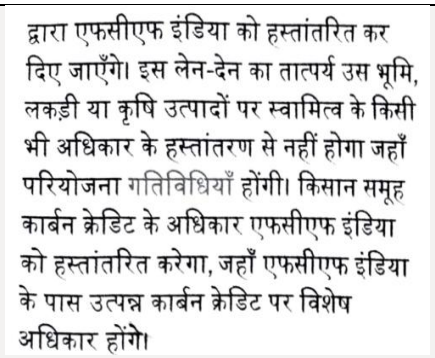
7.1.2 Environmental and Social Screening

The environmental and social risk assessment described in Annex 9 of the PDD /8/ is comprehensive, with risk categorization largely appropriate and supported by relevant documentation, stakeholder consultations, and field observations. The project demonstrates a strong emphasis on inclusivity, particularly for vulnerable and indigenous communities, and incorporates adequate mitigation measures. The VVB concludes that the risk assessment is satisfactorily justified, consistent with standard requirements, and supported by on-site validation, with minor recommendations for strengthening ongoing monitoring of gender participation and indigenous community engagement.

Table 8 Environmental and Social Risks

Risk Area	Significance (low, moderate, severe, high)	Validation Assessment
Vulnerable Groups	Moderate	The VVB reviewed Annex 10 (Environmental and Social Assessment) of the PDD /8/, the socio-economic survey

		results /48/, stakeholder consultation records /23/, and the signed PES agreements between the PC and participating beneficiaries /12/. Based on the reviewed evidence, the VVB concludes that the project area includes tribal and socio-economically vulnerable households with limited adaptive and financial capacity. The VVB also assessed the proposed mitigation measures, including participatory planning, engagement of SHGs and WLCs, livelihood enhancement activities, the grievance redress mechanism, and BSM as described in the PES agreements. The VVB assessed that the PES agreements apply uniformly to all participating beneficiaries and include provisions relating to grievance redress, benefit sharing, and voluntary participation, thereby reducing the likelihood of adverse impacts on their rights and interests. The VVB also verified through the signed PES agreements that the PC is entitled only to the agreed share of carbon revenue as specified in the BSM, while all other monetary and non-monetary benefits arising from the plantation activities remain with the participating beneficiaries.  शिकायत निवारण तंत्र: एफ्सीएफ इंडिया, परियोजना से संबंधित किसी भी शिकायत के निपटान के लिए एक उपयुक्त संपर्क सूत्र नियुक्त करेगा जो किसान को अवधि के दौरान हो सकती है। यदि किसान/किसान समूह को परियोजना से संबंधित कोई शिकायत है, तो किसान/किसान समूह सबसे पहले उपरोक्त संपर्क सूत्र के माध्यम से एफ्सीएफ इंडिया के समक्ष इस मुद्दे को उठाएगा, जो किसान की चिंता का समाधान करने का प्रयास करेगा और एफ्सीएफ इंडिया को संबोधित पत्र लिखकर या एफआईटी क्लाइमेट फाउंडेशन के प्रभारी व्यक्ति से संपर्क करके औपचारिक रूप से शिकायत दर्ज करेगा। क्षेत्र में पारिस्थितिकी तंत्र सेवाओं के उत्पादन में वृद्धि जैसे दीर्घकालिक लाभ हैं। कार्बन क्रेडिट की बिक्री के माध्यम से कार्बन परियोजना से अर्जित राशि सहित लाभों को समुदाय के साथ न्यूनतम 60:40 के अनुपात में साझा किया जाएगा। अर्जित लाभ सीमित नहीं हैं, बल्कि इसमें शामिल हैं: 2. स्वामित्व का हस्तांतरण उल्लिखित लाभों के बदले, इस समझौते के तहत खरीदे गए प्लान विवो प्रमाणपत्रों के सभी अधिकार और कानूनी स्वामित्व किसान

		 द्वारा एफसीएफ इंडिया को हस्तांतरित कर दिए जाएँगे। इस लेन-देन का तात्पर्य उस भूमि, लकड़ी या कृषि उत्पादों पर स्वामित्व के किसी भी अधिकार के हस्तांतरण से नहीं होगा जहाँ परियोजना गतिविधियाँ होंगी। किसान समूह कार्बन क्रेडिट के अधिकार एफसीएफ इंडिया को हस्तांतरित करेगा, जहाँ एफसीएफ इंडिया के पास उत्पन्न कार्बन क्रेडिट पर विशेष अधिकार होंगे। *Figure 29: snapshots of clauses mentioned in the PES for grievance redressal, BSM and rights of beneficiaries* This arrangement reduces the risk of inequitable benefit distribution and supports the conclusion that the identified risks are appropriately mitigated. During the site visit, interviews with participating beneficiaries confirmed awareness of the project, voluntary participation, and understanding of the project terms and benefit-sharing arrangements. The VVB also verified the proposed livelihood benefits associated with the plantation species (including Sonajhuri and Arjuna) /50//51//53/ and /57/ through document review, field observations, and beneficiary interviews. Based on the evidence reviewed, the VVB concludes that the moderate significance rating is appropriate and that the identified risks are adequately addressed through the project's design and mitigation measures. .
Gender Equality	Low	The VVB assessed documentation related to stakeholder engagement and gender inclusion (SHGs participation, women inclusion, training records, etc.). The project specifically targets women's empowerment and ensures equal access to benefits. Interviews confirmed women's involvement in planning and implementation. The low risk rating is appropriate and justified.
Human Rights	Low	The VVB reviewed FPIC documentation, stakeholder consultations, and institutional arrangements. The project does not restrict rights and instead

		strengthens participation and decision-making capacity. No adverse impacts were identified during site verification. The low significance rating is appropriate.
Community, Health, Safety & Security	Low	The VVB assessed implementation procedures and safety measures described in Annex 10. Activities are small-scale and community-managed on private lands. No hazardous operations are involved. Site observations confirmed safe practices. The low risk rating is justified.
Labour and Working Conditions	Low	The VVB reviewed labour arrangements and payment practices aligned with government norms. Work is conducted on farmers' own land with no evidence of forced or unsafe labour. Interviews confirmed acceptable working conditions. The low significance rating is appropriate.
Resource Efficiency, Pollution, Wastes, Chemicals and GHG emissions	Low	The VVB assessed plantation practices and input use within the project. The project activities are primarily labour-driven, with limited reliance on external inputs. The use of chemical fertilizers is minimal, and no significant sources of pollution or waste generation are expected. This was concluded through document review and site visit observations. Accordingly, the low-risk rating is considered appropriate. During the site visit, the VVB inspected the storage facility maintained by the PC for inputs, including organic fertilizers (vermicompost) and limited quantities of chemical fertilizers. This is provided free of cost to the beneficiaries.

		 It was observed that vermicompost is regularly provided to beneficiaries, while chemical fertilizers are supplied only in limited quantities on an as-needed basis to support plantation establishment and survival. Interactions with beneficiaries indicated that most farmers rely predominantly on locally prepared organic inputs, such as cow dung-based fertilizers, and do not routinely use chemical fertilizers. The VVB considers that the observed practices are consistent with low-intensity input use and support the conclusion that the project does not pose significant risks related to pollution or resource inefficiency.
Access Restrictions and Livelihoods	Low	The low significance rating is appropriate, as activities are confined to private lands. Land ownership documents and beneficiary agreements were cross-checked, and no displacement or restriction of access was identified during site visits.
Cultural Heritage	Low	The low risk classification is acceptable. No culturally sensitive sites were identified in project documentation or during field verification.
Indigenous Peoples	Moderate	The VVB reviewed Annex 10 (Environmental and Social Risk Assessment) of the PDD /8/, stakeholder

		consultation records /23/, and the signed PES agreements between the PC and participating beneficiaries /12/. Based on the reviewed evidence and site visit interviews with the beneficiaries, VVB concludes that the project includes Indigenous Peoples (Santhal communities) as participating beneficiaries and that their participation is voluntary. The VVB assessed that project information was disclosed through the FPIC process and that the project has been designed to benefit these communities without adversely affecting their rights and interests. During the site visit, interviews with participating tribal beneficiaries confirmed awareness of the project, voluntary participation, and understanding of the project terms, including the benefit-sharing arrangements. The VVB also verified that the PES agreements apply uniformly to all participating beneficiaries and include provisions relating to grievance redress, voluntary participation, and benefit sharing. Furthermore, the VVB validated that, under the signed PES agreements and the BSM, the PC is entitled only to the agreed share of carbon revenue as specified in the BSM, while all other monetary and non-monetary benefits arising from the plantation activities remain with the participating beneficiaries. Based on the evidence reviewed, the VVB concludes that the moderate significance rating is appropriate and that the identified risks to Indigenous Peoples are adequately addressed through the project's design and mitigation measures..
Biodiversity and Sustainable Use of Natural Resources	Low	The low risk rating is justified. The VVB reviewed species selection criteria and plantation design, which favour native and site-appropriate species. Field observations support the claim that interventions contribute positively to ecosystem restoration.

Land Tenure Conflicts	Low	The low significance rating is validated through verification of land ownership documents, carbon rights agreements, and beneficiary records. No disputes were reported during stakeholder consultations.
Risk of Not Accounting for Climate Change	Low	The low risk rating is acceptable, though the VVB notes that climate variability (e.g., erratic rainfall) could affect project performance. The project includes adaptive measures such as soil and water conservation, which were observed on-site.
Other – e.g. Cumulative Impacts	Low	The low risk rating is reasonable, with no evidence of overlapping interventions or unintended negative impacts identified during validation.

7.1.3 Environmental and Social Assessment

The Environmental and Social (E&S) safeguards assessment has been reviewed to determine whether safeguards have been appropriately identified, implemented, and validated in accordance with the applicable standard and PDD /8/ requirements.

The project has adequately identified key environmental and social safeguard areas, including vulnerable and indigenous groups, gender equality, land tenure, biodiversity, labour conditions, and community health and safety. The scope of risks identified is comprehensive and aligned with the requirements of the Plan Vivo Standard and relevant international frameworks such as the SDGs. Based on the documentation reviewed and site-level interactions, no significant safeguard-related issues or non-conformities were reported during the current reporting period. Minor risks identified (e.g., participation barriers, ecological risks such as drought) are already acknowledged within the risk assessment framework.

To validate whether mitigation measures are in place and implemented, the VVB reviewed the stakeholder engagement records /23/, grievance redress mechanism documentation /49/, and training materials /27/. Evidence from Participatory Rural Appraisal (PRA) outputs, FGDs and Key Informant Interviews (KIIs) /48/ and concluded that mitigation measures, such as community-led planning, inclusion of women through SHGs/WLCs, capacity-building programs, and soil-water conservation practices, are actively integrated into project implementation. During site visits, interactions with community members and field coordinators confirmed that these measures are not only planned but are being operationalized (e.g., regular meetings, awareness sessions, and participatory monitoring).

The VVB also assessed documentation and data provided by the project coordinator, including socio-economic survey data (covering ~30% of households), consultation records, land ownership documents, and institutional arrangements. Cross-verification through field observations and interviews with beneficiaries, CRPs, and local leaders indicates consistency between reported information and ground realities. The structured risk assessment methodology (likelihood × magnitude scoring) is found to be appropriate and systematically applied.

Regarding compensation measures, the VVB notes that no adverse impacts requiring compensation (e.g., displacement, loss of livelihood, or restricted access) were identified. Therefore, compensation mechanisms were not triggered. This is consistent with the project design, which is implemented on private lands with voluntary participation. As such, the absence of compensation measures is justified.

The Environmental and Social Management Plan (ESMP) is found to be well-structured and appropriate for the project context. It is based on baseline assessments and incorporates mitigation strategies tailored to local socio-economic and ecological conditions. The inclusion of grievance redress mechanisms, gender-inclusive participation, and continuous stakeholder engagement strengthens the credibility of the ESMP. The qualifications and experience of the implementation team (including E&S experts, GIS specialists, and field coordinators) further support effective execution and monitoring of safeguard measures.

The environmental and social safeguards have been correctly identified, adequately assessed, and effectively integrated into project design and implementation. Mitigation measures are in place, evidence-backed, and validated through both documentation review and field verification. No significant safeguard issues were identified during the reporting period, and no compensation measures were required. The Environmental and Social Management Plan is appropriately justified, context-specific, and compliant with applicable standards. The VVB concludes that the E&S assessment is robust, credible, and satisfactorily implemented, with no material concerns affecting project integrity.

During the validation, NIR 11, CAR 32 and CAR 33 were identified, which was closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

7.1.4 Native Species

The assessment of non-native species within the project has been reviewed with a focus on species justification, environmental risk evaluation, and validation through documentation and field verification.

Under the project intervention “Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand”, the only identified non-native species is Acacia auriculiformis. This species, though originally native to Australia and parts of Southeast Asia, has been widely introduced and naturalized across India, particularly in degraded and lateritic landscapes such as those found in Birbhum and Dumka.

The validation assessment is based on a review of multiple sources of evidence. These include Forest Department guidelines (e.g., West Bengal afforestation program documents), species selection criteria within the PDD, and supporting literature demonstrating its ecological suitability. The VVB also reviewed plantation design documents and species mix justification provided by the PC. During site visits, interactions with farmers and field coordinators confirmed that Acacia auriculiformis is already commonly present in the region and is not being introduced as a novel or invasive species, but rather as part of an established agroforestry practice.

From an environmental risk perspective, the species has been assessed as low risk due to the following validated factors:

- It is already widely naturalized and managed in the project geography, with no evidence of invasive spread impacting native biodiversity.

- It is actively promoted by state forest departments, indicating regulatory acceptance and prior ecological evaluation.
- The species is site-appropriate, particularly for degraded uplands, contributing to soil stabilization and restoration.
- The project adopts controlled plantation and harvesting cycles, including replanting after harvest, which prevents uncontrolled spread.
- Field observations and stakeholder consultations did not indicate any negative ecological impacts (e.g., suppression of native species or excessive water use).

In addition, the VVB notes that the project includes a mixed-species plantation approach (including native species such as mango, Arjuna, etc.), which further reduces ecological risks associated with monoculture or dominance of a single non-native species. No other non-native plant or animal species have been identified as part of the project intervention.

During the validation, CAR 34 was identified, which was closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

Table 9: Validated Non-Native Species Overview

Project Intervention	Non-Native Species Planted/ Introduced	Validation Assessment
Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand	*Acacia auriculiformis*	The inclusion of Acacia auriculiformis as a non-native species is adequately justified, well-documented, and consistent with regional forestry practices. Validation through documentation review and site-level observations confirms that the species does not pose a significant environmental risk or threat to the project intervention. Appropriate management measures are in place, and its use contributes positively to both ecological restoration and livelihood outcomes. The VVB concludes that the use of non-native species in the project is correctly justified and compliant with applicable safeguards and methodology requirements.

7.2 Achievement of Carbon Benefits

The project will generate fPVCs, and a 10% proportion of the carbon benefits will be held as insurance against the non-achievement of carbon benefits (apart from the 20% buffer). VVB confirmed that this is in accordance with the PV requirements.

The VVB assessed the justification of this approach through review of carbon benefit calculations and financial model estimation. The combination of buffer allocation and adaptive management measures is considered adequate to mitigate risks associated with non-achievement of projected carbon benefits.

During the validation, CAR 35 was identified, which was closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

7.3 Reversal of Carbon Benefits

The VVB confirms that the risk factors have been appropriately identified, scored, and supported by credible mitigation measures. Validation through documentation review and site-level verification indicates that mitigation measures are actively implemented and effective in reducing risk likelihood and/or impact.

The impact, likelihood, mitigation measures, and final scores have been evaluated. The Risk and Reversal outlined in the PDD were further confirmed through document review and on-site observations. The project intervention comprehensively addresses all social, environmental, economic, and administrative risks.

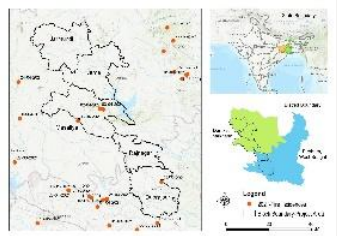
The overall risk rating (low to moderate) is reasonable, conservative, and compliant with the applied methodology, with moderate risks primarily linked to external uncertainties (finance, climate, and market conditions).

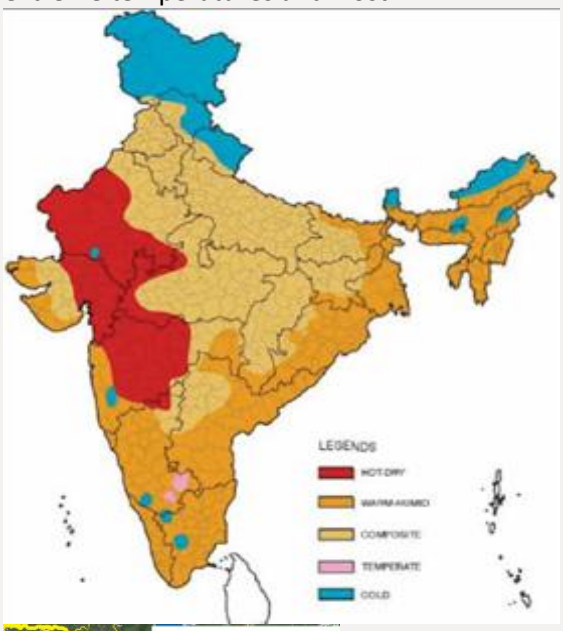
During the validation, CAR 37 and 38 were identified, which were closed in the updated version of the PDD. The validation team concluded that the project complies with PV Climate requirements.

Table 10 Risk of Reversals

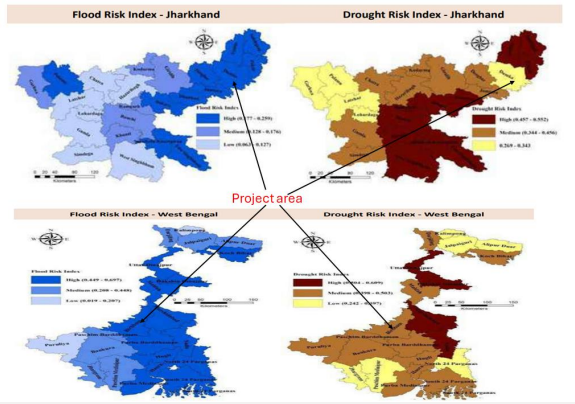
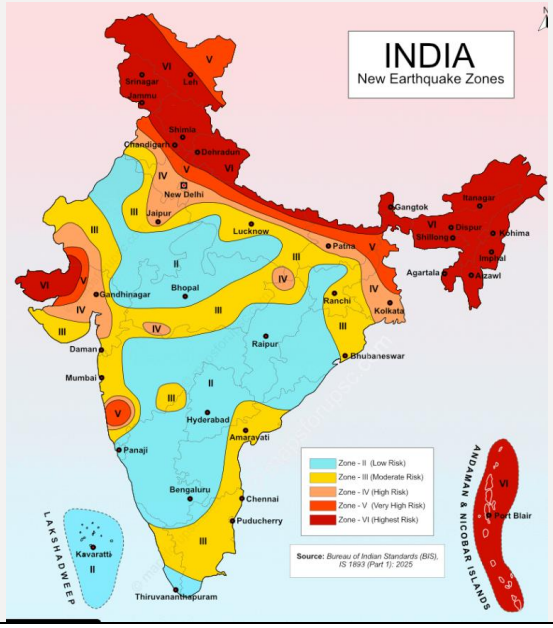
Risk Factor	Mitigation Measures*	Score	Validation assessment
Land tenure and/or rights to climate benefits are disputed	Verification of land ownership through legal records; signed carbon rights agreements; due diligence prior to inclusion	Moderate	The VVB reviewed the land ownership records /16/, signed PES agreements /12/, stakeholder consultation records /23/, PRA records /48/, and the grievance redress mechanism described in the PDD /8/ and /49/. During the validation site visit, the VVB interviewed sampled participating beneficiaries and community representatives to verify land ownership, voluntary participation, understanding of carbon rights and benefit-sharing arrangements, and to assess whether any land tenure or carbon rights disputes existed within the project area. No disputes were reported during the validation. Based on the reviewed documentary evidence and site visit findings, the VVB concludes that the assigned Moderate risk rating is appropriate. Although no disputes were identified at the time of validation, the

			residual risk cannot be considered low due to the long project lifetime. However, the implemented mitigation measures are considered adequate to manage the identified risk.
Political or social instability	Decentralized implementation; strong community institutions (SHGs, WLCs); continuous engagement	Low	The VVB assessed stakeholder engagement records and observed strong local institutional presence. No evidence of political or social disruption affecting project areas was found during site visits. The decentralized model reduces dependency on external governance, justifying the low score.
Community support for the project is not maintained	Participatory planning (PRA), continuous engagement, capacity building, CRP support	Low	PRA reports, FGD records, and field interactions confirm strong community ownership. Beneficiaries expressed willingness to continue participation. Regular meetings and CRP involvement were observed, validating that mitigation measures are active and effective.
Insufficient finance secured to support project activities	Phased implementation; diversified funding; reliance on carbon revenue streams; financial planning	Moderate	The VVB reviewed the project financial plan /58/, PC's financial audit report /62/, financing contract with the buyer/ investor (e.g., Arcadis) /64/ and the risk assessment presented in the PDD, which describes the PC's financial capacity, phased implementation approach, expected carbon revenue streams, financial planning measures, and provisions for addressing potential financial gaps. The VVB also reviewed the institutional arrangements for project implementation /26/. During the validation site visit, the VVB interviewed the PC to verify the availability of financial and institutional resources for project implementation. Based on the reviewed documentary evidence and site visit findings, the VVB concludes that the assigned Moderate risk rating is appropriate. Although adequate financial arrangements are currently in place, the project's long-term sustainability remains partially dependent on future carbon revenue and external financing, resulting in a Moderate risk.
Alternative land uses become more attractive to the local community	Focus on degraded lands; livelihood co-benefits; carbon incentives; continuous engagement	Moderate	The VVB reviewed the baseline assessment /48/ and /28/, land eligibility assessment /10/ and /15/, PRA results /48/, stakeholder consultation records /23/, and the project design described in the PDD /8/, including the proposed livelihood enhancement measures, carbon incentive mechanism, and continuous community engagement strategy. During the validation site visit, the VVB interviewed sampled participating beneficiaries and

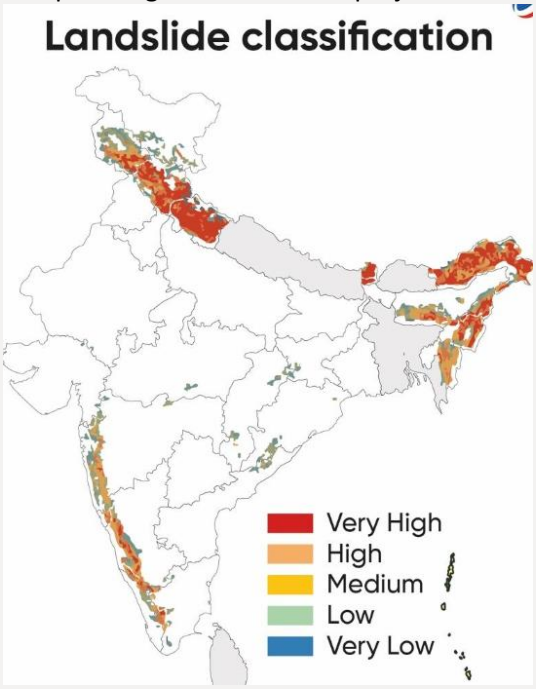
			community representatives, who confirmed that the project is being implemented on low-productivity/degraded lands and that limited economically viable alternative land use options currently exist. The VVB also observed that participating beneficiaries hold small landholdings, which further limits the feasibility and attractiveness of converting the land to alternative development projects. Based on the reviewed documentary evidence and site visit findings, the VVB concludes that the assigned Moderate risk rating is appropriate. Although current land use conditions reduce the likelihood of conversion to alternative uses, future changes in market conditions and livelihood opportunities may influence land-use decisions over the project lifetime, resulting in a Moderate risk.
External parties carry out activities that reverse climate benefits	Site monitoring; community vigilance; clear land demarcation; no overlap with other projects	Low	The VVB reviewed LULC data, project boundary maps, and declarations on non-overlapping projects. No external interference observed during site visits. Community awareness further reduces risk. Score is justified.
Fire	Plantation on low-risk lands; fire incidence mapping; community monitoring and maintenance	Low	Fire risk maps and historical data were reviewed. Site conditions (low biomass, managed plots) and community awareness reduce likelihood. No evidence of past fire incidents affecting project sites. Mitigation measures are adequate.  *Figure 30. Map showing the fire instances in the year 2021*
Pest and disease attacks	Use of organic inputs (vermicompost); anti-termite/fungal treatment; regular monitoring	Moderate	Field visits confirmed application of preventive treatments and monitoring practices. Inputs assessment is provided in section 7.1 of this report. During the validation site visit, the VVB observed the implementation of plantation management practices and interviewed sampled participating beneficiaries, who confirmed the application of preventive treatments and regular monitoring to facilitate early detection and management of pest and

			disease outbreaks. Based on the reviewed documentary evidence /60/ and /27/ and site visit findings the VVB concludes that the assigned Moderate risk rating is appropriate. However, biological risks cannot be fully eliminated. Moderate score is appropriate given residual uncertainty despite mitigation.
Extreme weather or geological events	Climate-resilient species; trenching, mulching; plantation aligned with monsoon; adaptive practices	Moderate	The VVB reviewed climate risk mitigation strategies and observed soil-moisture conservation structures on-site. Given regional climate variability (droughts, rainfall variability), mitigation reduces impact but not likelihood entirely. Moderate rating is justified. The project areas do not fall into any of the extreme temperatures, heat or frost regions. The project areas falls under the warm-humid and composite temperature zones with no extreme temperatures and frost[57]   *Figure 31. The flooding map of the region*

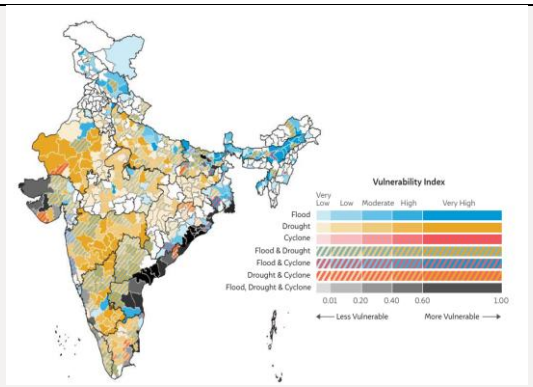
[57] https://www.firstgreen.co/climate-zone-map-of-india/

			 The VVB reviewed the assessment of geological risks provided in the PDD and supporting documentation. The project area is located within the stable peninsular region of India, characterized by low tectonic activity and minimal exposure to geological hazards.[58] Birbhum falls under Seismic Zone III (moderate risk), while the broader region historically experiences only low to moderate seismic activity, with no record of significant damaging events. Similarly, Dumka and the adjoining plateau regions exhibit low seismicity, with only occasional low-magnitude events reported. As per the PP, the scale of impact from seismic activity is not expected to significantly affect the project area, given the low frequency of such events. Furthermore, the project is geographically distributed across two regions, which further reduces the scale of potential risk. 

[58] https://www.pib.gov.in/PressReleasePage.aspx?PRID=1496241&reg=3&lang=2

			Source[59] The largest earthquake reported in west Bengal was in 1964, that too happened in an Island area.[60] While no major earthquake has been reported in Jharkhand in last 25 years.[61] The VVB further notes that landslide risks are negligible as the project areas are mostly on plains, as such hazards in India are largely confined to the Himalayan and Western Ghats regions and are not characteristic of plateau and plain regions such as the project area.  Source[62] The likelihood of volcanic activity is non-existent. Currently only one active volcano in the Barren Island of Andaman and Nicobar which is far away from the project area and will not be having any impact on it.[63] **Tropical Cyclone/coastal flood/coastal erosion:** the project area and PAI-1 project parcels are not located near coatal belt hence the risk does not apply,

[59] https://mapsforupsc.com/seismic-zones-of-india/
[60] http://wbdmd.gov.in/pages/earthquake.aspx
[61] https://earthquakelist.org/india/jharkhand/
[62] https://visionias.in/current-affairs/monthly-magazine/2024-02-15/environment/indian-landslide-susceptibility-map
[63] https://globalindianschool.org/bangalore/guide/list-of-active-and-dormant-volcanoes-in-india-a-complete-guide/

			 sources[64] Based on the above, and cross-checked with regional hazard profiles and project location characteristics, the VVB considers the likelihood of extreme geological events to be very unlikely. The assigned risk rating is therefore appropriate and justified, and no additional mitigation measures are required beyond standard project monitoring and adaptive management.
Capacity of the project coordinator to support the project is not maintained	Experienced institutions; defined roles; backup staffing; institutional systems	Low	The VVB assessed team structure, qualifications, and past experience. No gaps identified. CVs of management team (both FCF and FIT) were reviewed. Institutional arrangements and field presence confirm strong capacity. Low risk rating is appropriate.
Technical capacity to implement project activities is not maintained	Continuous training; CRP model; field-level technical support; monitoring systems	Low	Training records, capacity-building plans, and field observations confirm ongoing technical support. CRPs and field coordinators actively assist farmers. Implementation quality observed to be satisfactory, validating low risk.

7.4 Double Counting and participation under other programs

The PC has clearly stated that there are no existing carbon projects within the project boundary and has provided a formal commitment/declaration that emission reductions and removals generated will not be used under any other compliance or voluntary carbon mechanism. This aligns in principle with the requirements of the Plan Vivo requirements and indicates an awareness of double counting risks.

The VVB assessed the geospatial analysis of the KML boundary overlays or registry cross-checks, to demonstrate that the project area does not overlap with other carbon initiatives at a landscape or jurisdictional level. Furthermore, while the project mentions that

[64] https://www.ceew.in/sites/default/files/ceew-study-on-climate-change-vulnerability-index-and-district-level-risk-assessment.pdf

safeguards will be applied in case of future overlaps, this is a forward-looking measure and does not replace the need for current validation evidence.

Procedure to Avoid Double Accounting:

For the assessment of similar technology or activity types (risk of double counting of impacts), the VVB has undertaken the following steps, including stakeholder consultations during the site visit, to confirm that no activities utilizing similar technologies are being implemented in the nearby areas.

- Defining the project area and project boundary
  - The project area (ha) and project boundary (geocoordinates/KML) are clearly defined, and the VVB has undertaken the following assessments:
  - Verification of Project Area Consistency
  - Ensured that the geographical extent of the project area is explicitly defined in the PDD.
  - Cross-checked that the project area remains consistent across all project documents (PDD, ERR sheet and GIS maps).

Validation of Project Boundary Accuracy

- Assessed the geo-referenced project boundary coordinates are accurately documented.
- Compared the defined boundaries with publicly available land-use datasets and official records.
- Verified that the project is not registered under any other voluntary or compliance standard (that are publicly available).[65]

Land Tenure & Exclusive Participation Confirmation

- Ensured that the land ownership/tenure status is documented to prevent claims by other programs.

1. [65] The standards that were checked by the VVB are as follows:

   CDM: https://cdm.unfccc.int/Projects/projsearch.html
   VERRA (including CCBS): https://registry.verra.org/app/search/VCS/All%20Projects
   GS: https://registry.goldstandard.org/projects?q=&page=1
   Plan Vivo: Carbon Registry
   Plan Vivo https://mer.markit.com/br-reg/public/index.jsp?entity=retirement&sort=account_name&dir=ASC&start=0&acronym=PV&limit=15&additionalCertificationId=&categoryId=100000000000001&name=&standardId=100000000000004&unitClass=
   Cercarbono: https://www.ecoregistry.io/projects-list/cercarbono-co2
   GCC: https://projects.globalcarboncouncil.com/pages/approved_projects
   https://projects.globalcarboncouncil.com/pages/approved_projects
   https://projects.globalcarboncouncil.com/pages/submitted_projects
   Puro Earth: https://registry.puro.earth/retirements
   Carbon Registry-India: https://cri.nccf.in/
   Social Carbon: https://wilder.earth/social_carbon

- Verified farmer end-user agreements and community consent agreements to confirm exclusive participation in this project.
- Checked for any contractual conflicts that indicate that the same land is allocated to another carbon program.
- Conducted interviews with a sample of farmers to confirm their awareness of the prohibition on double-counting of credits and whether this was clearly explained to them by the CME/VPA Implementer.

The project demonstrates intent to prevent double counting of carbon benefits. A declaration is shared by the PC stating there are no carbon projects nearby the project site to avoid double counting.

FCF INDIA
Fair Climate Fund India Private Limited

DECLARATION OF NO REGISTRATION IN OTHER GHG PROGRAMS

Project Proponent: Fair Climate Fund India Private Limited
Project Name: Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand
Methodology: PM001, Agriculture and Forestry Carbon Benefit Assessment Methodology, v 1.0

We, Fair Climate Fund India Private Limited, the "Project Proponent," registered the " RESTORATION OF BARREN UPLANDS OF VULNERABLE COMMUNITIES IN WEST BENGAL AND JHARKHAND" under Plan Vivo Standard, applying methodology for, Agriculture and Forestry Carbon Benefit Assessment Methodology v 1.0.

1. **No Registration in Other GHG Programs:** We hereby undertake and confirm that:
   i. The above-mentioned project will not be registered or seek credits from any other Greenhouse Gas (GHG) Programs.
   ii. Emissions reductions and carbon dioxide removals (ERs) generated by this project will not be traded or double-counted with any other registries or GHG Programs.
   iii. Emission reduction certificates or benefits from other programs will not be claimed or taken during the lifetime of this project.

2. **Adherence to Plan Vivo Standard:** We understand that adherence to the Plan Vivo Standard is crucial for the integrity and success of our project. We commit to following all requirements and guidelines outlined in the Plan Vivo Standard to ensure accurate accounting and reporting.

3. **Monitoring and Verification:** We will implement robust monitoring and verification procedures as required by the Plan Vivo Standard to ensure the accurate measurement and reporting of project-related emissions reductions and carbon dioxide removals.

4. **Reporting and Transparency:** We would provide transparent and comprehensive reporting of project-related data to the Plan Vivo Standard, including all relevant documentation, records, and reports, as specified in the standard.

By signing this undertaking, we affirm our commitment to ensuring that the " RESTORATION OF BARREN UPLANDS OF VULNERABLE COMMUNITIES IN WEST BENGAL AND JHARKHAND " will not participate in any other GHG Programs, trading, or double-counting and that it will adhere to the Plan Vivo Standard requirements.

Authorized Signatory:

FAIR CLIMATE FUND INDIA New Delhi

Name: Mr. Jasmeet Singh
Title: Founder and Director
Organization: Fair Climate Fund India Private Limited
Date: 02-12-2025

During the validation, CAR 39 was identified regarding the country's NDC, which was closed in the CAR resolution. The validation team concluded that the project complies with PV Climate requirements.

MONITORING AND REPORTING

8 Indicators

8.1 Carbon Indicators

The carbon indicators identified for the project intervention are generally appropriate and aligned with the requirements of the approved methodology, particularly in terms of biomass-based carbon accounting. The measurement approaches (DBH, height, sample plots, and area delineation) follow established forestry practices, and the calculation framework is consistent with IPCC and Plan Vivo guidance.

The carbon indicators identified in the table have been assessed, and their alignment with the chosen methodology has been confirmed. Although the project monitoring is still ongoing, it has been verified that the planned measures and calculations adhere to the methodology equations and requirements. During the validation process no CARs were identified. The validation team concluded that the project meets the requirements for PV Climate carbon indicators.

Project Intervention	Carbon Indicator	Validation assessment
Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand	Project Area (ha)	The project area is identified as a core activity data parameter and is to be delineated using GPS and/or geo-referenced remote sensing data. The VVB cross-checked this approach against Annex 7 (sampling and monitoring plan) and finds it consistent with approved methodology requirements. During validation, boundary delineation verified through KML files, GIS layers, and field verification using GPS points. Interviews with field staff and farmers are expected to confirm plot ownership and inclusion..
	Number of Sample Plots (N)	The use of stratified random sampling is aligned with methodological requirements (e.g., AR-TOOL14). The VVB notes that stratification criteria (landholding size, species, geography) are

		appropriate. Cross-checks include review of Annex 7 and sampling design documentation. Field validation includes verification of randomly selected plots and discussions with enumerators to confirm adherence to sampling protocols.
	Tree Height (H)	Measurement of tree height using clinometers, altimeters, or rangefinders is consistent with good forestry practice and methodological guidance. The VVB considers this acceptable. Cross-checks include equipment verification, calibration procedures, and field demonstrations during site visits. Interviews with field teams would confirm consistency in measurement techniques.
	Diameter at Breast Height (DBH)	DBH measurement using diameter tape is a standard and reliable approach for biomass estimation. The VVB confirms alignment with approved methodologies. Cross-checks include field verification of measurement practices, review of data recording formats, and consistency checks across sample plots. The linkage between DBH and biomass estimation via allometric equations is appropriate.
	Tree Biomass and Carbon Stock (Above-ground and Below-ground)	The calculation approach (volume → biomass → carbon → CO_2e) follows standard IPCC and Plan Vivo methodologies. The use of wood density, biomass expansion factors, root-shoot ratios, carbon fraction (0.47), and conversion factor (3.67) is appropriate. Cross-checks include review of the carbon calculation

		spreadsheet and supporting literature for parameter selection.
	Mortality Rate of 20%	The inclusion of mortality considered is conservative and appropriate. The VVB cross-checked these assumptions against field evidence, historical plantation data, and community feedback during site visits. Replanting measures are noted as mitigation but require monitoring evidence during implementation.

8.2 Livelihood Indicators

The livelihood indicators identified for the project are relevant, aligned with national priorities, and broadly consistent with the objectives of the Plan Vivo Standard, particularly in linking carbon activities with socio-economic co-benefits. The indicators appropriately capture key dimensions of livelihood improvement, including income enhancement and access to productive resources, and are supported by institutional alignment with national and state-level livelihood programmes.

In conclusion, the VVB considers that the livelihood indicators are appropriate and justified and meet validation and verification requirements.

During the validation, NIR 16 and CAR 45 were identified and closed in the CAR resolution. The validation team concluded that the project complies with PV Climate requirements.

Livelihood Indicator	Validation Assessment
% increase in disposable income of households as a result of project interventions	This is a relevant and outcome-oriented indicator directly linked to livelihood enhancement. The indicator aligns well with SDG 1 (No Poverty) and SDG 5 (Gender Equality) and reflects national priorities under institutions such as NITI Aayog[66]. The proposed method of collecting baseline income data and monitoring changes over time (every 5 years) is appropriate in principle. During validation, cross-checks include review of baseline socio-economic survey formats, sampling framework (10% households), and data collection protocols. Site visit verification involves interviews with sampled households, SHGs, and field staff to confirm income sources and perceived changes. VVB notes that the frequency of monitoring (every 5 years) sufficient to capture dynamic livelihood changes.
Increased access to high value horticulture and agriculture produce	This indicator is appropriate as a proxy for livelihood diversification and improved economic resilience. It aligns with SDG-linked national and state-level livelihood missions such as West Bengal State Rural

[66] https://niti.gov.in/divisions/division/climate-change-and-environment

	Livelihoods Mission[67] and Jharkhand State Livelihood Promotion Society[68]. The means of verification through production records (quantity and type of produce) is acceptable. Validation includes review of farm-level records, aggregation systems, and verification protocols maintained by the project coordinator. During site visits, interviews with farmers and community groups were conducted to validate changes in cropping patterns, access to markets, and actual utilization of produce.

8.3 Ecosystem Indicators

The ecosystem indicators identified for the project intervention are relevant and broadly aligned with the ecological objectives of restoration and biodiversity enhancement. The project demonstrates a strong participatory monitoring approach, integrating community-based data collection, indigenous knowledge, and adaptive management practices. The methodologies proposed for biodiversity monitoring (e.g., quadrat sampling, visual surveys, and seasonal assessments) are consistent with accepted ecological practices.

In conclusion, the VVB considers that the ecosystem indicators are appropriate and justified. Strengthening the indicators through quantification, inclusion of survival and growth parameters, and improved data validation procedures will be necessary to fully meet validation requirements and ensure robust monitoring of ecological outcomes.

During the validation, CAR 46, 47 and 48 were identified and closed in the CAR resolution. The validation team concluded that the project complies with PV Climate requirements.

Ecosystem Indicator	Validation assessment
Tree Cover (Number of trees planted)	The indicator “number of trees planted” is a relevant proxy for tracking tree cover establishment and project implementation progress. The annual target of 3,825,200 trees provides a clear quantitative benchmark. Cross-checks were conducted against the PDD (Section 4.4) and monitoring framework, confirming that this indicator aligns with the afforestation objectives and carbon estimation approach. During validation, this its is verified through plantation records, geo-referenced plot data, nursery records, and survival counts. Field visits include physical verification of sample plots and interviews with farmers and community institutions (e.g., SHGs, WLCs) to confirm planting activities. The inclusion of survival monitoring (linked to the stated 15% mortality assumption) should be formalized as part of this indicator.

[67] https://anandadhara.wb.gov.in/index.php/home/benefits
[68] https://jslps.in/AajeevikaJSLPS.aspx

Tree Species Richness	This indicator is identified but treated as qualitative and monitored under biodiversity assessment. The VVB considers species richness an important ecological indicator, particularly for assessing ecosystem resilience and biodiversity enhancement. The proposed methods (visual surveys, quadrat sampling, biodiversity registers, and seasonal monitoring) are appropriate and consistent with ecological field practices. Cross-checks include review of biodiversity monitoring protocols and training plans. During site visits, validation involve reviewing biodiversity registers, verifying sampling approaches, and interviewing community members involved in monitoring.
Faunal Species Richness	The inclusion of fauna monitoring through point counts, acoustic monitoring, and direct observation is appropriate and demonstrates a comprehensive approach. The integration of indigenous knowledge and community participation strengthens the credibility of observations. Cross-checks include review of monitoring protocols and training documentation. Field validation would involve verification of observation records, photographic evidence, and community interviews.
Biodiversity Monitoring (Community Biodiversity Register)	The use of a community-maintained biodiversity register is a positive and participatory approach. The VVB notes that training on species identification, data recording, and use of mobile tools supports methodological consistency. Cross-checks include review of training materials, sample biodiversity registers, and data collection templates. During validation, the VVB assessed the completeness, consistency, and frequency of entries, as well as triangulate information through community interviews.
Ecosystem Monitoring Process and Adaptive Management	The project includes structured monitoring, stakeholder feedback loops, and adaptive management through FGDs and consultations. The linkage between monitoring results and corrective actions, including implications for certificate issuance, is consistent with Plan Vivo requirements. Cross-checks include review of monitoring reports, consultation records, and corrective action plans. Field validation would include stakeholder interviews to confirm participation and feedback incorporation. The framework is robust, and VVB notes that

	ecosystem indicators directly influence management decisions and improve transparency.

9 Monitoring

9.1 Monitoring Plan, Process and Sharing results

The monitoring plan presented in the PDD is comprehensive and aligned with the requirements of the approved methodology. The validation of monitoring approaches confirms that the project has adopted a stratified random sampling design consistent with CDM A/R methodological guidance and Plan Vivo requirements. The definition of strata based on plantation year, allocation of sample plots using statistically robust equations, and establishment of permanent sample plots (20 m × 20 m) are appropriate and methodologically sound. The use of field measurements such as DBH and height, combined with GIS-based boundary delineation using KML/shapefiles /10/ and /11/, demonstrates a structured and verifiable approach. The VVB cross-checked Annex 7 and Annex 13 of the PDD /8/, sampling design equations, and QA/QC procedures, and notes that independent verification of field data and cloud-based data storage systems are proposed, which supports transparency. Site visit observations and interactions with field teams and community members indicate that training on data collection tools (e.g., GPS, Kobo, Google Sheets) has been initiated.

With respect to monitoring frequency and responsibilities, the plan clearly assigns roles to FIT Climate Foundation and FCF India, supported by trained field coordinators and community institutions. Annual monitoring of carbon indicators (tree growth, survival, biomass) and 3–5 year verification intervals are consistent with plantation growth cycles and methodology requirements. The VVB confirms that carbon indicators identified in the PDD are intended to be monitored throughout the crediting period.

For livelihood indicators, the project defines monitoring of household income and access to high-value produce, with baseline surveys and 5-year interval assessments. While this aligns with Plan Vivo guidance, the VVB notes that explicit quantitative targets for each monitoring period (e.g., Year 5 and Year 10) are not clearly specified in the provided section. The absence of time-bound, measurable targets limits the ability to assess performance against planned outcomes and should be addressed.

Similarly, for ecosystem indicators, the project includes tree cover (number of trees planted) and qualitative biodiversity indicators such as species richness. Annual targets for plantation are defined. The monitoring methods (visual surveys, quadrat sampling, biodiversity registers) are appropriate and participatory, and site-level discussions indicate community involvement.

The plan for stakeholder engagement and feedback is well-articulated. Monitoring results are to be shared annually through village-level meetings, SHGs, and community institutions,

with feedback collected via FGDs and consultations. The inclusion of adaptive management, where monitoring outcomes inform modifications to project activities is a strong feature and aligns with best practices. Evidence from consultations suggests that participatory mechanisms are in place, although documentation of feedback loops and corrective actions should be systematically maintained.

In terms of data recording and storage, the project proposes a dual system of electronic and paper-based records, including GIS shapefiles, monitoring datasets, and participant records stored on local systems and cloud platforms. This approach is appropriate; however, the VVB recommends defining a centralized data management protocol, including version control, data security measures, and audit trails for Plan Vivo Certificate issuance and monitoring records.

Overall, the VVB concludes that the monitoring plan is broadly compliant with the requirements of the approved methodology and demonstrates a credible framework for carbon, livelihood, and ecosystem monitoring. The technical design of sampling, measurement, and data management is sound.

During the validation, CAR 49, 50, 51, 52, 53, 54, 55, 56 and 57 were identified and closed in the CAR resolution. The validation team concluded that the project complies with PV Climate requirements.

GOVERNANCE AND ADMINISTRATION

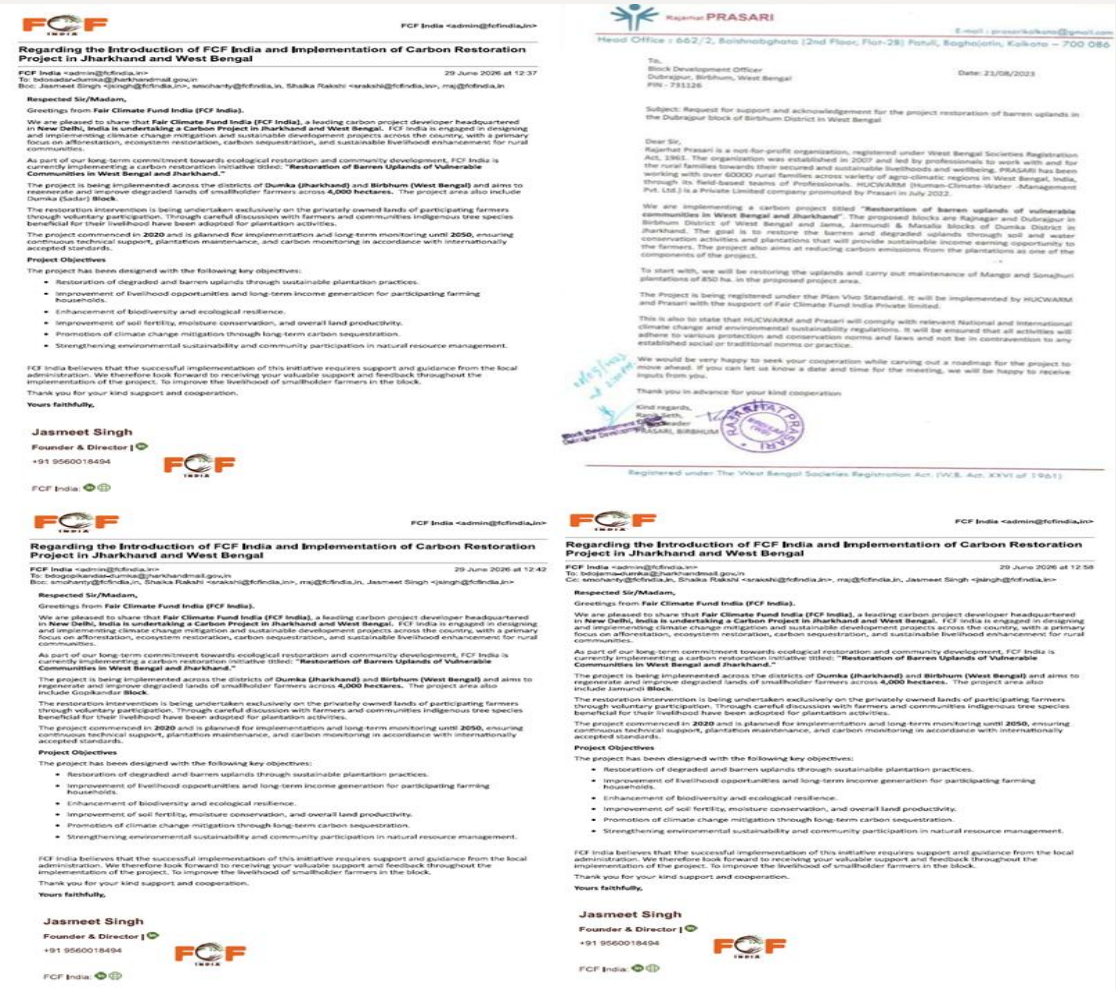
9.2 Governance Structure and Legal Compliance

The governance structure and decision-making processes of the project are well-defined and demonstrate a strong emphasis on participatory and community-driven approaches. The project is implemented through a dual institutional arrangement, with Fair Climate Fund India (FCF India) acting as the Project Applicant and overall coordinator, and FIT Climate Foundation serving as the implementing partner responsible for field-level execution, community mobilization, and monitoring. The VVB notes that roles and responsibilities between these entities are clearly described and supported through formal agreements, which were reviewed as part of the validation process.

The governance framework places significant importance on community participation, particularly through existing institutions such as SHGs, FPOs. The use of PRA tools, community meetings, and the involvement of Community Resource Persons (CRPs) demonstrates that inputs from project participants are actively incorporated into planning and decision-making. Evidence reviewed by the VVB includes community meeting registers, signed resolutions, FPIC documentation, and Carbon Rights Agreements. Interviews conducted during site visits with community members, SHG representatives, and CRPs confirm that participants are aware of project activities, benefit-sharing arrangements, and their roles in implementation. The participatory approach is therefore considered robust.

With respect to the Letter of Approval (LoA), the PC has stated that such approval is not applicable, as the project is implemented entirely on privately owned lands and does not fall under regulatory frameworks requiring government authorization. However, to comply with the requirements of Section 5.3.2 of the PV Climate Project Requirements /1/, the PC has informed the relevant local authorities having jurisdiction over the project area through

formal letters and e-mail communications /65/ describing the proposed project activities and expected carbon benefits. Copies of these communications' submission have been provided and reviewed by the VVB.



Regarding the Introduction of FCF India and Implementation of Carbon Restoration Project in Jharkhand and West Bengal

Regarding the Introduction of FCF India and Implementation of Carbon Restoration Project in Jharkhand and West Bengal

Regarding the Introduction of FCF India and Implementation of Carbon Restoration Project in Jharkhand and West Bengal

The VVB concluded that the PC has notified the relevant jurisdictional authorities in accordance with Section 5.3.2 of the PV Climate Project Requirements v5.5. However, of the notification letters reviewed, only Birbhum's district blocks have receipt/acknowledgement stamp from the recipient BDOs, while acknowledgement has not yet been received from the BDOs in the Jharkhand project area.

Hence, as required by PV, FAR 03 has been raised in order to ensure that the PC provides evidence demonstrating that acknowledgement of receipt or equivalent evidence.

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The identification and assessment of national and international legal and policy frameworks are comprehensive. Key national policies such as the National Agroforestry Policy, 2014, and relevant legislation including the Indian Forest Act, 1927[69], the Forest (Conservation) Act, 1980[70], the Biological Diversity Act, 2002, and state-specific regulations in West Bengal and

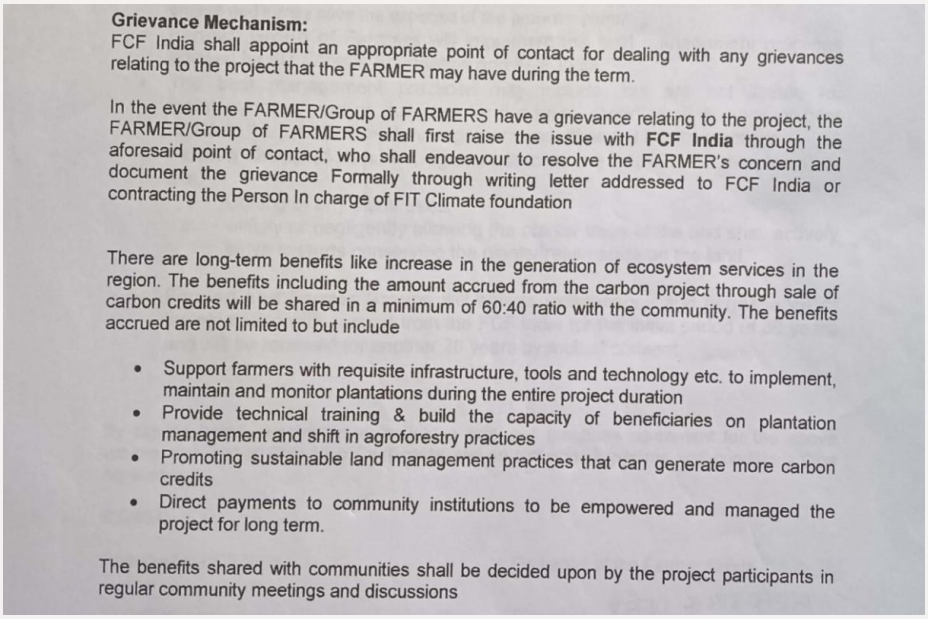
[69] https://www.indiacode.nic.in/bitstream/123456789/15385/1/the_indian_forest_act%2C_1927.pdf

[70] https://www.indiacode.nic.in/bitstream/123456789/19381/1/the_forest_%28conservation%29_act%2C_1980.pdf

Jharkhand have been considered. The VVB confirms that the project's implementation on private, non-forest, degraded lands places it outside the regulatory purview of forest diversion and conservation laws. The alignment with the National Agroforestry Policy[71] is appropriate and strengthens the project's compliance position.

At the international level, the project appropriately references frameworks such as the UNDRIP, ILO Convention 169, and the Convention on Biological Diversity (CBD). The validation assessment confirms that the project incorporates FPIC, participatory planning, and benefit-sharing mechanisms, which are consistent with these frameworks. Site-level consultations and documentation reviewed (e.g., FPIC forms and stakeholder engagement records) support compliance with these principles. However, it is noted that India has not ratified ILO Convention 169; therefore, its inclusion should be framed as alignment with best practices rather than legal compliance.

The project demonstrates alignment with national development programs and operates on private lands with documented tenure. The project has identified and is implicitly aligned with several national and international policies and frameworks. At the national level, this includes compliance with land tenure regulations, agroforestry practices, and alignment with rural livelihood missions such as those implemented by state-level agencies (e.g., SHG structures under government programs). The project also adheres to principles of FPIC, which is consistent with international best practices for community-based carbon projects. At the international level, the project aligns with the Plan Vivo Standard requirements, as well as broader frameworks such as the UN SDGs particularly those related to poverty alleviation, gender equality, and climate action. The VVB reviewed Carbon Rights Agreements, FPIC records, and institutional arrangements to confirm that carbon ownership, benefit-sharing (notably the 60% revenue flow to farmers), and participation are structured in a manner consistent with these frameworks.



Grievance Mechanism:
FCF India shall appoint an appropriate point of contact for dealing with any grievances relating to the project that the FARMER may have during the term.

In the event the FARMER/Group of FARMERS have a grievance relating to the project, the FARMER/Group of FARMERS shall first raise the issue with **FCF India** through the aforesaid point of contact, who shall endeavour to resolve the FARMER's concern and document the grievance Formally through writing letter addressed to FCF India or contracting the Person In charge of FIT Climate foundation

There are long-term benefits like increase in the generation of ecosystem services in the region. The benefits including the amount accrued from the carbon project through sale of carbon credits will be shared in a minimum of 60:40 ratio with the community. The benefits accrued are not limited to but include

- Support farmers with requisite infrastructure, tools and technology etc. to implement, maintain and monitor plantations during the entire project duration
- Provide technical training & build the capacity of beneficiaries on plantation management and shift in agroforestry practices
- Promoting sustainable land management practices that can generate more carbon credits
- Direct payments to community institutions to be empowered and managed the project for long term.

The benefits shared with communities shall be decided upon by the project participants in regular community meetings and discussions

Figure 32. Grievance Mechanism

In conclusion, the VVB considers that the project's governance structure is appropriately designed, participatory, and consistent with Plan Vivo requirements, with strong evidence of

[71] https://www.nitiforstates.gov.in/public-assets/Policy/policy-repo/agriculture-and-allied-services/PNC511A000509.pdf

community engagement and decision-making integration. The project demonstrates alignment with relevant national development priorities and international standards.

9.3 Financial Plan and Management

The VVB assessed the financial plan and management arrangements based on the PDD, supporting financial documentation, and the detailed budget (Excel-based financial plan /58/ and the same has been explained in a word file.). The validation included review of the funding structure, cost estimates, revenue projections, financial management procedures, and audit arrangements.

Financing structure: The VVB conclude that the project financing is proposed through a combination of equity investment and forward sale of carbon credits, wherein investors (corporates/financial institutions) provide upfront capital in exchange for future carbon credit offtake. This structure ensures that the required capital for project implementation is secured in advance, thereby supporting implementation and scaling of project activities.

Detailed financial plan and costing: The VVB reviewed the detailed financial plan /58/, including the Excel-based budget, and verified the line-wise costing of project activities. This includes costs related to plantation establishment, maintenance, capacity building, community engagement, and monitoring and verification activities for the first crediting period. The cost estimates were found to be reasonable and consistent with the scale and nature of project activities, and aligned with field-level observations during the site visit.

The VVB also assessed the expected revenue streams, primarily from the sale of Plan Vivo Certificates (forward and realised credits), and conclude that these are consistent with the estimated carbon benefits. The financial projections demonstrate that the project is capable of meeting its operational and management costs.

Benefit Sharing arrangements: The VVB reviewed the Project's BSM, financial plan, PES agreements, and supporting documentation. The project has established a benefit-sharing framework designed to ensure that the majority of project benefits are directed towards participating communities. The financial plan demonstrates that approximately appx. 72% of the total project budget is allocated towards community benefit-sharing activities (as per the financial plan submitted during validation /58/, significantly exceeding the minimum requirement under the PV Climate Standard that at least 60% of PV Certificate income be distributed to project participants. The community allocation/share comprises both direct and indirect benefits delivered throughout the project lifecycle and includes, among others:

- plantation establishment and long-term maintenance activities;
- labour costs associated with pit digging, transplanting, fertilizer application and other field operations;
- procurement and distribution of seedlings, planting materials, fertilizers and other implementation inputs;
- engagement of FIT and Community Resource Persons (field staff) providing technical assistance and ongoing support to participating communities;
- capacity building, and technical training for project participants;

The remaining project budget is allocated between FCF India and Plan Vivo Certification (PVC) costs. FCF India retains appx. 17% of the budget, covering project management, programme orientation, overhead and admin costs, capital costs and carbon asset

development services, supporting effective project implementation and long-term project sustainability. A further appx 11% is allocated to PVC costs, comprising PV registration, certification and levy fees paid to the PV Foundation.

Stakeholder	Benefit to each stakeholder
Community	71.6%
FCF India	17.7%
PVC costs	10.7%
Total	100%

Excluding PVC costs, the PV Climate benefit sharing is approximately 80:20 between Community and FCF India. The details and estimations are provided in the financial model write up and excel provided by the PC /58/.

Financial Management procedures: The VVB reviewed the financial management system and conclude that:

- Financial flows are managed by FCF India and associated investors
- Income from carbon credit sales and expenditure on project activities are systematically recorded
- Financial management practices follow standard accounting procedures

Audit arrangements: The VVB conclude that annual financial audits are conducted by certified auditors[72], in compliance with Indian regulatory requirements. This was discussed during the validation process. The PC's annual financial audit report /62/ are submitted to relevant authorities, ensuring transparency and accountability in financial management.

10 VALIDATION OPINION

The validation team has performed the validation of the "Restoration of Barren Uplands through Agroforestry in West Bengal and Jharkhand" project and has verified that the project is in compliance with PV Climate v5.5 /1/ requirements without qualifications or limitations, subject to the closure of all identified CARs and NIRs.

The validation process was conducted based on a comprehensive assessment of all applicable criteria under PV Climate version 5.0. This included a detailed review of the PDD /8/, supporting annexures, baseline and monitoring methodologies, environmental and social safeguard documentation, financial and governance frameworks, and risk assessments. The validation process also included background investigations, cross-checking of provided data, stakeholder consultations, and interviews with project participants, community institutions, and project implementation teams.

Based on this assessment, the validation team confirms that the project documentation represents an conservative, consistent, and transparent description of the project activities

[72] Firm Name :- ABDG And Associates
Address :- 313D Hari Nagar Ashram, New Delhi - 110014
FRN No. :- 042961N

and interventions. The evidence reviewed demonstrates that the project has been designed in accordance with the requirements of PV Climate v5.5.

The conclusions of this validation report indicate that the project, as described in the project documentation, meets applicable criteria for validation. The validation team has obtained sufficient and appropriate evidence to confirm that the project complies with the stated requirements, including additionality, baseline setting, monitoring, risk mitigation, and benefit-sharing mechanisms.

Furthermore, the validation team concludes that the project interventions are expected to result in long-term increases in carbon storage through agroforestry-based restoration of degraded uplands. The use of established methodologies, robust sampling frameworks, and conservative assumptions supports the credibility of the estimated carbon benefits. The project also demonstrates strong potential to deliver positive and sustained impacts on local livelihoods through income diversification, community participation, and gender-inclusive approaches, as well as measurable improvements in ecosystem conditions, including tree cover enhancement and biodiversity outcomes.

In detail, the conclusions can be summarized as follows:

- The project is in line with all criteria of PV Climate v5.5 /1/.
- The project additionality is sufficiently justified in the PDD /8/.
- The Monitoring Plan is transparent, robust, and adequate, with clearly defined methodologies, sampling approaches, and verification schedules.
- The analysis of baseline emissions, project emissions, and leakage has been carried out in a transparent and conservative manner /8/ and /9/.
- The project is likely to achieve the estimated carbon sequestration benefits and contribute to long-term greenhouse gas emission reductions.
- Environmental and social safeguards are appropriately identified, assessed, and integrated into project design, with mitigation measures in place.
- Governance, financial planning, and benefit-sharing mechanisms are adequately structured to support long-term project implementation and sustainability.

Based on the above, the validation team issues a positive validation opinion, confirming that the project meets the requirements of Plan Vivo Climate v5.5. The validation of the GHG statement has been conducted in accordance with ISO 14064-3:2019.

Date of the validation report: 07/08/2026

Name and Signature of the lead validator: Mr. Ma Paa Puratchikkanal

11 Annexes

11.1 Annex 1 – Documents reviewed

Ref. No	Title of Document	Version	Date
1	PV Project Requirements	5.5	
2	Procedures Manual, Version	3.9	
3	Validation and Verification Requirements	1.1	
4	PV Project Design Document	5.5	
6	PV Validation and Verification Procedures	1.4	
7	E&S Risk Management in Plan Vivo Projects	1	
8	Project Design	5.2	07/08/2026
9	ERR sheet	5	26/04/2026
10	Project Polygon KMLs	NA	NA
11	Shapefiles of the project area	NA	NA
12	Carbon/PES Agreement (between PC and project participants)		
13	Website - UN Sustainable Development Goals	NA	NA
14	MoU between the PC and FIT	NA	08/07/2024
15	LULC data of the project area of 2010 and 2020	NA	NA
16	Land ownership legal documents	NA	NA
17	FCF India Website https://www.fairclimatefund.nl/en	NA	NA

Ref. No	Title of Document	Version	Date
18	PV Environmental and Social Assessment Guidance	1	August 2024
19	PV Climate Methodology PM001	1	08 Nov 2023
20	PV Climate Module PU001	1.1	2 May 2025
21	"Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project Activities" https://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-02-v1.pdf	01	
22	Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity https://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-08-v4.0.0.pdf	04	
23	Stakeholder Consultations minutes of meetings, attendance sheets and photographs		
24	Indian Government Law https://moef.gov.in/wp-content/uploads/wssd/doc2/ch2.html https://www.indiacode.nic.in/bitstream/123456789/1760/1/forestAA1980.pdf https://unfccc.int/resource/docs/convkp/conveng.pdf https://www.cbd.int/doc/legal/cbd-en.pdf https://forestlegality.org/risk-tool/country/india http://awsassets.wwfindia.org/downloads/lecture_notes_session_9_1.pdf https://labour.gov.in/labour-law-reforms https://tribal.nic.in/FRA.aspx#:~:text=The%20Forest%20Rights%20Act%20(FRA)%2C%202006%20recognizes,including%20livelihood%2C%20habitation%20and%20other%20socio%2Dcultural%20needs.&text=To%20ensure%20land%20tenure%2C%20livelihood%20and%2	NA	NA

Ref. No	Title of Document	Version	Date
	0food,Scheduled%20Tribes%20and%20other%20traditional%20forest%20dwellers . https://www.ilo.org/international-labour-standards Forest Conservation Act 1980 (nbaindia.org) https://training.itcilo.org/actrav_cdrom1/english/global/law/lablaw.htm https://www.cbd.int/doc/legal/cbd-en.pdf https://forestrights.nic.in/doc/Act.pdf Rahate and Banait, "The Indian Forest Act, 1927." https://pib.gov.in/newsite/erelcontent.aspx?relid=57051 National Agroforestry Policy 2014.pdf (agricoop.nic.in) https://jharkhand.gov.in/Home/DocumentList?doctype=c81e728d9d4c2f636f067f89cc14862c&subdoctype=c4ca4238a0b923820dcc509a6f75849b https://wbja.wb.gov.in/west-bengal-state-laws		
25	Google earth - https://www.google.com/earth	NA	NA
26	CVs of management team and technical experts and local experts	NA	NA
27	Training records and photographs	NA	NA
28	Baseline assessment excl sheet	NA	NA
29	Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities https://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-14-v4.2.pdf	4.2	
30	PV Climate Module PU002	1	08 Nov 2023
31	Start date evidence	NA	NA
32	ISO 14064-3:2019	NA	NA
33	PV Climate Module PU005	1	21 May 2024

Ref. No	Title of Document	Version	Date
34	Breakeven (Simple Cost Analysis)	NA	NA
35	IPCC GPG 2003 https://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf_files/GPG_LULUCF_FULL.pdf Annex 3A.1 Biomass Default Tables for Section 3.2 Forest Land https://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf_files/Chp3/Anx_3A_1_Data_Tables.pdf	NA	NA
36	Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities Version https://cdm.unfccc.int/sunsetcms/storage/contents/stored-file-20210531160756223/Meth_Stan05.pdf	NA	NA
37	Operational and monitoring Plan of the project	NA	NA
38	USGS www.usgs.gov Active Fire Data https://www.earthdata.nasa.gov/learn/find-data/near-real-time/firms/active-fire-data	NA	NA
39	NRSC https://www.nrsc.gov.in/		
40	FAO Soil data https://www.fao.org/soils-portal/data-hub/soil-maps-and-databases/harmonized-world-soil-database-v20/en/		
41	Global Forest Watch https://www.globalforestwatch.org/map/		
42	UN HDI India 2021/22 https://www.undp.org/india/press-releases/india-ranks-132-human-development-index-global-development-stalls		
43	FSI 2023 https://fsi.nic.in/forest-report-2023-details Chapter 9 https://fsi.nic.in/isfr-2021/chapter-9.pdf chapter 13 https://fsi.nic.in/isfr-2021/chapter-13.pdf		
44	Baseline assessment secondary research reports: https://www.allresearchjournal.com/archives/2015/vol1issue11/PartE/1-11-21.pdf [1] https://www.counterview.net/2025/06/land-under-siege-silent-crisis.html [1]https://sathee.iitk.ac.in/article/social-science/largest-rice-producing-states-in-india/ https://pmc.ncbi.nlm.nih.gov/articles/PMC9668713/ https://agriwelfare.gov.in/sites/default/files/JKD18-Dumka-31.03.2103.pdf	NA	NA

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	https://agriwelfare.gov.in/sites/default/files/WestBengal%203-Birbhum-31.12.2011_0.pdf [1] https://www.theclimategroup.org/sites/default/files/2020-10/west_bengal_future_fund_report.pdf https://sansad.in/getFile/loksabhaquestions/annex/185/AU3563_icpZ61.pdf https://jsac.jharkhand.gov.in/Report_PDF/Land_DEGRADATION/Land_Diggradation_Report_Final.pdf https://ceedindia.org/wp-content/uploads/2023/06/Brief-Note-17-June-2023.pdf [1] https://www.ijfmr.com/papers/2023/3/2844.pdf https://www.economicsdiscussion.net/agriculture/low-productivity/low-productivity-of-agriculture-in-india-14-causes/13215 https://journal.iujharkhand.edu.in/June-2021/Sustainable-Agriculture-and-Food-Security-Challenges-and-Policies-of-Jharkhand.html [1] Desertification and Land Degradation Atlas of India, 2021 https://vedas.sac.gov.in/static/atlas/dsm/DLD_Atlas_SAC_2021.pdf [1] Desertification and Land Degradation Atlas of India, 2021 https://vedas.sac.gov.in/static/atlas/dsm/DLD_Atlas_SAC_2021.pdf https://dst.gov.in/sites/default/files/Full%20Report_District-Level%20Climate%20Risk%20Assessment%20for%20India_Mapping%20Flood%20and%20Drought%20Risks%20Using%20IPCC%20Framework.pdf https://ijpub.org/ijvra/papers/IJVRA2603879.pdf https://www.ijfans.org/uploads/paper/4b5f1286aa420afdffae1545e401d533.pdf https://integralresearch.in/index.php/1/article/download/277/193/585 https://www.ijfmr.com/papers/2025/5/57273.pdf https://www.indiaspend.com/forest-rights/chop-trees-then-compensate-for-them-at-whose-cost-881786 https://www.thehindu.com/sci-tech/energy-and-environment/is-indias-forest-cover-really-increasing-official-maps-dont-tell-you-the-whole-truth/article38412109.ece https://www.sciencedirect.com/science/article/abs/pii/S0921800921003657 https://www.cifor-icraf.org/press/media-coverage/112/indias-agroforestry-starved-of-finance-despite-ambitious-50-mln-ha-target-by-2050/		

Ref. No	Title of Document	Version	Date
	[1] rural poverty is 46.3% in Jharkhand and 28.6 in West Bengal - https://socialjustice.gov.in/common/76672 Jharkhand World Bank identified Jharkhand as one of the most poverty-stricken states in the country with a sharp contrast between rural and urban poverty - https://vdsa.icrisat.org/Include/reports/SSRN-id2330844.pdf https://www.jetir.org/papers/JETIR2508416.pdf Birbhum is considered one of the most backward and poverty-stricken districts in West Bengal https://pmc.ncbi.nlm.nih.gov/articles/PMC9668713/ https://vdsa.icrisat.org/Include/reports/SSRN-id2330844.pdf [1] https://economictimes.indiatimes.com/industry/banking/finance/banking/miles-to-go-for-banks-to-meet-farm-loan-targets/articleshow/534125.cms?from=mdr#:~:text=Similarly%2C%20for%20private%20sector%20banks,to%20a%20senior%20SBI%20official. [1] https://www.google.com/search?q=MGNREGA+is+unsuccessful+in+managing+long+term+sustainability+of+plantation&oq=MGNREGA+is+unsuccessful+in+managing+long+term+sustainability+of+plantation&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCTE0OTM5ajBqOagCALACAQ&sourceid=chrome&ie=UTF-8 [1] https://anaxee.com/investment-structures-carbon-projects/ https://www.sciencedirect.com/science/article/abs/pii/S0167880916302596 https://theconversation.com/ambitious-tree-planting-goals-in-asia-lack-diverse-tree-seeds-from-native-species-174333 [1] https://www.drishtiias.com/daily-updates/daily-news-editorials/implementation-issues-with-the-mgnrega https://www.effective-states.org/wp-content/uploads/briefing_papers/final-pdfs/esid_bp_1_NREGA.pdf [1] https://link.springer.com/article/10.1007/s10457-024-00993-w [1] https://www.ris.org.in/sites/default/files/Publication/DP-313_Pami_Dua.pdf https://www.sciencedirect.com/science/article/pii/S0275531925004441 [1] https://www.researchgate.net/publication/385092104_Agroforestry_Extension_A_Ready_Reckoner [1] https://www.ceew.in/agroforestry		

Ref. No	Title of Document	Version	Date
	[1] https://www.sciencedirect.com/science/article/pii/S0308521X23002457 https://www.google.com/search?q=ecological+problems+leading+to+failure+of+forestry+schemes+in+jharkhand&oq=ecological+problems+leading+to+failure+of+forestry+schemes+in+jharkhand&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCTE4NTI5ajBqNKgCALACAA&sourceid=chrome&ie=UTF-8 https://www.researchgate.net/publication/280932970_Effects_of_Ecogeomorphological_Parameters_on_Environment_Case_Study_of_Birbhum_District_West_Bengal https://link.springer.com/article/10.1007/s42452-025-07244-2 per 2009 CAG report – in Jharkhand - non/delayed handing over of plantations to the respective territorial divisions by Social forestry/ Afforestation divisions resulted in loss of Rs 5.30 crore. Further, in one forest division, 883.85 hectares of plantations was handed over to territorial divisions without any survival report, rendering the expenditure of Rs 1.73 crore incurred thereon, doubtful. https://www.cag.gov.in/uploads/download_audit_report/2010/Jharkhand_Civil_2009_chap1.pdf [1] https://www.sanskritiias.com/current-affairs/mnrega-impasse-in-west-bengal-legal-and-political-hurdles https://www.newsclick.in/CAG-Audits-West-Bengal-Reveal-Financial-Irregularities-Corruption [1] https://www.thehindu.com/news/national/other-states/odisha-fails-to-carry-out-plantation-activities-in-50-of-the-targeted-area/article65712244.ece https://www.business-standard.com/article/current-affairs/cag-finds-irregularities-in-odisha-forest-dept-s-plantation-activities-122080200578_1.html [1] https://www.researchgate.net/publication/337167646_Agroforestry_systems_Opportunities_and_challenges_in_India [1] https://appforest.jharkhand.gov.in/fresearch/admin/file/research_109.pdf https://www.researchgate.net/publication/379643410_Cultivating_Sustainability_Exploring_Diverse_Agroforestry_Practices_in_West_Bengal [1] https://appforest.jharkhand.gov.in/fresearch/admin/file/research_109.pdf [1] https://fsi.nic.in/cover_2013/forest_tree_resources.pdf		

Ref. No	Title of Document	Version	Date
	[1] https://fsi.nic.in/uploads/isfr2023/isfr_book_eng-vol-2_2023.pdf https://www.researchgate.net/publication/347508987_Impact_of_small_ditches_Dhobha_in_rainfed_areas_in_Dumka_district_of_Santhal_Pargana_Jharkhand-A_case_study - Page 1-2 https://www.nabard.org/auth/writereaddata/tender/0701205000PLP%202020-21%20Birbhum.pdf - Page 17 [1] https://www.nabard.org/auth/writereaddata/tender/0603202025Jharkhand.pdf [1] https://www.researchgate.net/publication/347508987_Impact_of_small_ditches_Dhobha_in_rainfed_areas_in_Dumka_district_of_Santhal_Pargana_Jharkhand-A_case_study - Page 1-2 https://www.switchon.org.in/wp-content/uploads/2024/06/Land-Restoration-Desertification-Drought-Resilience-in-Jharkhand.pdf - Page 8 [1] https://www.researchgate.net/profile/Gopal-Shukla/publication/379643410_Cultivating_Sustainability_Exploring_Diverse_Agroforestry_Practices_in_West_Bengal/links/661248307476d47e4445933c/Cultivating-Sustainability-Exploring-Diverse-Agroforestry-Practices-in-West-Bengal.pdf https://www.jetir.org/papers/JETIR1902268.pdf - Page 7-8 [1] https://www.jetir.org/papers/JETIR1902268.pdf - Page 10		
45	Undertaking not been rejected by other GHG programs and not participating in any other GHG credits programs and claiming carbon credits		02/12/2025
46	Water structure conservation evidence		02/06/2023
47	List of farmers involved in the project		
48	PRA report		
49	Grievance redressal record evidence		03/07/2020 – 09/07/2020
50	Sericulture income case studies		21/02/2024
51	Sericulture income records of some of the identified beneficiaries		
52	Sericulture pictures		
53	Input cost Sonajhuri – estimation and details		
54	Gochar land evidence		
56	List of FPOs and SHGs		

Ref. No	Title of Document	Version	Date
57	Farmers details of Arjuna Plantation		
58	Financial Model (word and excel)		07/08/2026
59	Water conservation evidence		
60	Plantation records		
61	Orientation workshop evidence and material		
62	Financial audit report by ABDG and Associates (CA)		31/03/2025
63	Methodology requirements version	1.2	
64	Financing contract with the buyer/ investors (one of the investor is Arcadis)		Agreement with Arcadis signed on 29/03/2025
65	Letter of intimation to the relevant Government agencies of Dumka, Jharkhand and Birbhum, West Bengal		21/08/2023, and 29/06/2026
66	PU004 Estimation of GHG Emissions from Leakage in Plan Vivo Projects, Version 1.1		
67	AR Tool Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities	1	
68	Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities	1	
69	Labor payment logs		

11.2 Annex 1 – New information requests, corrective action requests and forward action requests

Table 1. NIRs from this validation

NIR ID	01	**Section no.**	1.2.1	**Date:** 14/08/2025
Description of NIR				
Please provide geospatial data files for the project area in a folder labelled Annex 1, then add a statement to this section stating that information on project geospatial files can be found in Annex 1.				
Project coordinator response				**Date:** 14/12/2025
The geospatial data files of the project area (individual land parcels) and Project region (state level boundary) is added in the folder labelled Annex 1.				
Documentation provided by project coordinator				

Updated files.
VVB assessment **Date:** 09/01/2026
The inconsistencies have been resolved. No further action required.

NIR ID	02	**Section no.**	1.2.2	**Date:** 14/08/2025
Description of NIR				
There are two other forms of land tenure referenced in the project participants section (2.4) which are not covered under this section as per the template. These are: 1. Landless households that take community land on lease from Panchayat for 40 years and give 40% of horticulture produce to Panchayat while keeping the 60% 2. Landless households who use land belonging to community members with larger pieces of land as sharecroppers If these two groups will be applying project interventions, their user rights status must be described in section 1.2.2 including how their land management rights and carbon rights will be evidenced.				
Project coordinator response				**Date:** 14/12/2025
Information related to both the type of land tenure has been added in the PDD, section 1.2.2.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
NIR closed.				

NIR ID	03	**Section no.**	2.3	**Date:** 14/08/2025
Description of NIR				
Indigenous peoples and local community section (2.1.2) has Santhals, Orao and Munda listed as indigenous tribes but only Santhals are covered here. Please add participant info about the other two.				
Project coordinator response				**Date:** 14/12/2025
Orao and Munda tribes are removed from section 2.1.2 and other sections of the PDD. Please refer to the explanation of CAR 04 for more detailed explanation.				
Documentation provided by project coordinator				
Revised PDD				
VVB assessment				**Date:** 09/01/2026
Issue resolved. NIR 03 can be closed.				

NIR ID	04	**Section no.**	2.4	**Date:** 14/08/2025

Description of NIR	
This sections mentions the use of PRA tools like wealth ranking, vision building, livelihood and watershed planning. Add to this section a summary of outputs from these exercises and link that to how it translated to the selected project interventions and activities as required by the PDD template. Examples of these outputs from the use of different PRA tools should be attached in Annex 4.	
Project coordinator response	**Date:** 14/12/2025
Sample explanation and evidences of PRA done in Saraidaha Village of Shikaripada block of Dumka district is added in Annex 4.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Issue resolved. NIR 04 can be closed.	

NIR ID	05	Section no.	2.5.1	Date: 14/08/2025
Description of NIR				
Please translate the document with feedback from a participant into English or provide a translated summary.				
Project coordinator response				**Date:** 14/12/2025
The translated summary is added. As the LSC information is now in Annex 17. Please refer to Annex 17 for the detailed summary of the feedback.				
Documentation provided by project coordinator				
Updated LSC report				
VVB assessment				**Date:** 09/01/2026
Issue resolved. NIR 05 can be closed.				

NIR ID	06	Section no.	2.5.2	Date: 14/08/2025
Description of NIR				
For all the stakeholders included, describe how stakeholders will be consulted throughout the project period, including details of: i) how and when all local stakeholder groups will be consulted; ii) the information that will be provided and consultation approaches that will be used; and iii) opportunities for stakeholders to provide feedback and raise issues or concerns about the project. This plan should be practical and for throughout the project period, not just the design phase.				
Project coordinator response				**Date:** 14/12/2025

The suggested information is incorporated in the section 2.5.2 of the PDD.
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 06 can be closed.

NIR ID	07	**Section no.**	2.6.2	**Date:** 14/08/2025
Description of NIR				
Please revise this section by adding the information required by the template which is to describe the FPIC process to enable a collective decision by Indigenous Peoples and local communities with statutory or customary rights to land or resources in the initial project area(s) to negotiate the conditions under which the project is designed, implemented, monitored and evaluated and grant or withhold consent to: i) consider the proposed project; ii) engage in the project design process; and iii) implement the project. Include details of: i) the information provided prior to making any decision; ii) the decision-making process and timeline defined by the rights holders; iii) the stakeholder representatives involved and how they were chosen; and iv) any measures to ensure the involvement of women and marginalised vulnerable and/or disadvantaged people. Some of the details you included under section 2.5.1 can help you demonstrate how FPIC was followed, for example - after the participants from SHGs and the different PRIs were given information on the project, how did individual farmers/households end up deciding to participate on the project? What was the timeline for that and if any representatives made that decision - how were they selected?				
Project coordinator response				**Date:** 14/12/2025
The section has been updated with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 07 can be closed.				

NIR ID	08	**Section no.**	2.6.3	**Date:** 14/12/2025

Description of NIR	
For the initial project area, please describe the FPIC process that enabled a collective decision by the indigenous peoples in that initial project area. This includes information on how they granted/withheld consent to: i) consider the proposed project; ii) engage in the project design process; and iii) implement the project Please also include information for this initial project area that covers the following: i) the information provided prior to making any decision; ii) the decision-making process and timeline defined by the rights holders; iii) the stakeholder representatives involved and how they were chosen; and iv) any measures to ensure the involvement of women and marginalised vulnerable and/or disadvantaged people.	
Project coordinator response	**Date:** 16/01/2026
The section has been updated with new information	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**VVB assessment**
Relevant information has been updated in the PDD. NIR 08 can be closed.	

NIR ID	09	**Section no.**	3.3.2	**Date:** 14/08/2025
Description of NIR				
For each of the local stakeholder groups identified in Section 2.1.1, provide a description supported by evidence of how livelihood status is expected to change under the baseline scenario (without the project).				
Project coordinator response				**Date:** 14/12/2025
The section has been updated with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 09 can be closed.				

NIR ID	10	**Section no.**	3.4.2	**Date:** 14/08/2025

Description of NIR	
Please provide a description supported by evidence of how ecological conditions are expected to change under the baseline scenario. This means how the ecological conditions are expected to change without the project interventions.	
Project coordinator response	**Date:** 14/12/2025
The section has been updated with new information	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 10 can be closed.	

NIR ID	11	Section no.	3.9.3	Date: 14/08/2025
Description of NIR				
Information should be provided on how the project engaged with the community to discuss the risks identified in the E&S Screening, how the community - particularly the most affected groups, as identified in the Screening - are impacted by these risks, and how they want to manage and mitigate the risks. This should then inform the ESMP in section 3.9.4. A report of the meetings and engagements conducted as a part of this process with information on who attended, when the meetings were held, what was discussed, etc., should be provided in Annex 10.				
Project coordinator response				**Date:** 14/12/2025
The section 3.9.3 and 3.9.4 is revised as per the comment.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 11 can be closed.				

NIR ID	12	Section no.	3.16	Date: 14/08/2025
Description of NIR				
Describe the process through which an agreed benefit sharing mechanism was developed with project participants.				
Project coordinator response				**Date:** 14/12/2025
The section has been updated with new information				
Documentation provided by project coordinator				
Updated PDD				

VVB assessment	**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 12 can be closed.	

NIR ID	13	**Section no.**	3.16	**Date:** 14/08/2025
Description of NIR				
For the minimum of 10% of credits that will be set aside for the farmer community, how and when will this be dispersed? That information is needed to understand the whole benefit sharing mechanism and should be added to this section.				
Project coordinator response				**Date:** 14/12/2025
This statement is confusing and PC has decided to remove it. For the detailed Benefit sharing mechanism and Financial modelling, the section have been referred to Annex 16, section 3.16 and 5.4 of the PDD.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 13 can be closed.				

NIR ID	14	**Section no.**	3.18	**Date:** 14/08/2025
Description of NIR				
Describe the process for entering into project agreements between project participants and the project coordinator following FPIC principles, including any measures in place to ensure that project agreements do not remove, diminish or threaten project participant's rights to land and/or resources.				
Project coordinator response				**Date:** 14/12/2025
The section has been updated with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 14 can be closed.				

NIR ID	15	**Section no.**	3.18	**Date:** 14/08/2025
Description of NIR				
State the agreement period and provide justification for why this represents a period over which the project participants are able to make a meaningful commitment to implement and monitor the project interventions with support from the project coordinator.				
Project coordinator response				**Date:** 14/12/2025

The section has been updated with new information
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 15 can be closed.

NIR ID	16	**Section no.**	4.3	**Date:** 14/08/2025
Description of NIR				
Template requests the following, all of which is not present for each indicator: 1. methods of measurement, 2. sampling approach, 3. frequency of monitoring, 4. groups or individuals involved, 5. resources or capacity required Please update the table accordingly for each livelihood indicator.				
Project coordinator response				**Date:** 14/12/2025
The section has been updated with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 16 can be closed.				

NIR ID	17	**Section no.**	Annex 2	**Date:** 14/08/2025
Description of NIR				
Attach FCF India's registration certificate here. While there are three certificates attached so far, two of them are for Prasari. While it is noted based on the desk review and site visit that PRASARI is no longer part of the project.				
Project coordinator response				**Date:** 14/12/2025
The registration certificate of FCF India and FIT climate foundation have now been added in the Annex 2.				
Documentation provided by project coordinator				
1. Registration certificate of FCF India and FIT climate Foundation *2.* Updated PDD				
VVB assessment				**Date:** 09/01/2026

Relevant information has been provided. NIR 17 can be closed.

NIR ID	18	**Section no.**	Annex 3	**Date:** 14/08/2025
Description of NIR				
Attach a spreadsheet or include in a table the following information for the farmers who are already on the project: 1. Name of project participant; 2. Location; 3. Project Intervention(s); 4. Extent of project area; 5. Project agreement reference (farmer specific) 6. Start date for the farmer 7. Whether or not they meet Project Requirement 2.3.1 and/or 2.3.2. If interventions have not yet started/project agreements have not been signed, then this data can be from the farmers on the 450 hectare of project area where you mention interventions have already started (see NIR08 - row 23) for more feedback on this initial project area. Two sheets have been uploaded in the drive. One is for the existing plantation done already and other is for new plantation where plantation will be done this year.				
Project coordinator response				**Date:** 14/12/2025
Two sheets have been uploaded in the drive. One is for the existing plantation done already and other is for new plantation where plantation will be done this year.				
Documentation provided by project coordinator				
Updated spreadsheets				
VVB assessment				**Date:** 09/01/2026
Relevant information has been provided. NIR 18 can be closed.				

NIR ID	19	**Section no.**	Annex 7	**Date:** 14/08/2025
Description of NIR				
There is mention of an excel spreadsheet that has details of the calculation of ex-ante credits that can be generated from the project activities. Provide that as part of Annex 7. Make sure the attached excel is labelled Annex 7.				
Project coordinator response				**Date:** 14/12/2025

Please use the link below to access the document. Link: https://docs.google.com/spreadsheets/d/19-JyHPm6juDk_FWoELmmIix9QzZNBvUk/edit?usp=sharing&ouid=108965445155960920470&rtpof=true&sd=true
Documentation provided by project coordinator
Updated spreadsheets
VVB assessment **Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 19 can be closed.

NIR ID	20	**Section no.**	Annex 10	**Date:** 14/08/2025
Description of NIR				
a report on the engagements conducted with the community to discuss the risks identified and categorised in the E&S Screening should be provided. The report should include the nature of the engagement (e.g. community meeting, forum, focus group, etc.), who attended (e.g. was it directed specifically to the vulnerable groups identified in the screening, or the indigenous peoples identified in the screening, to the leaders or governance groups in the community, or to the community as a whole?), what was discussed, what management or mitigation activities were proposed for each of the identified risks, and how these will be implemented as part of project activities. The information around what was discussed and what the project aimed to find out during these engagements should be included in section 3.9.3, and the outputs of the meeting and proposed mitigation and management provisions should be included in section 3.9.4 (this section is looking good).				
Project coordinator response				**Date:** 14/12/2025
The section has been updated with new information				
Documentation provided by project coordinator				
Updated report				
VVB assessment				**Date:** 09/01/2026
Relevant information has been updated in the PDD. NIR 20 can be closed.				

Table 2. CARs from this validation

CAR ID	01	**Section no.**	1.1	**Date:** 14/08/2025
Description of CAR				

1. What is the “checking soil erosion and recharging the groundwater” means? Does “checking soil erosion” mean reducing soil erosion/restoring the soil and does “recharging ground water” mean raising the ground water ’level? Please clarify that in this section.
2. Resource mapping and planning activities were largely observed at the Dumka site; however, similar evidence was not identified in Birbhum. As the PC is currently revising the overall project implementation plan, it is recommended to provide supporting evidence demonstrating that consistent implementation practices are being followed across all project locations. If adequate real-time evidence is not made available, the VVB may consider the need for additional verification, either through virtual or on-site assessments.
3. The PC has claimed that more than 15,000 families will benefit from project interventions and that families practicing sericulture will earn an additional annual income of around INR 80,000. The PC must provide the basis for this earning, along with details of the financial model and market rates on which these claims are based.

Project coordinator response	**Date:** 14/12/2025

1. The PDD has been revised to improve clarity and technical accuracy of the terminology used. Specifically:
    a. The phrase “checking soil erosion” has been replaced with “reducing soil erosion and improving soil stability through vegetative cover, contour-based interventions, and soil conservation measures.”
    b. The phrase “recharging groundwater” has been clarified as “enhancing groundwater recharge through improved infiltration and water retention structures, contributing to stabilization and gradual improvement of groundwater levels.”
2. Evidence of resource mapping from Birbhum district have now been submitted for VVB review. The site selected by VVB during the site visit has less such activities. However, in other parts the activity has been taken up at a similar scale like of Dumka.
3. The details of baseline survey and income from livelihood activities generation estimations have now been provided to the VVB for review.

Documentation provided by project coordinator
Updated PDD

VVB assessment	**Date:** 09/01/2026

The revised language is technically sound and removes ambiguity. Terminology now aligns with accepted ecological and hydrological definitions. The clarification is sufficient and improves interpretability of project interventions. The responses and evidence provided for point 2 and 3 are satisfactory.

CAR01 is closed. The section is clear and compliant.

CAR ID	02	**Section no.**	1.1	**Date:** 14/08/2025

Description of CAR
MGNREGS is mentioned for the first time in this section. Please add the full name of the organisation here where it’s first used.

Project coordinator response	**Date:** 14/12/2025

The acronym MGNREGS has been expanded at first mention to Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). All subsequent references use the acronym consistently.

Documentation provided by project coordinator

Updated PDD
VVB assessment **Date:** 09/01/2026
The revision improves clarity and ensures compliance with documentation standards. CAR02 is closed.

CAR ID	03	**Section no.**	1.2.1	**Date:** 14/08/2025
Description of CAR				
From this section, it is unclear what the project area vs the project region is as they are described as the same area here. PC must submit the corrected and revised KML. Also, PC must submit the LULC shapefiles for checking the project baseline.				
Project coordinator response				**Date:** 14/12/2025
The section has been revised to clearly distinguish: • Project Area: Specific land parcels under intervention • Project Region: Larger geographic boundary within which expansion may occur This ensures scalability and avoids constraints related to revalidation. KML and LULC have now been submitted.				
Documentation provided by project coordinator				
Updated PDD, KML files				
VVB assessment				**Date:** 09/01/2026
1. The distinction is now clear and aligns with Plan Vivo definitions. The finding is closed 2. Separate KML related findings has been raised as finding 70. This CAR will be closed based on the closure of CAR 70. The CAR is closed on 09/03/2026				

CAR ID	04	**Section no.**	1.2.2	**Date:** 14/08/2025
Description of CAR				
1. During the site visit, it was observed that none of the project parcels belong to the Panchayat or are taken on lease; all identified parcels appear to be under private ownership. The PC must verify this observation and provide the necessary supporting details and documentation for each category of land. 2. Please submit the relevant land ownership documents and agreement between the PC and landowners for validation. 3. The PC has stated that project benefits will be shared with farmers. However, if the PC has also included Panchayat lands within the project boundary, it is unclear how the benefit-sharing mechanism with the Panchayat has been structured. The information provided appears inconsistent. Therefore, the PC must ensure that the PDD presents clear and consistent details on land ownership categories and benefit-sharing arrangements, supported by adequate documentary evidence.				

Project coordinator response	**Date:** 14/12/2025

1. All references to community ownership have been removed. The section now clearly states that the project operates on individual smallholder land, with community institutions playing a facilitative role.
2. PC has submitted agreements of all the land parcels visited during the site visit.
3. All references to community ownership have been removed. The section now clearly states that the project operates on individual smallholder land, with community institutions playing a facilitative role.

Documentation provided by project coordinator

CRA and land documents

Revised PDD

VVB assessment	**Date:** 09/01/2026

1. The revision removes ambiguity and improves consistency.
2. PC has submitted agreements between the PC and participants of all those visited during the site visit. This finding is closed. However, FAR 1 has been raised
3. The revision removes ambiguity and improves consistency.

CAR 04 is closed. FAR 01 is raised

CAR ID	05	**Section no.**	2.1.1	**Date:** 14/08/2025

Description of CAR

1. How has the PC engaged with all the stakeholders listed in this table? Has any MoU been signed? If yes, please provide the signed MoU with the relevant stakeholder(s). Additionally, submit any supporting evidence to substantiate the claimed engagement. In case the involvement of these stakeholders is planned during the project's lifetime, please state this explicitly.
2. Submit evidence of the stakeholder engagements conducted so far under the project
3. Please describe MGNREGS in more detail here including how their partnership with the project came to be and more details on the practicalities of the 100 days of employment.
4. The PC has considered employment generation under MGNREGA as part of the project intervention. However, no evidence has been provided demonstrating formal convergence or linkage between the project and MGNREGA (e.g., MoU/agreement with the concerned authorities). Further, the project itself does not guarantee 100 days of employment under MGNREGA. Therefore, it is unclear how employment generated under a government scheme can be attributed directly to the project intervention. The PC shall justify the inclusion of MGNREGA-related employment benefits as part of the project intervention and provide supporting evidence, as applicable.

Project coordinator response	**Date:** 14/12/2025

1. The section has now been revised and required details are added
2. Records of stakeholder consultations – attendance sheet, MoMs, feedback forms and photographs are now submitted to the VVB
3. PC notes that the MGNREGA activities cannot be included as part of the project activity. All the details about any ongoing MGNREGA activities claim have now been removed from the PDD. The updated PDD has now been submitted to the VVB for review.
4. Same as above

Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**VVB assessment:** 09/01/2026
The updates made by the PC are fine. The updated PDD is acceptable. The CAR is now closed.	

CAR ID	06	**Section no.**	2.1.2	**Date:** 14/08/2025
Description of CAR				
Panchayat system of governance has only been listed but not described.				
Project coordinator response				**Date:** 14/12/2025
A reference has been added to Section 2.5.2 where the Panchayat governance system is described in detail				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Cross-referencing is appropriate and sufficient. CAR 06 is closed.				

CAR ID	07	**Section no.**	2.1.2	**Date:** 14/08/2025
Description of CAR				
This section also mentions that the land is owned by the community.				
Project coordinator response				**Date:** 14/12/2025
All references to community ownership have been removed to ensure consistency with smallholder-based ownership.				
Documentation provided by project coordinator				
Updated PDD and land ownership documents				
VVB assessment				**Date:** 09/01/2026
The added detail sufficiently clarifies ownership of the lands. CAR 07 is closed.				

CAR ID	08	**Section no.**	2.1.2	**Date:** 14/08/2025
Description of CAR				
Can you clarify if the leases are for 30 years from the start of the project?				

Project coordinator response	**Date:** 14/12/2025
Yes, lease agreements are for 30 years, aligned with project duration. The section has been updated accordingly.	
Documentation provided by project coordinator	
Updated PDD and land ownership documents	
VVB assessment	**Date:** 09/01/2026
Clarification is adequate. Lease documentation is verified during validation. CAR 08 is closed.	

CAR ID	09	**Section no.**	2.1.3	**Date:** 14/08/2025
Description of CAR				
1. On the issue of land inheritance and title deeds 2. PC has mentioned that "the most common issue that arises is that the land remains in the name of the Father or Grandfather and has not been transferred on papers. Is there any such case reported? Also, what is the situation and mitigation measures in such situation about the leased land?				
Project coordinator response				**Date:** 14/12/2025
1. The project does not require formal inheritance certificates but ensures due diligence through: a. Community validation b. Local governance verification c. Evidence of active cultivation 2. There is no such case reported in the PA so far.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification is adequate. Lease documentation is verified during validation. CAR 09 is closed.				

CAR ID	10	**Section no.**	2.2	**Date:** 14/08/2025
Description of CAR				
More detail needed to understand the relationship between HUCWARM and Prasari.				
Project coordinator response				**Date:** 14/12/2025
The section now clarifies: • Prasari is a non-profit organization • HUCWARM is a for-profit entity established with support from Prasari • Both are independent entities with separate governance structures				

Documentation provided by project coordinator	
Updated PDD, supporting documents in Annex 2 of the PDD	
VVB assessment	**Date:** 09/01/2026
Since PRASARI and HUCWARM are no longer associated with the project, the PC must clearly describe the current implementation and institutional arrangement. The relevant section of the PDD should be thoroughly reviewed and rewritten to accurately reflect the present scenario, including the roles and responsibilities of all active entities involved in project implementation. Revised agreements and MoUs must also be submitted to the VVB to confirm that the project's implementation, design, and expected outcomes remain unaffected by these organizational changes.	
Project coordinator response	**Date:** 21/01/2026
HUCWARM and PRASARI are no longer involved in the project. Now the project will be carried forward by FCF India with its implementing organization FIT who will be responsible for Jharkhand. For West Bengal activities will be carried out by the regional field staff of FCF India.	
Documentation provided by project coordinator	
Updated PDD, supporting documents in Annex 2 of the PDD	
VVB assessment	**Date:** 10/03/2026
The PDD has now been revised in line with the current project management and ground situation. The supporting evidence attached to the Annex 2 of the PDD is satisfactory. The CAR is now closed.	

CAR ID	11	**Section no.**	2.3	**Date:** 14/08/2025
Description of CAR				
Add information on where specific tribes/local communities live.				
Project coordinator response				**Date:** 14/12/2025
Detailed geographical distribution of Santhal communities has been added at district and block level.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
The added detail is adequate. CAR 11 is closed.				

CAR ID	12	**Section no.**	2.3	**Date:** 14/08/2025
Description of CAR				

1. In this section typical land holding size mentioned is less than or equal to 1 ha. While in the above sections PC has mentioned that the land holding size is equal to or less than 1 acre. PC must maintain consistency in providing details. PC has mentioned that the project will be impacting 15,000 families. PC must clarify how the PC arrived at this number and provide the baseline data collected for the same. Submit the baseline data (socioeconomic, environmental and economic) to the households included in the current stance. 2. PC has mentioned that "MGNREGA will be utilized in the implementation of the carbon project by supporting labour-intensive activities such as pit digging for plantations and constructing water conservation structures." How will this activity be carried out? Is there any plan or agreement between the PC and MGNREGA to ensure its implementation? Based on the details provided for MGNREGA, it appears that the narrative suggests the government scheme will be implemented in the PA solely due to the project activity, which is not accurate. The PC must review the entire PDD and ensure that the project description accurately reflects the actual ground-level implementation and convergence activities.
Project coordinator response **Date:** 14/12/2025
1. No, this is an indicative number representing potential scale. Initial implementation will occur in a subset of participants. The section has been revised and correct landholding size of small to marginal landholders have been added. 2. PC notes that the MGNREGA activities cannot be included as part of the project activity. All the details about any ongoing MGNREGA activities claim have now been removed from the PDD. The updated PDD has now been submitted to the VVB for review.
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification is acceptable. CAR 12 is closed.

CAR ID	13	**Section no.**	2.4	**Date:** 14/08/2025
Description of CAR				
Evidence that the project is being designed and implemented in participatory approach must be submitted. The same shall be demonstrated in the PD. The PC must review and rewrite the section accordingly.				
Project coordinator response				**Date:** 14/12/2025
Records including MoMs, photographs, attendance sheets of PRAs and FGDs have been submitted for VVB's review.				
Documentation provided by project coordinator				
Updated PDD MoMs, photographs, attendance sheets of PRAs and FGDs				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable, consistency achieved. CAR 13 is closed.				

CAR ID	14	Section no.	2.5.1	Date: 14/08/2025
Description of CAR				
Move consultation details to annex				
Project coordinator response				**Date:** 14/12/2025
Moved to Annex 17				
Documentation provided by project coordinator				
Updated PDD and Annex 17				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable. CAR 14 is closed.				

CAR ID	15	Section no.	2.5.1	Date: 14/08/2025
Description of CAR				
1. PC must submit the following stakeholder consultations/PRAs/FGDs documents: a. • Related reports b. • Photographs c. • Attendance sheet d. • Feedback forms (if any) e. • Invitation letters sent 2. Provide anonymous grievance route				
Project coordinator response				**Date:** 14/12/2025
Required details are provided Arbtirator Mechanism is added				
Documentation provided by project coordinator				
1. MoMs, photographs, attendance sheets, feedback forms and invitation letters of stakeholder consultations, PRAs and FGDs 2. Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and updated information is acceptable. CAR 12 is closed.				

CAR ID	16	Section no.	2.6	Date: 14/08/2025
Description of CAR				

Since the previously involved project implementation partners are no longer involved, the PC must provide evidence demonstrating how the validity of the previously conducted FPIC process will be maintained. If a new FPIC process is required due to this significant change in project implementation arrangements, the PC must ensure that the revised process is appropriately reflected in the PDD, and Section 2.6 is updated accordingly to document the approach, timeline, and stakeholder engagement evidence.
Project coordinator response **Date:** 14/12/2025
Section 2.6 has now been revised in according to the current implementation situation of the Project
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification and updated changes are acceptable. CAR 16 is closed.

CAR ID	17	**Section no.**	3.1	**Date:** 14/08/2025
Description of CAR				
Remove duplication of methodology				
Project coordinator response				**Date:** 14/12/2025
The duplication of methodology is removed and added in the Annex 7				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable. CAR 17 is closed.				

CAR ID	18	**Section no.**	3.1	**Date:** 14/08/2025
Description of CAR				
1. PC has described several baseline conditions, including the following: a. In the absence of project interventions, upland areas would remain fallow, leading to continued soil erosion and further deterioration of the groundwater table. b. The project districts, Birbhum and Dumka, are predominantly tribal, with approximately 75% of the population dependent on subsistence agriculture. c. The region experiences high levels of poverty and widespread food insecurity. PC must provide credible evidence or references to substantiate these claims and ensure that the baseline description is supported by verifiable data sources (e.g., primary survey, government reports, research studies, or official statistics). 2. Clarify watershed infrastructure				
Project coordinator response				**Date:** 14/12/2025

1. Required details have now been added in the revised PDD. 2. In the past, the government has undertaken various initiatives in watershed-based soil and water conservation, including the construction of water conservation structures such as tanks and other infrastructure for water storage. However, many of these structures remain underutilized or nonfunctional due to a lack of awareness within the community, inadequate engagement with local stakeholders, and the absence of dedicated staff for maintenance. As a result, these investments have not yielded the expected benefits in terms of water conservation and agricultural productivity.
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification is acceptable. CAR 18 is closed.

CAR ID	19	**Section no.**	3.1	**Date:** 14/08/2025
Description of CAR				
Clarify drought-resistant species				
Project coordinator response				**Date:** 14/12/2025
The project has introduced drought resistant species. Mango and Terminalia arjuna are low to mdoerate drought resistant species. Acacia auriculiformis is a high drought resistat species. This specie thrives in arid and degraded soils, making it suitable for afforestation in dry regions.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable. CAR 19 is closed.				

CAR ID	20	**Section no.**	3.1	**Date:** 14/08/2025
Description of CAR				
One of the graphs included in this section shows that while there may have been a decrease in above ground biomass since 2010, there appears to be an upwards trend from 2017 onwards for Birbhum. Could you elaborate on what is causing this?				
Project coordinator response				**Date:** 14/12/2025
The increment in AGB is due to reduced fire incidence in the project region.				
Documentation provided by project coordinator				
Updated PDD				

VVB assessment	**Date:** 09/01/2026
Clarification is acceptable. CAR 20 is closed.	

CAR ID	21	**Section no.**	3.2	**Date:** 14/08/2025
Description of CAR				
1. Details of the calculations should be removed from this section as they have already been included in Annex 6. Add a statement here referring to Annex 6 for full calculations of the carbon baseline. 2. Submit the ERR sheet for validation				
Project coordinator response				**Date:** 14/12/2025
The suggested changes have been made ERR sheet have now been submitted				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable. Point 1 is closed ERR related findings have been raised as finding 71. This CAR will be closed on closure of CAR 71. This CAR is closed on 21/04/2026				

CAR ID	22	**Section no.**	3.3 and 3.4	**Date:** 14/08/2025
Description of CAR				
1. Since the PC is adding new areas and revisiting the eligibility and baseline conditions of certain existing project parcels, the entire baseline section must be rewritten to align with the updated project boundaries and parcel details. This section will be comprehensively reviewed once the updated baseline study and supporting evidence are submitted to the VVB for assessment. 2. PC must provide credible evidence or references to substantiate these claims and ensure that the baseline description is supported by verifiable data sources (e.g., primary survey, government reports, research studies, or official statistics). 3. PC has added deforestation and loss of biodiversity in this section. PC must clarify the relevance of this information in this section and its connection to the project. 4. The planation plan and nursery overview provided here should be removed as they are not relevant information for the expected ecosystem change under the baseline scenario. Those details can be moved to project activities (section 3.6) below table 3.6.				
Project coordinator response				**Date:** 14/12/2025

1. The required details have been added to the baseline studies 2. The required details have been added to the baseline studies 3. The information was not required and has been removed from the section. 4. The suggested information has been shifted to section 3.6 below table 3.6.
Documentation provided by project coordinator
Updated PDD and Annex 6
VVB assessment — **Date:** 09/01/2026
Clarification is acceptable. CAR 22 is closed.

CAR ID	23	**Section no.**	3.5	**Date:** 14/08/2025
Description of CAR				
1. In the project logic table, the content under the "Assumptions/Risks" column appears vague and lacks clear linkage to project outcomes. The PC must revise and elaborate this section to ensure that the assumptions and risks are specific, measurable, and logically aligned with the project activities and outputs. 2. During the site visit and beneficiary interviews, it was noted that the respondents are already receiving 100 days of employment under MGNREGA. The PC must clarify how the project's interventions will generate additional or exclusive employment benefits, distinct from those already provided under MGNREGA. Accordingly, make required changes in the statement in this section as well as in other relevant sections of the PD. 3. Soil and water conservation treatments were not observed during the site visit. The PC must provide demonstrable evidence, such as time-stamped photographs, activity reports, or other verifiable documentation to substantiate the claim that such interventions have been implemented. 4. For Activity 1.1, the PC has stated that continuous community engagement will be ensured through periodic meetings, leadership identification, and the involvement of Community Resource Persons (CRPs). However, given the change in project implementation partners, the PC must elaborate on how these activities will now be effectively executed and demonstrate how a participatory approach to project implementation will be maintained throughout the project's lifetime. 5. The PC must revise this section based on updated survey data and the inclusion of new plantation areas. The VVB is of the opinion that this section should be reviewed in detail once clarity is provided regarding the current implementation partners and organizational arrangements following recent management changes.				
Project coordinator response — **Date:** 14/12/2025				

1. The project logic table has now been revised. The content under the "Assumptions/Risks" column has been further elaborated to provide clearer linkage with the proposed project activities, outputs, and expected outcomes. The assumptions and risks have been updated to better reflect the implementation context and associated project dependencies.
2. The PC would like to clarify that the project is not claiming MGNREGA-supported employment as a direct project intervention. Any references implying employment generation under MGNREGA as part of the project benefits have now been revised/removed from the PD. The project's contribution is primarily through plantation establishment, long-term maintenance activities, capacity building, community mobilization, and support for sustainable land-use practices, which are distinct from the statutory employment support provided under MGNREGA.
3. The PC acknowledges the observation. Soil and water conservation activities are planned as part of the phased implementation approach of the project. However, such interventions were not implemented in the sampled locations visited during the site visit at the time of assessment. Relevant evidence and documentation for implemented interventions, wherever applicable, will be maintained and made available for subsequent verification and monitoring activities.
4. The PC confirms that despite changes in implementation partners, the participatory implementation approach of the project remains unchanged. FCF India is now centrally coordinating project implementation and management. For Jharkhand project areas, FCF India is collaborating with FIT Climate Foundation for field-level implementation support, while for West Bengal sites, implementation activities are being overseen through FCF India's regional teams. Periodic community meetings, engagement of Community Resource Persons (CRPs), beneficiary consultations, and local leadership involvement will continue throughout the project lifetime to ensure sustained community participation.
5. The PC has revised the relevant sections based on the updated survey data and inclusion of new plantation areas. The organizational structure, implementation arrangements, and roles and responsibilities have also been updated in the PDD to reflect the recent management and implementation changes.

Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Responses provided and updated made in the PDD by the PC is satisfactory and acceptable. CAR 23 is closed.	

CAR ID	24	**Section no.**	3.5	**Date:** 14/08/2025
Description of CAR				
Table 3.5 needs to be updated/rewritten. Some of the assumption and risks included in this table are irrelevant e.g. fluctuations in the carbon market and strong commitment in the state for climate action which are relevant to project success but are not appropriate assumptions or risk for the outlined benefit, output or activity. In some instances, activities are listed in the assumptions column, and in other rows, mitigation measures are listed but no risk is included. Please revise this table and fill it in as per the template. Comments in the PDD provide more detail on this point.				
Project coordinator response				**Date:** 14/12/2025

The section has been revised
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification is acceptable. CAR 24 is closed.

CAR ID	25	**Section no.**	3.5	**Date:** 14/08/2025
Description of CAR				
The template states “If the project interventions include harvesting of trees, include details of replanting or regeneration after harvest.”. The PDD mentions in several locations about harvesting of timber trees. This should be appropriately represented in this section.				
Project coordinator response				**Date:** 14/12/2025
Information on the harvesting of the trees has been added.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable. CAR 25 is closed.				

CAR ID	26	**Section no.**	Technical Specifications	**Date:** 14/08/2025
Description of CAR				
Information provided on the Community Recourses Person is not relevant here and should be moved to section 2.4 (participatory design).				
Project coordinator response				**Date:** 14/12/2025
The information related to Community Resource person is removed as it was not relevant.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification is acceptable. CAR 26 is closed.				

CAR ID	27	**Section no.**	3.6	**Date:** 14/08/2025

Description of CAR
1. The PC must revise this section based on the updated survey data and the inclusion of new plantation areas. The VVB is of the opinion that this section should be re-evaluated in detail once clarity is provided regarding the current implementation partners and organizational arrangements, considering the recent management changes. 2. The PC must specify in which Plan Vivo document the 10-year criterion is mentioned. Additionally, as per the applied methodology, the PC should review the definitions of Afforestation and Reforestation activities and take appropriate actions to ensure alignment with the eligibility criteria outlined therein. 3. The PC must provide verifiable evidence of key activities carried out to date and ensure that the timeline chart specifies the exact year in which each activity is planned or implemented. The chart should clearly distinguish between existing plantations and newly planned plantations, as the current version appears to represent only new plantations. 4. The PC has provided sapling cost estimates in this section. The PCmust clearly specify who will bear the cost of saplings, whether it will be covered by the PC or contributed by the community. PC must provide supporting evidence or agreements for the same, if available. 5. This section states that the criterion for selection for inclusion in the project "includes uplands belonging to individual farmers but not being used for a decade or so, no destruction of native ecosystem has been done in the last ten years and there are no large trees in more than 10% of the land parcel". “Includes” suggests that there are other potential criteria. Is this the case? If this is the only criteria, we suggest removing this word to avoid confusion.
Project coordinator response **Date:** 14/12/2025
1. The relevant section has now been revised based on the updated survey data and inclusion of new plantation areas. The PC has also updated the organizational and implementation arrangements in the PDD to reflect the recent management changes and the current implementation structure. 2. The PC has now reviewed the applied Plan Vivo requirements and methodology definitions related to Afforestation and Reforestation activities. Relevant clarifications and references have been incorporated in the revised PDD to ensure alignment with the applicable eligibility criteria and interpretation of the 10-year condition. 3. The PC has revised the implementation timeline and activity chart to clearly specify the year of implementation/planning for each activity. The revised chart now distinguishes between existing plantations and newly proposed plantation activities. Relevant evidence and records for key activities implemented to date have also been compiled and will be maintained by the PP. 4. The sapling cost and funding arrangement have now been clarified in the revised PD. The PC has specified whether the sapling costs are borne directly by the project or supported through community contribution/other arrangements, wherever applicable. Relevant supporting documents and implementation arrangements have also been referenced in the revised section. 5. The PC acknowledges the observation. The wording in this section has now been revised for clarity. The term “includes” has been removed to avoid confusion and the eligibility criteria for inclusion of land parcels under the project have now been presented more clearly and consistently in the revised PD..
Documentation provided by project coordinator
Updated PDD

VVB assessment	Date: 09/01/2026
Clarification is acceptable. CAR 27 is closed.	

CAR ID	28	Section no.	3.7	Date: 14/08/2025
Description of CAR				

1. This section must be rewritten to reflect the changes made in the overall project area and project operational & management plan.
2. The PC must ensure that all applicability conditions are correctly addressed and that this requirement is fully met. The PC must specify, for each applicability condition, whether it is from the methodology itself or from a specific tool/module. This distinction must be clearly indicated in the documentation and reflected in the revised applicability table.
3. Third applicability condition: mentioned in the PDD lacks clarity. The PC must indicate precisely which tool or module it belongs to and ensure that the justification aligns with the correct applicability source.
4. Fourth applicability condition:
    a. The PDD states that the project involves pit digging and that less than 10% of the soil will be disturbed. The PC must elaborate on how this figure has been derived and provide evidence to support the claim.
    b. The PC has stated that the project area does not contain organic soils; however, no supporting evidence has been provided. The PC must submit relevant documentation, maps, and LULC shapefiles to substantiate this claim.
5. Fifth applicability condition: The justification provided that the project involves tree plantations and therefore does not alter the hydrology is not consistent with the applicability condition. The PC must review the applied methodology and rewrite the justification to align accurately with the specific applicability requirement.
6. Sixth Applicability Condition: The justification provided under this condition is also not aligned with the applicability requirement. The PC must cross-check the applied methodology and revise the explanation accordingly.
7. PC must include appropriate references for all claims made in this section, whether based on primary or secondary data. Without verifiable references, the VVB cannot perform a conclusive review.
8. For the image provided on page 125, the PC must add geo-coordinates of the respective plots and clarify how the associated activities ensure that less than 10% of the soil in the project area is disturbed.
9. As per Point 1 of Step 0, the PC must clearly demonstrate that the project start date for the A/R CDM activity occurred after 31 December 1999. Submit evidence that the incentive from the potential sale of CERs was seriously considered in the decision to proceed with the project. This must also reflect the current project set-up, considering that two original participants are no longer part of the project.
10. The PC has not included Sub-step 1b or its outcome. The PC must review the applied tool and ensure that each step and sub-step is covered, as per the methodological requirements.
11. Under Step 4, the PC must indicate the exact page number in the NABARD report where the lack of support for agroforestry or plantation activities is stated. While the reports discuss general resource inefficiencies across sectors, the VVB could not locate any specific reference to agroforestry-related constraints.
12. The PC must clearly report the mortality rate used in project design and monitoring and describe the strategy or plan for replacement plantations to ensure long-term project sustainability.
13. For SOC carbon pool, the justification added is not acceptable. SOC cannot be less than 5% in ex-post. It will be much more than. However, considering a conservative approach PC can justify its exclusion.
14. For Dead wood and litter carbon pools, the justification is not in line with the ground reality. Based on interviews conducted with farmers, all of them are removing DW and Li from their project areas and primarily using them as fuelwood. Check and write an appropriate justification in line with the applied methodology. Accordingly, revise the entire section.
15. For harvested wood product carbon pool, the justification provided for WP CP is not satisfactory. How PC has estimated that emission from HWP of Sonjahuri is conservative must be demonstrated and explained. Also, PC must justify if the HWP will have any impact on the project's additionality. Accordingly, revise the entire section.
16. For biomass burning GHG source, the justification is not in line with the ground reality. Based on interviews conducted with farmers, all of them are removing DW and Li from their project areas

and primarily using them as fuelwood. Check and write an appropriate justification in line with the applied methodology. See if PE is required to be estimated due to these activities.

17. For “fossil fuel use”, GHG source, the project is using JCBs for making cattle trenches. The PC must provide justification in line with the actual ground situation of the project and explain how the emission from this activity is not significant.
18. The baseline emissions/removals section has not been written in line with the applied module. The PC must review the applied module PU001 and follow every step outlined for calculating emissions. Issues e.g.,
19. It is unclear which approach from Section 5.1.2 of the module has been applied.
20. There is no clarity on how the PA was stratified. If stratification was not undertaken, no justification has been provided.
21. Therefore, the PC must review the applicable module in detail and rewrite this section accordingly.
22. For “project emissions and removals”, check emissions related to burning Li and DW and also fuelwood used by JCB for making cattle trenches. Either justify that the emissions from these sources are not significant or if significant, then provide the estimations.
23. Apart from these three species there are other species as well found planted or planned to be planted in the project parcels. PC must check and ensure information related to all the species included in the project has been listed and required details for biomass estimation has been provided. Also, this will be validated once the ERR sheet is submitted.
24. PC must explain what and how is the % value of uncertainty estimated for the project calculations.
25. How the NER has been estimated. PC has not provided equation that must have been applied to arrive at the NER value.
26. Expected ERR benefits and Monitoring - Will be checked once the following information are provided:
    a. ERR sheet
    b. All species planted under the project both in existing and new plantation.

Revise the entire Monitoring Plan based on the current ground situation. This section will only be reviewed once the revision has been completed.

Project coordinator response	**Date:** 14/12/2025

1. The section has now been revised to reflect the updated project area, revised plantation scope, and the current project operational and management structure.
2. The applicability table has now been revised. The PC has clearly specified whether each applicability condition is derived from the applied methodology, tool, or module, and corresponding justifications have been updated accordingly.
3. The third applicability condition has now been clarified in the revised PD. The applicable tool/module and corresponding justification have been correctly referenced and aligned with the relevant applicability requirement.
4. Following corrections have been made:
    a. 4a. The PC has revised the justification related to soil disturbance and provided additional explanation regarding pit digging activities and the basis for considering disturbance below 10% of the project area.
    b. 4b. The PC has now included additional supporting information, maps, and relevant documentation to substantiate that the project area does not contain organic soils. Relevant GIS/LULC information will also be maintained by the PC for validation and verification purposes.
5. The justification under the fifth applicability condition has now been revised in line with the specific applicability requirement and the applied methodology.
6. The justification under the sixth applicability condition has also been revised after cross-checking the applied methodology and relevant applicability requirements.
7. Relevant references and citations for claims made in this section have now been added wherever applicable, including references based on both primary and secondary data sources.
8. The PC has updated the relevant figure(s) to include geo-coordinates of the respective plots and has further clarified the nature and extent of soil disturbance associated with the proposed activities.
9. The PC has now included additional explanation and supporting evidence demonstrating that the project start date occurred after 31 December 1999 and that carbon finance incentives were considered during the project decision-making process. The revised explanation also reflects the current project structure and participant arrangements.
10. The PC has reviewed the applied tool and revised the section to ensure that all required steps and sub-steps, including Sub-step 1b, are appropriately covered.
11. The PC has now revised the reference section and included specific page references from the NABARD report relevant to the identified constraints and barriers.
12. The mortality assumptions applied in the project design have now been clarified in the revised PD. The PC has also included information regarding gap filling and replacement plantation strategies to support long-term sustainability of the project.
13. The PC acknowledges the observation. The justification related to SOC carbon pool has now been revised, and the conservative exclusion approach has been appropriately clarified in line with the applied methodology.
14. The justification related to dead wood and litter carbon pools has now been revised considering the actual ground situation observed during the site visit and stakeholder interactions. The revised explanation has been aligned with the applied methodology and corresponding project practices.
15. The PC has revised the justification related to harvested wood products and included additional explanation regarding the conservativeness of the approach applied. The section has also been updated to clarify the relationship, if any, between HWP and project additionality.
16. The justification related to biomass burning GHG sources has now been revised considering the actual project conditions and stakeholder interviews. The PC has reviewed whether estimation of project emissions is required under the applied methodology and revised the section accordingly.

17. The PC has revised the justification related to fossil fuel use associated with JCB activities for cattle trench preparation. Additional explanation regarding the extent of such activities and significance of associated emissions has now been included.
18. The baseline emissions/removals section has now been revised in line with the applied module PU001 and corresponding methodological steps.
19. The PC has now clarified the specific approach applied under Section 5.1.2 of the module.
20. Additional clarification regarding project area stratification has now been included in the revised PD. Relevant justification has also been added where stratification was not considered necessary.
21. The relevant section has now been reviewed and revised in line with the applicable module requirements.
22. The PC has reviewed emissions associated with burning of litter/dead wood and fossil fuel use for trench preparation activities. Relevant justification and/or estimation approaches have now been included where applicable.
23. The PC has now reviewed the species list and updated the PDD to include all species currently planted or proposed under the project activity. Relevant biomass estimation information has also been revised accordingly.
24. The methodology and basis used for uncertainty estimation have now been clarified in the revised PD.
25. The PC has now included the equation and methodology used for estimation of NER in the revised section.
26. The PC acknowledges the observation. The ERR sheet and updated species information for both existing and proposed plantations will be submitted separately, following which the section can be reviewed further.

The Monitoring Plan has now been revised based on the current project implementation status and ground situation. Relevant sections have been updated accordingly.

Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification is acceptable. CAR 28 is closed.	

CAR ID	29	**Section no.**	3.7	**Date:** 14/08/2025
Description of CAR				
Please add a statement here pointing to Annex 7 for full details of the carbon benefit calculations.				
Project coordinator response				**Date:** 14/12/2025
The suggested changes have been made				
Documentation provided by project coordinator				
Updated PDD and Annex 7				

VVB assessment	**Date:** 09/01/2026
Clarification is acceptable. CAR 29 is closed.	

CAR ID	30	**Section no.**	3.7	**Date:** 14/08/2025
Description of CAR				
Values included in table 3.8a should be in per hectare values, but you have included total values. Please update the table.				
Project coordinator response				**Date:** 14/12/2025
The values have been updated per hectare				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
The values are now per the submitted KML and excel. The CAR is now closed.				

CAR ID	31	**Section no.**	3.7	**Date:** 14/08/2025
Description of CAR				
The carbon benefit in table 3.8b should be before risk buffer deduction. Based on the other numbers in this table, it should be 2442198 / (4000*20) = 30.53 where 4000 is the hectares and 20 is the quantification period. Please explain how you arrived at 24.42 so we can reconcile this difference.				
Project coordinator response				**Date:** 14/12/2025
The values have been updated per hectare.				
Documentation provided by project coordinator				
Updated PDD and ER sheet				
VVB assessment				**Date:** 09/01/2026
The values are now per the submitted KML and area included in the ERR excel. The CAR is now closed.				

CAR ID	32	**Section no.**	3.9.3	**Date:** 14/08/2025
Description of CAR				

1. One of the activities listed in Annex 8 is "Production or trade in wood or other forestry products other than from sustainably managed forests." The project includes the harvesting of Sonajhuri trees. The PC must justify this activity in line with the activity mentioned in annex 8. 2. PC has not provided the information in line with the requirements of "Vulnerable Groups" parameter mentioned in Annex 9. Per the applied template PC must clarify "Is there a risk that project activities disproportionately affect vulnerable groups, due to their vulnerability status?" Also, "Is there a risk that the project discriminates against vulnerable groups, for example regarding access to project services or benefits and decision-making?" PC must refer to the applied PDD template and add the required details. The PC has not responded to the exact questions listed in the table of Annex 9. The PC must ensure that the details provided directly address the concerns highlighted in the table. The necessary corrections must be made throughout the table. 3. This section states that the agreement will be made with the project participants and a proper project-level grievance mechanism will be set, but based on other parts of the PDD, both have already happened. If these activities have already happened, this should be updated to reflect that for clarity and consistency across the PDD.	
Project coordinator response	**Date:** 14/12/2025
1. The PC has reviewed the activity listed under Annex 8 regarding "Production or trade in wood or other forestry products other than from sustainably managed forests." The harvesting and use of Sonajhuri trees under the project activity have now been further clarified in the revised PDD, including the sustainable management approach, intended use, and relevant safeguards adopted under the project framework. 2. The PC has now revised Annex 9 in line with the applied template requirements. Additional details have been included regarding potential impacts on vulnerable groups, including risks related to disproportionate impacts, discrimination, access to project services and benefits, and participation in decision-making processes. The responses have been updated to directly address the specific questions provided in the Annex 9 table, and corresponding revisions have been made throughout the section for consistency and clarity. 3. The agreements and project level grievance mechanism is in place. The information was not relevant here and hence removed. The section related to agreement and grievance mechanism is revised with the information mentioned in the comment.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification is acceptable. CAR 32 is closed.	

CAR ID	33	**Section no.**	3.9.4	**Date:** 14/08/2025
Description of CAR				

The E&S management plan (Table 3.9.4) in the PDD does not fully meet the requirements of Section 3.9.4 of the applied template. While several environmental and social risks have been identified and linked to mitigation measures and project activities, the following gaps were noted: • Not all risks and impacts identified in Sections 3.9.2 and 3.9.3 (e.g., gender inclusion, community health and safety, biodiversity impacts) are included in this section • No explicit reference to formal mitigation plans or protocols (e.g., stakeholder engagement plan, livelihood restoration plan, etc). • There is no clear link between the mitigation measures and project activities. PC must clearly mention that action "X" designed under the project activity will lead this mitigation of risk/s "Y". • Since PRASARI and HUCWARM are out fo the picture, re-write the section in line with the current project scenario.

Project coordinator response	**Date:** 14/12/2025
The section is revised with new information	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 33 is closed.	

CAR ID	34	**Section no.**	3.9.5	**Date:** 14/08/2025
Description of CAR				
1. Please clarify whether naturalised species will be planted as part of project activities alongside native species, and specify this clearly in this section of the PDD. 1. PC has mentioned that the species planted are all native to the project. Add reference to substantiate the claim. 2. The harvesting plan mentioned will be checked only once the PC will submit the ERR sheet.				
Project coordinator response				**Date:** 14/12/2025
The section is revised with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 34 is closed.				

CAR ID	35	**Section no.**	3.10	**Date:** 14/08/2025
Description of CAR				

Annex 7 says that the project will issue fPVCs, rPVCs and vPVCs, contradicting this section which mentions only rPVCs. Please clarify which credit types the project will be issuing.
Project coordinator response **Date:** 14/12/2025
The project will claim rPVCs, fPVCs and vPVCs. The section is revised with new information.
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification and new information is acceptable. CAR 35 is closed.

CAR ID	36	**Section no.**	3.10	**Date:** 14/08/2025
Description of CAR				
Earlier on in the document, the PDD stated that 10% will be placed into an achievement reserve. This section conflicts with that by saying that 20% will be placed into an achievement reserve. Either option is acceptable but there is a conflict in information to resolve. Has there been some confusion between the future risk buffer (which is mandatory 20%) and the achievement reserve (which is minimum 10%)? Please clarify.				
Project coordinator response				**Date:** 14/12/2025
The value for acheivement reserve is 10%. The section is revised.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 36 is closed.				

CAR ID	37	**Section no.**	3.11	**Date:** 14/08/2025
Description of CAR				

1. It seems there has been a misunderstanding on the term “impact” and, as such, the column has not been completed appropriately. The responses in this column provide likelihood arguments, for example saying “the impact is low because it is unlikely to occur because…”. This is not the purpose of the column. Instead, the project should describe how much of an impact it would be if the risk did occur, i.e. how much damage to reversals would it be if there was a 100% likelihood of this happening. For example, how much damage to the trees/reversals would occur if a large proportion of participants had their land tenure rights challenged and potentially lost their tenure? More examples are in the PDD comments. Please rewrite this table to match the template requirements.
2. Risk Factor: “Community support for the project is not maintained”, the likelihood explanation provided is not consistent with the corresponding risk factor. PC must review and rewrite this section to ensure that the likelihood assessment aligns with the identified risk.
3. Risk Factor: “Insufficient finance secured to support project activities”, PC has stated that “due to proactive efforts to secure funding from various sources, the risk of insufficient finances affecting the project’s ability to properly incentivize and reward farmers is low. While there is a solid foundation of partial climate” This statement is incomplete and lacks supporting evidence. The PC must provide documentation or financial records substantiating this claim, including proof of secured funding sources and commitments.
4. Risk Factor: “Alternative land uses become more attractive to the local community”, PC must elaborate the likelihood assessment, considering current ground realities specifically that the baseline parcels are barren and agricultural productivity is low. These contextual aspects must be reflected in justification and incorporated into the revised risk analysis.
5. Risk Factor: “Pest and disease attacks”, PC must submit the relevant project management and operational plans outlining the preventive and response measures for pest and disease outbreaks.
6. Risk Factor: “Extreme weather or geological events”, no clear explanation has been provided, and the details included are insufficient. Flooding alone cannot be considered representative of this category. PC must expand the assessment to include all relevant parameters under extreme weather such as drought, heat stress, cyclones, and other climate-related hazards along with their respective likelihood and mitigation measures.
7. Risk Factor: “Capacity of the project coordinator to support the project is not maintained”, the likelihood has been rated as low, citing adequate on-ground capacity. However, since the implementation partners have exited the project, this justification must be revisited. The PC must explain how the project coordination and management functions will now be maintained and supported going forward.
8. Risk Factor: “Technical capacity to implement project activities is not maintained”, based on the explanation provided, the current technical capacity does not appear sufficient in view of the project’s scope and complexity. The PC must justify the likelihood rating assigned and provide evidence of the technical expertise and resources currently available to support project implementation.

Project coordinator response	**Date:** 14/12/2025

1. The PC acknowledges the observation and has now revised the table in line with the template requirements. The "Impact" column has been updated to describe the potential magnitude and consequences of each risk in the event that the risk occurs, rather than focusing on likelihood-related justifications. 2. The PC has reviewed and revised the likelihood assessment for the risk factor "Community support for the project is not maintained" to ensure consistency between the identified risk and the corresponding justification provided. 3. The section related to "Insufficient finance secured to support project activities" has now been revised. Additional details regarding funding arrangements, financial planning, and available support mechanisms have been incorporated. Relevant supporting documents and evidence of secured or ongoing funding arrangements will also be maintained by the PP. 4. The PC has revised the likelihood assessment for the risk factor "Alternative land uses become more attractive to the local community" considering the current baseline conditions of the project area, including low agricultural productivity and degraded/barren land conditions. The revised justification now better reflects the local context and ground realities. 5. The PC has now included additional information regarding project management and operational measures related to pest and disease prevention, monitoring, and response mechanisms. Relevant management plans and implementation measures will also be maintained by the PP. 6. The assessment related to "Extreme weather or geological events" has now been expanded to include additional climate and environmental risks such as drought, heat stress, cyclones, irregular rainfall, and other relevant natural hazards. Corresponding mitigation and management measures have also been included in the revised section. 7. The PC acknowledges the observation. The section related to "Capacity of the project coordinator to support the project is not maintained" has now been revised to reflect the current implementation structure and management arrangements following the exit of earlier implementation partners. Additional details regarding project coordination and support mechanisms have also been incorporated. 8. The PC has reviewed the section related to "Technical capacity to implement project activities is not maintained" and revised the justification accordingly. Additional information regarding the current technical team, implementation support structure, institutional arrangements, and available expertise/resources has now been included in the revised PD.
Documentation provided by project coordinator
Updated PDD
VVB assessment — **Date:** 09/01/2026
Clarification and new information is acceptable. CAR 37 is closed.

CAR ID	38	**Section no.**	3.11	**Date:** 14/08/2025
Description of CAR				

1. The details added is not clear. PC must explain why only leakage due to agricultural activities is mentioned here. Per the applied template PC has to include "Describe risks of leakage from the project intervention and their potential impact on emissions outside the project area(s)."
2. PC has mentioned that "The livestock of the beneficiaries in the area are grazed in the gochar land allotted by the village council/state government," This practice is followed in Dumka but not in Birbhum. PC must ensure that the analysis covers the entire PA/strata and provide justification for the absence of grazing activity displacement in Birbhum as well.
3. The justification provided for the condition "c.- Animals are displaced to cropland that has been abandoned within the last five years, is not satisfactory. Elaborate and demonstrate the same
4. The justification provided for the condition "d - Animals are displaced to forested lands, and no clearance of trees, or decrease in crown cover of trees and shrubs, occurs due to the displaced animals" is not satisfactory. Elaborate and demonstrate the same. During audit visit it was found that a few parcels were close to the forest patches. PC must justify the same. PC must ensure to include a robust justification to ensure even if there are nearby forest, the displacement of grazing activity is not expected due to "x", "y" and "z" conditions.
5. The overall leakage analysis and justification provided is not satisfactory. The PC must substantiate it with sufficient analysis to demonstrate that the project will not lead to the displacement of project activities.
6. On page 63, PC has mentioned that "Leakage estimation calculation using PU003 v1.0 to estimate any increase in GHG emissions from emission sources outside the project area that results from project activities. PC must clarify the relevance of this tool and the details provided in this section.

Project coordinator response	**Date:** 14/12/2025

1. The PC has now revised the leakage section in line with the applied template requirements. Additional details regarding potential leakage risks associated with the project intervention and their possible impacts on emissions outside the project area have been incorporated in the revised PD.
2. The PC acknowledges the observation and has revised the leakage assessment to include justification for both Dumka and Birbhum project areas. Additional explanation regarding grazing practices and the absence of significant grazing displacement impacts in Birbhum has now been incorporated in the revised section.
3. The justification related to condition "c - Animals are displaced to cropland that has been abandoned within the last five years" has now been further elaborated in the revised PDD with additional contextual explanation and supporting justification.
4. The PC has revised the justification related to condition "d - Animals are displaced to forested lands, and no clearance of trees, or decrease in crown cover of trees and shrubs, occurs due to the displaced animals." Additional explanation regarding nearby forest patches, existing grazing practices, availability of alternative grazing areas, and reasons why significant grazing displacement to forest areas is not expected under the project scenario has now been incorporated in the revised leakage assessment.
5. The overall leakage analysis has now been revised and strengthened with additional assessment, contextual information, and justification to demonstrate that the project activities are not expected to result in significant displacement of baseline activities or associated emissions outside the project area.
6. The PC has reviewed the reference made to PU003 v1.0 and revised the relevant section to clarify the applicability and relevance of the tool within the context of the project leakage assessment. Additional clarification has also been provided in the revised PD.

Documentation provided by project coordinator

Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification and new information is acceptable. CAR 38 is closed.

CAR ID	39	**Section no.**	3.13	**Date:** 14/08/2025
Description of CAR				
Please comment on NDCs and whether there is a risk of carbon benefits from the project being included in Indian NDCs. PC on page 63 has mentioned that "A declaration to the extent will be made by the implementing partner that there are no overlapping claims of the farmers with any other carbon project." Submit the declaration for validation				
Project coordinator response				**Date:** 14/12/2025
1. The carbon benefits generated from the project will not be included in any Nationally Determined Contribution (NDC). The project is developed under the voluntary carbon market, and currently, there are no rules or regulations in India mandating that a portion of such benefits be integrated into the NDC. Therefore, the stated risk is not applicable. 2. The no double counting deceleration has been submitted to the VVB				
Documentation provided by project coordinator				
Updated PDD Declaration – no double counting				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 39 is closed.				

CAR ID	40	**Section no.**	3.14	**Date:** 14/08/2025
Description of CAR				
PDD template asks for land management plans (LMPs) to "include all details needed to estimate carbon benefits using the appropriate technical specification". Could a description please be provided on what information is included in the LMPs that ensures that the carbon estimates are accurate? Submit the revised the revise "land management plan" of the project per the current ground situation				
Project coordinator response				**Date:** 14/12/2025
All the details considered to estimate the carbon benefits using the appropriate technical specifications is added in Annex 7 and a reference is added in section 3.14. LMP have been submitted				

Documentation provided by project coordinator	
Updated PDD and Annex 7 LMP	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 40 is closed.	

CAR ID	41	**Section no.**	3.16	**Date:** 14/08/2025
Description of CAR				
The write-up of the benefit-sharing/how it's worded should be updated to reflect the financial plan (excel) that was submitted, and how the project meets PV Climate benefit-sharing requirements. As it stands, this section makes it seem that the participants get 35% of the overall benefit. Revise the entire BSM based on the current ground situation and the revised management and implementation plan. This section will only be reviewed once the revision has been completed.				
Project coordinator response				**Date:** 14/12/2025
The section is revised with new information The VVB assessed the project's BSM in line with Section 3.16.2 of the Plan Vivo Requirements, v5.5. The requirement relates specifically to the distribution of income generated from the sale of PV Certificates and not to overall project expenditure or implementation costs. In accordance with the requirement, at least 60% of the net income from the sale of PV Certificates, after deduction of applicable taxes, charges, and similar fees, shall directly benefit Project Participants and other local stakeholders, including communities and CBOs. Based on review of the financial model, summary sheets, and proposed benefit allocation approach presented by the PP, the VVB noted that the project intends to allocate approximately 80% of the projected net benefits towards communities and CBOs through community incentives and other stakeholder benefit-sharing arrangements. The signed agreement also clearly states the 60% benefits in line with the requirements of PV will be allocated to the participants of the project. The detailed financial model and assessment is fine and the CAR is now closed.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 41 is closed.				

CAR ID	42	**Section no.**	3.17	**Date:** 14/08/2025
Description of CAR				

1. The PC has described the grievance redress mechanism in the PDD in line with PV requirements. However, during the site visit, the team could not observe evidence of grievance documentation or record-keeping at the sampled sites. As the project is currently undergoing refinement and implementation, the PC must ensure that the mechanism is functional and provide supporting evidence demonstrating its active use. 1. This section shall be updated to align with the revised operational and management structure. The PC is encouraged to clearly explain how grievances are registered, documented, and maintained, including how records are periodically reviewed and updated.	
Project coordinator response	**Date:** 14/12/2025
1. The grievance redress mechanism has been established in line with Plan Vivo requirements. As the project implementation is currently progressing and operational systems are being strengthened, the PC will ensure that grievance records, supporting documentation, and evidence of implementation are properly maintained and available for subsequent monitoring and verification activities. All the existing grievance records were submitted to the VVB. 2. The relevant section has now been revised in line with the updated operational and management structure of the project. Additional details have also been incorporated regarding the process for grievance registration, documentation, record maintenance, review, and periodic follow-up under the revised project management framework.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 42 is closed.	

CAR ID	43	**Section no.**	3.17	**Date:** 14/08/2025
Description of CAR				
Include details of an independent arbitrator that will be responsible for mediating resolution of any grievances that cannot otherwise be resolved as per the template.				
Project coordinator response				**Date:** 14/12/2025
The local government body, for example Gram Panchayat at Village level will serve as an independent arbitrator, ensuring fair and transparent resolution of any grievances that cannot be settled through the standard grievance redressal mechanism. It will act as a neutral mediator, facilitating discussions between stakeholders and ensuring that disputes are addressed in a just and impartial manner. By involving the local government body, the project strengthens community trust, accountability, and long-term commitment, ensuring smooth implementation and minimizing conflicts throughout the project lifecycle. The same statement is added in the section 3.17 of PDD				
Documentation provided by project coordinator				
Updated PDD				

VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 43 is closed.	

CAR ID	44	**Section no.**	3.18	**Date:** 14/08/2025
Description of CAR				
This section also states that the participants are the communities, which conflicts with the project participants section which describes the participants as being individual farmers. Please ensure that the PDD is consistent on this point.				
Project coordinator response				**Date:** 14/12/2025
The section is revised with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 44 is closed.				

CAR ID	45	**Section no.**	4.3	**Date:** 14/08/2025
Description of CAR				
1. This section does not match the monitoring section, which states “increase in production of agriculture and horticulture produce”. Please clarify which is correct. Please also provide greater detail in terms of the units/values measured and the units of measurement, e.g. is it about yield increase or about purchase power in the market? 2. The section shall be revised based on the revised operational and management plan.				
Project coordinator response				**Date:** 14/12/2025
1. The changes have been made in section 4.8 to match the information 2. The section has now been revised				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 45 is closed.				

CAR ID	46	**Section no.**	4.4	**Date:** 14/08/2025

Description of CAR	
This section mentions that maintaining the biodiversity register is resource intensive work which may be adopted as a formal part of the project based on the availability of resources. Anything that is not guaranteed and not occurring in the first verification period of the project should be removed. It can always be added at the start of the next verification period. Please update this section accordingly.	
Project coordinator response	**Date:** 14/12/2025
The statement is removed to avoid confusion.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 46 is closed.	

CAR ID	47	**Section no.**	4.1	**Date:** 14/08/2025
Description of CAR				
1. The first-instance area is not 4,000 ha. The PC must justify the basis for this figure or revise it to reflect the correct area with supporting evidence. 2. Sampling intensity and sample plots: The details provided are incorrect. The PC must verify the sampling design and update the sampling intensity, plot numbers/sizes, and allocation methodology accordingly. 3. A 100% survival rate is reported, which is inconsistent with field observations. The PC must correct the survival estimates and provide supporting evidence (e.g., plot sheets, time-stamped photos, enumeration records). 4. The explanation for “establishment of project boundaries using GIS” lacks clarity. The PC must elaborate the workflow (data sources, scale, projection, QA/QC steps) and provide the relevant GIS files (e.g., KML/shapefiles). 5. The entire section must be revised to reflect the current on-ground situation, ensuring consistency across area figures, sampling design, survival rates, and boundary delineation				
Project coordinator response				**Date:** 14/12/2025

1. The PC has reviewed the first-instance area and revised the figure to reflect the correct project area. Supporting evidence and corresponding area details have been updated in the revised PD.
2. The PC has reviewed and corrected the sampling design details. The revised section now includes updated sampling intensity, number and size of sample plots, and the plot allocation methodology.
3. The PC acknowledges the observation. The survival rate has been reviewed and corrected based on available field records and monitoring evidence. Supporting documents such as plot sheets, time-stamped photographs, and enumeration records have been compiled/provided, where available.
4. The explanation regarding establishment of project boundaries using GIS has now been elaborated. The revised section includes details on data sources, mapping workflow, projection system, scale, boundary verification, and QA/QC steps. Relevant GIS files, including KML/shapefiles, have also been submitted/made available.
5. The entire section has been revised to reflect the current on-ground situation and to ensure consistency across project area figures, sampling design, survival rate, and boundary delineation.

Documentation provided by project coordinator

Updated PDD

VVB assessment	**Date:** 09/01/2026

Clarification and new information is acceptable.

CAR 47 is closed.

CAR ID	48	**Section no.**	4.4	**Date:** 14/08/2025

Description of CAR

This section says the Prasari team will also try incorporating indigenous and local knowledge into biodiversity assessments. This needs to represent a plan that is to be followed and audited against and “try” removes any liability on the project to implement described activities. Please remove the word "try" or update the wording to reflect what will happen.

Project coordinator response	**Date:** 14/12/2025

The sentence is now revised. The word try is removed to avoid confusion. Project will incorporate indigenous and local knowledge through out

Documentation provided by project coordinator

Updated PDD

VVB assessment	**Date:** 09/01/2026

PRASARI is no longer involved in the project. The PC must check and update the PDD in line with the current management of the project.

Project coordinator response	**Date:** 21/01/2026

The corrections has now been made in the revised PDD and the details have now been revised in line with the new management and coordination structure of the project

Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 10/02/2026
The corrections made are now in line with the current project situation of project management and implementation coordination of the project. The updated PDD is ok and the CAR is now closed.	

CAR ID	49	**Section no.**	4.5	**Date:** 14/08/2025
Description of CAR				
The following indicators from the progress monitoring section (4.1) have not been included in the monitoring plan: 1. Number of pits dug 2. Number of irrigation structures constructed 3. Number of trees planted 4. Area in hectares under existing plantation 5. Area in hectares under new plantation 6. % of total work in convergence with the Government 7. Components of community plan included in GPDP Please make sure these two sections are consistent/explanation of why these indicators are not covered by the monitoring plan. If they are covered under other indicators already included in the monitoring plan, that should be made clear.				
Project coordinator response				**Date:** 14/12/2025
The section is revised with new information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 49 is closed.				

CAR ID	50	**Section no.**	4.5	**Date:** 14/08/2025
Description of CAR				
The progress monitoring section makes mention of "number of user groups formed" but this is not one of the progress indicators included in section 4.1. Clarify what this refers to.				
Project coordinator response				**Date:** 14/12/2025
The section is revised with new information				

Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 50 is closed.	

CAR ID	51	**Section no.**	4.5	**Date:** 14/08/2025
Description of CAR				
Tree species is not included as a carbon indicator. Is this something you are not considering?				
Project coordinator response				**Date:** 14/12/2025
Tree species have been added				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 51 is closed.				

CAR ID	52	**Section no.**	4.5	**Date:** 14/08/2025
Description of CAR				
In the livelihood indicators table, the statement the increase in income will be measured against a new income baseline every 5 years is included under progress indicators but this is not appropriate for this column. Please move it to the adjacent column.				
Project coordinator response				**Date:** 14/12/2025
The statement is removed. The frequency and duration is added in adjacent coloumn.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 52 is closed.				

CAR ID	53	**Section no.**	4.5	**Date:** 14/08/2025
Description of CAR				

In the livelihood indicators table, an indicator included is increase in production of agriculture and horticulture produce. This differs from what is stated in the livelihood indicators section, which states “increase access to high value horticulture and agriculture produces”. Please clarify which is correct. Please also provide greater detail in terms of the units/values measured and the units of measurement, e.g. is it about yield increase or about purchase power in the market?
Project coordinator response **Date:** 14/12/2025
The indicator is revised
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification and new information is acceptable. CAR 53 is closed.

CAR ID	54	**Section no.**	4.6	**Date:** 14/08/2025
Description of CAR				
Make sure this section is consistent with section 4.1. Refer to CAR49 (row 64) for inconsistencies.				
Project coordinator response **Date:** 14/12/2025				
The section is revised with updated information				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment **Date:** 09/01/2026				
Clarification and new information is acceptable. CAR 54 is closed.				

CAR ID	55	**Section no.**	4.6	**Date:** 14/08/2025
Description of CAR				
The first "annual target" column in the progress monitoring table should be removed. It is repeating what should be in the “full target achievement” column, but also creating confusion by conflicting with it. It’s not appropriate to say that a target has been “fully met” if it has only been 50% met. Please update the table accordingly, and see PDD comments for details.				
Project coordinator response **Date:** 14/12/2025				
The first Annual target coloumn gives the target in numbers which is essential to be clear at this stage. The coloumn adjacent to it represents the acheivemet based on the amount of target completed.				
Documentation provided by project coordinator				
Updated PDD				

VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 55 is closed.	

CAR ID	56	**Section no.**	4.6	**Date:** 14/08/2025
Description of CAR				
1. The progress monitoring table has an annual target of 1 nursery. Does this represent 1 new nursery per year? Additionally, how can this target be partially met as this appears to be a binary target. Please clarify. 2. This section mentions that "If one or more of the indicator values is below its performance target for one or more monitoring period, the full issuance is received but corrective actions must be implemented." Does this performance target refer to the partial or the full target? Please clarify.				
Project coordinator response				**Date:** 14/12/2025
1. Yes, it indicates one community level nursery every year. 2. It refers to the partial target acheivement. This information is added in the PDD.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 56 is closed.				

CAR ID	57	**Section no.**	5.3	**Date:** 14/08/2025
Description of CAR				
1. The PC must include other relevant regional and state-level laws that affect the project and demonstrate that the project will operate in full compliance with these. 2. The PC must also justify why only the NAP at the national level has been included as potentially affecting the project. 3. Additionally, as per the applied template, the PC is required to: “In Annex 15, include a letter of approval from the authorities with overall responsibility for land management and greenhouse gas emissions assessment within the project region, stating that the project does not violate any national or regional laws or regulations.” The PC must justify how this requirement has been fulfilled for Dumka. If it has not been fulfilled, the PC must justify why. Furthermore, for Birbhum, since HUCWARM is no longer active, the PC must justify how it will ensure compliance with this criterion even for Birbhum given the current situation.				
Project coordinator response				**Date:** 14/12/2025

1. The PC has reviewed and revised the section to include additional relevant national, regional, and state-level laws and regulations applicable to the project activity. The revised PDD also clarifies how the project activities are designed and implemented in compliance with these applicable legal and regulatory requirements. 2. The PC has revised the section and provided additional justification regarding the inclusion of the NAP and other relevant policies/frameworks that may potentially affect the project activity. 3. The PC acknowledges the observation and has reviewed the requirement related to Annex 15. Additional clarification regarding compliance with this requirement for the Dumka project area has now been incorporated in the revised PD. Furthermore, considering the revised implementation arrangement and the exit of HUCWARM from Birbhum activities, the PC has also clarified the current institutional and compliance arrangements through which legal and regulatory compliance will continue to be ensured for the Birbhum project area.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 57 is closed.	

CAR ID	58	**Section no.**	4.8.1	**Date:** 14/08/2025
Description of CAR				
1. Similar to the progress monitoring table (CAR55), please remove the column labelled activity indicator (measure annually). This is also repeating what should be in the "target" column, and is creating confusion by conflicting with it. Please update the table accordingly. 2. Submit all baseline data against which the PC will monitor project outcomes and achievements.				
Project coordinator response				**Date:** 14/12/2025
1. The first Annual target coloumn gives the target in numbers which is essential to be clear at this stage. The coloumn adjacent to it represents the acheivemet based on the amount of target completed. 2. All the baseline data has now been submitted.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 58 is closed.				

CAR ID	59	**Section no.**	4.8.2	**Date:** 14/08/2025
Description of CAR				

1. Tree species richness should be included here. Species richness is not qualitative and biodiversity monitoring is what we are interested in, i.e. biodiversity monitoring and ecosystem monitoring are referring to the same thing. Please clarify your understanding here. 2. Clarify whether the number of trees planted 120,000, is for the entire project or only for the first instance.
Project coordinator response **Date:** 14/12/2025
1. Tree species richness is added in the section 4.8.2 2. The number has now been revised and updated list of trees to be planted for the first instance has now been provided
Documentation provided by project coordinator
Updated PDD
VVB assessment **Date:** 09/01/2026
Clarification and new information is acceptable. CAR 59 is closed.

CAR ID	60	**Section no.**	4.8.3	**Date:** 14/08/2025
Description of CAR				
This section was not filled in and the subheading was removed from the PDD. The monitoring plan (section 4.5) mentions that the monitoring results will be shared with the relevant stakeholders. CAR60 - Move that information to this section.				
Project coordinator response				**Date:** 14/12/2025
The section is updated.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 60 is closed.				

CAR ID	61	**Section no.**	4.9	**Date:** 14/08/2025
Description of CAR				
The monitoring period is the period over which the report covers. This therefore seems to conflict itself, saying that this will be both April to March, and January to December (after the first report is submitted). It sounds like the true period is January to December after the first year's report. If this is the case, please make this clear by removing the statement that it is April to March. Please also ensure that dates include a day. E.g. 1st Jan to 31st December. This is important for the registry when issuing PVCs				

Project coordinator response	**Date:** 14/12/2025
The annual reporting cycle will follow a 1st January to 31st December timeline. The first annual report will be shared in 31st March 2026, covering the period from the project start date to 31st December 2024. Subsequently, annual reports will be shared every 31st January, covering the duration from 1st January to 31st December of the preceding year. The same explanation is added in the PDD.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 61 is closed.	

CAR ID	62	**Section no.**	Annex 7	**Date:** 11/08/2025
Description of CAR				
1. Included with this annex is a table showing 5 plantation models. Are these different systems with one species dominating, and then each smallholder applies one of these systems? Or are they single species models which are applied on a per area basis to each smallholder plot, which will have multiple species present? 2. Clarify the end use of HWP of Sonajhuri and how emissions related to HWP is conservative 3. PC has mentioned that "in the absence of the project intervention, the identified land use scenario shall include continuation of the pre-project land use, which is leaving it barren." The PC must justify the relevance of this statement for parcels where previous or ongoing plantations already exist. Clarify how these cases fit within the baseline scenario definition.				
Project coordinator response				**Date:** 14/12/2025
1. These systems represent the plantation models. There are 5 models in the project. These models consit of only one specie. Farmers have to adopt one model. 2. Complete Sonajhuri LTA estimation has now been provided to the VVB for review. 3. Such parcels were the plantations already been established were now been removed. The updated PDD and KML have been submitted to the VVB for its review				
Documentation provided by project coordinator				
Updated PDD and ER sheet				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 62 is closed.				

CAR ID	63	**Section no.**	Annex 7	**Date:** 14/08/2025

Description of CAR	
In the table explaining the exclusion of GHG emission sources, the justification of the exclusion of some sources is repetitive and misses the main point of justifying their exclusion. The project planting native tree species does not automatically mean all emission sources can be ignored. Please update the table by including the appropriate justifications for each source. See PDD comments for examples. This is for the following sources: 1. Fossil fuel use 2. Enteric fermentation 3. Soil methanogenesis	
Project coordinator response	**Date:** 14/12/2025
The section is revised with new information	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 63 is closed.	

CAR ID	64	Section no.	Annex 7	Date: 14/08/2025
Description of CAR				
The purpose of including applicability conditions is to help the project and auditors know where the technical specification can be applied to, meaning under what conditions are the assumptions in the technical specification correct and therefore its outputs are correct. What you have included here could arguably be correct but it: 1. Is hard or impossible to audit and for you to correctly implement, and 2. Is more of a description of the starting locations. If your applicability conditions perfectly describe your starting locations and don't have flexibility to also describe other areas in the region, then your project cannot expand because no other areas meet these conditions. Please rewrite this section and significantly simplify it with a bullet point list of applicability conditions				
Project coordinator response				**Date:** 14/12/2025
All the applicability conditions are added in Annex 7.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 64 is closed.				

CAR ID	65	Section no.	Annex 7	Date: 14/08/2025
Description of CAR				
The first table in Annex 7 lists the modules and tools applied by the project under PM001, but this list is incomplete. Please include all the tools and modules under PM001 that were applied.				
Project coordinator response				**Date:** 14/12/2025
All the Tools and Modules mentioned in the methodolgy is added except PT001 Smallholder Agriculture Monitoring and Baseline Assessment (SHAMBA) tool, Version 2.0 and PT002 Estimation of Climate Benefits from REDD in Community Managed Forest, Version 2.0, as they are not relevant with the project.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 65 is closed.				

CAR ID	66	Section no.	Annex 11	Date: 14/08/2025
Description of CAR				
A report is linked in this annex and it is unclear its connection to the project as neither Prasari or HUCWARM are mentioned in the report. It looks like a report for MGNREGS. Make it clear its connection to the project and how those land management plans developed through MGNREGS are a part of this carbon project.				
Project coordinator response				**Date:** 14/12/2025
Any contributions associated with MGNREGA have now been removed from the PDD, as these do not represent direct contributions of the project. Further, HUCWARM and PRASARI are no longer associated with the project. The PDD is currently being updated accordingly. The project is now centrally managed and controlled by FCF India. For the Jharkhand project areas, FCF India is collaborating with FIT Climate Foundation, which will be responsible for project implementation. For the West Bengal project areas, FCF India's regional team will oversee project implementation and management activities.				
Documentation provided by project coordinator				
Updated PDD				
VVB assessment				**Date:** 09/01/2026
The response provided by the PC and the changes made in the PDD are acceptable and based on actual ground situation of the project. The CAR is now closed.				

CAR ID	67	Section no.	Annex 11	Date: 14/08/2025
Description of CAR				

Please add the example resource maps in the document from the link included in this annex to the main Annex 11.	
Project coordinator response	**Date:** 14/12/2025
A sample resource is added in Annex 4 and reference is made in given section.	
Documentation provided by project coordinator	
Updated PDD	
VVB assessment	**Date:** 09/01/2026
Clarification and new information is acceptable. CAR 67 is closed.	

CAR ID	68	**Section no.**	Annex 16	**Date:** 14/08/2025
Description of CAR				
Please label the excel spreadsheet you are referring to here as Annex 16 in the drive that it is stored. Also, PC must provide the basis for benefit sharing that provide clarity on how 60% benefit from the project will be routed to the beneficiaries/PC.				
Project coordinator response				**Date:** 14/12/2025
The document is added in the google drive Exhibit 34 and other details are added in Annex 16.				
Documentation provided by project coordinator				
Updated Financial Plan				
VVB assessment				**Date:** 09/01/2026
The VVB assessed the project's BSM in line with Section 3.16.2 of the Plan Vivo Requirements, v5.5. The requirement relates specifically to the distribution of income generated from the sale of PV Certificates and not to overall project expenditure or implementation costs. In accordance with the requirement, at least 60% of the net income from the sale of PV Certificates, after deduction of applicable taxes, charges, and similar fees, shall directly benefit Project Participants and other local stakeholders, including communities and CBOs. Based on review of the financial model, summary sheets, and proposed benefit allocation approach presented by the PP, the VVB noted that the project intends to allocate approximately 80% of the projected net benefits towards communities and CBOs through community incentives and other stakeholder benefit-sharing arrangements. The signed agreement also clearly states the 60% benefits in line with the requirements of PV will be allocated to the participants of the project. The detailed financial model and assessment is fine and the CAR is now closed.				

CAR ID	69	Section no.	Overview	Date: 14/08/2025

Description of CAR

1. Water conservation measures were not observed during the site visit (sample sites). The PC must provide further clarification and supporting evidence to substantiate the reported interventions related to water conservation.
2. Please submit the KML file to enable cross-verification of the area and confirm the eligibility of the land under the AR project category of Plan Vivo. Additionally, the total area reflected in the submitted Excel sheet for plot locations differs significantly. The PC is advised to ensure that the most updated and finalized area is reflected consistently in the revised PDD for validation.
3. Please submit the ERR sheet for review.
4. During the site visit, Arjuna/Asana plantations associated with sericulture practices were observed only in a few locations in Birbhum and were largely absent in Dumka sites. This indicates that sericulture may not be a widespread practice across the project area. Therefore, PC must clarify and provide justification for including sericulture as a major economic activity within the project context.

Project coordinator response | **Date:** 14/12/2025

1. Evidence and detailed record of water conservation activities have been provided to the VVB.
2. KML of the project parcels have now been submitted to the VVB
3. ERR sheet have now been submitted for review.
4. It is clarified that Arjuna plantation has been carried out only on 10 ha of land till date. This will be scaled up in the coming year. The detailed discussions have been done with the VVB and particpants details and records including the geotagged photographs were provided to the VVB for review

Documentation provided by project coordinator

1. Updated PDD
2. KML
3. ERR sheet
4. Photographs and other records of Arjuna plantation

VVB assessment | **Date:** 09/01/2026

1. Finding 1 is closed. PC has provided sufficient evidence to demonstrate the said activity has been implemented
2. A separate KML related finding (no. 70) has now been provided to the PC.
3. A separate ERR related finding (no. 71) has now been provided to the PC.
4. PC has provided sufficient evidence for Arjuna plantation till the stage of validation in the project area.
5. This finding will be closed upon closure of finding 70 and 71.

CAR ID	70	Section no.	KML	Date: 14/08/2025

Description of CAR

5. The project spatial data are currently provided as multiple KML files without a single consolidated and standardized eligible KML, limiting traceability, consistency, and long-term MRV usability.
6. Internal spatial overlaps were identified within individual KML files, indicating deficiencies in boundary delineation and posing a risk of area double counting, which requires correction to ensure spatial accuracy and eligibility compliance.
7. Key land parcel attributes such as plantation date, implementation status, land-use category, and eligibility status are missing or inconsistently populated in the KML files, limiting independent verification and temporal traceability.
8. A small number of very small parcels (<0.05 ha) were identified; although not explicitly disallowed by the methodology, we are only highlighting since PC has mentioned that all land are of less than 1 ha size. Please check.
9. The land cover maps for 2010 and 2020 are visually satisfactory; however, the absence of a formal geospatial methodology report (including data sources, spatial resolution, classification workflow, and accuracy assessment) limits reproducibility and independent validation.
10. Forest exclusion has not been cross-validated using authoritative government or widely accepted open forest cover datasets, which is recommended to strengthen confidence in eligibility determination.
11. Several land parcels show no visible evidence of project activity despite more than 4-5 years having elapsed since the project start date, requiring clear justification and supporting evidence, along with a systematic review of similar cases.
12. Irregular parcel geometries were observed where non-contiguous land pieces are artificially connected by narrow linear features, which misrepresents actual land boundaries and should be corrected using proper delineation and multipolygon representation.
13. Inclusion of pre-existing established tree cover was observed in some parcels based on pre-project imagery, and such areas should be excluded from the eligible project boundary with parcel reshaping and consistency checks across the project.
14. Non-eligible features such as farm ponds, wells, roads, and settlement areas were identified within certain parcels, and their inclusion has not been adequately justified under the applied methodology, requiring systematic screening and exclusion where applicable.
15. There is no clearly documented spatial quality control and correction workflow addressing overlaps, exclusion of non-eligible features, hole creation for settlements, and boundary corrections, which is necessary to ensure consistent and defensible parcel delineation across the project.

Specific land cover issues or the clarification required

Lat, Long	Remark	Image
24.62550902, 87.01253752	Several land parcels appear to show no visible evidence of project activity, which requires clear justification. Given that more than two years have elapsed since the project start date, the absence of observable implementation indicators (e.g., plantation establishment or land treatment measures) across multiple parcels raises concerns regarding implementation status and eligibility, and should be adequately explained and supported with evidence by the PP.	 Image date: March 2019  Image date: May 2022

24.57786409, 87.32465433 24.59493610, 87.01829333 24.37589759, 87.05478297 24.21436854, 87.31632277	Irregular land parcel geometries were observed in several cases, where two or more spatially separated land pieces are connected by narrow linear geometries. This delineation is not spatially representative of actual parcel boundaries. It is recommended that parcel boundaries be properly digitized, and where a single farmer owns multiple non-contiguous land pieces, these should be represented as a multipolygon feature rather than being artificially connected by lines, to ensure spatial accuracy and avoid misrepresentation of area. Check for similar cases. Also suggest to properly exclude the already established trees. It is recommended that the KML files be updated to clearly include the plantation date for each land parcel as an attribute, to provide a transparent and accurate record of implementation timelines and to support verification of project activity status. Some farm ponds were also observed within the project land parcels. The PC is requested to assess their eligibility in accordance with the applied methodology and provide clear justification for their inclusion or exclusion (some farm ponds are excluded), as well as to review and address similar instances across other parcels.	 Image date: November 2024  Image date: Jan 2025  Image date: 2025 
24.45954513, 87.11348265	Inclusion of pre-existing established trees is observed in several land parcels, as evidenced from the 2010 and 2025 satellite imagery. It is recommended that such tree-covered areas be excluded from the eligible project area, and that parcel boundaries be re-shaped accordingly. The PC should also conduct a systematic review of all parcels to identify and correct similar instances at other locations, to ensure consistency with project eligibility criteria.	 Image date: 2010 

		Image date: Jan 2025
24.49085984, 87.07555852	Same as above, check for similar cases	 Image date: 2010  Image date: Jan 2025
24.36525948, 87.06504681	Evidence of human activity and constructed features (appearing to be a well structure) is observed within certain land parcels. The PC is requested to verify the eligibility of such areas in accordance with the applied methodology and to assess whether these features are permissible within the project boundary. A systematic review should also be undertaken to identify and address similar cases across other parcels, if any.	
24.33679668, 87.07864704	The presence of a road feature, although appearing to be a farm access road (also connects different villages and can be considered as secondary road), is observed within certain land parcels. The PC is requested to assess the eligibility of such areas in line with the applied methodology and provide appropriate clarification and justification for their inclusion, as well as to review and address similar occurrences across other parcels.	
24.29190724, 87.15803588	No evidence of existence plantation even though this parcel is from '***All_Existing_Plantation_KML.kml***', please check for similar cases and justification is required.	 Image date: May 2025

24.00602541, 87.29680278 24.00464694, 87.29495442	Suggest to delineate the settlement from parcel by creating a hole feature from advanced vector editing. Check for similar cases.	

Project coordinator response	**Date:** 14/12/2025
PC has now revised the KML and has addressed all the issues raised by the VVB	
Documentation provided by project coordinator	
5. Updated PDD 6. KML 7. ERR sheet	

VVB assessment	**Date:** 09/01/2026

12 Remaining KML related issues

1. An internal spatial overlap assessment was conducted for the three revised KML datasets using parcel-level topology analysis. The analysis shows that **12 parcels within the Existing Plantation dataset** and **2 parcels** within the **Future Plantation dataset exhibit minor internal overlaps**, while **no overlaps** were detected within the **New Plantation dataset**.

Name	Name_of_Farmer	_of_Pla	State	Distri	Bloc	Villag	tation_	_use_(	ape_Le	hape_A	ea_ha_	geomet	Overlap_status	Overlapping_with	Ov
547548072	Raja Ram choudhary	2020-21	Jharkhand	Dumka	Jarmundi	Thekchagl	Plantation	Sparse Ve	398.443	6746.53	0.67519	MULTIPOLY(	Yes	547698106	0.243
547663489	Sorojani tudu	2022-23	Jharkhand	Dumka	Jarmundi	Bervana	Plantation	Sparse Ve	527.596	5963.86	0.59686	MULTIPOLY(	Yes	547666146	0.036
547666146	Sorojani tudu	2022-23	Jharkhand	Dumka	Jarmundi	Bervana	Plantation	Fallow lan	843.589	16671.2	1.66845	MULTIPOLY(	Yes	547663489	0.013
550512256	Deepnarayn darbey	2021-22	Jharkhand	Dumka	Jarmundi	Ghortopi	Plantation	Sparse Ve	182.587	814.963	0.08156	MULTIPOLY(	Yes	550614270	0.189
563009144	Ramvilas mandal	2020-21	Jharkhand	Dumka	Jarmundi	Patsara	Plantation	Fallow lan	260.374	3529.08	0.35319	MULTIPOLY(	Yes	563005344	0.335
589903371	Gomosh hansda	2022-23	Jharkhand	Dumka	Masalia	Pahrudih	Plantation	Fallow lan	297.9	2429.88	0.24318	MULTIPOLY(	Yes	589903371	0.421
598241533	Uttam Royani	2020-21	West Beng	Birbhum	Rajnagar	Latabuni	Plantation	Planted/ C	395.971	2146	0.21477	MULTIPOLY(	Yes	598241533	78.35
598241533	Uttam Royani	2020-21	West Beng	Birbhum	Rajnagar	Latabuni	Plantation	Planted/ C	282.491	1762.48	0.17639	MULTIPOLY(	Yes	598241533	95.40
589903371	Gomosh hansda	2022-23	Jharkhand	Dumka	Masalia	Pahrudih	Plantation	Fallow lan	271.703	2290.11	0.22919	MULTIPOLY(	Yes	589903371	0.446
563005344	Ramvilas mandal	2020-21	Jharkhand	Dumka	Jarmundi	Patsara	Plantation	Planted/ C	304.177	5046.93	0.5051	MULTIPOLY(	Yes	563009144	0.234
550614270	Deepnarayn darbey	2021-22	Jharkhand	Dumka	Jarmundi	Ghrtopi	Plantation	Sparse Ve	176.553	1126.42	0.11273	MULTIPOLY(	Yes	550512256	0.137
547698106	Mukesh choudhary	2020-21	Jharkhand	Dumka	Jarmundi	Thekchagc	Plantation	Planted/ C	345.018	4423.65	0.44272	MULTIPOLY(	Yes	547548072	0.371

Figure 2: *Internal overlapping in Existing_Plantation dataset.*

In total, **14 parcels out of 795 parcels (~1.8%)** show spatial overlap. The majority of these overlaps are extremely small, typically **below 1% of the parcel area**, and are likely attributable to minor boundary digitization offsets, vertex snapping inconsistencies, or coordinate precision differences during geometry editing.

One parcel within the Existing Plantation dataset exhibits a relatively higher overlap percentage and may represent a boundary duplication or geometry artifact (refer to figure 2). This parcel should be further reviewed by the project proponent to ensure accurate parcel delineation.

Figure 3: *Land parcel with high overlapping status.*

It is recommended that the PC perform a final topology cleaning step to remove minor residual sliver overlaps and ensure that parcel boundaries are fully non-overlapping prior to final MRV submission and finalize the area thereafter.

Table 1: *Overlapping status summary.*

Dataset	Parcels	Overlapping Parcels	% Affected
Existing Plantation	454	12	2.64%
New Plantation	298	0	0%
Future Plantation	43	2	4.65%
Total	**795**	**14**	**1.76%**

2. **one parcel** within the **Existing Plantation** dataset **(Parcel ID: 566272777; Farmer: Sabaitri Royani) was found to have an area value of zero**, indicating a potential geometry collapse or invalid polygon. Such records should be reviewed and corrected or removed in the final spatial dataset to ensure accurate area accounting and spatial consistency. It is recommended that the PC verify and correct any parcels with zero area to ensure that all features represent valid spatial polygons prior to final MRV submission.

Name	Name_of_Farmer	_of_Pla	State	Distric	Block	Villag	tation_	_use_c	hape_Le	hape_A	ea_ha_	geome
566272777	Sabaitri Royani	2020-21	West Beng	Birbhum	Rajnagar	Padampur	Plantation	Sparse Ve	288.8735	2020.532	0.20221	MULTIPC
566272777	Sabaitri Royani	2020-21	West Beng	Birbhum	Rajnagar	Padampur	Plantation	Sparse Ve	341.1491	4206.413	0.42096	MULTIPC
566272777	Sabaitri Royani	2020-21	West Beng	Birbhum	Rajnagar	Padampur	Plantation	Sparse Ve	223.9843	2635.153	0.26372	MULTIPC
566272777	Sabaitri Royani	2020-21	West Beng	Birbhum	Rajnagar	Padampur	Plantation	Sparse Ve	0	0	0	MULTIPC

Figure 4: *Particular land parcel with no geometry.*

3. **four parcels within the Existing Plantation** dataset were identified with an area **smaller than 0.05 ha**, representing approximately **0.5% of the total parcels** analyzed. Parcels below 0.05 ha are generally considered below the minimum mapping unit for ARR eligibility and may represent boundary delineation artefacts or extremely small land fragments. It is recommended that the PC re-verify all land parcels and ensure that any parcels with an area smaller than **0.05 ha** are removed from the dataset, as the current analysis indicates that a few such parcels are still present despite the KML Analysis Report stating that they have been excluded.

   It is recommended that the PC verify these parcels and update the KML dataset accordingly to ensure that all eligible parcels meet the minimum mapping unit required under the applied ARR methodology.

Table 2: *Summary of small and marginal land parcels statistics*

Dataset	Total Parcels	≤1 ha	≤0.5 ha	≤0.1 ha	<0.05 ha
Existing Plantation	454	347	249	23	4
New Plantation	298	235	175	2	0
Future Plantation	43	13	5	0	0
Total	795	595	429	25	4

Project coordinator response	**Date:** 21/01/2026

PC has now revised the KML and has addressed all the issues raised by the VVB

Documentation provided by project coordinator

8. Updated PDD
9. KML
10. ERR sheet

VVB assessment	**Date:** 10/02/2026

The KMLs submitted by the PC is now okay.

The analysis is based on the revised KML datasets submitted by the PC comprising three categories of plantations, namely Existing Plantation, New Plantation, and Future Plantation. The combined dataset consists of a total of 792 land parcels, representing an aggregate project area of 841.61 ha.

The CAR is now closed

PLAN VIVO

CAR ID	71	Section no.	ERR sheet	Date: 11/08/2025

Description of CAR

1. The year of plantation and the year for which the ERR has been estimated are not the same. The PC is required to clarify the rationale for this difference and explain how the ERR estimates remain representative of the actual plantation timeline.
2. The growth and biomass reference used for *Acacia auriculiformis* is sourced from studies conducted in Bangladesh. The PC is required to provide supporting evidence demonstrating that the ecological and climatic conditions of the reference site are comparable to those of the project area.
3. The PC is required to clearly explain how the Long-Term Average (LTA) has been applied for *Acacia auriculiformis*, given that the species is subject to regular harvesting cycles.
4. The ERR sheet includes multiple mortality estimates. The PC is required to clearly explain the assumptions adopted and justify the final mortality values used for the emission reduction calculations.

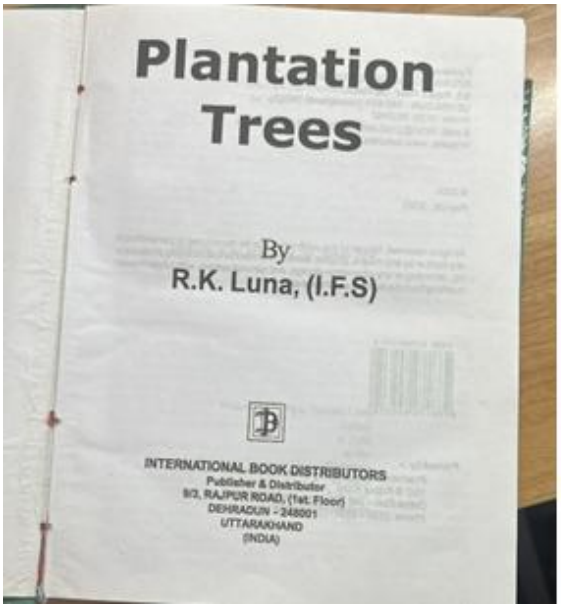
Expected GHG benefit after 20 %Buffer (0% Mortality)	Expected GHG benefit after 20 %Buffer (20% Mortality)	Expected GHG benefit afte 20 %Buffer (40% Mortality

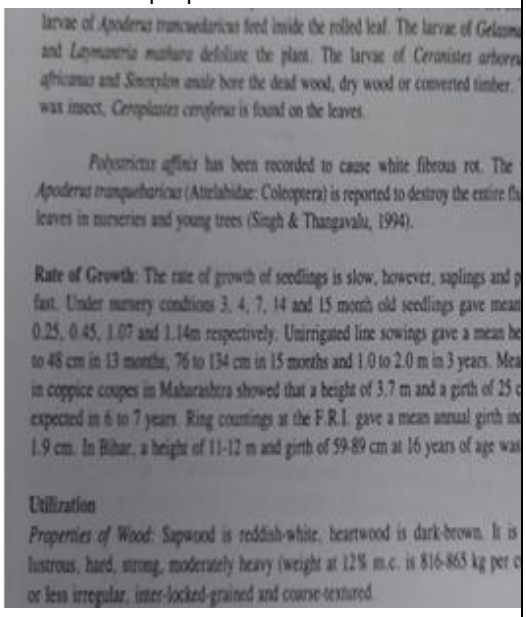
Mortality	15%	8%	5%	2%	
	Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**

5. Source for terminalia growth is not accessible
6. From the sheet it is not clear of the gap filling is being done or not.
7. PC to recheck the estimates in average 30 year sheet as the annual carbon numbers seems incorrect. This will further change once the LTA estimates are done as per the methodology
8. A further mortality has been considered in the final ERR numbers, basis for same is not clear.
9. Why in the ERR “inputs” subsheet Assumed Average Plot Size per HA (Community) is included?
10. What is the relevance of “cost stack” subsheet in the ERR?

Project Coordinator response	Date: 14/02/2025

1. PC would like to clarify that ERR calculated from the start year of the project (2020) for the whole crediting period. The information is incorporated into the ERR sheet and the PDD.
2. The growth and biomass reference for Acacia auriculiformis has been revised and is now sourced from a study conducted in Jharkhand, ensuring consistency with the ecological and climatic conditions of the project area. The corresponding reference link has also been updated accordingly in the ERR Sheet. In addition, the volume equation applied is taken from the India State of Forest Report (ISFR), 2021 and is specific to West Bengal, making it realistic for the project region.
3. The species Acacia auriculiformis will be harvested in the 12th year from the year of plantation. Following each harvest cycle, replanting will be undertaken to maintain continuous biomass stock and ensure long-term sustainability of the plantation system. To account for cyclical harvesting and replanting, a long-term average approach has been applied. The average annual emission reductions are calculated by determining the mean of total emission removals generated over the crediting period. The annual Verified Carbon Units (VCUs) to be claimed from the project will be capped at this long-term average value, ensuring a conservative and stable credit issuance profile over time.
4. The PC would like to clarify that the mortality assumptions previously referenced were considered solely for internal assessment purposes and were not intended for application in the final emission reduction calculations. These assumptions have now been removed. The revised ERR sheet, reflecting the corrected calculations, has been uploaded in Exhibit 3 of the evidence folder for review.
5. The cited reference for Terminalia arjuna is a printed book source (Plantation Trees by R.K. Luna, page 786), for which no openly accessible online version or publicly available PDF is available. Accordingly, the exact page reference, extracted data, and relevant growth information used for growth calculations have been documented and attached within the ER sheet. The data presented therein should be considered the reference source for verification purposes.





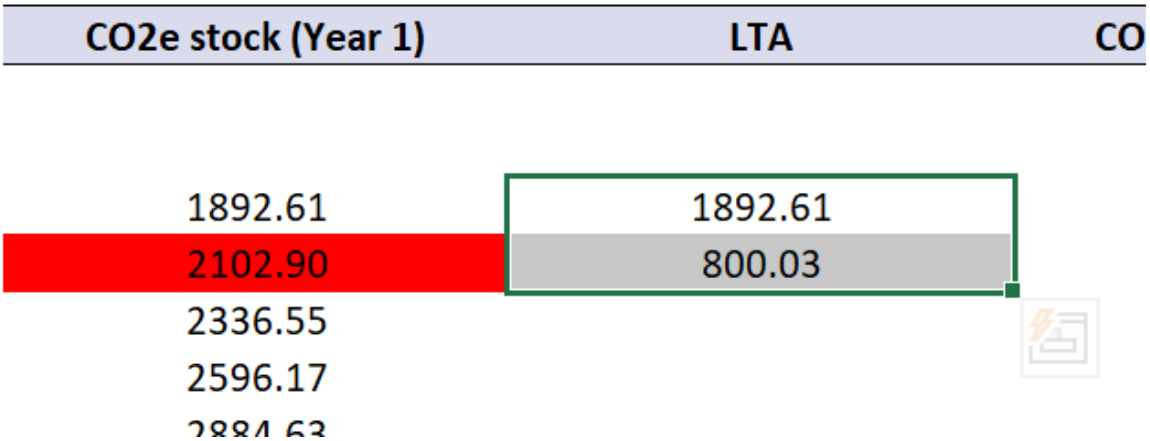
6. PC would like clarify that gap filling will be done to maintain the actual density of all models.
7. PC would like to clarify that average 30-year sheet is revised.
8. PC would like to clarify that other mortality assumptions are removed.
9. That was included by error the same has been now removed
10. Removed

Documentation provided by project coordinator

PDD ERR	
VVB assessment	**Date:** 09/01/2026
1. The ERR sheet estimates starts from the very first year of the plantation, should be rectified based on growth. 2. Resolved 3. LTA estimates are still not correctly estimated for Acacia, needs correction. explain how the LTA formula has been applied (check if in place of year, area is used for taking LTA average). 4. Resolved 5. Resolved 6. Resolved 7. LTA estimates are still not correctly estimated for Acacia, needs correction, check and explain how the LTA formula has been applied. It seems the Teak will also be harvested at the end of the project cycle, the same is not clear in the ERR sheet and the estimates are not clear. The formula may be applied on per tree estimates for clarity. 8. The summary sheet still has 3 Mortality rates and buffer consideration. Check and remove the ones not considered. 9. Resolved 10. Resolved	
Project Coordinator response	**Date:** 21/02/2026
1) The ERR sheets estimation starts from the 3rd year of the plantation, to reflects from when the growth starts. 3) LTA has been applied in the Teak and Acacia accordingly. 7) LTA has been applied in the Teak and Acacia accordingly. 8) The summary sheet has been revised to mention the data for 20% Buffer and 0% Mortality and 20% Buffer and 20% Mortality (for Risk calculation).	
Documentation provided by project coordinator	
PDD ERR sheet	
VVB assessment	**Date:** 10/03/2026

1) Resolved

3) LTA estimates are still not correctly estimated for Acacia. The cumulative available credits for first year plantation issuance are 2,102 tCO_2e, whereas 2,692 tCO_2e have been claimed in this submission. This discrepancy requires correction all yearly plantations, as the claimed issuance exceeds the available credit balance. The issuance quantity should be revised accordingly to ensure alignment with the verified cumulative credits. Similarly, in teak.



CO2e stock (Year 1)	LTA	CO
1892.61	1892.61	
2102.90	800.03	
2336.55		
2596.17		
2884.63		

CO2e stock (Year 6)	LTA	CO2e stock (Year 7)	LTA	CO2e stock (Year 8)	LTA
2174	2174				
2415	13049	3623	3623		
2684		4026	19816	3623	3623
2982		4473		4026	17917
3313		4970		4473	
3682		5522		4970	
4091		6136		5522	
4545		6818		6136	

7) Please revise the final estimates once the above issue has been resolved. Correction required: The summary sheet is still linked to the CO2e stock column instead of the LTA column. Kindly verify and update this linkage for all species under harvesting. The LTA revision should be incorporated as per the previous comment, and the final summary must be linked to the correct LTA column in the respective species sheets.

8) The summary sheet still has 3 Mortality rates and buffer consideration. Check and remove the ones not considered.

Project Coordinator response	**Date:** 10/04/2026

3) PC would like to clarify that the suggested calculations are corrected and now represents the correct method of calculating LTA. 7) The LTA calculation has now been corrected as per the suggestion. Annual issuance is derived from year-on-year changes in cumulative CO_2e stock, with a cap applied to ensure it does not exceed verified cumulative credits. Any excess is carried forward to subsequent years. All inconsistencies in the 30-year sheet have been corrected, and the approach has been consistently applied across species. 8) The summary sheet has been revised to mention the data for 20% Buffer and 0% Mortality and 20% Buffer and 20% Mortality (for Risk calculation).
Documentation provided by project coordinator
PDD ERR sheet

VVB assessment	**Date:** 20/04/2026
The required actions have been taken by the PC. The revised ERR sheet is fine and the calculated values are reported consistently in the PDD. The CAR is now closed.	

CAR ID	72	**Section no.**	NA	**Date:** 02/02/2026
Description of FAR				
Compilations of documents required - PC must also provide the following documents for validation: 1. Copy of agreements signed between PC and Landowners 2. Copy of agreements signed between PC and Project Implementation Partners 3. copy of PRA, FGDs, SE survey reports 4. Stakeholder consultations (carried out from the beginning - till date) reports/Minutes of meetings, attendance sheets and photographs 5. copy of worker training records/reports. 6. copy of HR policy 7. copy of Grievances Redressal Policy 8. SOPs for climate, community and biodiversity monitoring 9. copy of PP's Recruitment Policy 10. employment records 11. start date evidence 12. copy of PP's Code of Conduct (if available) 13. copy of PP's Financial Audit Report 14. copy of Project Area and related land records 15. copy of PP's undertaking/declaration letter for management of double counting 16. Remote Sensing Data: Land use land cover data of project area, Shape files - Project Area 17. Kml file of geographical coordinates of project boundaries 18. SOPs of carbon, monitoring and assessment (if available) 19. Ecological/biodiversity survey report (**if any**) 20. Permanent sample Plots inventory data **(if available**) 21. sample plots shape files 22. Baseline inventory data (Socioeconomic and ecological) 23. Additionality assessment supporting documents 24. Details of schedule of activities for the baseline assessment (both existing and new plantations) 25. Resource management plans for all the project sites 26. NOCs from the relevant government entity for both the project sites				

Project Coordinator response	**Date:**
All the required documents are submitted except the following: 1. *All agreements between PC and Project particpants* 2. *PSPs data (yet not laid – will be done before verification)* 3. *Biodiversity survey report – NA* 4. *NOCs from the government authority – as discussed and greed by the VVB, in India lands which are owned privately does not require any approval from government authority and hence not provided.*	
Documentation provided by project coordinator	
1. Copy of agreements signed between PC and Landowners (of all the site visited by the VVB) 2. Copy of agreements signed between PC and Project Implementation Partners 3. copy of PRA, FGDs, SE survey reports 4. Stakeholder consultations (carried out from the beginning - till date) reports/Minutes of meetings, attendance sheets and photographs 5. copy of training records/reports. 6. copy of HR policy 7. copy of Grievances Redressal Policy 8. SOPs for climate, community and biodiversity monitoring 9. copy of PP's Recruitment Policy 10. employment records 11. start date evidence 12. copy of PP's Code of Conduct (if available) 13. copy of PP's Financial Audit Report 14. copy of Project Area and related land records 15. copy of PP's undertaking/declaration letter for management of double counting 16. Remote Sensing Data: Land use land cover data of project area, Shape files - Project Area 17. Kml file of geographical coordinates of project boundaries 18. SOPs of carbon, monitoring and assessment (if available) 19. sample plots shape files 20. Baseline inventory data (Socioeconomic and ecological) 21. Additionality assessment supporting documents 22. Details of schedule of activities for the baseline assessment (both existing and new plantations) 23. Resource management plans for all the project sites	
VVB assessment	**Date:**
1. *FAR 01 raised* 2. *Acceptable* 3. *Acceptable* 4. *Acceptable* *CAR 72 is closed. FAR 01 is raised.*	

Table 3. FARs from this validation

FAR ID	01	**Section no.**	1.2	**Date:** 02/02/2026
Description of FAR				

1. Agreements between the PC and all participants engaged in the project activity for all parcels included within the currently validated 841.61 ha project area shall be made available by the first verification of the project. The completeness, validity, and consistency of these agreements shall be assessed during the first verification activity.
2. PC, prior to the first verification, shall revise the existing Carbon Rights Agreements/PES Agreements for all participating beneficiaries through a duly executed addendum for all the existing agreements signed and update the agreement template for all future participants, to ensure full alignment with the applicable Plan Vivo Project Requirements v5.5.
   The revised agreements shall:
   a. comply with Section 3.15.4 by explicitly specifying the project start date and crediting period of the project
   b. comply with Section 3.16.6 by providing a clear summary of the BSM including with details of the minimum amount the Project Participant is eligible to receive if monitoring targets and other dependencies are met, and consequences if targets are not met
   c. comply with Section 3.18.2 by including the indicative estimated annual emission reductions/carbon benefits attributable to the participant (after deduction of the Risk Buffer) for each year of the Crediting Period

Project Coordinator response	**Date:**
NA (at this stage)	
Documentation provided by project coordinator	
NA (at this stage)	
VVB assessment	**Date:**
NA (at this stage)	

FAR ID	02	**Section no.**	3.2	**Date:** 02/02/2026
Description of FAR				
In the carbon baseline (section 3.2 of the PDD) section PC has stated that any scattered baseline trees identified within the project area, which are not established as part of the project activity, will not be included in the project carbon stock monitoring along with the project trees. The PC has further stated that such baseline trees will be geotagged and their continued existence under the baseline scenario will be monitored throughout the crediting period. However, this activity has not been completed at the validation stage and shall therefore be checked and confirmed during verification.				
Project coordinator response				**Date:**
NA (at this stage)				
Documentation provided by project coordinator				
NA (at this stage)				
VVB assessment				**Date:**
NA (at this stage)				

FAR ID	03	Section no.	5.4	Date: 03/08/2026
Description of FAR				
The VVB concluded that the PC has notified the relevant jurisdictional authorities in accordance with Section 5.3.2 of the PV Climate Project Requirements v5.5. However, of the notification letters reviewed, only one carries a receipt/acknowledgement stamp from the recipient BDO (Birbhum, West Bengal), while acknowledgement has not yet been received from the BDOs in the Jharkhand project area. Hence, as per the requisite of PV, during the next verification, the PC shall provide evidence demonstrating that acknowledgement of receipt or equivalent evidence, where available.				
Project coordinator response				**Date:**
NA (at this stage)				
Documentation provided by project coordinator				
NA (at this stage)				
VVB assessment				**Date:**
NA (at this stage)				

12.1 Annex 2 – Competence of team members

Certificate of Competence

Name	☒ Mr. ☐ Ms.	**Ma Paa Puratchikkanal**
Qualification Procedure		*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*

Appointed to work as:

	Validator/ Verifier	Team Leader	Trainee	Technical Expert	Technical Reviewer	Financial Expert	Approver
Appointed	Yes	Yes	No	Yes	Yes	Yes	Yes
Appointed Date	15-07-2023						

Authorized to work as Technical Expert for:

Authorized Technical Area	Sectoral Scope	TA Code	Technical Area within the scope
	Energy industries (renewable - / non-renewable sources)	1.1	Thermal energy generation
	Energy industries (renewable - / non-renewable sources)	1.2	Renewables
	Energy demand	3.1	Energy demand
	Construction	6.1	Construction
	Waste handling and disposal	13.1	Solid waste and wastewater
	Waste handling and disposal	13.2	Manure
	Agriculture	15.1	Agriculture

Authorized to work as Local Expert for:

Country/Countries	India and Sri Lanka

Compliance check by:	Anand S. R.

Certificate of Competence

Name	☐ Mr. ☒ Ms.	**Zainab Hassan**
Qualification Procedure		*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*

Appointed to work as:

	Validator/ Verifier	**Team Leader**	**Trainee**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**	**Approver**
Appointed	Yes	No	No	Yes	No	No	No
Appointed Date	15-07-2023						

Authorized to work as Technical Expert for:

Authorized Technical Area	**Sectoral Scope**	**TA Code**	**Technical Area within the scope**
	Afforestation and reforestation	14.1	Afforestation and reforestation

Authorized to work as Local Expert for:

Country/Countries	India

Compliance check by:	Anand S. R.

Certificate of Competence

Name	☐ Mr. ☒ Ms.	**Swati S Acharya**
Qualification Procedure		*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*

Appointed to work as:

	Validator/ Verifier	**Team Leader**	**Trainee**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**	**Approver**
Appointed	Yes	No	No	Yes	No	No	No
Appointed Date	05-12-2023						

Authorized to work as Technical Expert for:

Authorized Technical Area	**Sectoral Scope**	**TA Code**	**Technical Area within the scope**
	Energy industries (renewable - / non-renewable sources)	1.2	Renewables
	Transportation	7.1	Transport

Authorized to work as Local Expert for:

Country/Countries	India

Compliance check by:	Anand S R

Certificate of Competence

Name	☒ Mr.	**Praveen Babu S**

	☐ Ms.						
Qualification Procedure	*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*						
Appointed to work as:							
	Validator/ Verifier	**Team Leader**	**Trainee**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**	**Approver**
Appointed	Yes	No	No	Yes	No	No	No
Appointed Date	15-07-2023						
Authorized to work as Technical Expert for:							
Authorized Technical Area	**Sectoral Scope**		**TA Code**		**Technical Area within the scope**		
	Energy industries (renewable - / non-renewable sources)		1.2		Renewables		
Authorized to work as Local Expert for:							
Country/Countries	India						
Compliance check by:	Anand S R						

Certificate of Competence

Name	☒ Mr. ☐ Ms.	**Chetan Swaroop Sharma**					
Qualification Procedure	*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*						
Appointed to work as:							
	Validator/ Verifier	**Team Leader**	**Trainee**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**	**Approver**
Appointed	Yes	Yes	No	Yes	Yes	No	Yes
Appointed Date	15-07-2023						
Authorized to work as Technical Expert for:							
Authorized Technical Area	**Sectoral Scope**		**TA Code**		**Technical Area within the scope**		
	Energy industries (renewable - / non-renewable sources)		1.1		Thermal energy generation		
	Energy industries (renewable - / non-renewable sources)		1.2		Renewables		
	Energy distribution		2.1		Energy distribution		
	Energy demand		3.1		Energy demand		
	Waste handling and disposal		13.1		Solid waste and wastewater		
	Waste handling and disposal		13.2		Manure		
Authorized to work as Local Expert for:							
Country/Countries	India						
Compliance check by:	Anand S. R.						

Certificate of Competence

Name	☒ Mr.	**Nandagopal Paramesh**

☐ Ms.							
Qualification Procedure	*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GCC/GHG Projects.*						
Appointed to work as:							
	Validator/ Verifier	**Team Leader**	**Trainee**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**	**Approver**
Appointed	No	No	No	Yes	No	No	No
Appointed Date	15-07-2023						
Authorized to work as Technical Expert for:							
Authorized Technical Area	**Sectoral Scope**			**TA Code**	**Technical Area within the scope**		
	Afforestation and reforestation			14.1	Afforestation and reforestation		
Authorized to work as Local Expert for:							
Country/Countries	-						
Compliance check by:	Anand S. R.						

12.2 Annex 2 – Geospatial assessment

This document presents the geospatial analysis of the project titled "*Restoration of barren uplands of vulnerable communities in West Bengal and Jharkhand.*" The analysis is based on the revised KML datasets submitted by the PC comprising three categories of plantations, namely Existing Plantation, New Plantation, and Future Plantation. The combined dataset consists of a total of 792 land parcels, representing an aggregate project area of 841.61 ha.

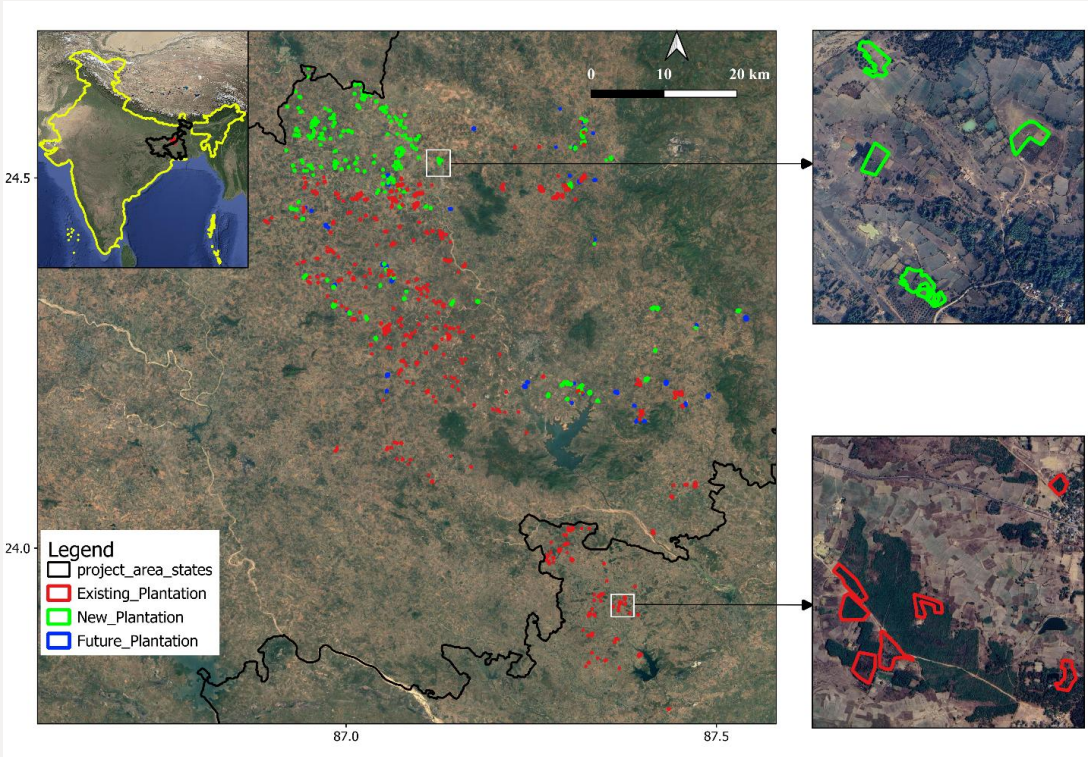


Figure 1: Location map showing Project area and Project polygons

Elevation

The elevation data from the dataset reveals a diverse topographical landscape across the 743 land features analyzed, with data sourced from the Digital Elevation Model (DEM) provided by the United States Geological Survey (USGS) /38/ using the Shuttle Radar Topography Mission (SRTM) product. Elevations range from approximately -19 m to 3605 m, with higher elevations observed along the northern and north-eastern margins corresponding to the Himalayan foothills, while the central and southern regions exhibit relatively lower and more uniform terrain. The plantation sites are primarily concentrated within these moderate elevation zones, indicating suitable topographic conditions for agricultural and agroforestry activities. Overall, the topography is gently undulating with limited variability across most operational areas across the project area. Such elevation characteristics influence drainage patterns, soil processes, and micro-climatic conditions, thereby supporting the feasibility of sustainable plantation development within the project region.

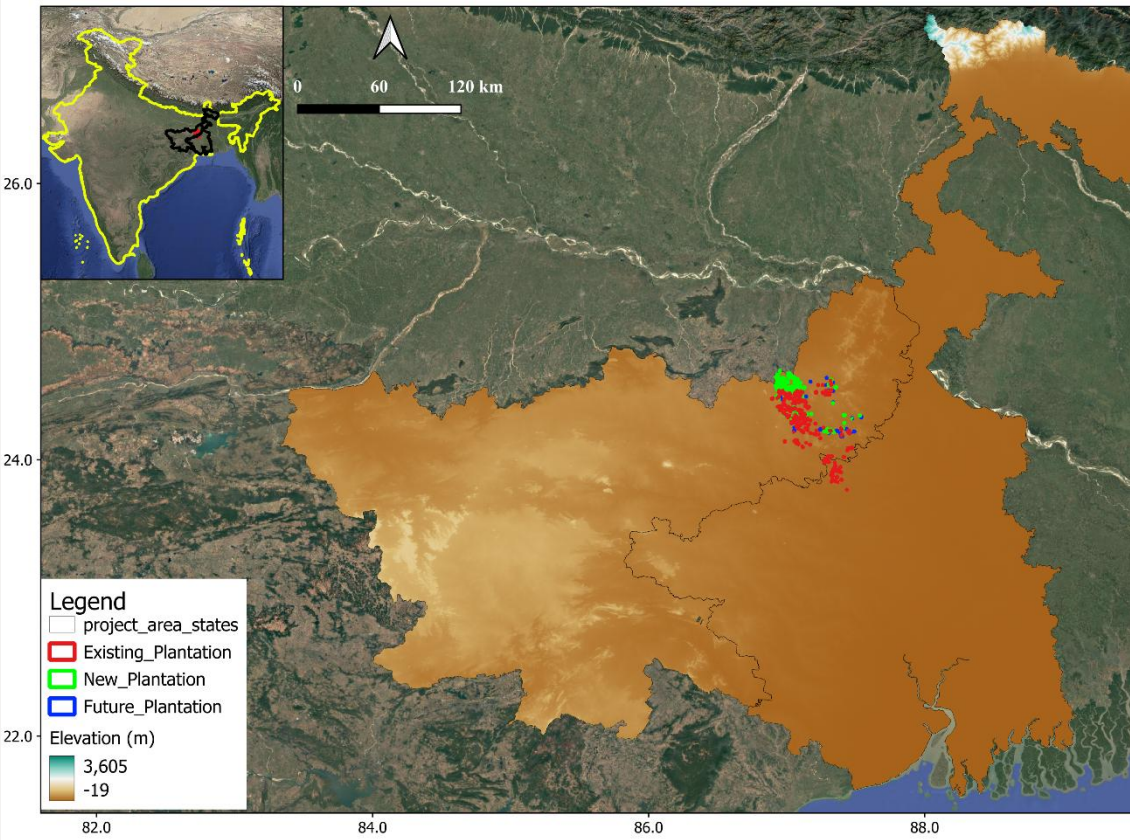


Figure 2: Map showing Elevation using SRTM DEM 30 m satellite data.

USDA Slope classification

The slope information for the project area was derived from the SRTM Digital Elevation Model (DEM), providing critical insights into terrain steepness and its implications for land management. Slope classes, typically expressed in percentage, influence key environmental processes such as surface runoff, soil erosion, and overall land suitability for agricultural and agroforestry practices. Based on standard classification approaches,

the terrain can range from nearly level areas, which are highly suitable for cultivation, to moderately sloping regions that may require soil conservation measures.

Analysis of the mean slope for the project parcels indicates that the majority of plantation sites are located within low to moderately sloping areas, suggesting favorable conditions for plantation establishment and management. The overall slope variability across the project area remains limited, supporting reduced erosion risk and better water retention. Such terrain characteristics are advantageous for sustainable agroforestry practices, enabling efficient land use planning, appropriate species selection, and the implementation of effective soil and water conservation strategies.

Table 1: *USDA slope classification followed in the present slope analysis*

Class	Slope Range (%)	Description
1	0 – 3	Nearly level
2	> 3 – 8	Gently sloping
3	> 8 – 16	Strongly sloping
4	> 16 – 30	Moderately steep
5	> 30 – 44	Steep
6	> 44	Very steep

Table Source*: https://www.nrcs.usda.gov/resources/guides-and-instructions/soil-survey-manual*

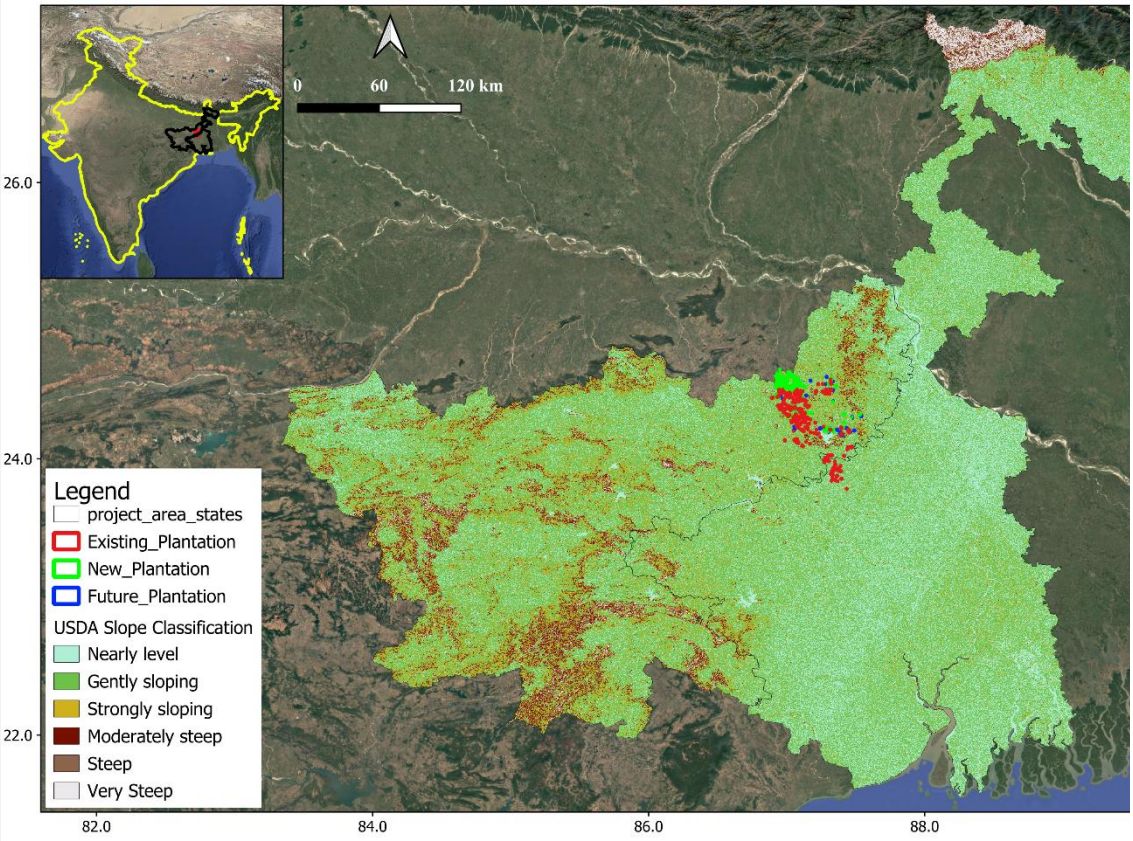


Figure 3: *USDA Slope classification from SRTM DEM data*

Source: SRTM DEM data - *https://www.usgs.gov/centers/eros/science/usgs-eros-archive-digital-elevation-shuttle-radar-topography-mission-srtm-1*

Soil Type

The soil type analysis based on the FAO–HWSD /40/ dataset indicates that the project area is predominantly characterized by Plinthosols (PT), accounting for approximately 64% of the total plantation extent. This is followed by Cambisols (CM), which contribute about 26%, while Planosols (PL) and Luvisols (LV) occur in relatively smaller proportions. The dominance of Plinthosols suggests the prevalence of iron-rich, hardpan-forming soils typically associated with seasonal waterlogging and moderate drainage limitations. In contrast, the presence of Cambisols indicates areas with relatively better soil development and structure, reflecting spatial variability in pedological conditions across the landscape.

A plantation-wise assessment reveals notable differences in soil distribution. Existing plantations are primarily located on Plinthosols, with a substantial proportion of Cambisols, indicating a mix of moderately constrained and moderately developed soils. New plantation areas are overwhelmingly dominated by Plinthosols, suggesting expansion into areas with similar soil characteristics. In contrast, future plantation zones are largely associated with Cambisols, indicating a shift towards comparatively more favorable soil conditions for future land use. This spatial variation highlights a degree of heterogeneity in soil suitability across plantation types and may reflect strategic site selection or inherent landscape variability within the project area.

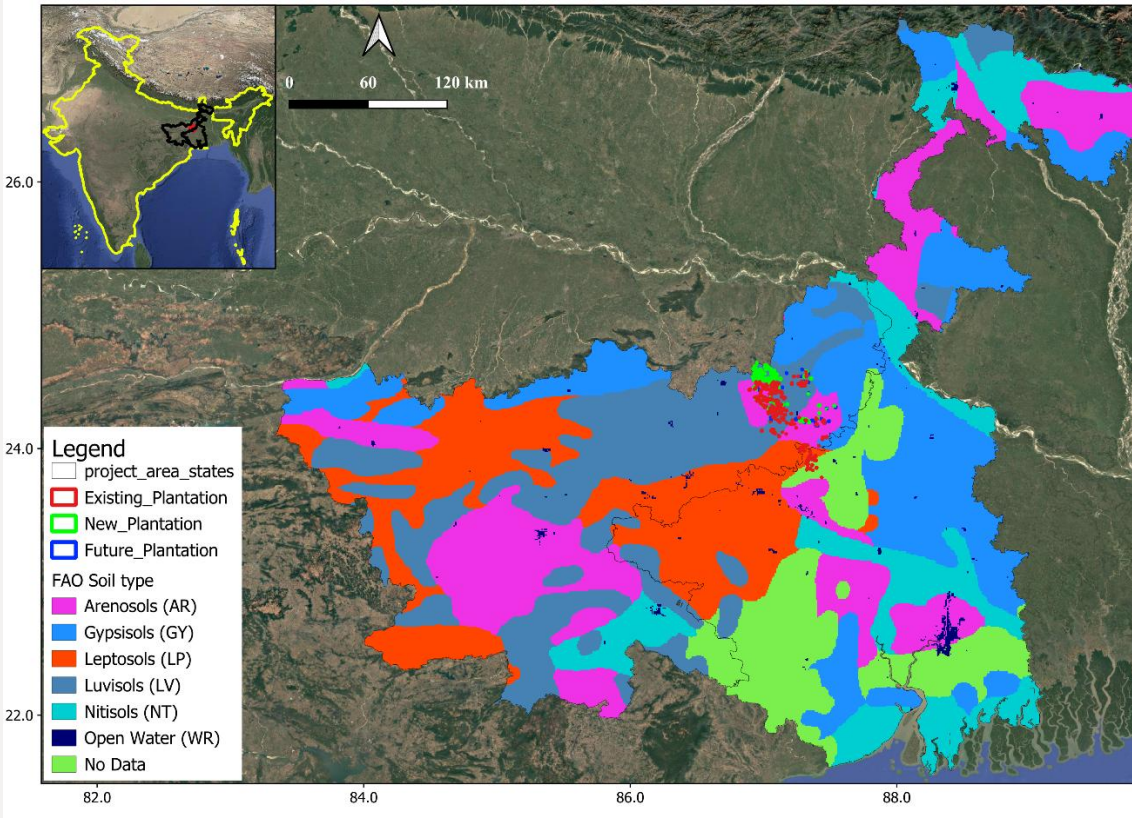


Figure 4: *Map showing FAO soil types.*

Source: FAO soil type data - *https://www.fao.org/soils-portal/data-hub/soil-maps-and-databases/harmonized-world-soil-database-v20/en/*

Soil Texture

Soil texture is a soil property used to describe the relative proportion of different grain sizes of mineral particles in a soil. Particles are grouped according to their size into what are called soil separates (clay, silt, and sand). The soil texture analysis of the study area indicates a clear dominance of loamy soils, which account for approximately 80.38% of the total mapped area, while clay loam constitutes the remaining 19.62%. The prevalence of loam suggests that a large portion of the region is characterized by soils with balanced physical properties, including moderate permeability, good structure, and favorable moisture retention capacity. Such conditions are generally considered suitable for plantation activities, as they support root development and efficient water and nutrient dynamics across varying environmental conditions.

Existing plantations exhibit the highest dominance of loam (91.78%), followed by future plantations (90.48%), indicating that these areas are largely situated on soils with favorable physical characteristics. In contrast, new plantations show a relatively higher proportion of clay loam (38.26%), reflecting slightly heavier soil conditions that may influence water retention and management practices. Despite this variation, the consistent dominance of loam across plantation types highlights an overall uniformity in soil suitability within the study area, with localized differences that may require adaptive management strategies.

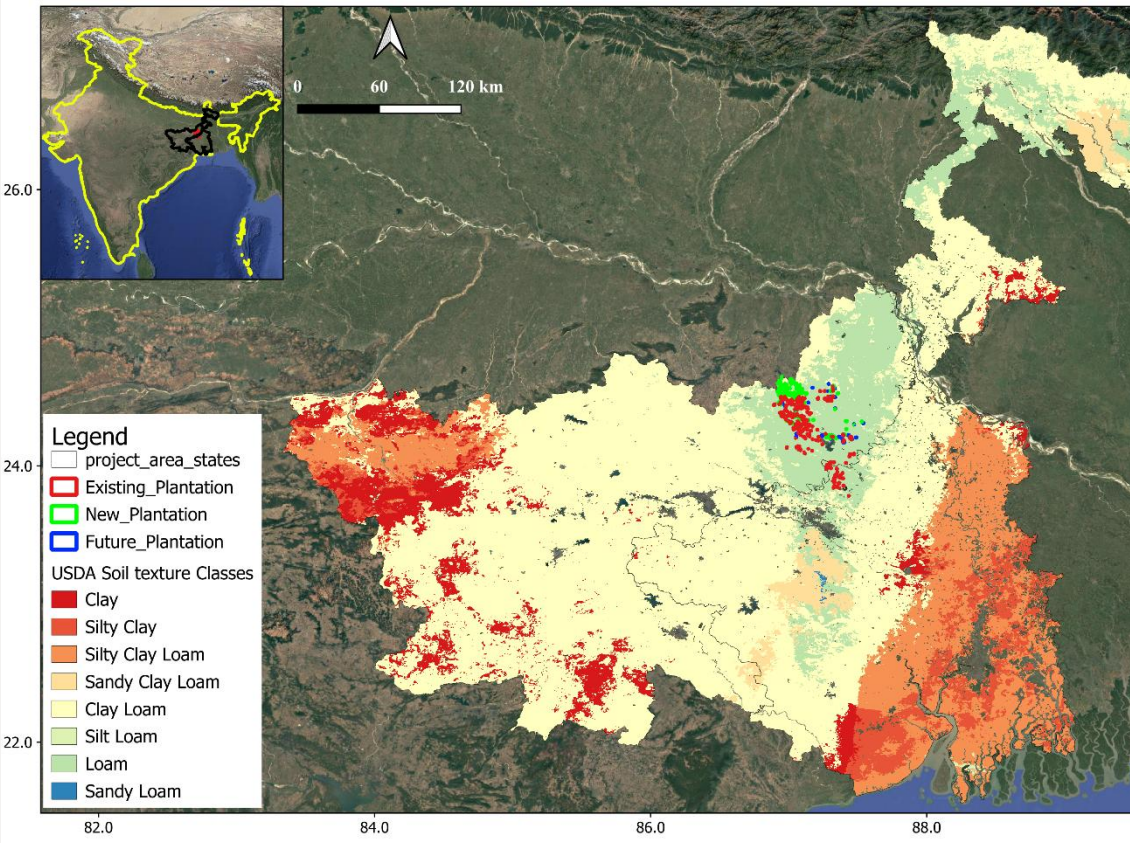


Figure 5: *Map showing the soilgrids data for sand, silt and clay for USDA soil texture classification.*

***Source**: soilgrids data from ISRIC FAO - https://soilgrids.org/*

IPCC climate zone

The IPCC Climate Zones, defined by the Intergovernmental Panel on Climate Change (IPCC), classify the Earth's regions based on temperature, precipitation patterns, and climatic extremes. The datasets in this project are dominated in Tropical Moist climate zone, which is warm and humid year-round with abundant rainfall. Understanding the climate zones is essential for optimizing agroforestry practices, guiding the selection of plant species, and implementing effective land management strategies tailored to each zone's specific conditions.

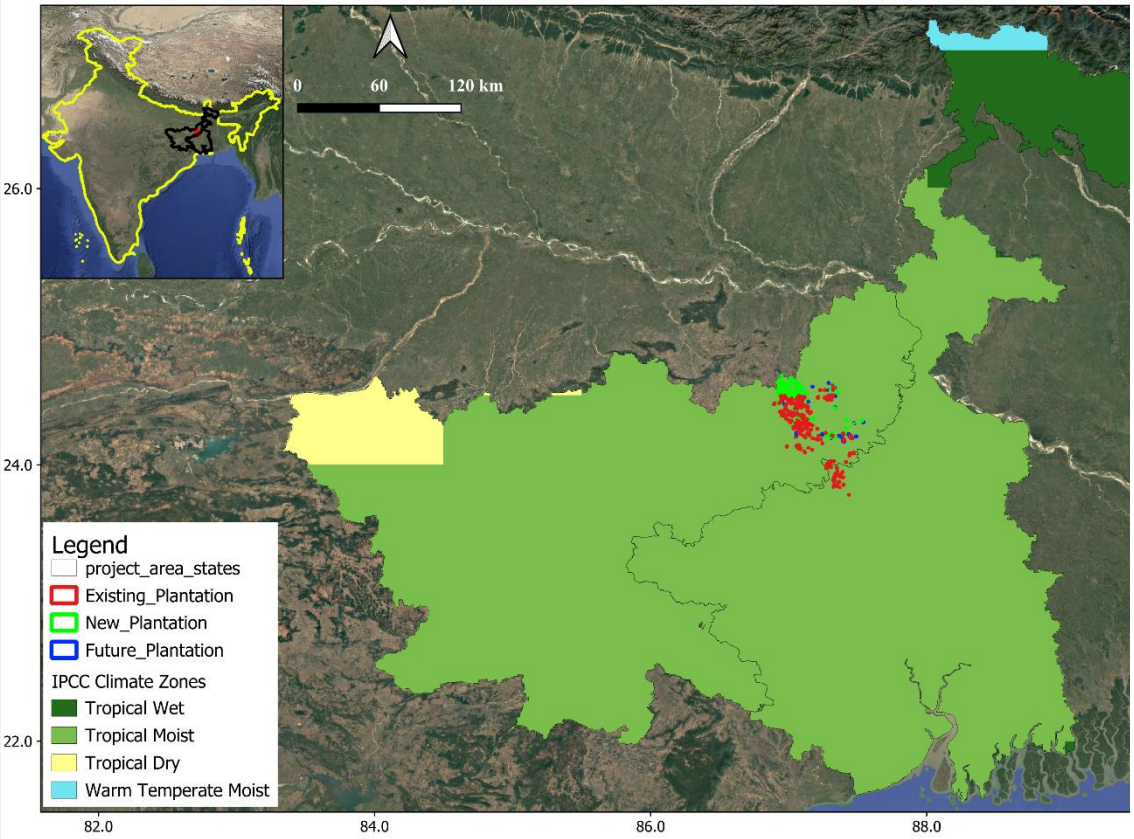


***Figure 6**: Map showing IPCC climate data for project area.*

***Source: IPCC climate data -** https://www.ipcc.ch/report/ar6/wg1/resources/data-access/*

Land cover

Land cover data for the project boundary is mapped with the MODIS land cover data for 2010 and 2020. The MODIS land use/land cover analysis for the project area indicates a strong dominance of cropland systems across both time periods. In 2010, the majority of parcels were classified as croplands, accounting for nearly all mapped features, with a very small proportion represented by grasslands. By 2020, this pattern becomes even more pronounced, with croplands almost entirely dominating the

landscape and no significant presence of other land cover classes observed. This suggests a high level of agricultural stability and continuity in land use over the decade.

The minimal variation between 2010 and 2020 highlights the persistence of agricultural practices within the project region, with negligible transitions to other land cover types. Such consistency in cropland dominance is indicative of sustained cultivation and limited land use change, which is important for understanding long-term land management patterns and planning agroforestry interventions within an already agriculture-driven landscape.

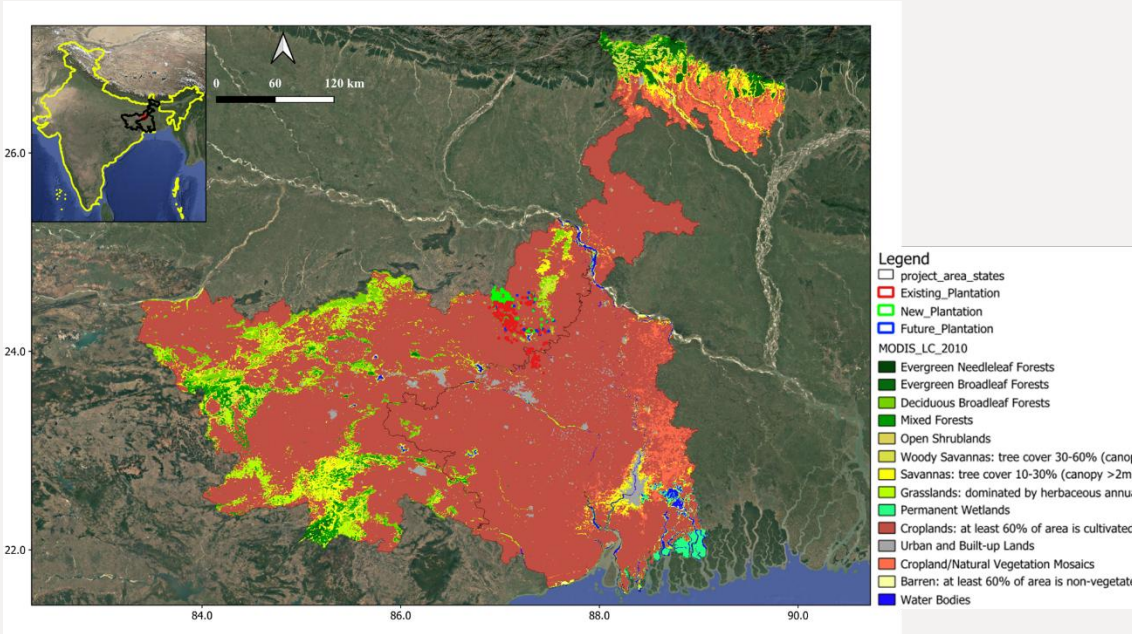


Figure 7: *Map showing MODIS land cover data for 2010*

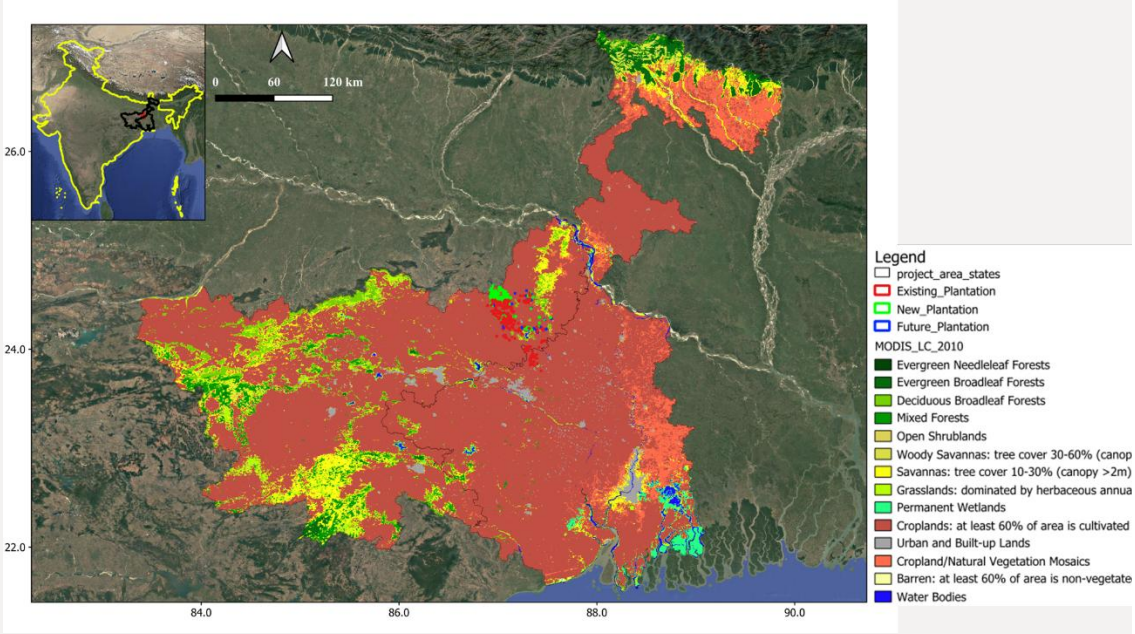


Figure 8: *Map showing MODIS land cover data for 2023*

Source: MODIS land cover data -
https://cmr.earthdata.nasa.gov/search/concepts/C2484079608-LPCLOUD.html