



Verified Carbon Standard

GROUPED REFORESTATION PROJECT BY CROPZONE AGRO FORESTRY PRIVATE LIMITED



Document Prepared by KBS Certification Services Pvt. Ltd.

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Summary:

A description of the project

The purpose of the grouped project activity is the reforestation of 501.47 ha of barren/fallow farm lands with the various tree species. The grouped Afforestation, Reforestation and Revegetation (ARR) project activity is proposed to be implemented in Andhra Pradesh, Telangana, Karnataka, and Maharashtra state of India. The land under the proposed project activity is fallow agriculture land owned by the participating farmer's/land owners. which was lying barren since decades. The project applied the approved CDM Afforestation and Reforestation methodology:AR-ACM0003: Afforestation and reforestation of lands except for wetlands --- Version 2.0

A description of the validation and verification

EKI Energy Services Limited has commissioned “KBS Certification Services Pvt. Ltd.” (KBS) to carry out the validation, followed by verification of the project - “Grouped Reforestation Project by Cropzone Agro Forestry Private Limited” (VCS PROJECT ID 2833) with regard to the relevant requirements of VCS Standard Version 4.3 for the monitoring period 4 June 2017 to 10 February 2022. The proposed project activity aims to the scope of the Joint validation & verification defined as an independent and objective review of the Joint PD MR, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the VCS standards for project activities.

The report is based on the assessment of the Joint PD MR undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to desk review, follow up actions (e.g., on site visit, electronic (telephone or e-mail) interviews) and also the review of the applicable approved methodological and relevant tools, guidance and CDM decisions.

The purpose and scope of validation and verification

The review of the project design documentation and the subsequent follow-up interviews have provided KBS with sufficient evidence to determine the project's fulfilment of all the stated criteria. In our opinion, the project meets all applicable UNFCCC requirements for the CDM and also project is in line with all relevant VCS requirements.

The validation followed by verification is based on the VCS Joint PD & MR, Emission reduction calculation spread sheet (ER sheet), additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and supporting documents made available to the VVB by project proponent.:

The method and criteria used for validation and verification

The validation and verification consists of the following four phases:

- I. A desk review of the Joint PD MR
 - A review of data and information;
 - Cross checks between information provided in Joint PD MR and information from sources with all necessary means without limitations to the information provided by the project proponent;
- II. Remote interviews with project stakeholders
 - Interviews with relevant stakeholders in host country with personnel having knowledge with the project development via telephone, email or direct on-site visits;
 - Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project proponent;

- III. Reference to available information relating to projects or technologies similar to project under validation and review based on the approved methodology being applied for the appropriateness of formulae and accuracy of calculations.
- IV. The resolution of outstanding issues and the issuance of the final joint validation & verification report and opinion.

The number of findings raised during validation and verification

During the course of validation and verification, a total of 14 findings were raised refer to Appendix 2 for further details, which include:

09 Corrective Action Requests (CARs);
05 Clarification Requests (CLs);
00 Forward Action requests (FARs).

Any uncertainties associated with the validation and verification

There are no uncertainties associated with the validation and verification of the project activity. The validation and verification has been done with a reasonable level of assurance.

Summary of the validation and verification conclusions conclusion

Based on the information seen and evaluated we confirm that the implementation of the grouped project is estimated to result into a total of 213,467 tCO_{2e} within the 20 years of renewable crediting period (renewed four times to the total crediting period of 100 years) and average annual emission reductions of as 10,673 tCO_{2e} per annum throughout its crediting period (from 04-June-2017 to 03-June-2037).

For the current verification, the implementation of the first project instance has resulted in achieving 22,708 tCO_{2e} emission reductions during the monitoring period from 4 June 2017 to 10 February 2022 (Inclusive of both days),

The selected baseline and monitoring methodology (AR-ACM0003 version 2.0), are applicable to the project and correctly applied. KBS Certification therefore requests the registration of the project as a VCS grouped project.

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1 INTRODUCTION

1.1 Objective

KBS Certification Services Pvt. Ltd. has been contracted by, “EKI ENERGY SERVICES LIMITED.” to undertake Validation, followed by verification and certification for the greenhouse gas (GHG) emission reductions reported from ‘Grouped Reforestation project by Cropzone Agro Forestry Private Limited’ for the monitoring period 4 June 2017 to 10 February 2022, under the 1st crediting period, in the initial joint project description and monitoring report version 01 dated 04-December-2021 and the subsequent final version 02 dated 31 August-2022/1/, with regard to the relevant requirements of VCS Standard Version 4.3. The purpose of validation is to ensure a thorough, independent assessment of the project description (PD), in particular the project's baseline, the additionality, the monitoring plan (MP) and ownership, crediting period and details regarding its compliance with the law statutes and other regulatory frameworks:

- The requirements of VCS Program Guide Version 4.2
- The requirements of VCS Standard Version 4.3
- The requirements of the CDM Approved methodologies, AR-ACM0003 Ver. 2 –: Afforestation and reforestation of lands except wetlands – Version 2.0 “
- To assess the grouped project’s compliance with other relevant rules, including the project country (India) legislation.
- Other relevant rules, of VCS sustainability criteria are validated in order to confirm that the project description as documented is sound and reasonable and meet the stated requirements and identified criteria.
- The validation is seen as necessary to provide assurance about the quality of the project and its intended generation of Verified carbon units (VCUs) over the project’s crediting period without any double counting.

For the validation and verification, the VCS projects must undergo an independent third-party verification and certification of emission reductions as the basis for issuance of Voluntary Emission Reductions (VERs).

The objectives of the verification exercise are, by review of objective evidence, to establish that:

- The project activity instance(s) has been implemented and operated as per the project description (PD) and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- The data is recorded and stored as per the monitoring methodology and monitoring plan.
- To confirm that the monitoring system is implemented and fully functional to generate Verified carbon units (VCUs) without any double counting, and
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

1.2 Scope and Criteria

For validation, the scope is defined as an independent and objective review of the Project description, the project's baseline study, monitoring plan and other relevant documents made available to the KBS team, alongside contract conditions. The information in these documents is reviewed against the requirements of VCS Standard and any additional requirements of VCS AFOLU projects. KBS 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.

The items covered in the validation are described below:

- VCS Criteria, VCS standard version 4.3
- VCS Project Description (Joint PD & MR)
- Monitoring Plan
- Background investigation and follow up interviews
- Draft validation reporting with CARs & CLs, if any
- Final validation reporting
- Non-Permanence risk assessment tool

For verification, the scope is defined as an independent and objective review of monitoring part, initial Joint Project Description & Monitoring Report (Joint VCS PD & MR)/1/ including the monitored data, and other relevant documents made available to verifier and information collected through performing interviews during site visit (interviews) of the project activity. KBS has, based on the recommendations in the latest version of Verified Carbon Standard, and employed a risk-based approach (as criteria) in the

verification, focusing on the identification of significant reporting rules and the reliability of project monitoring. The aspects to be covered under the purview of verification are:

- Ensure that the project activity has been implemented and operated as per the project description along and that all physical features (technology, project equipment, and monitoring) of the project are in place as per the documents provided by the client and during remote audit;
- Ensure that the monitoring part and other supporting documents provided are complete;
- Ensure that the practiced monitoring system and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved CDM methodology;
- Evaluate the data recorded and stored are as per the monitoring methodology.

The Joint validation & verification is based on the information made available to KBS and on the contract conditions.

The scope of work is not meant to provide any consulting to the project proponent. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project description. The work carried out by KBS is free from any conflict of interest.

1.3 Level of Assurance

Reasonable level of assurance

The joint validation and verification report is based on Joint VCS PD & MR/1/ and the supporting documents made available to the validator/verifier. Based on the process and procedures conducted, KBS states whether the information in the Joint VCS PD & MR/1/:

- is materially correct and is a fair representation of the actual project details, and
- is prepared in accordance with VCS requirements and the applied CDM methodology for information pertaining to GHG qualification, monitoring and reporting.

KBS applies the risk-based approach aimed at focusing on high risk issues to the validation/verification results whilst not omitting any part of the mandatory processes. A few discrepancies were found during the validation/verification and the findings were submitted to the project proponent, indicated under the titles corrective action requests (CARs) and clarification requests (CLs). CARs and CLs required PP to take relevant actions, based on which the Joint PD and MR was revised and re-submitted to the team.

The items covered in the validation & verification are described below:

- Criteria of VCS Version 4.3 (VCS Program Guide Version 4.2 & VCS Standard Version 4.3)
- Criteria of CDM approved methodology AR-ACM0003 Ver. 2 – “Afforestation and reforestation of lands except wetlands --- Version 2.0 ”
- Criteria of VCS Agriculture, Forestry and Other Land Use (AFOLU) Requirements,
- Criteria of VCS Guidance. AFOLU Guidance: Additional guidance for VCS Afforestation, Reforestation and Revegetation projects using CDM Afforestation/Reforestation Methodologies
- Criteria of VCS Non-Permanence Risk Report Template
- VCS Joint PD & MR
- Monitoring Plan
- Background investigation and follow up interviews
- Stakeholder feedback

Furthermore, the assessment team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data available on public domain. A desk review is carried out to assess the following:

- Compliance with relevant law and regulations, including the project country (India) legislation and assurance to stakeholders of the quality
- Stakeholder comments (If any)
- Site location map
- Project Carbon Calculation
- Stratum and Sampling Plots
- Remote auditing (31 March 2022) for validation following verification

Through the remote interview host country rule and regulations related to project activity, Project description, technological measures, Implementation, Operation, Management of project activity and Training of personnel, Baseline and Monitoring plan, Stakeholder consultation etc. has been checked and found appropriate. The joint validation and verification work has been carried out as per the above requirement and the validation and verification opinion is assured provided the subject to all of above compliances. Details are presented in the Validation and verification statement in section 5 below.

1.4 Summary Description of the Project

The purpose of the grouped project activity is the reforestation of 501.47 ha of barren/fallow farmlands with the various tree species for carbon sequestration. The grouped Afforestation, Reforestation and Revegetation (ARR) project activity is proposed to be implemented in Andhra Pradesh, Telangana, Karnataka, and Maharashtra state of India. The land under the proposed project activity is fallow agriculture land owned by the participating farmers/landowners which was lying barren since decades. The present project activity aims to make utilization of fallow croplands into productive lands through tree plantation activities

The project applied the approved CDM Afforestation and Reforestation methodology: AR-ACM0003: Afforestation and reforestation of lands except for wetlands -- Version 2.0/6/ under sectoral scope 14 – Agriculture, Forestry and Other Land Uses (AFOLU). The CropZone Agro Forestry Private Limited (CZAFL) is the Project Proponent (PP) whereas EKI Energy Services Limited (Enking International) is providing carbon credit advisory services to the PP.

The CropZone Agro Forestry Private Limited (CZAFL) has mobilized the farmers in the selected states of India to plant various tree species on their lands. The participating farmers have been trained to cultivate and manage trees on barren and fallow lands and therefore aims to increase the vegetation cover. Simple tree cultivation techniques involving planting saplings in the pits with minimum disturbance to the lands have been employed. Validation team has reviewed the contract made between PP and farmers/landowners/10/ where they will be given tree saplings and technical support. In return, the PP shall receive the benefit through the sale of carbon credits.

The projects generate GHG removals by the plantation of selected species of plant such as blackberry, Guava, Mango Teak, Mahogany, and Sandal

As confirmed through the remote audit interview on 31-March-2022, and through desk review, initially 501.47 hectares of land have been selected for the first project activity instance and the technology deployed under the project activity shall be Afforestation & Reforestation (in compliance with the methodological requirements) mentioned in Joint PD MR have been verified. The same was also crosschecked during the desk review of supporting documents such as local stakeholder consultation report, sample plots, ER sheet.

The average annual emission reductions for project instance have been estimated as 10,673 tCO₂e per annum. During the current monitoring period (4 June 2017 to 10 February 2022) 22,708 tCO₂e of emission reductions have been avoided. The same has also been verified.

Project entity information as verified is presented below:

Item	Data
Project Proponent	CropZone Agro Forestry Private Limited
Project Consultant	EKI Energy Services Ltd.

Finding: CAR 01 and CAR 02 was raised in this regard and successfully closed. Refer Appendix 2 for further details

2 VALIDATION AND VERIFICATION PROCESS

2.1 Method and Criteria

The Joint Validation and verification process was carried out in line with the requirements of VCS version 4.3. Standard auditing techniques and KBS’s CDM procedures were also applied during the Joint validation & verification. The project activity applies the approved AR-ACM0003 version.2, categorized under sectoral scope 14 Technical area 14.1 “Afforestation & Reforestation”. A risk-based approach was followed to carry out Joint Validation and verification and access all the factors and concerns that relate to the issuance of emission reductions from project activity. They include:

- Completeness check and desk review of the Project Description
- Authenticity of the provided data is checked.
- A risk-based analysis is carried out to ensure a clear and transparent assessment. The risks involved in this process are mainly with the informational flows and data recording.
- Resolution of findings followed by preparation of the final Joint validation & verification report and opinion.

KBS follows a risk-based validation & verification approach, wherein a desk review of the project documentation is undertaken, which is followed by a remote assessment by the members of assessment team and assessment teams confirms that the stated figures in the VCS PD MR are verifiable and reliable evidence.

Timeline of the Validation/Verification:

Validation & Verification Contract	01-February-2022
Remote audit & Interviews	31-March-2022
Draft joint Validation and Verification Report	28-July-2022
Final joint Validation and Verification Report	25- April-2023

2.2 Document Review

After the submission of the draft Joint PD MR and supporting background documents related to the project design and baseline from the client, the completeness of information made available as per VCS standard version 4.3 requirements is reviewed. Furthermore, the team used additional

documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data available on public domain. The project has been listed in the VERRA (<https://registry.verra.org/app/projectDetail/VCS/2833>).

A desk review is undertaken, involving but not limited to,

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements and the quality assurance and quality control procedures;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

The list of documents reviewed is included in the section 'References'.

2.3 Interviews

A remote audit was undertaken by members of assessment team, involving but not limited to verify general aspects of the project:

- Implementation of project activity
- Project Eligibility
- Project Design
- Ownership details
- Project Location
- AFOLU Specific safeguards
- Implementation of the monitoring plan
- Parameter's monitoring
- Procedural aspects of the Monitoring
- Stakeholders' communication procedure
- Maintenance
- Data analysis, Data uncertainty and residual risks
- Quality management system
- Involved personnel and responsibilities
- Training and practice of the operational personnel

Please refer section 2.4, where complete list of interviewed personnel and key points discussed is provided.

2.4 Site Inspections

As a result of the COVID-19 pandemic, taking into account the rules of relevant national and local authorities (local to the VVB offices as well as to locality of the site visits), World Health Organization (WHO) recommendations, policies of the VVB, email clarification for Verra guidance on site visits, notification of Covid-19 Travel Guidance for Projects (<https://verra.org/covid-19-travel-guidance/>) and other relevant travel restrictions and guidance (for example, a requirement to self-isolate upon return from specific countries), the VVB has skipped the on-site visit. Further Email from VERRA dated 24-March-2020 from “Andrew Beauchamp” has been referred as per which, “The VCS Program does not explicitly mandate site visits as part of the validation and verification process, only that VVBs must achieve a reasonable level of assurance on all validations and verifications (per Section 4.1.2 of the VCS Standard, v4.1). Therefore, where a VVB can achieve a reasonable level of assurance without conducting a site visit, or through a remote site visit, this is in conformance with the VCS rules, and no request for an exemption or pre-approval from VERRA is required. However, where a validation/verification has been conducted without a site visit, or through a remote site visit, please ensure that the applicable section of the validation/verification report includes a discussion of how a reasonable level of assurance was achieved without an in-person site visit”/21/.

Hence, the VVB has used other standard auditing techniques for verification as referred to in VCS Rules/requirements, VCS Validation and Verification Manual version 3.2./5/

Verification team has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of verification. Along with desk review, audit team has conducted remote audit interview as follows:

- A complete desk review of the VCS-PD-MR, as well as all applicable country legal requirement and supportive evidences have been checked by the verification team.
- Verification team has performed remote audit (Virtual video meet) for interview with PP in order to check implementation, project boundary, current situation, monitoring procedures etc.
- Cross-check evaluation, for information received from interviews, under the scope of all information and references provided in MR and supporting documents.
- A check of the monitoring equipment including performance and observations of monitoring practices against the requirements of the VCS PD and the selected methodology.

Details of interviewees, topics covered and additional information are presented below:

Date:	31-March-2022 (Skype interviews)		
Key points discussed:	Name of person, interviewed	Designation, Organization	Team member
Host Country rule and regulations related to project activity, Project description, Ownership, Project	1) Mohammad Moonis 2) Shankar Shan Patro	Manager, EKI Energy Services Ltd.	Anjana Sharma
	3) Ananthu K	Assistant Manager, EKI Energy Services Ltd	

start date, technology, Conditions prior to the Project initiation, Participation under other GHG program, Project land Eligibility, Project Design, Project site Location, Land agreements signed with individual farmers, Species selected for plantation, Sample plots inspection, AFOLU Specific parameters inspection, sampling, procedure to avoid double counting, monitoring plan	4) Venkat P		(Team leader)
	5) Saibaba Abburi	CEO, Cropzone Agroforestry Pvt Ltd (Project Proponent)	Shilpa Swarnim (Trainee TL/TE (Val))
	6) Individual landowners of the project parcels (Approximately 5) <ul style="list-style-type: none"> a. Bhusan Chand b. Keshar kamal c. Srikanth anagoni d. Padmakar mule e. V Leelaji babu f. Jalandhar reddy g. Gopal reddy 		Varsha Bohiya (Trainee Validator)
	7) Field Managers of the Project Proponent (Approximately 5)		

2.5 Resolution of Findings

KBS applies the risk-based approach aimed at focusing on high-risk issues to the Joint validation & verification results whilst not omitting any part of the mandatory processes. A few discrepancies were found during the Joint validation verification and the verification report was submitted to the project proponent, indicated under the titles corrective action requests (CARs) and clarification requests (CLs). CARs and CLs require the PP to take relevant actions. Criteria for judging items as CAR or CL are as follows:

Corrective action request (CAR):

- the project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions
- the Voluntary Carbon Standard's requirements have not been met, or

- there is a risk that emission reductions cannot be monitored or calculated.

Clarification request (CL):

- Information is insufficient or not sufficiently clear to determine whether the applicable VCS requirements have been met.

FAR (Forward Action Request):

FARs is to be raised to highlight issues related to project implementation that require review during the first verification of the project activity. FARs does not relate to VCS requirements for registration.

CARs and CLs are to be resolved or closed out if the PP modifies the project description, rectifies the MR or provides adequate additional explanations or evidence that satisfies the concerns. If this is not completed, the project activity cannot be recommended for issuance under VCS registry.

The joint PD and MR was revised addressing the CARs & CLs issued by KBS. After reviewing the revised and resubmitted joint PD and MR; resolving the CARs & CLs raised and outstanding concerns, KBS issues this final validation and verification report and opinion.

09 CARs and 05 CLs were found during validation and verification and closed satisfactorily. The list of CARs/CLs raised and the response provided, the means of validation and verification, reasons for their closure and references to correction in the joint PD and MR are provided in appendix 2 of this report. The revised MR with changes incorporated as per the issues raised were rechecked with the documentary evidences and found to be inline.

2.5.1 Forward Action Requests

No FAR raised during the current validation and verification.

3 VALIDATION FINDINGS

3.1 Project Details

- Project scope, activity, type, technologies and measures implemented, and eligibility of the project

The grouped project activity is classified under sectoral scope 14 “Afforestation & reforestation”. The project activity by CropZone Agro Forestry Private Limited involves carbon sequestration by the reforestation of 501.47 ha of barren/fallow lands in Andhra Pradesh, Telangana, Karnataka, and Maharashtra state of India. For the purpose of reforestation several from fruit-bearing trees like Indian blackberry (syzygium cumini), Guava (Psidium guajava), Mango (Magnifera indica) to commercial species like Teak (Tectona grandis), Mahogany (Swietenia macrophylla), and Sandal

(Sandalwood; Santalum album). shall be planted in the project area. The baseline scenario for the project area is continuation of pre-project land use (barren/fallow agricultural lands)

It is verified from the documents that the project start date is on 04-June-2017 when the first plantation took place. The estimated total amount of emission reductions over the chosen 20-years crediting period starting from 04-June-2017 to 03-June-2037 (including both dates) is 2,13,467 tCO_{2e}. The average annual emission reductions for project instance have been estimated as 10,673 tCO_{2e} per annum. During the current monitoring period (4 June 2017 to 10 February 2022) 22,708 tCO_{2e} of emission reductions have been avoided.

Validation team has checked the summary description of the project defined in the VCS-PD-MR /01/ and confirmed the project description during the remote inspection and through the review of project database and GIS Files/19/ of the project area.

- Project proponent

CZAFL is the Project Proponent (PP) whereas EKI Energy Services Limited (Enking International) is providing carbon credit advisory services to the PP.

Project entity information as verified is presented below:

Item	Data
Project Entities	Crop Zone Agro Forestry Private Limited (Project Owner)
	EKI Energy Services Limited (Project consultant)

- Project start date

As per the joint PD-MR /02/, the start date of the project activity is stated as 04 June 2017 which is the date when the first plantation activity took place at Dhule, Maharashtra covering three different species – *Swietenia macrophylla*, *Tectona grandis* and *Citrus limon*. This has been cross verified by reviewing the first agreement between PP and the farmer as evidence of the project start date/10/ and as it is mentioned in signed agreement that the plantation activities were started as on 4 June 2017 which conforms that it is the date when activity/ies led to the generation of GHG emission removals., However, since it is stated in AFOLU project guidelines that “AFOLU projects shall initiate the pipeline listing process as set out in the VCS Program document Registration and Issuance Process within three years of the project start date. Following this, CL 01 was raised, wherein it was reconfirmed that in accordance with appendix 2 of VCS Standard, v-4.3, consideration of start date mentioned in standard that projects shall initiate the pipeline listing process as set out in the VCS Program Document Registration and Issuance Process within three years of the project start date. is effective for AFOLU projects with a project start date on or after 20 July 2019. For AFOLU projects with a start date on or before 20 July 2019, it shall list on the pipeline on or before 20 July 2022. As the project activity has already been listed on Verra VCS registry on 1st March 2022 which

is before 20 July 2022. Therefore, the project activity is within the timeframe required for validation and the start date of the project was found to be in accordance with the AFOLU project requirements mentioned in the VCS Standard/4/.

Finding: CL 01 was raised in this regard and successfully closed. Refer Appendix 2 for further details

- Project crediting period

The crediting period of the project activity is 20 years, starting from 04-June-2017 to 03-June-2037 (both dates inclusive), which will be renewed four times to the total crediting period of 100 years, The crediting period start date is consistent with the start date of the project and hence, accepted. The assessment team confirms that the same has been correctly mentioned in the Joint VCS PD and MR/1/.

Finding: CL 02 was raised in this regard and successfully closed. Refer Appendix 2 for further details

- Project scale and estimated GHG emission reductions or removals

The validation team confirms that the project activity falls under the category 1 'Project' as per para 3.9.1 of the VCS standard version 4.3, as it does not have the potential to reduce GHG emission more than 300,000 tCO_{2e}/year.

The estimated annual average and the total CO_{2e} emission reduction by the project activity over the first renewable crediting period of 20 years are expected to be 10,673 tCO_{2e} and 213,467 tCO_{2e} respectively. The assessment team confirmed that emission reduction forecast is reasonable if the underlying assumptions do not change.

Finding: CAR 03 was raised in this regard and successfully closed. Refer Appendix 2 for further details

- Project location

The project activity instance under the grouped project is located in different states of India (i) Andhra Pradesh; (ii) Karnataka; (iii) Maharashtra; and (iv) Telangana. Project location is verified The location of the project activity was confirmed by the validation team during the remote audit, in addition digital boundary information for the entire project area was provided in KML files. /18/ and has been checked by the validation team. The provided geographic co-ordinates has further been confirmed from the google earth software and verified during the remote assessment and in line with section 1.12 of VCS PD MR .The updated section now also reflects the project boundary showing the land parcels

categorically in the maps provided. The project land parcels are shown in red bordered geodetic polygons in the revised joint PD-MR. under section 1.12. A separate KML has been provided as well for assessment and has been cross-checked.

Finding: CAR 07 was raised in this regard and successfully closed. Refer Appendix 2 for further details

Conditions Prior to Project Initiation

Prior to the project activity, the land was barren / fallow/ cropland degraded which was evidenced through the Baseline ecological land use survey/19/ conducted in the project area by analyzing two different time zone satellite imagery. The time series analysis has been performed through satellite imagery of different times to do a comparative analysis of pre and post-project conditions in order to understand different floral and faunal composition of the existing ecosystem. Based on the evidence provided and the discussion held with the project participants during the remote interview, it is clear that the continuation of the current and historical land use is the most likely scenario in the absence of the project activity. Validation team has checked this scenario with the registered VCS-PD-MR and found it to be consistent

Time series analysis for the pre and post project conditions are descriptively mentioned in VCS PD under section 3.4, and comparison between time period at project activity locations are mentioned below:

S.no	Location	Time period
1.	Pradeep Hanumantrao Shende, Solapur District, Maharashtra	Year 2010 and year 2020
2.	Usha HaridasTonape, Solapur District, Maharas	Year 2010 and year 2021
3.	GulabraoTryambak Patil, Survey gate no - 274/2,266/1, 275,278/1,278/2,277, 268/2,197,198,199,200,290,202/1, Dhule District, Maharashtra	Year 2007 , year 2017 and Year 2021
4.	GulabraoTryambak Patil, Survey gate no - 276,266/2,268/1,201,203,206/2,266/2b,269 Dhule District, Maharashtra	Year 2007 , year 2017
5.	JANARDAN NAMADEV RATHOD, Parabhani District, Maharashtra	Year 2010 and year 2020

6.	ROHIDAS CHATARU CHAVAN, Parabhani District, Maharashtra	Year 2010 and year 2020
7.	PANDIT JEMALA CHAVAN, Jalna, Maharashtra	Year 2010 and year 2020
8.	DEVIDAS BHAU RATHOD, Jalna, Maharashtra	Year 2010 and year 2020
9.	SAVITRI.S, survey gate no 2, 2.06, 134, Mandaya, Karnataka	Year 2010 and year 2020
10.	K SREERAMULU REDDY, Chittor, Andhra Pradesh	Year 2008 and year 2018
11.	ROKKAM THIRUMAL REDDY, Nalgonda, Telangana	Year 2008 and year 2018
12.	PALWAI GOUTHAM KUMAR REDDY & PALWAI VIMALA, Nalgonda, Telangana	Year 2008 and year 2018
13.	PALWAI RAVITEJA REDDY, PALWAI JALANDAR REDDY & PALWAI RAM REDDY, Nalgonda, Telangana	Year 2008 and year 2018
14.	MD ABDUL HAMID, Nalgonda, Telangana	Year 2008 and year 2018
15.	MAREDDY PRAVEENA & MAREDDY RADHE, Nalgonda, Telangana	Year 2014 and year 2018
16.	MAREDDY RADHE, Nalgonda, Telangana	Year 2014 and year 2018
17.	RATNAKALA MANOHAR FALAKE & SUKADEV TRYMBAK PHALAKE, Phulambiri, Aurangabad, Maharashtra	Year 2008 and year 2018
18.	GANGAMAI INDUSTRIES AND CONSTRUCTIONS LIMITED, Aurangabad	Year 2010 and year 2019
19.	Rupali Vishwas Nangre Patil, Lata PadmakarMulay, Gangamai Industries And Constructions Limited, Ranjeet PadmakarMulay, Parth Ranjeet Mulay Farmers, Aurangabad	Year 2008 and year 2018

20.	PadmakarHaribhavMulay, Malhar Sameer Mulay, Ajeet Seeds Pvt Ltd, Chhatrapati Shahu Maharaj Shikshan Sanstha, Rupali Vishwas Nangre Patil Farmers, Aurangabad	Year 2009 and year 2019
21.	GANGAMAI INDUSTRIES AND CONSTRUCTIONS LIMITED, LATA PADMAKAR MULAY, PADMAKAR HARIBHAV MULAY, SAMEER PADMAKAR MULAY, CHHATRAPATI SHAHU MAHARAJ SHIKSHAN SANSTHA Farmers, Aurangabad	Year 2008 and year 2009
22.	AJEET SEEDS PVT LTD & RUPALI VISHWAS NANGRE PATIL Farmers, Aurangabad	Year 2007 and year 2018
23.	CHHATRAPATI SHAHU MAHARAJ SHIKSHAN SANSTHA, Aurangabad	Year 2007 and year 2018
24.	RANJEET PADMAKAR MULAY, JANHAVI VISHWAS NANGARE PATIL & RANVEER VISHWAS NANGARE PATIL Farmer, Aurangabad	Year 2009 and year 2021
25.	MANGAL ANNASAHEB MALAGHAN, BHASKAR SARJERAO SOLANKE, SUNITA BALU CHAUDHARI, SUBHASH DNYANOBA CHAUDHARI, RAJESH DASHARATH CHAUDHARI, BALU SHUBHASH CHAUDHARI, ARUN RAMAKANT SOLANKE, ASHOK BHAGAWANRAO SOLANKE, SANDIPAN DNYANOBA CHAUDHARI, PRAKASH GITARAM WAGHRAL Farmers, Jalna, Maharashtra	Year 2010 and year 2020
26.	YAMUNABAI SHESHARAO PAWAR, KASHIBAI SOPAN RATHOD & VINAYAK KISAN JADHAV- Jalna Farmers, Aurangabad	Year 2010 and year 2020
27.	SACHIN DHARMA CHAVAN, SANTOSH HARIBHAU CHAVAN, SANJAY HARIBHAU CHAVAN, SAVITRA RAJARAM RATHOD, DIGAMBAR RAMRAO RATHOD, SHIVAJI TARACHAND RATHOD, TARACHAND DHANA RATHOD Farmers Jalna, Maharashtra	Year 2010 and year 2020
28.	RAMESH KANHU RATHOD, RAJU RAMESH RATHOD, RAMESH KANHU RATHOD, BALIRAM RAMESH RATHOD, POYANABAI GULAB RATHOD, BHARAT SUKHADEV KORADE, RAGHUNATH MOTIRAM NARODE, ASHOK BARIKRAO KADAM, SHILABAI RAJENDRA BORUDE, RAJENDRA DNYANDEV BORUDE, RAJENDRA DNYANDEV BORUDE, RAJENDRA DNYANDEV BORUDE, SUDHAKAR DINAKARAO SOLUNKE, Farmers, Jalna, Maharashtra	Year 2010 and year 2020

29.	AJINATH KASHINATH SHINDE, SEMIANTH RAKHAMAJI SHINDE, SUDAM BAPURAO JADHAV, NANDABAI BABASAHEB SHINDE, LAHU KISAN RATHD, ASHOK VITHOBA SHIRSATH, NILESH BANADU FATALE, SANJAY BALU BORUDE, RAMESH RAMBHAU KHENDAKE, DADARAO ANNA SHINGARE, DEVIDAS BALAJI SHINGARE, JANARDAN GULAB SHINGARE, Jalna Farmers,	Year 2010 and year 2020
30.	PANDIT JEMALA CHAVAN, DEVIDAS BHAU RATHOD, ULHAS JEMALA CHAVAN, KAVITA KAILAS RATHOD, RAMKOR RAMESH RATHOD, JANARDAN SHRIRAM CHAVAN, Jalna Farmers, Maharashtra	Year 2010 and year 2020

Finding: CAR 07 was raised in this regard and successfully closed. Refer Appendix 2 for further details

Compliance with Laws, Statutes and Other Regulatory Frameworks

The validation team by its document review and remote interview confirmed that the project activity is in compliance with all the applicable laws, statutes and other regulatory frameworks. Assessment team was able to verify existing legislations and project compliance to it. Below mentioned acts are project specific:

1. **National Forest Policy (1988):** The project activity will help in removing excess carbon dioxide from the atmosphere and therefore will contribute to climate change mitigation.
2. **Biological Diversity Act (2002):** The project activity aims at planting diverse tree species and thus contribute towards providing habitat to birds and insects. Therefore, the project will complement The Biological Diversity Act (2002).
3. **National Agroforestry Policy (2014):** The project activity supports the aim of The National Agroforestry Policy by promoting forestation outside the forest areas
4. **Environment Protection Act (1986) :** This act covers all forms of pollution - air, water, soil and noise pollution. It also makes sure that the safe standards are practiced which prohibit the use of hazardous material. The project activity may enhance the quality of the atmosphere and protect the soil from erosion and therefore may contribute to the environment protection and conservation.
5. **Water (Prevention and Control of Pollution) Act, 1974:** The project activity does not discharge any effluent or conduct any activity which may pollute the water bodies. Therefore, the project does not violate the act

6.The Indian Forest Act (1927): It is checked from the land document shared by PP (Maharashtra Land Revenue Rights record and registers (Tethering) Rules,1971 that the project activity does not fall under any reserve forests, village forests and protect areas.

7.Forest (Conservation) Act, 1980: The land opted for the project activity are barren lands of farmers hence it has not been carried out on privately owned lands and do not involve any diversion of government-owned forest lands for non-forest purposes.

National, regional, and/or local laws, statutes or regulatory frameworks on workers' rights and safety relevant to the project activity.

The Child Labour (Prohibition & Regulation) Act, 1986 - The Child Labour (Prohibition and Regulation) Act is an act enacted by the Government of India on 23-December-1986 to prohibit the engagement of children in certain employments and to regulate the conditions of work of children in certain other employments. Under the project activity, no child below or near 18 years has been hired by the Project Proponent to execute the project activity. The project activity does not promote child labour in any form.

The Bonded Labour System (Abolition) Act, 1976 - The Bonded Labour System (Abolition) Act enacted on 9-February-1976 by the Government of India to provide for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of the weaker sections of the people and for matters connected therewith or incidental thereto. The Project Proponent in project activity has not employed any bonded labour as well as enforced any one to work for the project activity without their consent.

The Code on Social Security, 2020 - The Code on Social Security, 2020 enacted on 28-September-2020 by the Government of India to amend and consolidate the laws relating to social security with the goal to extend social security to all employees and workers either in the organised or unorganised or any other sectors and for matters connected therewith or incidental thereto. The Project Proponent is in consonance with this code and considers its full time employee for social security.

National, regional, and/or local laws, statutes or regulatory frameworks on Carbon Trading Regulations

Kyoto Protocol and Clean Development Mechanism – Under the Clean Development Mechanism of Kyoto Protocol, the Union Government of India has established National Clean Development Mechanism (CDM) Authority a designated national authority (DNA) intending to protect and improve the quality of the environment in terms of the Kyoto Protocol. However, the Kyoto Protocol and Clean

Development Mechanism (CDM) are the part of compliance and mandatory market. The project activity is being proposed under Verra VCS Mechanism, which comes under Voluntary Carbon Credit Mechanism. The voluntary carbon market is free from the mandate of Kyoto Protocol and Clean Development Mechanism (CDM). For voluntary mechanism like Verra VCS, there is no need or mandate to seek host country approval from designated national authority (DNA).

Perform, Achieve and Trade (PAT) - Perform, Achieve and Trade (PAT) is a regulatory mechanism to reduce Specific Energy Consumption (SEC) in energy intensive industries, with an associated market based mechanism to enhance the cost-effectiveness through certification of excess energy saving which can be traded. The project activity comes under the sectoral scope of Agriculture, Forestry and Other Land Uses (AFOLU) under the category Afforestation, Reforestation and Revegetation (ARR). Therefore, project activity do come under the PAT mechanism.

Renewable Energy Credit Trading System (REC) - Renewable Energy Credit Trading System was started by the Government of India to promote renewable energy in India. Under this REC mechanism, a renewable energy generator will produce power in any part of the world by renewable resources and the generator gets the cost equal to that from any traditional source when the environmental characteristic is sold at the market-determined exchanges. The project activity comes under the sectoral scope of Agriculture, Forestry and Other Land Uses (AFOLU) under the category Afforestation, Reforestation and Revegetation (ARR). Therefore, project activity do come under the Renewable Energy Credit Trading System (REC).

All the above-mentioned acts were checked for compliance by the PP based on the project description, and it was concluded that none of the acts are applicable to the project activity. The validation team has also confirmed that the baseline scenario presented in the VCS PD-MR is also in compliance with the laws and regulations of India.

Finding: CAR 05 was raised in this regard and successfully closed. Refer Appendix 2 for further details

Ownership and other programs:

The Project is owned by Crop Zone Agro Forestry Private Limited; hence it possesses full legal right of use of ER credits whereas farmers have legal rights over their lands. The Ownership is demonstrated through the following documents provide evidence of project ownership, in accordance with the VCS specifications on project ownership.

1. Agreement of Carbon Credit Validation and Trading between PP & Farmers /10/.
2. Double counting declaration on 02-March-2022/27/

The assessment team has checked the supporting documents and verified that Crop Zone Agro Forestry Private Limited has the legal rights for carbon credits from the project activity and the

owner of the project activity are farmers/land owners. They will have the ownership of the land and the trees planted on the land as well as a share of VCUs accrued from the project activity. Crop Zone (the project management has encouraged the landowners to go for tree plantation for carbon sequestration. Further, EKI Energy Services Limited (Enking International) is providing carbon credit advisory services to the PP

Project Proponent has submitted an undertaking that they will not claim GHG emission reductions of the project from any other GHG programme except VCS /27/. PP would also not use net GHG emission reductions by the projects for compliance with emission trading program to meet binding limits on GHG emissions as stated in section 1.16.1 of the VCS Joint PD & MR. The above-mentioned information was also confirmed during the remote interview..

Additional Information Relevant to the Project

Eligibility Criteria

The project is a grouped project and according to VCS standards; PP has defined eligibility criteria and current project activity was assessed against the same for grouped project activity

Sl. No.	Eligibility Criteria defined in the Joint VCS PD & MR	Explanation	Project Activity instance eligibility
1	That increase carbon sequestration and/or reduce GHG emissions by establishing, increasing, or restoring vegetative cover (forest or non-forest) through the planting, sowing, or human-assisted natural regeneration of woody vegetation	The present project activity proposed planting woody perennials on barren and fallow lands and therefore aims to increase the vegetation cover. This increase the carbon sequestration under the project scenario.	During remote audit It was checked and confirmed that the project activity planted trees on barren and fallow lands and to increase the vegetation cover. Therefore, this will increase the carbon sequestration under the project scenario.
2	Eligible ARR projects may include timber harvesting in their management plan.	Under the project activity, harvesting and replanting are part of the project management plan. The future harvesting will target selective harvesting of Mahogany (<i>Swietenia macrophylla</i>) and Teak (<i>Tectona grandis</i>) only.	During remote audit and interviews of personnel It was checked the harvesting and replanting are part of the project management plan. The future harvesting will target selective harvesting of Mahogany (<i>Swietenia macrophylla</i>) and Teak

		The harvesting will be followed by replanting	(<i>Tectona grandis</i>) only and other planted trees shall not be harvested.. The harvesting will be followed by replanting
3	The project area shall not be cleared of native ecosystems within the 10 year period prior to the project start date	According to the analysis of satellite imageries of the project locations sites, none of the sites had any forest or vegetation cover. Therefore, there was no clearing of native ecosystems.	During desk review of provided supplementary documents i.e. satellite imageries (from time period 10 years pre project time frame) of the project locations sites, Project area had no forest cover therefore project activity does not under this criteria .
4	Activities that drain native ecosystems or degrade hydrological functions to generate GHG credits are not eligible under the VCS Program. Evidence shall be provided in the project description that any AFOLU project area was not drained or converted to create GHG credits. Such proof is not required where such draining or conversion took place prior to 1 January 2008. The onus is upon the project proponent to demonstrate this, failing which the project shall not be eligible.	The project activity does not drain the native ecosystem or degrade hydrological functions to generate GHG credits. The project activity has been implemented on the fallow agricultural lands. There are and there were no water bodies within the boundary of each land parcels as well as within 10-years of the start date of the project activity. The PP has provided current land use assessment of land parcels as well as 10 years prior to the project activity	Verification team was able to assess and confirm that project activity is not draining native ecosystem or degrade hydrological functions by assessment of documents submitted The “Ecological and Landuse Survey” and “Baseline Landuse Survey document”. Also, during interview process, it was reconfirmed that prior to the project activity there were no wetland or water body present in the project activity.

Finding: CAR 01 and CAR 04 was raised in this regard and successfully closed. Refer Appendix 2 for further details

Leakage Management

It was checked and confirmed during remote audit that there is no increase in GHG emissions outside the project boundary as the plantation activity carried on barren land with negligible grazing activities and no agricultural activities that leads to no displacement of pre-project activity.

Thus, neither a leakage management plan nor leakage mitigation measures are required. (Leakage = 0).

Commercially Sensitive Information

No commercially sensitive information has been excluded from the public version of the project description.

Sustainable Development

It is verified by assessment team through document review that CZAFI aims to have a substantial economic impact in the areas it has operations in through social, economic, environmental and technological well-being by helping in conservation of barren lands (land development) and reducing carbon emissions, growth and survival of vegetation, by maintaining good mental health and wellbeing of people living in the surroundings etc.

During the current monitoring period contributions in sustainable development goals by project activity are listed below:

1. SDG 13 – Climate Action
2. SDG 15 – Life on Land
3. SDG 1 – No Poverty

Contribution of sustainable development by the project activity:

S.No.	SDG Target	SDG INDICATOR-	Current Project Contributions	VVB Assessment
1	1	Proportion of population living below the national poverty line, by sex and age	By bringing the 140 number of land owners/farmers who living below the national poverty line in the project activity, it is able to provide extra source income. Therefore, it contributes to reducing the level of poverty among	During remote audit and interviews of personnel It was checked that project activity has included the farmers living below poverty line as their lands were barren and degraded. These farmers shall be

			the farmers/landowners living below the poverty line.	provided with saplings and technical assistance. Hence the project activity contributes to reducing the level of poverty among the farmers/landowners.
2	13	Tonnes of greenhouse gas emissions avoided or removed	By planting trees in the project area, the project activity has removed 22,708 tCO _{2e} of CO ₂ from the atmosphere.	During desk review, remote audit and interviews of personnel It was checked that cumulatively, the project activity has removed 22,708 tCO _{2e} of CO ₂ from the atmosphere from the plantation trees in the project area, hence contributing to reducing carbon emissions by sequestering carbon from the project area.
3	15.1.1	Forest area as a proportion of total land area	By planting trees in the barren lands, the project activity has added 501.47 hectares of area under the forest cover.	As the project aims to, added 501.47 hectares of area under the forest cover, hence contributing to support life on earth.

Finding: CAR 01 was raised in this regard and successfully closed. Refer Appendix 2 for further details

3.2 Participation under Other GHG Programs

The grouped project activity has neither participated in any other GHG programs neither rejected by other GHG programs.

Project Proponent has submitted undertaking for not availing other forms of environmental credit for the same crediting period /27/ under consideration and it has been verified from the supportive provided by PP .

3.3 Safeguards

3.3.1 No Net Harm

It has been stated in VCD PD MR and also confirmed during remote audit process that there is no negative impact from reforestation projects. It has been checked during stakeholders' interview and during interaction with the monitoring team that the Project Proponent has taken utmost care in enrolling the landowners in the project activity. The enrolment of the landowners is purely voluntary and non-coercive. The landowners have entered into an agreement with the Project Proponent where the clauses of the agreement and roles and responsibilities have been clearly mentioned. In addition, the Project Proponent also did stakeholders' consultations to identify any potential negative socio-economic impacts. And hence, it can be concluded that the project activity does not involve any negative environmental and socio-economic impact.

3.3.2 Local Stakeholder Consultation

The local stakeholder consultation meeting for the grouped project activity was conducted during registration of the project through identification of stakeholders, invitation of stakeholders for a meeting. the PP has also kept provision for submitting comments/grievances/suggestions from local stakeholders through direct mail. However, no major comments/grievances/suggestions have been received from the aforementioned stakeholders during the current monitoring period and all such minor suggestions have been taken care of by the PP.

Stakeholder consultations include questionnaires surveys and stakeholder meetings, requiring stakeholders to present their opinions on the project and their willingness to participate. Before the project began, stakeholder consultations were conducted through different consultation meetings. The details of the meeting have given below table

No negative comments were received during ongoing communication with local stakeholders, as verified from the grievance register during the site visit/17/. The overall goal was to improve the project design based on stakeholders' comments and suggestions and increase the local awareness and involvement of farmers in the project.

District	Date of Stakeholder meeting conducted
Jalgaon	26-05-2017
Nellore	29-02-2017

Nalgonda	25-04-2020
Aurangabad	22-12-2017
Dhule	25-05-2017
Jagityal	11-02-2017
Jalna	19-12-2018
Kurnool	19-10-2018
Ballary	03-02-2020
Ananthapur	09-06-2019
Mandya	05-09-2021
Solapur	15-02-2020
Parbhani	16-02-2020

Finding: CAR 06 was raised in this regard and successfully closed. Refer Appendix 2 for further details

3.3.3 Environmental Impact

According to India's EIA notification (2006), afforestation or reforestation project activities do not come under any category that requires conducting Environment Impact Assessment. Therefore, assessment team concludes that the project activity is an A/R CDM and comes under AFOLU project & does not generate negative impacts on environment.

3.3.4 Public Comments

No comments have been received during the 30 days listing period of the project at the VERRA project site. The same has been cross checked in the project web page the Verra site as below-

<https://registry.verra.org/app/projectDetail/VCS/2833>

3.3.5 AFOLU-Specific Safeguards

The participation of landowners in the project activity is voluntary. The plantation activities have been taken by the landowners themselves. They will have the ownership of the land and the trees planted on the land as well as a share of VCUs accrued from the project activity. Crop Zone (the project management has encouraged the landowners to go for tree plantation for carbon sequestration.

The AFOLU-specific safeguards have been described in the following table:

S.no	AFOLU-specific safeguards	Response/description	VVB Assessment
1	Local stakeholder identification process and a description of results.	Local stakeholders were directly or indirectly affected by the project activity. Crop Zone conducted a meeting with landowners about the involvement of other stakeholders who may be affected by the project activity. As described in section 2.2 of VCS PD MR, the stakeholders include the owners of the land where plantation activities are being carried out. Apart from that landowners, general citizens of the Project area, local NGOs and Officials representatives from government like the Sarpanch, Agricultural department were identified as the major local stakeholders.	Validation team has assessed the same during stakeholders' interview and during interaction with the project implementation and monitoring team and found it to be in accordance with the requirement.
2	Risks to local stakeholders due to project implementation and how the project will mitigate such risks.	The participation of the landowners is completely voluntary. They have been informed about the processes involved in the VCS project cycle in a very transparent manner. During the stakeholders' consultation meetings (as described in Section 2.2), the stakeholders were explained about the project activity and queries raised during consultations were addressed at the same time.	Validation team has assessed the same during stakeholders' interview and during interaction with the monitoring team and found it to be in accordance with the requirement. VVB has also cross checked the local stakeholder consultation reports to confirm the same.
3	Risks to local stakeholder resources due to project implementation and how	Throughout the lifetime of the project activity, the project proponent has been	The validation team has assessed the same during stakeholders' interview and

	<p>the project will mitigate such risks, including the plans to ensure the project will not impact local stakeholders' property rights without the free, prior and informed consent.</p>	<p>maintaining direct communication with the project stakeholders. The potential risks associated with the project activity to the stakeholder's resources could be fire and pest outbreaks. The participating landowners have long experience in planting and managing tree plantations. Any burning activities of the vegetation are forbidden in the project area. They have the technical capacity to manage and monitor any potential risks to their resources. The land owners have their land rights with them and they have been informed that participating in VCS project activity will not lead to any change in the land rights. The project activity has an adaptive way of managing any issues or any foreseeable risks in the future to effectively address and manage any future risks. The project proponent will time to time review the progress of the project activity and integrate any lesson learned in the project management plan.</p>	<p>during interaction with the monitoring team and found it to be in accordance with the requirement. The risk assessment has been cross checked against submitted NPR report and found to be appropriate.</p>
<p>4</p>	<p>Processes to ensure ongoing communication and consultation with local stakeholders, including a grievance redress procedure to resolve any conflicts which may arise between the project proponent and local stakeholders.</p>	<p>The project proponent has been informing local stakeholders through routine announcements regarding every milestone of the project activity development such as project description document preparation, collection of relevant documents, listing, as well as future</p>	<p>Validation team has assessed the same during stakeholders' interviews and during interaction with the project monitoring team and found it to be in accordance with the requirement.</p>

		validation/verification and issuance of VCUs. In case of any conflicts and grievances, stakeholders can directly appeal to the Project Proponent to make the problem solving process more effective.	
5	The location of communities, local stakeholders and areas outside the project area that are predicted to be impacted by the project.	The project activity is limited to the land parcels where tree plantation activities have been carried out. In the vicinity of the project land parcels, the local communities have been consulted about the project activity.	The validation team has assessed the same during the audit process and while interaction with stakeholders and found it to be in accordance with the requirement.
6	Whether the project proponent nor any other entity involved in project design or implementation are involved in any form of discrimination or sexual harassment. How communication and consultation are performed in a culturally appropriate manner, considering language and gender sensitivity with all stakeholders.	The Project Proponent as well as any entity have not been involved in any form of discrimination or sexual harassment. The regular communications and consultations have been mainly carried out in local vernacular languages only. The Project Proponent has presence in all four states of the first instance and well-aware and very much sensitive about the local culture and traditions.	Validation team has assessed the same during the audit process and while interaction with stakeholders and found it to be in accordance with the requirement.
7	Any legal or customary tenure/access rights to territories and resources, including collective and/or conflicting rights, held by local stakeholders.	There is no legal or customary tenure/access rights to territories and resources, including collective and/or conflicting rights, held by local stakeholders. The lands under the project activity are privately-owned by the participating individual farmers. There is no community-owned or community-managed land that	Validation team has assessed the same during the audit process and while interaction with stakeholders and found it to be in accordance with the requirement.

		has been covered in the project activity.	
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3.4 Application of Methodology

3.4.1 Title and Reference

The project applied the approved CDM baseline & monitoring methodology:

Title of the methodology applied: AR-ACM0003: Afforestation and reforestation of lands except for wetlands/6/

Reference:

<https://cdm.unfccc.int/methodologies/DB/C9QS5G3CS8FW04MYYXDFOQDPXWM40E>

Version no. – Version 2.0

Applied tools:

- a) Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (Version 1.0)/7/
- b) Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/RCDM project activities (Version 4.2)/7/
- c) Calculation of the number of sample plots for measurements within A/R CDM project activities (Version 2.1.0)/7/

Finding: CAR 08 was raised in this regard and successfully closed. Refer Appendix 2 for further details

3.4.2 Applicability

The VCS PD MR /1/ states all evidence used to demonstrate each condition of the applicable methodology. In opinion of assessment team, the evidence and explanations confirm the fulfilment of the project with the methodology.

The assessment was carried out for each applicability criterion included, among others, the review of evidence and sources provided in the project document and the compliance check of the local project setting with the applicability conditions as per applied methodology AR - ACM0003 /6/:

S.No	Applicability Criteria AR-ACM0003	VVB Assessment
a)	The land subject to the project activity does not fall into the wetland category	It is confirmed during remote assessment and supported document (satellite imagery) review there is no wetland in the project area as the area in which the

		<p>project activity instance is situated does not come under the category of wetland.</p> <p>VVB has also assessed the baseline land use assessment and land use assessment of 10-years prior to the project activity. In this document, it can be confirmed that prior to the project activity there were no wetland or water body present in the project activity. Therefore, there was no scope of drainage of any hydrological body in the project. In another document provided Ecological and Land use Survey, the land use prior to the project activity designated as cropland which contained no water body in the project area.</p>
<p>b)</p>	<p>Soil disturbance attributable to the project activity does not cover more than 10 percent of the area in each of the following types of land, when these lands are included within the project boundary</p>	<p>As confirmed during remote assessment and supported document review ,(the SOP procedure used) that no machinery will be used for the preparation and installation of trees in the ground therefore Soil disturbance attributable to the project will have no case cover more than 10% of the total surface.</p>
<p>c)</p>	<p>Land containing organic soils and which, in the baseline, is subjected to land-use and management practices and receives inputs listed in appendices 2 and 3 to this.</p>	<p>The land on which the reforestation has been established does not contain organic soils. The soils of the initial project instances and the grouped project area were classified according to the procedures of the Intergovernmental Panel on Climate Change (IPCC) /20/ utilizing soil maps, vector files and maps, soil classification. VVB has also assessed the baseline land use assessment and land use assessment of 10-years prior to the project activity</p>

		<p>The common type of soil group found in and around project area as depicted in VCS PD -MR and as verified against Soil database available on online platform- The common type of soil group found in Karnataka are “</p> <ul style="list-style-type: none"> • Red Soil • Black Soil • Lateritic soil • Alluvio-Colluvial soil • Brown forest soil • Costal laterite-alluvial soil <p>Telangana contains various soil types, some of which are red sandy loams (Chalaka), Red loamy sands (Dubba), lateritic soils, salt-affected soils, alluvial soils, shallow to medium black soils, and very deep black cotton soils</p> <p>The land selected for the reforestation activity does not get subjected to land-use and management practice.</p>
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Assessment team confirms that the project activity complies with the applicability conditions of the methodology.

Applicability under applied tools:

S.No	Applicability criteria	Assessment
1	Combined tool to identify the baseline scenario and demonstrate	A. It was demonstrated that the project does not lead to any violation of any law and there is

	<p>additionality in A/R CDM project activities (Version 1.0).</p> <p>A. Forestation of the land within the proposed project boundary performed with or without being registered as the A/R CDM project activity shall not lead to violation of any applicable law even if the law is not enforced.</p> <p>B. This tool is not applicable to small - scale afforestation and reforestation project activities.</p>	<p>no law or regulation specific to forestation of privately owned lands. The same has been explained further in joint PD-MR under section 1.14 and has been assessed by verification team by cross checking the respective law documents .</p> <p>A. The project is categorized as Project as per the Verra VCS Standard v4.3. Therefore this tool not applies.</p>
2	<p>Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/RCDM project activities (Version 4.2).</p>	NA
3	<p>Calculation of the number of sample plots for measurements within A/R CDM project activities (Version 2.1.0).</p>	NA

3.4.3 Project Boundary

The PA is being developed over the different districts of state Maharashtra, Karnataka, Andhra Pradesh & Telangana. A map with the project boundaries is shown in Section 3.3 of the Joint PD MR. The project district are as follows

- i. Andhra Pradesh: - Anathapur, Chittor, Kurnool, Nellore & Visakhapatnam
- ii. Karnataka: - Bagalkot, Bellary, Kolar, Mandya, Shimogga & Tumkur.
- iii. Maharashtra: - Aurangabad, Dhule, Jalana, Jalgaon, Parabhani, & Solapur.
- iv. Telangana: - Jagityal, Nalgonda & Rangareddy.

The assessment team was able to confirm that all the identified emission sources which are impacted by the project activity are addressed by the approved methodology and can be seen in the Table below.

Source		Gas	Included?	Justification/Explanation
Baseline	Aboveground biomass	CO ₂	Yes	Preexisting vegetation is non-existent negligible
		CH ₄	No	Pre-existing vegetation is not slashed nor burned
		N ₂ O	No	Pre-existing vegetation is not slashed nor burned
		Other		
	Belowground biomass	CO ₂	Yes	Preexisting vegetation is non-existent negligible
		CH ₄	No	Pre-existing vegetation is not slashed nor burned
		N ₂ O	No	Pre-existing vegetation is not slashed nor burned
Project	Aboveground biomass	CO ₂	Yes	This is the major carbon pool of the project activity
		CH ₄	No	Not sequestered in this pool
		N ₂ O	No	Not sequestered in this pool
	Belowground biomass	CO ₂	Yes	This is the major carbon pool of the project activity
		CH ₄	No	Not sequestered in this pool
		N ₂ O	No	Not sequestered in this pool

As per applied methodology, the project boundary is the physical, geographical locations of the land parcels. The PP has stated that the project activity is being developed over the different districts of state Maharashtra, Karnataka, Andhra Pradesh & Telangana. The validation team was able to confirm that all the identified emission sources which are impacted by the project activity are addressed by the approved methodology and can be seen in the Table above. The validation team concludes that the project boundary is correctly identified in accordance with the methodology. All greenhouse gas emissions (CO₂) occurring within the proposed project activity boundary as a result of the implementation of the proposed project activity have been appropriately addressed in the VCS Joint PD MR.

Further, Validation team has confirmed during the remote assessment and through the review of provided documents; KML files/18/ are provided that includes geodetic polygons that delineate the geographic area where project activities are implemented.

The assessment team is able to confirm the VCS Joint PD & MR/1/ has correctly described the project boundary, including the physical delineation of the project activity and complies with VCS standard version 4.3/4/ and applied methodology/6/.

3.4.4 Baseline Scenario

Prior to the project activity, the land was barren / fallow/ cropland degraded which was evidenced through the Baseline ecological land use survey/19/ conducted in the project area by analyzing two different time zone satellite imagery. The time series analysis has been performed through satellite imagery of different times to do a comparative analysis of pre and post-project conditions in order to understand different floral and faunal composition of the existing ecosystem. Based on the evidence provided and the discussion held with the project participants during the remote interview, it is clear that the continuation of the current and historical land use is the most likely scenario in the absence of the project activity. Validation team has checked this scenario with the proposed VCS-PD-MR and found it to be consistent

3.4.5 Additionality

Regulatory Surplus: The validation team, by its document review and remote interview confirmed that the project activity is in compliance with all the applicable laws, statutes and other regulatory frameworks. The assessment team was able to verify existing legislation and project compliance to it. It was reported under section 3.1 “Compliance with Laws, Statutes and Other Regulatory Frameworks”. There is no such law, statute, or other regulatory framework and systematically enforced legislation which mandates tree plantation or forestation on agricultural lands. There are policies and laws which may be relevant to the tree plantation or forestation activities but do not enforce or mandate tree plantation. The policies and laws are described applicable are:

- (i) Indian Forest Act, 1927 – The Indian Forest Act was adopted in 1927. It was an act to consolidate the law relating specifically relating to forests, the transit of forest-produce and the duty leviable on timber or other forest-produce. The project activity has not been implemented on state or central Government-owned lands. The project activity has been implemented on privately owned fallow agricultural lands. Therefore, the project activity is outside the purview of The India Forest Act, 1927.
- (ii) Forest (Conservation) Act, 1980 – The Forest (Conservation) Act, 1980 was enforced on 25-October-1980. It is an act adopted to provide for the conservation of forests and for matters connected therewith or ancillary or incidental thereto. The lands covered under the project activity are fallow agriculture land owned by private individuals. The lands covered under the project area are not state or

central government owned forest lands. Therefore, the project activity does not come under the purview of The Forest (Conservation) Act, 1980.

(iii) National Forest Policy, 1988 – On the date 12-May-1952, the Central Government of India enacted the National Forest Policy to be followed in the management of State Forests in India. As per the section 3.2 of The National Forest Policy, diversion of good and productive agricultural lands to forestry is discouraged in view of the need for increased food production. In The National Forest Policy, there is also no mandate or enforcement conditions for tree plantation on the fallow agricultural lands as well. Therefore, the project activity is outside the purview of The National Forest Policy, 1988.

(iv) Biological Diversity Act, 2002 – The Biological Diversity Act was adopted by the Government. It is an Act to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto. There is no provision of tree plantation on agriculture land in the Biological Diversity Act. Therefore, the project activity is outside the purview of Biological Diversity Act, 2002.

The additionality of the project is demonstrated following the ‘Combined tool to identify the baseline scenario and demonstrate additionality in AR CDM project activities’ (version 1)./7/ The additionality assessment has been done according to the first project activity instance. The steps are described as follows which has been assessed by Validation team. As assessed in Section 3.5 of Joint PD-MR, the baseline scenario has been demonstrated to be the “1. Continuation of the pre-project land use”.

Step 0: Preliminary screening based on the starting date of the A/R project activity: Following the provisions of the ‘Combined tool to identify the baseline scenario and demonstrate additionality in AR CDM project activities’ (version 1), as the proposed project activity has a starting date after 31 December 1999 but before the date of registration, the project participant has to show that: - The starting date of the proposed project activity was after 31 December 1999. - The incentive from the planned sale of VERs was seriously considered in the decision to proceed with the project activity. Although these are CDM requirements that are not consistent with the VCS requirements, the audit team has validated the project’s compliance. Regarding the first condition, the starting date is 04 June 2017 which is after 31 December 1999. Vouchers of saplings collected from the Nurseries and agreement with farmers are documented by crop zone. From the Voucher& farmer agreement, it can be confirmed that tree plantation activities have started on June 4, 2017. Regarding the second condition, the audit team was able to confirm compliance through a declaration stated by project proponent, indicating that they are seeking carbon finance, i.e., before the start date of the project. Crop Zone is responsible for conducting the planting and maintenance of the records of ARR activity. To meet the cost of monitoring and maintenance and to promote more, Crop Zone is applying for carbon credits relating which could be generated from the ARR activities. This plantation process has no profit intention. The project has no return of investment from the monetary perspective. Therefore, the incentive from the planned sale of VCU (partly as up-front funding) was seriously considered in the decision to proceed with the project activity/27/

Step 1. Identification of alternative land use scenarios to the proposed ARR VCS project activity :

Following the provisions of the 'Combined tool to identify the baseline scenario and demonstrate additionality in AR CDM project activities' the project proponent has identified plausible alternative land-use scenarios:

Alternative land use scenario Rationale

1. Land use will continue as pre-project land as cropland, fallow, barren lands: The continuation of the pre-project land use is the continuation of land as cropland, fallow, barren lands. The audit team confirmed that this is a realistic scenario as it is the continuation of the pre-project scenario. This is a plausible scenario that is in compliance with the local legislation which does not require to restoration of degraded lands. The plausibility of this scenario was confirmed by the baseline land eligibility study provided in the VCSPD-MR which shows that these lands have been degraded and will probably continue to be degraded. The legality of this scenario was confirmed through interview with the representative of the stakeholder's/PP representatives who confirmed that there is no legislation in India that requires restoration of the vegetation in these areas.

2. Afforestation of the selected lands without the incentives from the carbon market: The audit team confirmed that the no private capital is available for Afforestation/Reforestation of degraded lands with non-commercial trees as there is risk involved with the return. Bank loans are only available to planting certain commercial species with less risk. So there is investment barrier associated with this scenario. Similar activities were carried out either as government supported plantation drives, or using carbon credit finance. PP may have to recruit many experts and train caretakers for efficient management. Apart from that, monitoring trees every year will also have to be done with experts. Moreover, the audit team confirms that there is not any other realistic plausible alternative land use scenario as confirmed through remote inspection during the site visit.

3. Afforestation/reforestation of lands using commercial tree: Afforestation and reforestation of lands using other commercial tree is also any applicable land use scenario. The audit team confirmed that this is a realistic scenario as in some areas of the project area there is some existing species and some of the project areas have good (natural) conditions for natural regeneration. This is a plausible scenario that is in compliance with the local legislation which does not prohibit or require that degraded land areas are left to regenerated naturally. The plausibility of this scenario was confirmed by the baseline land eligibility study provided in the PD which shows that these lands have been degraded and will probably continue to be degraded.

Sub-step 1b. Consistency of credible alternative land use scenarios with enforced mandatory applicable laws and regulations: the project is in compliance with all local legislation. Furthermore, the audit team confirmed that this scenario is not mandated by any law, statute or other regulatory framework, as confirmed through interview with the representative of the project implementors and stakeholders

STEP 2. Barrier analysis: Following the provisions of the ‘Combined tool to identify the baseline scenario and demonstrate additionality in AR CDM project activities’ (version 1) the project participant has identified a number of barriers that may affect the identified alternative scenarios:

- Investment barrier other than insufficient financial returns.
- Institutional barrier;
- Technological barrier;
- Barriers related to local tradition;
- Barriers due to prevailing practice;
- Barriers due to local ecological conditions;
- Barriers due to social conditions and
- Barriers relating to land tenure, ownership, inheritance, and property rights.

The table below displays the barrier analysis matrix which identifies alternatives and barriers.

Alternative land use scenarios	Investment	Institutional	Technological	Local tradition	Prevailing practices	Ecological conditions	Social conditions	Land tenure
Continuation of pre-project land use underdeveloped with little or non-managed gardens						X		
Afforestation/reforestation of the selected lands without the incentives from carbon market.	X				X		X	
Afforestation/reforestation of croplands/ barren lands using commercial tree	X	X				X		

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

Scenario 1: Continuation of the pre-project land use: Fallow and barren lands with marginal cultivation.

As inferred during remote audit, before the implementation of project activities, most of the lands were poorly managed and were barren/degraded/fallow land. If the project was not implemented the land would have continued to degrade and no new trees will be planted.

Scenario 2: Afforestation/Reforestation of degraded lands without incentives from carbon market

This has been confirmed that the Afforestation/Reforestation has not been done fully with profit intentions. Although mahogany (*Swietenia macrophylla*) and teak (*Tectona grandis*) are planted for harvesting purposes but the same tree will be harvested only after 21 years. The rest of the trees belong to farmers and would not be harvested. No private capital is available for Afforestation/Reforestation of degraded lands with non-commercial trees as there is risk involved with the return. Bank loans are only available to planting certain commercial species with less risk¹. So there is investment barrier associated with this scenario. Similar activities were carried out either as government supported plantation drives, or using carbon credit finance.

Hence there is an investment barrier as there won't be any sudden return of investment on a monetary basis for the PP. As this is not a plantation for specifically only for timber produce because the teak and mahogany shall be harvested only after 21st year, there will be financial and investment barriers, where tree plantation has been considered for carbon finance.

Scenario 3: Afforestation of degraded land /barren land/fallow land using commercial tree

The other land use scenario considered is afforestation using commercial trees. Audit team inferred that even though this will provide financial assistance for the afforestation activity it has many barriers because the project areas are scattered across the respective project district. Therefore, any kind of tree harvesting will be very difficult and won't give much return of investment. The PP has planted mahogany (*Swietenia macrophylla*) and teak (*Tectona grandis*) for harvesting purposes but the same tree will be harvested after 21 years hence there is an investment barrier. Apart from the investment barrier, there are restrictions on the harvesting of some of the important economic timber species of the Project district. The difficulty in tree felling, harvesting and securing transit pass for transportation is a very long cumbersome and difficult process. The commercially viable species (such as *Tectona grandis* and Sandalwood) are subjected to Tree Felling Rules of Project area. Moreover, there is a state law on the transit of harvested woods for transporting of woods from one place to another. Furthermore, only six tree species and a bamboo species are exempted from the transit rules which do not include commercial species like *Tectona grandis*. Therefore it is an institutional barrier.

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

As verified from joint VCS PD-MR and also assessed during remote audit and interview process with project personnels, it was inferred that the land use scenario has many barriers like the Investment barrier, prevailing practice barrier and Social conditions barrier. Prevailing practice in the area is to

¹ https://agritech.tnau.ac.in/forestry/tree_loans.html

do traditional farming or to leave the land barren. Social conditions like poverty, lack of awareness, lack of institutional support etc. are also acting as barriers here.

As shown above, since the only alternative that would not face any barrier would be the alternative landuse scenario “1. Continuation of the pre-project land use”, and the proposed project activity faces the above barriers, according to the applicable tool conducting Step 3. All the assumption and data used by the project proponents are listed in the PD and/or supporting documents. All documentation relevant for establishing the baseline land-use and additionality is correctly quoted and interpreted in the PD. Assumptions and data used in the identification of the baseline land-use are justified and appropriately supported by evidence and can be deemed reasonable. Relevant national and/or sectoral policies and circumstances are considered and listed in the VCS PD-MR.

STEP 4. Common practice analysis The geographical area of the common practice are all those areas with a comparable environment as the proposed project activity. Common practice analysis has been done considering that the project activity is spread over four different states of India – Maharashtra, Andhra Pradesh, Telangana and Karnataka covering 501.47 hectares of land. PP has done assessment of change in the tree outside forest coverage, which is relevant here because tree plantation has been done outside the forest lands

As reported in PD and also assessed by Verificaiton team with means of literature documents as per Forest Survey of India (FSI), the tree outside the forest (TOF) cover in the project states has increased in Andhra Pradesh, Telangana and Karnataka whereas reduced in Maharashtra.

State	Tree outside forest (2021) (hectares)	Tree outside forest (2019) (hectares)	Percentage change (%)
Andhra Pradesh	10,22,400	8,93,200	14.46
Telangana	5,36,600	4,82,700	11.17
Karnataka	23,67,600	22,36,100	5.88
Maharashtra	26,86,600	26,94,500	-0.29
Total	6613200	6306500	4.86

- In total area coverage, Maharashtra state covers 60% of the total area under the initial project activity instance.

State	Area (in hectares)	Percentage (%)
Maharashtra	299.36	60
Telangana	64.72	13
Karnataka	45.56	9
Andhra Pradesh	91.84	18
	501.47	100

So, in the more than 50% of the project area, that is 60% of the total project area (in Maharashtra state) have reported decline in tree outside the forest. Therefore, in the majority of the project tree plantation outside the forest area (more than 50%) is not a common practice.

The audit team has concluded that in view of the above the project activity is not the baseline scenario in the geographical region of analysis and it would, therefore, be additional. The audit team confirms that the assumptions made in the demonstration of additionality are reasonable and that the project's additionality is well documented

Finding: 05 and CAR 08 was raised in this regard and successfully closed. Refer Appendix 2 for further details

3.4.6 Quantification of GHG Emission Reductions and Removals

The methodology "AR-ACM0003 Afforestation and reforestation of lands except wetlands -- Version 2.0 / /6/ was used. The validation team performed an intensive quantification review of all input data, parameters, formulas, calculations, conversions, statistics and resulting uncertainties and output data to ensure consistency with the VCS documentation, methodology requirements.

Baseline net GHG removals by sinks:

$$\Delta C_{BSL,t} = \Delta C_{TREE_BSL,t} + \Delta C_{SHRUB_BSL,t} + \Delta C_{DW_BSL,t} + \Delta C_{LI_BSL,t}$$

Where:

$\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks in year t; t CO₂-e

$\Delta C_{TREE_BSL,t}$ = Change in carbon stock in baseline tree biomass within the project boundary in year t, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks

$\Delta\text{CSHRUB_BSL,t}$ = Change in carbon stock in baseline shrub biomass within the project boundary, in year t, as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; t CO₂-e

$\Delta\text{CDW_BSL,t}$ = Change in carbon stock in baseline dead wood biomass within the project boundary, in year t, as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO₂-e

$\Delta\text{CLI_BSL,t}$ = Change in carbon stock in baseline litter biomass within the project boundary, in year t, as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO₂-e

The methodological tool AR-Tool - “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” Version 04.2/7/ was used to estimate the baseline stock change.

As per Section 5 of the tool, the carbon stock in trees in the baseline can be accounted as zero if all of the following conditions are met:

- a. The pre-project trees are neither harvested, nor cleared, nor removed throughout the crediting period of the project activity;

The baseline land use has been considered to be degraded or severely degraded or fallow or barren lands or lands with subsistence agriculture. Because of this presence of pre-project trees are rare. If there are any pre-project trees present, they are neither harvested, cleared, nor removed throughout the crediting period of the project activity. Existing trees will not be cut. The whole plantation and land preparation will be done according to the presence of existing trees. Any extraction of existing trees for timber, fuelwood, etc. is not planned and is completely discouraged.

- b. The pre-project 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 pre-project trees do not suffer mortality because of competition from trees planted in the project as no invasive species are planted as part of project and most of the land subjected to plantation activity were barren. No damage have caused to pre-project trees because of implementation of the project activity, as tilling have not been done as part of project activities. Soil is only disturbed to prepare the planting pits. Soil disturbance attributable to the project will in no case cover more than 10% of the total surface.

- c. The pre-project trees are not inventoried along with the project trees in the monitoring of carbon stocks but their continued existence, consistent with the baseline scenario, is monitored throughout the crediting period of the project activity.

The existing trees will not be estimated for their carbon stocks and carbon stock change but will be monitored for continued existence throughout the project duration.

Project net GHG removals by sinks

The actual net GHG removals by sinks are estimated using the following equation.

$$\Delta C_{ACTUAL,t} = \Delta C_{P,t} - GHG_{E,t}$$

Where:

$\Delta C_{ACTUAL,t}$ = Actual net GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{P,t}$ = Change in the carbon stocks in the project, occurring in the selected carbon pools, in year t ; t CO₂-e

$GHG_{E,t}$ = Increase in non-CO₂ GHG emissions within the project boundary as a result of the implementation of the A/R CDM project activity, in year t , as estimated in the tool “Estimation of non-CO₂ GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity”; t CO₂-e

Change in the carbon stocks of selected carbon pools is estimated using the following equation.

$$\Delta C_{P,t} = \Delta C_{TREE_PROJ,t} + \Delta C_{SHRUB_PROJ,t} + \Delta C_{DW_PROJ,t} + \Delta C_{LI_PROJ,t} + \Delta SOC_{AL,t}$$

Where:

$\Delta C_{P,t}$ = Change in the carbon stocks in project, occurring in the selected carbon pools, in year t ; t CO₂-e

$\Delta C_{TREE_PROJ,t}$ = Change in carbon stock in tree biomass in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; t CO₂-e

$\Delta C_{SHRUB_PROJ,t}$ = Change in carbon stock in shrub biomass in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; t CO₂-e

$\Delta C_{DW_PROJ,t} =$	Change in carbon stock in dead wood in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO ₂ -e
$\Delta C_{LI_PROJ,t} =$	Change in carbon stock in litter in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO ₂ -e
$\Delta SOC_{CAL,t} =$	Change in carbon stock in SOC in project, in year t , in areas of land meeting the applicability conditions of the tool “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities”, as estimated in the same tool; t CO ₂ -e

Estimation in the changes of carbon stock in tree biomass:

The change in carbon stock in tree biomass was estimated as per the requirements in the methodological tool AR-TOOL 14 Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities Version 4.2/7/.

Estimation in the changes of carbon stock in shrub biomass:

There is no planting of shrubs as a part of the project activities therefore this parameter will be estimated as zero in both ex-ante and ex-post calculations.

Estimation in the changes in carbon stock in dead wood:

Deadwood is expected to remain in the project area and will not be removed. Conservatively, the carbon stock contained in this pool is expected to remain unchanged for the program duration.

Estimation in changes in carbon stock in soil organic carbon (SOC)

SOC will be calculated according to the following formula using “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities”

$$\Delta SOC_{PROJ,t} = \frac{44}{12} \times \sum_{t=1}^t A_{PLANT,t} \times dSOC_t \times 1 \text{ year}$$

Where:

$\Delta SOC_{PROJ,t}$ = Change in SOC stock within the project boundary, in year t , t CO₂-e

$A_{PLANT,t}$ = Area planted in year t , ha

$dSOC_t$ = The rate of change in SOC stocks within the project boundary, in year t , t C ha⁻¹ yr⁻¹.

The following default value of is used, unless transparent and verifiable information can be provided to justify a different value:

- (i) $dSOC_t = 0.50 \text{ t C ha}^{-1} \text{ yr}^{-1}$ for $t = t_{PLANT}$ to $t = t_{PLANT} + 20$ years, where t_{PLANT} is the year in which planting takes place;
- (ii) $dSOC_t = 0 \text{ t C ha}^{-1} \text{ yr}^{-1}$ for $t > t_{PLANT} + 20$.

Leakage:

As per section 5.6 of the methodology AR-ACM0003 version 2.0 leakage is to estimate as follows

$$LK_t = LK_{AGRIC,t}$$

Where:

$LK_t =$ GHG emissions due to leakage, in year t ; t CO₂-e

$LK_{AGRIC,t} =$ Leakage due to the displacement of agricultural activities in year t , as estimated in the tool “Estimation of the increase in GHG emissions attributable to the displacement of pre-project agricultural activities in A/R CDM project activity”; t CO₂-e

The lands on which the project will be implemented are degraded/barren/fallow lands or land with subsistence agriculture. The lands selected for program implementation are lands not classified as forest lands according to the definition of the forest of India. Except for lands with subsistence agriculture, degraded/barren/fallow lands have not been used for agriculture, including rice paddies.

In addition, the lands on which project implementation will occur are not and have not been grazing lands. Most of the project areas are degraded barren fallow lands or lands with grass and sparse, dispersed vegetation. Grazing is not a common practice in the area. These lands have

no prior history of agriculture or grazing. Therefore, there is no displacement of agricultural activities as a result of project activities and leakage has been estimated to be zero.

The net anthropogenic GHG removals by sinks shall be calculated as follows:

$$\Delta C_{AR-CDM,t} = \Delta C_{ACTUAL,t} - \Delta C_{BSL,t} - LK_t$$

Where:

$\Delta C_{AR-CDM,t}$ = Net anthropogenic GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{ACTUAL,t}$ = Actual net GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks, in year t ; t CO₂-e

LK_t = GHG emissions due to leakage, in year t ; t CO₂-e

The net anthropogenic GHG removals by sinks estimated for first crediting period (20 years-renewable) are summarized in the table below.

Year	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
2017-2018	0	3,916	0	3,916
2018-2019	0	7,742	0	7,742
2019-2020	0	8,238	0	8,238
2020-2021	0	10,681	0	10,681
2021-2022	0	11,431	0	11,431
2022-2023	0	11,431	0	11,431
2023-2024	0	11,431	0	11,431
2024-2025	0	11,431	0	11,431
2025-2026	0	11,431	0	11,431
2026-2027	0	11,431	0	11,431

2027-2028	0	11,431	0	11,431
2028-2029	0	11,431	0	11,431
2029-2030	0	11,431	0	11,431
2030-2031	0	11,431	0	11,431
2031-2032	0	11,431	0	11,431
2032-2033	0	11,431	0	11,431
2033-2034	0	11,431	0	11,431
2034-2035	0	11,431	0	11,431
2035-2036	0	11,431	0	11,431
2036-2037	0	11,431	0	11,431
Total	0	213,467	0	213,467
Average annual ER		10,673		10,673

Long Term Average (LTA) Calculation

The Long-Term Average (LTA) has been calculated by following the VCS Guidelines of Section 3.2.21 of VCS Program Standard v4.3² and AFOLU Guidance: Example for Calculating the Long Term Average Carbon Stock for ARR Projects with Harvesting³. The ARR project activity has crediting period of 20 years which will be renewed four times making the total crediting period of 100 years. Only plantations under Mahogany (*Swietenia macrophylla*) and Teak (*Tectona grandis*) have been considered for the LTA calculation. This is because only these two species will be subjected to harvest.

- 1) Establish the period over which the long-term average GHG benefit shall be calculated – The harvesting of the species Mahogany (*Swietenia macrophylla*) and Teak (*Tectona grandis*) is expected on 21st year.
- 2) Determine the expected total GHG benefit of the project for each year of the established time period. For each year, the total GHG benefit is the to-date GHG emission reductions or removals from the project scenario minus baseline scenario.
- 3) Sum the total GHG benefit of each year over the established time period
- 4) Calculate the average GHG benefit of the project over the established time period.

The following equation to calculate the long-term average GHG benefit:

$$LA = \frac{\sum_{t=0}^n PE_t - BE_t}{n}$$

Where:

LA = The long-term average GHG benefit

PE_t = The total to-date GHG emission reductions and removals generated in the project scenario (tCO_{2e}). Project scenario emission reductions and removals shall also consider project emissions of CO₂, N₂O, CH₄ and leakage.

BE_t = The total to-date GHG emission reductions and removals projected for the baseline scenario (tCO_{2e})

t = Year

n = Total number of years in the established time period

Expected GHG benefit-to-date = 141,675,03 tCO_{2e}

Total number of years in the establishment period =100 years

So, the long-term average GHG benefit from the project = 141,675 tCO_{2e}

It is expected that the project will achieve its long-term average GHG benefit from the project by the 13th year. The Long term calculation has been verified and found to be appropriate.

LTA calculated in this section 1.10 considers the ex-ante values of annual volume increment. The annual volume increment values have been selected from the IPCC volume increment tables and registered CDM projects. Harvesting is planned only for the Mahogany and Teak trees. Since the remaining trees are fruit-bearing species, there is no intention of harvesting for other species. Ex-ante calculations are done based on the values given in the table. Ex-post values are not considered in the LTA calculations in section 1.10.

LTA has been recalculated using the EX-post values obtained in the first monitoring period. In the revised joint PD-MR, under section 6.5, LTA has been calculated for all the species in the project simultaneously. The updated LTA is 114407 tCO_{2e}. The total GHG benefits in the monitoring period is 25321 tCO_{2e}. So the long-term average estimated havhast been reached in this monitoring period.

VVB has assessed all the updated information in the revised PD-MR and found it to be appropriate.

Finding: CAR 04 was raised in this regard and successfully closed. Refer Appendix 2 for further details

3.4.7 Methodology Deviations

No methodology deviations were applied.

3.4.8 Monitoring Plan

The project monitoring plan is in compliance with the monitoring methodologies applied. The monitoring plan will give opportunity for real measurement of emission reductions achieved. The monitor-able action plan has been included in section 5.3 of the VCS Joint PD & MR. The assessment team checked all parameters presented in the monitoring plan against the requirements of the methodology and it's KBS's opinion, that the project participant is able to implement the monitoring plan. The following table summarizes the data/parameters available at validation:

Data & Parameters available at validation:

Data & Parameter available at validation	Value	Source/Justification
Parameter: A_i Area of strata i Unit : Ha	Area will depend on each project instance	Field Measurements/Land agreement signed with individual farmers for inclusion of their land.
Parameter: $BEF_{2,j}$ Biomass expansion factor for conversion of stem biomass to above-ground biomass Unit: Dimensionless	3.4	Value is default value which is sourced from: IPCC GPG LULUCF2003 (Table 3A.1.10, IPCC Good Practice Guidance for LULUCF 2003)
Parameter: CF_{TREE} Carbon fraction of tree biomass for species or group of species j Unit t C t ⁻¹ d.m.	0.47	Value is default value which is sourced from Methodological tool - Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities Version 04.2 LULUCF2003
Parameter: D_j Basic wood density	Dependent on the type of species.	Value is default value which is sourced from IPCC GPG LULUCF2003(Table 3A.1.9-2,

Unit: t d.m.m ⁻³		IPCC Good Practice Guidance for LULUCF 2003)
Parameter: R _j Root-shoot ratio Unit: Dimensionless	0.27	Value is default value which is sourced from IPCC GPG LULUCF2003(Table 3A.1.8, IPCC Good Practice Guidance for LULUCF 2003)

List of monitored data & parameters:

Parameter	Unit	Source/Justification
V_{TREE,j}; V_{TREE,l,p,j,i} Stem volume of tree species j; Stem volume of tree l of species j in sample plot p of stratum i	m ³	The value shall be derived from field measurements before each verification. For ex-ante estimation, the growth curve (age-volume) equations are used to estimate the stem volume. For the ex-post estimation, allometric equations of each tree species are used to calculate the stem volume. The tree dimensions usually comprise height and diameter at breast height. Validation team was able to confirm during remote audit and interview of monitoring personals that Quality control/quality assurance (QA/QC) procedures prescribed under National Forest Inventory are applied. In absence of these, QA/QC procedures from published handbooks, or from IPCC GPG LULUCF 2003 may be applied.
H_{l,p,j,i}; DBH_{l,p,j,i} Height of tree l of species j in sample plot p of stratum i; Diameter at breast height of tree l of species j in sample plot p of stratum i	m; cm	The value shall be derived from field measurements before each verification. Standard operating procedures (SOPs) /14/ prescribed under national forest inventory are applied for measurement of the data and these two parameters are two tree dimensions used as entry data into the volume equations for the calculation of the stem volume of trees. Validation team was able to confirm during remote audit and interview of monitoring personals that Quality control/quality assurance (QA/QC)

		<p>procedures prescribed under National Forest Inventory are applied. In the project monitoring report, the allometric equations of each tree species has been used to calculate the stem volume, and the allometric equation used is correctly demonstrated to be appropriate for estimation of tree biomass by applying the tool, “Demonstrating appropriateness of allometric equations for estimation of aboveground tree biomass in A/R CDM project activities“,</p>
<p>A_i; A_{PLOT,i} Area of stratum i; Size of sample plot in stratum i</p>	<p>Ha</p>	<p>The value shall be derived from field measurements before each project instance verification.</p> <p>Standard operating procedures (SOPs) prescribed under national forest inventory are applied for measurement of the data In absence of these, SOPs from published handbooks, or from the IPCC GPG LULUCF 2003, may be applied. Validation team was able to confirm during remote audit and interview of monitoring personals that the field measurements have been appropriately implied for calculations.</p>
<p>N_{i,j} Number of the tree species j of strata i</p>	<p>trees/ha</p>	<p>The value shall be derived from field measurements before each project instance verification.</p> <p>Standard operating procedures (SOPs) prescribed under national forest inventory are applied for measurement of the data</p>

Therefore, from the document review and remote inspection, it is confirmed that all the parameters were monitored in accordance with the monitoring plan during the monitoring period. The project owner will prepare standard monitoring process for all project activities to deal with any errors occurred during monitoring. Sufficient procedures have been identified in the revised VCS-Joint PD & MR/1.2/ and the implementation of those procedures will enable that the emission reductions of the project can be reported and verified ex-post.

Finding: CL 03 was raised in this regard and successfully closed. Refer Appendix 2 for further details.

Opinion:

The validation team confirms that:

- The project activity has been implemented and operated as per the VCS standard 4.3 requirements and that all physical features (location, technology, sampling, and monitoring plan) of the project are in place, as per the documents provided by the PP (referenced in appendix 1).
- In opinion of validation team, all necessary parameters required by the selected methodology are contained in the monitoring plan. They are clearly described, and the means of monitoring detailed in the plan comply with the requirements of the applied methodology AR-ACM0003: Afforestation and reforestation of lands except for wetlands Version 2.0 and applied tools.
- The information inflow (from data generation, aggregation, to recording, calculation and reporting) is included above under each parameter and confirms to the requirement of the Joint PD & MR;

The values included in the Joint PD & MR and corresponding emission reduction sheets are verified and included under each monitoring parameter.

3.5 Non-Permanence Risk Analysis

A non-permanence risk analysis was carried out following the provisions of the AFOLU Non Permanence Risk tool v4.0/9/ and submitted to the audit team. The findings and conclusion regarding the non-permanence risk analysis undertaken for the project are summarized below for each risk category and factor. Unless noted otherwise, the audit team agrees with the conclusion stated in the non-permanence risk report/3/. The risk rating was assessed at Joint validation & verification stage. For this verification, the buffer risk was set at 10%, according to the potential risk and mitigation measurements of the project which has been assessed by Verification team. The findings of the validation team regarding the risk scores applied for each factor are as follows.:

3.5.1 INTERNAL RISK

Project Management				
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB conclusion
a)	Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven	0	Most of the species planted are native horticulture species like <i>Mangifera indica</i> , <i>Phyllanthus emblica</i> etc. The only species that have the potential of exceeding 25% are <i>Tectona grandis</i> and <i>Swietenia macrophylla</i> . Both are native and common to India. List of	As confirmed during the remote interviews and through the project database, all

<p>to be adapted to the same or similar agro-ecological zone(s) in which the project is located.</p>	<p>species and their native details is as follows:</p> <table border="1"> <thead> <tr> <th data-bbox="802 275 997 331">Species</th> <th data-bbox="997 275 1211 331">Remarks</th> </tr> </thead> <tbody> <tr> <td data-bbox="802 331 997 422"><i>Phyllanthus emblica</i></td> <td data-bbox="997 331 1211 422">Native to India.</td> </tr> <tr> <td data-bbox="802 422 997 606"><i>Ficus carica</i></td> <td data-bbox="997 422 1211 606">Native to an area extending from Asiatic Turkey to northern India.</td> </tr> <tr> <td data-bbox="802 606 997 858"><i>Santalum album</i></td> <td data-bbox="997 606 1211 858">Native to the tropical belt of the peninsular India, eastern Indonesia and northern Australia.</td> </tr> <tr> <td data-bbox="802 858 997 1341"><i>Achras Sapota</i></td> <td data-bbox="997 858 1211 1341">Native to the Mexico and other tropical countries of South America. But it have been adapted to Indian agro-ecological zones and are commonly cultivated in India for its fruit value.</td> </tr> <tr> <td data-bbox="802 1341 997 1656"><i>Casuarina equisetifolia</i></td> <td data-bbox="997 1341 1211 1656">Native to Australia, the Indian subcontinent, southeast Asia, islands of the western Pacific Ocean, and eastern Africa.</td> </tr> <tr> <td data-bbox="802 1656 997 1936"><i>Anona Reticulata</i></td> <td data-bbox="997 1656 1211 1936">Native to South America and the West Indies, sitaphal (<i>Anona Reticulata</i>) was introduced to India by the Portuguese</td> </tr> </tbody> </table>	Species	Remarks	<i>Phyllanthus emblica</i>	Native to India.	<i>Ficus carica</i>	Native to an area extending from Asiatic Turkey to northern India.	<i>Santalum album</i>	Native to the tropical belt of the peninsular India, eastern Indonesia and northern Australia.	<i>Achras Sapota</i>	Native to the Mexico and other tropical countries of South America. But it have been adapted to Indian agro-ecological zones and are commonly cultivated in India for its fruit value.	<i>Casuarina equisetifolia</i>	Native to Australia, the Indian subcontinent, southeast Asia, islands of the western Pacific Ocean, and eastern Africa.	<i>Anona Reticulata</i>	Native to South America and the West Indies, sitaphal (<i>Anona Reticulata</i>) was introduced to India by the Portuguese	<p>the species planted in the project activity is either native of India and/or well-adapted to the Indian edapho-climatic conditions. Hence, Selection of risk rating of 0 (and not 2) is deemed to be correct.</p>
Species	Remarks															
<i>Phyllanthus emblica</i>	Native to India.															
<i>Ficus carica</i>	Native to an area extending from Asiatic Turkey to northern India.															
<i>Santalum album</i>	Native to the tropical belt of the peninsular India, eastern Indonesia and northern Australia.															
<i>Achras Sapota</i>	Native to the Mexico and other tropical countries of South America. But it have been adapted to Indian agro-ecological zones and are commonly cultivated in India for its fruit value.															
<i>Casuarina equisetifolia</i>	Native to Australia, the Indian subcontinent, southeast Asia, islands of the western Pacific Ocean, and eastern Africa.															
<i>Anona Reticulata</i>	Native to South America and the West Indies, sitaphal (<i>Anona Reticulata</i>) was introduced to India by the Portuguese															

				<p>during the 16th century AD. Indian agro-ecological zones and are commonly cultivated in India for its fruit value.</p>
			<p><i>Punica granatum</i></p>	<p>It is native to Iran. Pomegranate (<i>Punica granatum</i>) is one of the commercially important fruit crops of India, so it is very common in India and they have adapted to the climatic conditions.</p>
			<p><i>Psidium guajava</i></p>	<p>Originally from Tropical America. But now naturalized in the tropics and are commonly cultivated in India for its fruit value.</p>
			<p><i>Syzygium cumini</i></p>	<p>Native to India.</p>
			<p><i>Citrus Limon</i></p>	<p>Native to India.</p>
			<p><i>Swietenia macrophylla</i></p>	<p>Native to Central America. The species have adapted to Indian agro-climate zones and are very common India now as they are cultivated for timber.</p>

			<i>Melia Dubia</i>	Native to India, South east Asia and Australia.
			<i>Mangifera Indica</i>	Mangoes (<i>Mangifera Indica</i>) are believed to have originated from the region between northwestern Myanmar, Bangladesh, and India.
			<i>Moringa oleifera</i>	Native to Indian Subcontinent.
			<i>Citrus limetta</i>	Native to India.
			<i>Azadirachta indica</i>	Native to Indian subcontinent
			<i>Artocarpus hirsutus</i>	Native to India.
			<i>Pterocarpus santalinus</i>	Native and Endemic to India.
			<i>Grevillea robusta</i>	Native to Australia, but it is cultivated across India as a shade tree. The species have adapted to Indian agro-ecological zones of India.
			<i>Tamarindus indica</i>	Indigenous to tropical Africa but has been cultivated in Indian subcontinent for so long. India is one of the largest producers of Tamarind. <i>Tamarindus</i>

			<table border="1"> <tr> <td></td> <td><i>indica</i> is very common in India.</td> </tr> <tr> <td><i>Tectona grandis</i></td> <td>Native to south and southeast Asia.</td> </tr> </table>		<i>indica</i> is very common in India.	<i>Tectona grandis</i>	Native to south and southeast Asia.	
	<i>indica</i> is very common in India.							
<i>Tectona grandis</i>	Native to south and southeast Asia.							
b)	Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.	0	Ongoing enforcement to prevent encroachment by outside actors will not be required to protect stocks. The project areas are on lands owned by the Small Group of farmers. Most of these lands are both their farmland and their residence and are protected by the farmers living there.	As confirmed during the remote interview and through the agreement between the farmer, and PP, each participating farmer is bound to manage and protect the tree plantations from illegal felling. Hence, Selection of risk rating 0 is deemed to be correct.				
c)	Management team does not include individuals with significant experience in all skills necessary to successfully undertake all project activities (i.e., any area of required experience is not covered by at least one individual with at least 5 years' experience in the area).	0	<p>Cropzone Agroforestry Pvt Ltd is established on 2017 and the founder Mr. SAIBABA ABBURI has had a 15-years professional career in rural education and empowerment of poor people through farming with new techniques. Cropzone has established a Quality Management System, wherein a set of procedures has been laid down to implement and monitor the project activity. These procedures to manage the project include:</p> <ul style="list-style-type: none"> a) Staff training b) Data and record keeping arrangements c) Data collection d) Data entry and archiving 	As confirmed through the remote interviews, the project management team has an extensive experience in the field. Further, it has its own set of procedures for implementation and monitoring of the project activity, through staff trainings, Data collection recoding and archiving, Quality control and assurance, as confirmed				

			<p>e) Data quality control and quality assurance</p> <p>Therefore, this risk factor does not apply here.</p>	<p>during the remote interviews.</p> <p>Therefore, there is no risk due to lack of management and skills. Hence, Selection of risk rating 0 is deemed to be correct</p>
d)	<p>Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.</p>	0	<p>Project is spread across 4 states in India, Maharashtra, Andhra Pradesh, Karnataka and Telangana. Cropzone Pvt Ltd is based on India itself and they have established management team in each states also.</p>	<p>During the remote interviews, it was confirmed that the project area is implemented in these states- Maharashtra, Andhra Pradesh, Karnataka and Telangana. Also the management team has offices across the project sites. Hence, Selection of risk rating 0 is deemed to be correct</p>
e)	<p>Mitigation: Management team includes individuals with significant experience Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed</p>	-2	<p>Cropzone have a team with extensive experience in plantation management. Carbon assessment is done by EKI energy services who have experience in registering carbon credit projects for more than 10 years. EKI have a team with significant experienced individuals to design and implementation of AFOLU projects.</p>	<p>As discussed in the point c) above, management team consists of individuals with significant experience in the AFOLU project design and implementation. Further, the remote interviews</p>

	projects through validation, verification and issuance of GHG credits) under the VCS Program or other approved GHG programs.			carried out by the validation team confirmed that the project consultant team holds significant experience in carbon accounting under VCS program. Hence, Selection of risk rating -2 is deemed to be correct
f)	Mitigation: Adaptive management plan in place	0	Not applicable-	NA
Total Project Management (PM) [as applicable, (a + b + c + d + e + f)]		-2		
Total may be less than zero.				

Financial Viability				
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB conclusion
a)	Project cash flow breakeven point is greater than 10 years from the current risk assessment	3	There is no cash flow back other than carbon credits until Mahogany and Teaks are harvested. Harvesting will be done after 20 years so cash flow breakeven will be greater than 10 years.	During the remote interviews, it was confirmed that there is no cash flow back other than carbon credits and only Mahogany and Teaks are harvested after 20 years of growth. Hence,

				Selection of risk rating 3 is deemed to be correct
b)	Project cash flow breakeven point is between 7 and up to less than 10 years from the current risk assessment	0	Not applicable.	NA
c)	Project cash flow breakeven point between 4 and up to less than 7 years from the current risk assessment	0	Not applicable.	NA
d)	Project cash flow breakeven point is less than 4 years from the current risk assessment	0	Not applicable.	NA
e)	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven	0	Not applicable.	NA
f)	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven	0	Not applicable.	NA
g)	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	0	Not applicable.	NA
h)	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	0	The project had all the funds secured to cover the total cash needs to reach breakeven.	Selection is correct.
i)	Mitigation: Project has available as callable financial resources at least 50% of total cash out	0	Not applicable.	NA

	before project reaches breakeven			
Total Financial Viability (FV) [as applicable, ((a, b, c or d) + (e, f, g or h) + i)]		3		
Total may not be less than zero.				

Opportunity Cost				
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB conclusion
a)	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence-driven, net positive community impacts are not demonstrated.	0	Not applicable.	Not applicable
b)	NPV from the most profitable alternative land use activity is expected to be between 50% and up to 100% more than from project activities.	0	Not applicable.	Not applicable
c)	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities.	0	Not applicable.	Not applicable
d)	NPV from the most profitable	0	In accordance with instruction 2.2.3.2 of the AFOLU Non-	Assessment is in accordance with

	alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated		<p>Permanence Risk Tool, "where the majority of baseline activities over the length of the project crediting period are subsistence-driven, an NPV analysis is not required, but an assessment of the net impacts of the project on the social and economic well-being of the communities who derive livelihoods from the project area shall be undertaken".</p> <p>The majority of the baseline activity in the project areas is subsistence farming. Many horticulture species were distributed as part of project and it benefited the social and economic wellbeing of the communities, which derive livelihoods from the project areas.</p>	the AFOLU Non-Permanence Risk Tool /9/wherein it has been confirmed in that the land prior to the project activity was degraded and left barren with little farming activities. Implementation of the project activity leads to sustainable development in the area. Hence, Selection of risk rating 0 is deemed to be correct
e)	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	0	Not applicable.	Selection is deemed valid
f)	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	0	Not applicable.	As above
g)	Mitigation: Project proponent is a non-profit organization	0	Not applicable.	As above
h)	Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity)	-2	Cropzone Pvt Ltd have signed with each farmers to maintain the project area for 30 years.	As confirmed during the remote interviews, an agreement is signed by the farmer and PP wherein the obligation of all the parties are clearly stated. The agreement ensures that the PP provides technical

				assistance, services relating to planting and maintenance. Hence, Selection of risk rating -2 is deemed to be correct
i)	Mitigation: Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over at least 100 years (see project longevity)	0	Not applicable.	
Total Opportunity Cost (OC) [as applicable, (a, b, c, d, e or f) + (g + h or i)]		-2		
Total may be less than 0.				

Project Longevity				
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB conclusion
a)	Without legal agreement or requirement to continue the management practice	0	Not applicable.	As confirmed during the remote interviews, a Bipartite agreement is signed by the farmer and PP/10/ wherein the obligation of all the parties are clearly stated. Hence selection is valid.
b)	With legal agreement or requirement to continue the management practice	-20	Contract have been signed by all the project participants with Cropzone Pvt ltd in which it has mentioned they are not allowed to cut trees for 30 years. This contract will be	As confirmed during the remote interviews, an agreement is signed by the farmer and PP wherein the obligation of all the parties are clearly stated.

			renewed in future. Harvesting will be done only for species <i>Tectona grandis</i> and <i>Swietenia macrophylla</i> after 21 years. Long term average for the project is calculated considering this and credits beyond long term average will not be claimed.	Hence, Selection of risk rating -20 is deemed to be correct
Total Project Longevity (PL) May not be less than zero		0		<p>Verification team could infer that though the Total value is reported as 0 according to the VERRA risk calculation tool excel sheet wherein It should be ideally -20. But, as per the implied tool, total value may not be less than 0 Therefore 0 value has been reported here instead of -20.</p> <p>Hence, Selection of risk rating -20 is deemed to be correct</p>

Internal Risk

Total Internal Risk (PM + FV + OC + PL) Total may not be less than zero.	0
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3.5.2 External Risks

Land Tenure and Resource Access/Impacts				
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB conclusion
a)	Ownership and resource access/use rights are held by same entity(s)	0	Not applicable.	Agreement of Ownership

				is reviewed by the team and hence, Rating is appropriate and acceptable.
b)	Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession)	2	Project activity is done on the small parcels of land owned by respective farmers. There is no dispute on the ownership of land as they have revenue documents proving the ownership of land. Cropzone have made agreement with all the individual farmers.	As confirmed during the remote interviews, a Bipartite agreement is signed by the farmer and PP wherein the obligation of all the parties are clearly stated. Hence selection is valid.
c)	In more than 5% of the project area, there exist disputes over land tenure or ownership	0	Not applicable.	Selection is valid
d)	There exist disputes over access/use rights (or overlapping rights)	0	Not applicable.	As above
e)	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts	0	Not applicable.	As above

f)	Mitigation: Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period	-2	Each land parcel is subjected to legal contract protecting carbon stocks over the length of the project crediting period.	As confirmed during the remote interviews, a Bipartite agreement is signed by the farmer and PP wherein the obligation of all the parties are clearly stated. Hence selection is valid.
g)	Mitigation: Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims	0	Not applicable.	Selection is valid.
Total Land Tenure (LT) [as applicable, ((a or b) + c + d + e + f + g)]		0		
Total may not be less than zero.				

Community Engagement				
Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB conclusion
a)	Less than 50 percent of households living within the project area who are reliant on the project area, have been consulted	0	The project area consists of small land parcels owned respective farmers. Because of this nature of the project, legal agreements are made between project proponent and all the project participators (Farmers). Since agreements are made with all the farmers, and they are the same people residing inside project area, 100% percent of households living	The justification provided is in line with the community engagement document provided for assessment

			<p>within the project area who are reliant on the project area, have been consulted.</p>	<p>. As confirmed during the remote interviews, a Bipartite agreement is signed by the farmer and PP wherein the obligation of all the parties are clearly</p>
b)	<p>Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted.</p>	0	<p>Because of the nature of the project mentioned in section 'a' of this table, 100% percent of households are consulted. As these were farmlands owned by respective farmers there were no people depending upon project area outside project area. The people depended upon project areas have signed agreements with Cropzone PVT Ltd.</p>	As above
c)	<p>Mitigation: The project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area.</p>	-5	<p>The project is done on the degraded farmlands and barren lands. Without the project intervention the land would have continue to degrade. Most of the lands were abandoned farmlands, so there were no economic gain for the respective farmers. But as part of the project activity many fruit bearing trees, shade bearing trees were distributed to farmers. These have benefited farmers economically. Farmers can harvest the fruits and enjoy other benefits from the trees.</p> <p>There is no negative impact on the social and economic well-being of the local communities as no invasive species have introduced to the project area. And in fact, the project activity have resulting in an alternative livelihood opportunity out of abandoned farmlands.</p> <p>So the project generates net positive impacts on the social and well – being of the local communities.</p>	As above

Total Community Engagement (CE) [where applicable, (a + b + c)]	-5		
Total may be less than zero.			

Political Risk									
Risk Factor	Risk and/or Mitigation Description	Risk Rating	PP justification				VVB conclusion		
a)	Governance score of less than -0.79		Not applicable.				Governance Score is 0		
b)	Governance score of -0.79 to less than -0.32		Not applicable.				Governance Score is 0		
c)	Governance score of -0.32 to less than 0.19	2	Average score of all six indicators for the five most recent years (20011-2016) is - 0.135.				Governance Score is 2		
			Indicators	2016	2017	2018	2019	2020	Average By Category
			Voice and Accountability	0.44	0.39	0.35	0.27	0.15	0.32
			Political Stability/Abs of Violence	0.95	0.76	0.99	0.77	0.86	0.87
			Government Effectiveness	0.07	0.09	0.28	0.17	0.39	0.20
			Regulatory Quality	0.31	0.25	0.23	0.16	0.14	0.22

				Rule of Law	-0.03	0.00	0.03	-0.03	-0.02	-0.01	
				Control of Corruption	-0.28	-0.24	-0.18	-0.25	-0.24	-0.24	
				Average by Year	-0.18	-0.11	-0.11	-0.11	-0.11	-0.135	
d)	Governance score of 0.19 to less than 0.82			Not applicable.							Governance Score is 0
e)	Governance score of 0.82 or higher			Not applicable.							Governance Score is 0
f)	Mitigation: Country is implementing REDD+ Readiness or other activities, as set out in this Section 2.3.3.	-2		India has an established Designated National Authority under the CDM and has at least one registered CDM Afforestation/Reforestation project.							Selection is deemed valid.
Total Political (PC) [as applicable ((a, b, c, d or e) + f)]		(2)+ (-2)=-0									
Total may not be less than zero.											

External Risk	
Total External Risk (LT + CE + PC)	0
Total may not be less than zero.	

3.5.3 Natural risk

Natural Risk

Risk Factor	Risk Factor and/or Mitigation Description	Risk Rating	PP justification	VVB Conclusion
a	Fire (F)	0	<p>The project is spread across 4 different states where the project area is scattered across many small land parcels owned by farmers. Chance of spreading fire one place to other is not possible. Also the farmer who owns the land lives near to land parcels. So the significance selected is “Insignificant”.</p> <p>Likelihood is very minimal, as the land is very much scattered. The land was previously abandoned farmlands, degraded/ barren land so there is no history of fire events also. Likelihood selected is “Every 50 to less than 100 years”.</p>	<p>PP conservatively has assessed significance for fire risk as “Insignificant (less than 5% loss of carbon stocks) or transient (full recovery of lost carbon stocks expected within 10 years of any event)).</p> <p>The selected scores are considered correct as the provided evidence regarding significance, likelihood and mitigation is robust and come from relevant organizations.</p>

<p>b</p>	<p>Pest and Disease Outbreaks (PD)</p>	<p>1</p>	<p>Aggressive pest presence could cause tree mortality that can result in carbon loss. Major trees that contribute to carbon stocks are <i>Swietenia macrophylla</i>, <i>Tectona grandis</i> and <i>Mangifera Indica</i>.</p> <p><i>Tectona grandis</i>: White grubs, <i>Holotrichia</i> spp. (Coleoptera : Scarabaeidae), teak defoliator, <i>Hyblaea puera</i> Cramer (Lepidoptera : Hyblaeidae) and leaf skeletonizer, <i>Eutectona machaeralis</i> (Walker) (Lepidoptera : Pyralidae), are considered as major pests of teak, causing extensive damage in nurseries, man-made and natural forests.</p> <p><i>Swietenia macrophylla</i>: The main pest which infests young plantations of this species is the shoot borer, <i>Hypsipyla robusta</i> Moore (Lepidoptera:Phycitidae)</p> <p><i>Mangifera Indica</i>: There are many diseases that can affect mango tree because of bacteria, fungi and algae like: Algal leaf spot (<i>Cephaleuros virescens</i>), Anthracnose (<i>Colletotrichum gleosporioides</i>), Bacterial canker (<i>Xanthomonas campestris</i>) etc. Major pest that can attack Mango tree is Mango tree borer (<i>Batocera rufomaculata</i>)</p> <p>Because the nature of the project (spread across 4 states) loss above 5% of the total carbon is inconceivable and significance is ranked as "insignificant.</p> <p>There has been no documented history of pest attack spread for past 25 years in the project area. As the project area consists of many small land parcels spread across 4 states chances of spread of pest is minimal. The lands are dispersed reducing the pest spread. Likelihood</p>	<p>As confirmed during the remote interviews and through the review of literature, the planted are resistant to many pest and beetles the agreement ensures that farmers protect the plantation from pests. Hence, Selection of risk rating 1 is deemed to be correct</p>
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			selected is “Every 10 to less than 25 years”					
c	Extreme Weather (W)- Extreme floods	5	<p>State of flood exposure: The state of flood events in India is abrupt and non-linear. The frequency and intensity of extreme events are surging. India has witnessed some devastating floods since the 19th century. Table illustrates the top 20 flood exposed districts based on the study “Mapping India’s Climate Vulnerability - A District Level Assessment”⁴ done by CEEW.</p> <table border="1" data-bbox="673 1732 1185 1785"> <thead> <tr> <th>SI No</th> <th>District</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	SI No	District			As conformed during remote assessment and interview process it was confirmed that the project has no land parcels with cyclone or flood threat. But 5 districts out of 20 districts fall under drought exposed
SI No	District							

⁴ <https://www.ceew.in/sites/default/files/ceew-study-on-climate-change-vulnerability-index-and-district-level-risk-assessment.pdf>

			1	Darbhanga	area. Drought can	
			2	Madhubani	effect only in the	
			3	Samastipur	early stages of tree	
			4	Nayagarh	establishment. 5	
			5	Puri	districts (Anantapur,	
			6	Chennai	Aurangabad,	
			7	West Tripura	Chittoor, Jalgaon and	
			8	Dhemaji	kolar) out of 20	
			9	Dhubri	districts where	
			10	Khordha	project area is	
			11	Mumbai	dispersed comes	
			12	Dibrugarh	under drought prone	
			13	Lakhimpur	area. So likelihood is	
			14	Barpeta	" less than every 10	
			15	Golaghat	years". The	
			16	Nagaon	remaining districts	
			17	Sheohar	have the same risk	
			18	Sitamarhi	profile, which is very	
			19	West Godavari	low. So the risk	
			20	Darrang	profile of the 5	
			Project has no land parcels in these districts.			
			State of drought exposure: Extreme droughts can affect the mortality of trees and resulting loss of carbon stocks. The top 20 drought exposed districts based on the study "Mapping India's Climate Vulnerability - A District Level Assessment" done by CEEW are as follows			
			SI No	District		
			1	Rajkot		

			2	Anantapur								
			3	Aurangabad								
			4	Barmer								
			5	Churu								
			6	Jaisalmer								
			7	Jodhpur								
			8	Nagaur								
			9	Ahmadnagar								
			10	Ajmer								
			11	Bhilwara								
			12	Bijapur								
			13	Chittoor								
			14	Osmanabad								
			15	Rajsamand								
			16	Udaipur								
			17	Bidar								
			18	Gulbarga								
			19	Jalgaon								
			20	Kolar								
			<p>Project have some land parcels in the districts Anantapur, Aurangabad, Chittoor, Jalgaon and kolar</p> <p>State of cyclone exposure: In India, cyclones are referred to as tropical cyclones. Some of the coastal areas are effected highly of cyclone events. Extreme cyclones can result in huge loss of carbon. The top 20 Cyclone exposed districts based on the study “Mapping India’s Climate Vulnerability - A District Level Assessment” done by CEEW are as follows</p> <table border="1"> <thead> <tr> <th>SI No</th> <th>District</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Nayagarh</td> </tr> </tbody> </table>				SI No	District	1	Nayagarh		
SI No	District											
1	Nayagarh											

			2	Puri			
			3	Khordha			
			4	Chennai			
			5	Baleshwar			
			6	Bhadrak			
			7	Cuttack			
			8	Gajapati			
			9	Ganjam			
			10	Sri Potti Sriramulu Nellore			
			11	East Godavari			
			12	Srikakulam			
			13	Krishna			
			14	Paschim Medinipur			
			15	Guntur			
			16	Imphal East			
			17	Jamnagar			
			18	North 24 Parganas			
			19	West Godavari			
			20	Jagatsinghpur			
			Project has no land parcels in these districts. The project area is scattered in 4 states and 20 districts. The project have no land parcels with cyclone or flood threat. But 5 districts out of 20 districts fall under drought exposed area. Drought can effect only in the early stages of tree establishment. In these 5 drought prone areas, drought effects only in the first 2 year of tree establishment which can be considered as "Minor" (5% to less than 25% loss of carbon stocks)..				
d	Geological Risk (G)	0	As per the seismic zoning map of country given by Bureau of Indian Standards (BIS),		area		

			<p>the total area is classified into four seismic zones. Zone V is seismically the most active region, while zone II is the least. Project is located at 20 different districts in the states Maharashtra, Andhra Pradesh, Telangana and Karnataka. None of these districts falls in Zone V. Most of the Project area falls in Zone II and Zone III. So the geography risk can be considered as “No loss”.</p>	<p>The selected scores are considered correct as per seismic zoning map of country by BIS.</p> <p>The provided evidence regarding significance, likelihood and mitigation is robust and come from relevant organizations. Hence validation team confirms risk is not applicable to the area</p>
e	Other natural risk (ON1)	0	Not applicable	As no other risks identified the total value for ON is not applicable and can be considered zero.
f	Other natural risk (ON2)	0	Not applicable	As no other risks identified the total value for ON is not applicable and can be considered zero.
g	Other natural risk (ON3)	0	Not applicable	As no other risks identified the total value for ON is not applicable and can be considered zero.
Total Natural Risk (as applicable, F + PD + W + G + ON)			$0+0.5+2.5+0=3.0$	

3.5.4 Overall Risk Rating

In summary, the overall risk rating that was determined for the project, in accordance with the VCS Non-Permanence Risk Tool/9/, is 1.5. The audit team has concluded that the above risk rating is in conformance with the VCS rules. However, since the AFOLU Non-Permanence Risk Tool requires a minimum risk rating of 10, so the final risk rating for this project is 10%. The calculation of total VCUs is therefore:

Risk Category	Rating
a) Internal Risk	0
b) External Risk	0
c) Natural Risk	3
Overall Risk Rating (a + b + c)	3
Total buffer considered (The AFOLU Non-Permanence Risk Tool requires a minimum risk rating of 10, so the final risk rating for this project is 10%.)	10

Verified Reductions x (100%-10%) = VCUs

Gross (tCO _{2e})	Buffer (tCO _{2e})	Net (tCO _{2e})
25,231	2,523	22,708

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activities and monitoring plan, as described in the Joint PD-MR under section 5, has been fully implemented for the current monitoring period (4 June 2017 to 10 February 2022 (Inclusive of both days) and the assessment team did not find any material discrepancies between the project and monitoring plan. During this monitoring period, the implementation of the project activity has continued with, reforestation with mainly native species, and the restoration of degraded lands considered for first instance in Maharashtra, Karnataka, Telangana & Andhra Pradesh. The total verifiable area for the project is the 501.47 ha.

KBS has checked section 6 of the Joint PD-MR /1/and confirms by means of comparison with the information given in the VCS PD-MR under section 5, the project standard and information gathered during the site visit that the description of the implementation status of the project activity is in line with

the applicable provisions of the project standard. There are no material discrepancies between project implementation and the project description.

Ownership and other programs:

PP has declared that the project is not registered in other GHG programs; PP confirmed that the project has not sought or received any other form of GHG-related environmental credit (for GHG emission reductions or removals claimed under the VCS Program) also that the project has not been registered under any other GHG program, as declared in joint VCS-PD-MR. Thus, emission reductions generated by project will be solely claimed by PP and PP has the right of use, which is acceptable. Net GHG emission reductions or removals generated by this project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions as the host country is not a participant in any emission trading programs or nor does it have any binding limits.

PP will not claim any other the environmental/carbon credits under any other GHG emission reduction scheme for the crediting period under VCS and PP has provided declaration/27/ on the same during the validation. Hence, there is no possibility of double counting.

Sustainable Development Contributions:

As confirmed during the remote audit, the project is reforestation and restoration project thereby contributes to sustainable development through reduction in greenhouse gas (GHG) emissions. It has also been confirmed that the project implementation has led in significant environmental and socio-economic benefits and contributes to the social, economic, technological and environmental well-being as highlighted below.

S.No.	SDG Target	SDG INDICATOR-	Current Project Contributions	VVB Assessment
1	1	Proportion of population living below the national poverty line, by sex and age	By bringing the 140 number of land owners/farmers who living below the national poverty line in the project activity, it is able to provide extra source income. Therefore, it contributes to reducing the level of poverty among the farmers/landowners living below the poverty line.	During remote audit and interviews of personnel It was checked that project activity has included the farmers living below poverty line as their lands were barren and degraded. These farmers shall be provided with saplings and technical assistance. Hence the project activity contributes to reducing the level of poverty

				among the farmers/landowners.
2	13	Tonnes of greenhouse gas emissions avoided or removed	By planting trees in the project area, the project activity has removed 22,708 tCO ₂ e of CO ₂ from the atmosphere.(04-June 2017 to 10-February-2022)	During desk review, remote audit and interviews of personnel It was checked that cumulatively, the project activity has removed 22,708 tCO ₂ e of CO ₂ from the atmosphere from the plantation trees in the project area, hence contributing to reducing carbon emissions by sequestering carbon from the project area.
3	15.1.1	Forest area as a proportion of total land area	By planting trees in the barren lands, the project activity has added 501.47 hectares of area under the forest cover.	As the project aims to, added 501.47 hectares of area under the forest cover, hence contributing to support life on earth.

Management and operational system:

Verification team was able to verify that authorities and responsibilities for monitoring and reporting of all data related to the emission reductions were clearly defined for the monitoring period from 4 June 2017 to 10 February 2022 (Inclusive of both days).

The allocation of the responsibilities is documented in a written form and is followed as described in the Joint VCS PD-MR under section 5. Routines for the archiving of data are defined and documented.

The monitoring plan described in section 5 of the Joint PD-MR /1/ is confirmed to be correct and been implemented during the current monitoring period. All the parameters of the monitoring plan are monitored using appropriate proposed method.

The verification team has interviewed the plant personnel who is involved in the monitoring of the parameters that are used to determine the emission reductions of the VER project. It is confirmed based on the interview that the plant’s team is competent enough to monitor the parameters as described in the monitoring plan.

As discussed above, the verification team concludes that management and operational system of the project is implemented and operated well. Thus, it ensures the quality of data which is required in calculating the emission reductions.

Implementation status of the monitoring plan:

Verification team confirms through remote inspection and from the document review that the actual monitoring system complies with the monitoring plan mentioned in the Joint VCS PD-MR under section 5 and there is no deviation in monitoring plan and procedures.

During the current monitoring period verification, all relevant monitoring parameters of the registered monitoring plan have been verified with regard to the appropriateness of the verification method; the correctness of the values applied for ER calculation, the accuracy and applied QA/QC measures. All monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements. It is confirmed that the monitoring mechanism is effective and reliable.

Therefore, from the document review and remote inspection, it is confirmed that all the parameters were monitored in accordance with the proposed monitoring plan during the monitoring period. Following are the details of monitoring in accordance with the monitoring plan of the Joint VCS PD-MR.

Data / Parameter	H
Data unit	Meter (m)
Description	Height of tree planted
Value applied:	Field measurements in sample plots.
Comments	NA

Data / Parameter	D
Data unit	cm (centimeter precision)
Description	Tree Diameter

Value applied:	GBH is measured from the field in sample plots. Then diameter is calculated using the equation: $D=GBH/\pi$
Comments	NA

Data / Parameter	Ai
Data unit	Ha
Description	Sample plot area.
Value applied:	0.04 Ha
Comments	NA

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

The assessment team has reviewed the emission reduction (ER) spread sheet/2/ and checked all the formulae and verified them to be correct and in line with the monitoring plan and the applied monitoring methodology in Joint PD MR /1/.

All relevant monitoring parameters of the monitoring plan have been verified with regard to the appropriateness of the verification method; the correctness of the values applied for ER calculation, the accuracy and applied QA/QC measures. All monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements. It is confirmed that the monitoring mechanism is effective and reliable.

Therefore, from the document review and remote inspection, it is confirmed that all the parameters were monitored in accordance with the monitoring plan during the monitoring period (4 June 2017 to 10 February 2022). Following are the details of monitoring in accordance with the monitoring plan

Baseline emissions

The baseline emission for the project is considered as zero.

Where:

$\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks in year t ; t CO₂-e
 $\Delta C_{TREE_BSL,t}$ = Change in carbon stock in baseline tree biomass within the project boundary in year t , as estimated in the tool "Estimation of carbon stocks and change in carbon stocks"

- $\Delta C_{SHRUB_BSL,t}$ = Change in carbon stock in baseline shrub biomass within the project boundary, in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; t CO₂-e
- $\Delta C_{DW_BSL,t}$ = Change in carbon stock in baseline dead wood biomass within the project boundary, in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO₂-e
- $\Delta C_{LI_BSL,t}$ = Change in carbon stock in baseline litter biomass within the project boundary, in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO₂-e

The methodological tool AR-Tool - “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities” Version 04.2 was used to estimate the baseline stock change.

As per Section 5 of the tool, the carbon stock in trees in the baseline can be accounted as zero if all of the following conditions are met:

- a. The pre-project trees are neither harvested, nor cleared, nor removed throughout the crediting period of the project activity;

The baseline land use has been considered to be degraded or severely degraded or fallow or barren lands or lands with subsistence agriculture. Because of this presence of pre-project trees are rare. If there are any pre-project trees present, they are neither harvested, cleared, nor removed throughout the crediting period of the project activity. Existing trees will not be cut. The whole plantation and land preparation will be done according to the presence of existing trees. Any extraction of existing trees for timber, fuelwood, etc. is not planned and is completely discouraged.

- b. The pre-project 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 pre-project trees do not suffer mortality because of competition from trees planted in the project as no invasive species are planted as part of project and most of the land subjected to plantation activity were barren. No damage have caused to pre-project trees because of implementation of the project activity, as tilling have not been done as part of project activities. Soil is only disturbed to prepare the planting pits. Soil disturbance attributable to the project will in no case cover more than 10% of the total surface.

- c. The pre-project trees are not inventoried along with the project trees in the monitoring of carbon stocks but their continued existence, consistent with the baseline scenario, is monitored throughout the crediting period of the project activity.

The existing trees will not be estimated for their carbon stocks and carbon stock change but will be monitored for continued existence throughout the project duration.

The existing trees will not be estimated for their carbon stocks and carbon stock change but will be monitored for continued existence throughout the project duration.

Project emission

The actual net GHG removals by sinks are estimated using the following equation.

$$\Delta C_{ACTUAL,t} = \Delta C_{P,t} - GHG_{E,t}$$

Where:

$\Delta C_{ACTUAL,t}$ = Actual net GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{P,t}$ = Change in the carbon stocks in the project, occurring in the selected carbon pools, in year t ; t CO₂-e

$GHG_{E,t}$ = Increase in non-CO₂ GHG emissions within the project boundary as a result of the implementation of the A/R CDM project activity, in year t , as estimated in the tool “Estimation of non-CO₂ GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity”; t CO₂-e

Change in the carbon stocks of selected carbon pools is estimated using the following equation.

$$\Delta C_{P,t} = \Delta C_{TREE_PROJ,t} + \Delta C_{SHRUB_PROJ,t} + \Delta C_{DW_PROJ,t} + \Delta C_{LI_PROJ,t} + \Delta SOC_{AL,t}$$

Where:

$\Delta C_{P,t}$ = Change in the carbon stocks in project, occurring in the selected carbon pools, in year t ; t CO₂-e

$\Delta C_{TREE_PROJ,t}$ = Change in carbon stock in tree biomass in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; t CO₂-e

$\Delta C_{SHRUB_PROJ,t}$ = Change in carbon stock in shrub biomass in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities”; t CO₂-e

$\Delta C_{DW_PROJ,t}$ = Change in carbon stock in dead wood in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO₂-e

$\Delta CL_{L,PROJ,t}$ Change in carbon stock in litter in project in year t , as estimated in the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”; t CO₂-e

$\Delta SOC_{AL,t}$ Change in carbon stock in SOC in project, in year t , in areas of land meeting the applicability conditions of the tool “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities”, as estimated in the same tool; t CO₂-e

Estimation in the changes of carbon stock in tree biomass:

The change in carbon stock in tree biomass was estimated as per the requirements in the methodological tool AR-TOOL 14 Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities Version 4.2.

Estimation in the changes of carbon stock in shrub biomass:

There is no planting of shrubs as a part of the project activities therefore this parameter will be estimated as zero in both ex-ante and ex-post calculations.

Estimation in the changes in carbon stock in dead wood:

Deadwood is expected to remain in the project area and will not be removed. Conservatively, the carbon stock contained in this pool is expected to remain unchanged for the program duration.

Estimation in changes in carbon stock in soil organic carbon (SOC)

SOC will be calculated according to the following formula using “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities”

$$\Delta SOC_{PROJ,t} = \frac{44}{12} \times \sum_{t=1}^t A_{PLANT,t} \times dSOC_t \times 1 \text{ year}$$

Where:

$\Delta SOC_{PROJ,t}$ = Change in SOC stock within the project boundary, in year t ,
t CO₂-e

$A_{PLANT,t}$ = Area planted in year t , ha

$dSOC_t$ = The rate of change in SOC stocks within the project boundary, in
year t ; t C ha⁻¹ yr⁻¹.

The following default value of is used, unless transparent and verifiable information can be provided to justify a different value:

- (i) $dSOC_t = 0.50 \text{ t C ha}^{-1} \text{ yr}^{-1}$ for $t = t_{PLANT}$ to $t = t_{PLANT} + 20$ years, where t_{PLANT} is the year in which planting takes place;
- (ii) $dSOC_t = 0 \text{ t C ha}^{-1} \text{ yr}^{-1}$ for $t > t_{PLANT} + 20$.

Leakage

As per section 5.6 of the methodology AR-ACM0003 version 2.0 leakage is to estimate as follows

$$LK_t = LK_{AGRIC,t}$$

Where:

$LK_t =$ GHG emissions due to leakage, in year t ; t CO₂-e

$LK_{AGRIC,t} =$ Leakage due to the displacement of agricultural activities in year t , as estimated in the tool “Estimation of the increase in GHG emissions attributable to the displacement of pre-project agricultural activities in A/R CDM project activity”; t CO₂-e

The lands on which the project will be implemented are degraded/barren/fallow lands or land with subsistence agriculture. The lands selected for program implementation are lands not classified as forest lands according to the definition of the forest of India. Except for lands with subsistence agriculture, degraded/barren/fallow lands have not been used for agriculture, including rice paddies.

In addition, the lands on which project implementation will occur are not and have not been grazing lands. Most of the project areas are degraded barren fallow lands or lands with grass and sparse, dispersed vegetation. Grazing is not a common practice in the area. These lands have no prior history of agriculture or grazing. Therefore, there is no displacement of agricultural activities as a result of project activities and leakage has been estimated to be zero.

The net anthropogenic GHG removals by sinks shall be calculated as follows:

$$\Delta C_{AR-CDM,t} = \Delta C_{ACTUAL,t} - \Delta C_{BSL,t} - LK_t$$

Where:

$\Delta C_{AR-CDM,t}$ = Net anthropogenic GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{ACTUAL,t}$ = Actual net GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks, in year t ; t CO₂-e

LK_t = GHG emissions due to leakage, in year t ; t CO₂-e

The net anthropogenic GHG removals by sinks shall be calculated as follows

$$\Delta C_{AR-CDM,t} = \Delta C_{ACTUAL,t} - \Delta C_{BSL,t} - LK_t$$

Where:

$\Delta C_{AR-CDM,t}$ = Net anthropogenic GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{ACTUAL,t}$ = Actual net GHG removals by sinks, in year t ; t CO₂-e

$\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks, in year t ; t CO₂-e

LK_t = GHG emissions due to leakage, in year t ; t CO₂-e

Net GHG Emission Reductions and Removals for the present monitoring period:

The net GHG emission reductions or removals calculated for the present monitoring period (04 June 2017 to 10 February 2022) is 25,231 tCO_{2e} and after considering buffer pool allocation (2,523 tCO_{2e}) the total Verified Carbon Unit for issuance is 22,708 tCO_{2e}. The calculations in the excel sheet are checked and found to be correct.

Year	Baseline emissions or removals (tCO _{2e})	Project emissions or removals (tCO _{2e})	Leakage emissions (tCO _{2e})	Net GHG emission reductions or removals (tCO _{2e})	Buffer pool allocation	VCUs eligible for Issuance
04-June 2017 to 31-December-2017	0	1,538	0	1,538	154	1,384
01-January-2018 to 31-December-2018	0	4,252	0	4,252	425	3,827
01-January-2019 to 31-December-2019	0	5,499	0	5,499	550	4,949
01-January-2020 to 31-December-2020	0	6,574	0	6,574	657	5,917
01-January-2021 to 31-December-2021	0	6,624	0	6,624	662	5,962
01-January 2022 to 10-February-2022	0	744	0	744	74	670
Total		25,231	0	25,231	2,523	22,708

Finding: CL 04 was raised in this regard and successfully closed. Refer Appendix 2 for further details

4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

All relevant documents were checked to assess the correctness and quality of data submitted by the project participants, which are used to determine emission reductions.

All records needed for monitoring are archived in line with the requirements of the monitoring plan. No significant lack of evidence and missing data were detected during site assessment and desk review. Hence, the assessment team confirms that the monitoring system ensures required quality of the monitoring system to ensure the quality of the monitored data. All internal data are subjected to QA/QC measures. The monitoring parameters have been measured / determined without material misstatements and is in line with all applicable standards and relevant

requirements. The information inflow (from data generation, aggregation, to recording, calculation and reporting) is included in section 4.1 under each parameter and confirms to the requirement of the monitoring plan. The data is then reported annually on the VCS Joint PD & MR as verified by the assessment team through on-site assessment.

It was also verified through remote assessment that the team involved in the monitoring of project activity is well experienced. Hence, the assessment team concludes that competent staff is employed by the project proponent to carry out the relevant tasks with sufficient accuracy. Furthermore, it was confirmed during remote assessment that internal training program for the monitoring staff is conducted on regular basis

5 VALIDATION AND VERIFICATION CONCLUSION

KBS Certification Services Pvt. Ltd. has been contracted by, “EKI ENERGY SERVICES LIMITED.” to undertake Validation , followed by verification and certification for the greenhouse gas (GHG) emission reductions reported from ‘GROUPED REFORESTATION PROJECT BY CROPZONE AGRO FORESTRY PRIVATE LIMITED’ for the monitoring period 4 June 2017 to 10 February 2022, under the 1st crediting period, in the initial joint project description and monitoring report version 01 dated 04-December-2021, with regard to the relevant requirements of VCS Standard Version 4.3. The project correctly applies the approved CDM methodology for Afforestation/Reforestation ACM0003 Ver. 2 – “Afforestation and reforestation of lands except for wetlands. It is demonstrated that the project is not a likely baseline scenario. The emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the project for the 1st crediting period are estimated to be 10,673 tCO_{2e} (annual average) over 20-year crediting period (renewable) starting from 04-June-2017 to 03-June-2037. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achievable given the underlying assumptions do not change.

The project will hence be recommended by KBS for request for registration of project activity (Validation and Verification) with the VCS.

The management of the ‘EKI ENERGY SERVICES LIMITED.’ is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within

the project final Joint PD & MR Version 3.0 and dated 13-March-2023. The calculation and determination of GHG emission reductions from the project is the responsibility of the management of the 'EKI ENERGY SERVICES LIMITED.'. The development and maintenance of records and reporting procedures are in accordance with the Joint PD & MR Version 3.0 and dated 13-March-2023. It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the period (Inclusive of both days) based on the reported emission reductions in the final Joint PD & MR Version 3.0 and dated 13-March-2023 for the same period.

As a result of the validation and verification, the assessment team confirms that:

- All operations of the project are implemented and installed as planned and described in the project description.
- The monitoring system is in place and functional.
- The GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, KBS planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

Verification period: From 4 June 2017 to 10 February 2022.

For AFOLU projects: Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO _{2e})	Project emissions or removals (tCO _{2e})	Leakage emissions (tCO _{2e})	Net GHG emission reductions or removals (tCO _{2e})	Buffer pool allocation	VCUs eligible for Issuance
04-June 2017 to 31-December-2017	0	1538	0	1538	154	1384

01-January-2018 to 31-December-2018	0	4252	0	4252	425	3827
01-January-2019 to 31-December-2019	0	5499	0	5499	550	4949
01-January-2020 to 31-December-2020	0	6574	0	6574	657	5917
01-January-2021 to 31-December-2021	0	6624	0	6624	662	5962
01-January 2022 to 10-February-2022	0	744	0	744	74	670
Total		25231	0	25231	2523	22708

Overall non-permanence risk rating: 10%

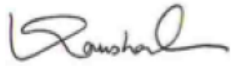
VCUs buffer to be deposited: 2,523 t CO_{2e}.

Total VCUs to be issued: 22,708 t CO_{2e}

Location: Faridabad

Date: 27-09-2023

Authorized Signatory:

A handwritten signature in black ink, appearing to read 'Kaushal', written in a cursive style.

Kaushal Goyal
Managing Director
KBS Certification Services Pvt. Ltd

APPENDIX 1: REFERENCES

/1/	/1.1/ Joint PD & MR, Version 01, dated 04-December-2021 (Initial Version) /1.2/ Joint PD & MR, Version 03 dated 13-March-2023 (Final Version)
/2/	/2.1/ Emission Reduction calculation sheet (corresponding to the initial Version of VCS PD &MR) /2.2/ Emissions Reduction Calculation Sheet, (corresponding to the final Version of VCS PD &MR) /2.3/ Emission Reduction calculation sheet for the Monitoring period (04-June 2017 to 10-February-2022)- CROP ZONE MR (corresponding to the initial Version of VCS PD &MR) .2.4/ Emission Reduction calculation sheet for the Monitoring period (04-June 2017 to 10-February-2022)- CROP ZONE MR (corresponding to the final Version of VCS PD &MR)
/3/	- Non-permanence risk report Version 02, dated 04-December-2021 VCS-Risk-Report-Calculation-Cropzone
/4/	VCS Standard, Version 4.3 dated 22 June 2022
/5/	VCS Programme Guide, Version 4.2 dated 22 June 2022 VCS Validation And Verification Manual, version 3.2 dated:19 October 2016
/6/	CDM Approved methodologies, AR-ACM0003 Ver. 2 - "Afforestation and reforestation of lands except wetlands --- Version 2.0
/7/	Tools: <ul style="list-style-type: none"> • Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities (Version 1.0). • Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/RCDM project activities (Version 4.2) • Calculation of the number of sample plots for measurements within A/R CDM project activities (Version 2.1.0)
/8/	AFOLU Requirements, version 3.6 dated 21 June 2017
/9/	AFOLU Non-Permanence Risk Tool v4.0 dated 19 Sep 2019
/10/	- Agreement of carbon trading Validation and trading signed between CropZone Agro Forestry Private Limited and EKI Energy Services Limited dated:16-November-2021 - First Carbon credit ownership agreement signed between the landowner/farmer (Mr. Gulabrao Tryambak Patil) and the Project Proponent which describes the terms and conditions of carbon credit ownership as well as details of plantation dated 20 July 2021.

	- Agreement and Land title combined documents between Farmers and PP																			
/11/	<p>Sample Plot Details</p> <ul style="list-style-type: none"> - Details of Sample plots selected (mentioned below) - Filled in sample Plot Monitoring Template for each sample plot <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 50%;">Stratum name</th> <th style="width: 50%;">Sample plot ID</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Aurangabad</td> <td>1</td> </tr> <tr> <td>6</td> </tr> <tr> <td>9</td> </tr> <tr> <td>Bellary</td> <td>22</td> </tr> <tr> <td>Jagityal</td> <td>30</td> </tr> <tr> <td rowspan="2">Jalana</td> <td>34</td> </tr> <tr> <td>35</td> </tr> <tr> <td>Nalgonda</td> <td>39</td> </tr> <tr> <td>Nellore</td> <td>41</td> </tr> <tr> <td>Vishakhapatnam</td> <td>46</td> </tr> </tbody> </table>	Stratum name	Sample plot ID	Aurangabad	1	6	9	Bellary	22	Jagityal	30	Jalana	34	35	Nalgonda	39	Nellore	41	Vishakhapatnam	46
Stratum name	Sample plot ID																			
Aurangabad	1																			
	6																			
	9																			
Bellary	22																			
Jagityal	30																			
Jalana	34																			
	35																			
Nalgonda	39																			
Nellore	41																			
Vishakhapatnam	46																			
/12/	Tree Height calculation																			
/13/	<p>On-site inspection & Desk review</p> <ul style="list-style-type: none"> • Remote Site inspection (31-March-2022) for verification of measuring and monitoring procedure, • Video recordings & snapshots of the project site of sample plots • Interviews and data/log review 																			
/14/	<p>Standard Operating Procedures prescribed under National Forest Inventory of India, Dated : 01 December 2021 version 1.0</p> <p>- Field Inventory of tree plantations followed by CropZone Agro Forestry Pvt. Ltd.on the sample plots.</p>																			
/15/	<p>Project photographs</p> <p>Monitoring photographs</p> <p>Nursery photographs</p>																			
/16/	Stakeholder consultations conducted during the registration at various location																			
/17/	Grievance register from 04-12-2019 - 08/06/2020 (Talegaon plant)																			
/18/	Geographical locations as KML file																			
/19/	Baseline Assessment Report Dated: 01 December 2021																			

	Ecological and Landuse Survey report Dated: 01 December 2021
/20/	IPCC GPG LULUCF 2003
/21/	Reference Email from VERRA dated 24-March-2020 from “Andrew Beauchamp” on
/22/	Below Poverty Line Cards of the participating farmers (140 farmers with BPL card)
/23/	The seismic zoning map of country given by Bureau of Indian Standards (BIS),
/24/	National Forest Policy (1988) Biological Diversity Act (2002) National Agroforestry Policy (2014) Environment Protection Act (1986) Water (Prevention and Control of Pollution) Act, 1974 The Indian Forest Act (1927) Forest (Conservation) Act, 1980
/25/	Mapping India’s Climate Vulnerability - A District Level Assessment” by CEEW, October 2021
/26/	Agreement for contract trading contract farming dated: 28 th December 2017 Incorporation Certificate for change of the name from VIGNASRA IT SOLUTIONS PRIVATE LIMITED to CROP ZONE AGRO FORESTRY PRIVATE LIMITED.
/27/	Supportive for avoidance of double counting dated : 02 March 2022

APPENDIX 2: FINDINGS

Summary of findings	CL	CAR	FAR
	05	09	-

Table 1. Remaining FAR from validation and/or previous verifications

This is Validation and first Verification, hence no FAR.

FAR ID		Section no.	-	Date:
Description of FAR				
Project participant response				Date:
Documentation provided by project participant				
VVB assessment				Date:

Table 2: CL/CAR from this validation & verification

Date	Type & Number	Raised by	Reference
07/04/2022	CL 1	Assessment Team	VCS Joint PD MR
Non conformities raised			

<p>1. Under section 1.8, the start date of the project activity is cited as “01-June-2017 when the first plantation activity took place.” However, during remote assessment it has been conveyed that start date of project activity is considered as on 4 June 2017 which is date of contract signed between PP and Landowner of Maharashtra. PP to clarify and confirm the start date of project activity with supporting evidence.</p> <p>2. PP to demonstrate how the start date considered for project activity (1 June 2017) is well defined under AFLOU project guidelines which states that “AFOLU projects shall initiate the pipeline listing process as set out in the VCS Program document Registration and Issuance Process within three years of the project start date (which is 01 March 2022 for the present project)”</p>	
Project Participant’s response	11-May-2022
<p>1. The start date of the project activity has been updated as per the date on which the first contract signed between the PP and the land owner. The start date is actually 04-June-2017 and not 01-June-2017. The first agreement between PP and the farmer has been provided as a evidence of the project start date.</p> <p>2. According to Appendix 2 of VCS Standard v4.2 under v4.2, (on page no. 66-67), it stated that “AFOLU projects with a start date on or before 20 July 2019 shall list on the pipeline on or before 20 July 2022 and complete validation within the relevant deadline as set out in Section 3.7.” According to the Section 3.7.3, “All AFOLU projects with ex-ante emission reduction/removal estimates of 20,000 tCO_{2e} per year or less, and ARR, RWE and IFM (with the exclusion of LtPF) projects of any size shall complete validation within eight years of the project start date.” The project activity has already been listed on Verra VCS registry which before than 20 July 2022. Moreover, the ex-ante emission reduction/removal estimates is 10,571 tCO_{2e} which less than 20,000 tCO_{2e} per year. Therefore, the project activity is within the timeframe of 8 years required for validation. .</p>	
Documentation Provided as Evidence by Project Participant	
<ol style="list-style-type: none"> 1. Updated VCS PD MR 2. The first agreement between the land owner and the farmer as an evidence of the project start date. 3. VCS Standard v4.2 	
Information Verified by Team Leader	Date of review: 24-05-2022

1. In the revised VCS PD under section 1.8, start date is indicated as “*The start date of the project activity is 04-June-2017 when the first plantation activity took place.*” However, in response provided above PP states that “*The start date of the project activity has been updated as per the date on which the first contract signed between the PP and the landowner.*” Also, the first agreement between PP and the farmer which is provided as evidence of the project start date reflects the date as 20 July 2021. PP shall confirm and clarify the start the considered for the project.

Hence this part of CL 1 is OPEN.

2. As highlighted in Appendix 2 of VCS std, v-4.2 and reviewed by Verification Team, that the consideration of start date mentioned in standard (*AFOLU projects shall initiate the pipeline listing process as set out in the VCS Program document Registration and Issuance Process within three years of the project start date.* is effective for AFOLU projects with a project start date on or after 20 July 2019. For AFOLU projects with a start date on or before 20 July 2019, it shall list on the pipeline on or before 20 July 2022. Hence clarification accepted. However, as this part is linked with start date confirmation in query above so PP shall confirm and clarify the start the considered for the project.

Hence this part of CL 1 is OPEN.

Project Participant’s response

18-July-2022

1. According to the Section 3.7 of VCS Standard v4.3, the project start date of an AFOLU (Agriculture, Forestry and Other Land Uses) project is the date on which activities that led to the generation of GHG emission reductions or removals are implemented (e.g., preparing land for seeding, planting, changing agricultural or forestry practices, rewetting, restoring hydrological functions, or implementing management or protection plans). The plantation activity under the project activity started on 04-June-2017 which is mentioned in the Annexure A of the carbon credit contract agreement signed between the Project Proponent and the participating farmer - Mr. Gulabrao Tryambak Patil. ,

The following species with their numbers were planted on 04-June-2017.

Common name of the species planted	Scientific name of the species planted	Date of plantation
Mahogany	Swietenia macrophylla	04-June-2017
Teak	Tectonic grandis	04-June-2017
Lemon	Citrus limon	04-June-2017

The date of 20-July-2021 is a carbon credit ownership agreement between the landowner - Mr. Gulabrao Tryambak Patil (landowner/farmer) and the Project Proponent which describes the terms and conditions of carbon credit ownership as well as details of plantation.

The PP has reframed the statement in the section 1.8 accordingly.

2. The start date has been clarified aforementioned.

Documentation Provided as Evidence by Project Participant

Updated VCS PD MR

Information Verified by Team Leader	Date of review: 20 July 2022
<p>1. PP has provided the first agreement between PP and the farmer as evidence of the project start date and as it is mentioned in signed agreement that the plantation activities were started as on 4 June 2017, Hence verification team is in accordance with the same and accepts the clarification provided. Hence this part of CL is now Closed.</p> <p>2. As the start date is been reconfirmed as to be on 4 June 2017, Hence this part of CL is now Closed.</p> <p>Thus CL 1 is CLOSED.</p>	

Date	Type & Number	Raised by	Reference
07/04/2022	CL 2	Assessment Team	VCS Joint PD MR

Non conformities raised

- Under section 1.10, Crediting period is stated as 04 June 2017- 03 June 2036, considered for 20 years (Renewable), which is inconsistent with information given in project's VERRA page (1st, 01/06/2017 - 31/05/2027). Also start date of crediting period is not consistent with start date of project mentioned in provided VCS PD MR (01 June 2017). PP to clarify and confirm the crediting period of project activity.
- Additionally, with this regard PP to explain further in PD-MR that how does it implies VCS guidelines for AFLOU project while considering crediting period of the project which refers that "For ARR projects with harvesting, the length of the project crediting period shall be set to include at least one complete harvest/cutting cycle."

Project Participant's response

11-May-2022

- The start date of the project activity is 04-June-2017. The crediting period is from 04-June-2017 to 03-June-2037 (total: 20 years). According to the section 3.8.3 of VCS Standard v4.2, "For all other AFOLU projects other than such ALM projects described above, the project crediting period shall be a minimum of 20 years up to a maximum of 100 years, which may be renewed at most four times with a total project crediting period not to exceed 100 years." The project activity is an Afforestation, Reforestation and Revegetation (ARR) project and therefore, the minimum crediting period applicable to the project activity is 20 years up to a maximum of 100 years. The start date of the project activity is 04-June-2017. Therefore, as per the Section 3.8.3 of VCS Standard v4.2, the crediting period of the project activity should be from 04-June-2017 to 03-June-2037. During changing the status of the project from 'under development' to 'under validation', this duration of crediting period on Verra Registry will be changed as per the crediting period of the project activity.
- The crediting period of the project activity is 100 years maximum in which there is at least one complete harvest cycle. Using that timeframe, long-term average benefit has also been calculated. The long-term average has been calculated in ER sheet. The same has been provided in VCS PD MR

Documentation Provided as Evidence by Project Participant

1. Updated VCS PD MR 2. VCS Standard v4.2	
Information Verified by Team Leader	Date of review: 24 May 2022
Information Verified by Team Leader	Date of review: 20-07-2022
<p>PP has provided revised VCS-PD which has been assessed by Verification Team.</p> <p>In the revised PD, under section 1.10, the details asked for has been now included. PP now conforms that LTA is based on expected total GHG benefit to date and it is expected that the project will achieve its long-term average GHG benefit from the project by the 13th year. The revised ER sheet with added details of LTA has been reviewed by Verification team and calculations have been found to be appropriate Hence, this CL is now CLOSED.</p>	

Date	Type & Number	Raised by	Reference
04/04/2022	CL 3	Assessment Team	Sec 5.3
Non conformities raised			
<p>1. Under section 5.3, Total number of Permanent Sample plots reported in ER sheet is 40, however, the PSPs mentioned in PD and also identified during remote assessment is 46. PP to clarify and confirm the PSP identified with reference to sampling Procedure calculations implied.</p> <p>2. PP to provide documentary evidence of implied Standard operating procedures (SOPs) prescribed under national forest inventory for cross verification.</p> <p>3. PP to provide reporting template/format used for monitoring purpose at the Permanent Sample Plots</p>			
Project Participant's response		Date: 11-May-2022	

1. After calculating permanent sample plot A/R CDM Tool – “Calculation of the number of sample plots for measurements within A/R CDM project activities”, 40 permanent sample plots were identified. However, to gather information from all the strata PP have to take six more PSPs. Based on the size of the strata and diversity of the species planted, PP had to select six more PSPs in the following strata:

- a) Aurangabad – 4
- b) Dhule – 1
- c) Nellore – 1

This was done to have inclusive representation of whole project area. For example, in Aurangabad, *Citrus spp.* have also been planted which has different carbon sequestration rate when compared to Mahogany (*Swietenia macrophylla*). Therefore, to represent *citrus spp.*, PP has to increase the number of sample plots.

2. Standard operating procedures (SOPs) for monitoring and verification has now been provided by the PP.

3. Template/format used for monitoring of Permanent Sample Plots.

Documentation Provided as Evidence by Project Participant

- 1. Updated VCS PD MR
- 2. Standard Operating Procedure (SOP).
- 3. Template/format used for monitoring of Permanent Sample Plots.

Information Verified by Team Leader

Date of review: 24 May 2022

- 1. PP has submitted revised VCS PD, and it is now clarified that the calculation of the number of sample plots using the A/R CDM tool resulted in total 40 sample plots. However, based on the size of the three strata and diversity of species, six more sample plots were also added to have representation of species diversity, hence total number of PSP identified are 46. This is accepted as it is a conservative approach. **Hence this part of CL is CLOSED.**
- 2. PP has now submitted Standard operating procedures (SOPs) followed on the site. The same has been reviewed and found appropriate. **Hence this part of CL is CLOSED.**
- 3. PP has now submitted Sample Plot Monitoring Template for assessment. **Hence this part of CL is CLOSED.**

Thus, CL 3 is now CLOSED.

Date	Type & Number	Raised by	Reference
04/04/2022	CL 4	Assessment Team	Sec 6/ PD-MR
Non conformities raised			

<p>1. Under section 6, PP reports that “Project emissions are also considered as zero”, However, the emissions for PE are accounted in table under sec 6.5. PP to conform and clarify the same.</p> <p>2. The Monitoring period reported for the first instance is not reported including year and month specifically for assessment.</p>	
Project Participant’s response	Date: 11 May 2022
<p>1. Under section 6.5, Project Emissions or Removals (tCO_{2e}) are reported which included project emission removals under the project activity. The mentioned figures in the table of section 6.5 under column heading “Project Emissions or Removals” is project removals. Project emissions from the project activity has been considered as zero.</p> <p>2. The monitoring period with day, month and year is now described in the section 6 table. The amount of Project Removals has been reframed accordingly.</p>	
Documentation Provided as Evidence by Project Participant	
<p>1. Updated VCS PD MR</p> <p>2. Updated Monitoring Period Estimation</p>	
Information Verified by Team Leader	Date of review: 24 May 2022
<p>1. As per template filling guidelines for VCS-PD-MR, Under section 6.3, PP to include information under sec 6.3 on “<i>Quantify project emissions and/or removals for this monitoring period, providing sufficient information to allow the reader to reproduce the calculation</i>”. Hence PP to provide information accordingly in line with what reported in under section 6.5. hence this part of CL is OPEN.</p> <p>2. The monitoring dates have been indicated now in revised VCS-PD-MR and has been assessed. (04 June 2017 to 10 feb 2022)</p> <p>Hence this part of CL is CLOSED now.</p>	
Project Participant’s response	Date: 18-July-2022
<p>1. The PP has now provided step-by-step information accordingly in line with the template filling guidelines of VCS-PD-MR.</p>	
Documentation Provided as Evidence by Project Participant	
<p>1. Updated VCS-PD-MR</p>	
Information Verified by Team Leader	Date of review: 20 July -2022
<p>1. PP has submitted the revised VCS-PD which has been reviewed by Verification Team. In the revised PD under section 6.3, PP has now included the information asked, for Quantifying project emissions and/or removals for this monitoring period, to be in line with template filling guidelines. Hence this part of CL is now CLOSED.</p> <p>Thus, CL 4 is now CLOSED.</p>	

Date	Type & Number	Raised by	Reference
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04/04/2022	CL 5	Assessment Team	Sec 3.5/ PD-MR
Non conformities raised			
<p>1. Under section 3.5 it is stated that “<i>The PP has planted mahogany for harvesting purposes but the same tree will be harvested after 21 years.</i>” However, in NPR Assessment report, for “Project Longevity, it is stated that “Harvesting will be done only for species <i>Tectona grandis</i> and <i>Swietenia macrophylla</i> after 21 years”. PP shall clarify the and redefine harvesting plan implied.</p>			
Project Participant’s response		Date: 11-May-2022	
<p>The harvesting will be done for Teak (<i>Tectona grandis</i>) and Mahogany (<i>Swietenia macrophylla</i>). Now, in section 3.5 of VCS PD MR, harvesting has been mentioned for Mahogany and for teak as well.</p>			
Documentation Provided as Evidence by Project Participant			
Revised VCS PD			
Information Verified by Team Leader		Date of review: 24-May-2022	
<p>Assessment team has checked and verified that in revised VCS PD under section 3.5 the harvesting plan is indicated for both the species Teak (<i>Tectona grandis</i>) and Mahogany (<i>Swietenia macrophylla</i>) and the same is now found consistent with the NPR assessment report hence changes are acceptable to the verification team.</p>			
Hence CL 05 is closed.			

Date	Type & Number	Raised by	Reference
07/04/2022	CAR 01	Assessment Team	VCS Joint PD MR cover page
Non conformities raised			
<p>In the VCS Joint PD- MR, following inconsistencies have been observed-</p> <ol style="list-style-type: none"> 1. Project title as mentioned in VCS-PD-MR is not consistent with the name reflecting in Verra page. 2. Project information provided in cover page of the VC PD-MR is not aligned in proper format adequately. 3. The latest available version of template for VCS-PD-MR (Ver 4.1) is not been used for the present report design. 4. Name of the project implementor as stated in section 1.1 of VCS PD-MR (Crop Zone Agro Forestry Limited) is not consistent with the name reflecting in VERRA web page (CropZone Agro Forestry Private Limited). 5. Under section 1.3 of VCS Joint PD MR, PP to describe and justify how the project is eligible under the scope of the latest applicable version of VCS Standard (ver 4,2). 6. The Sustainable Development Contributions Activity Description provided in section 1.17 is not consistent with the latest template requirement of VCS joint PD -MR ver 4.1 7. Total number of years considered for GHG The net anthropogenic GHG removals by sinks in the first instance is form 2017 – 2036, hence not defining 20 years consideration of crediting period above. 			
Project Participant's response		Date: 11-May-2022	
<ol style="list-style-type: none"> 1. The project title name as mentioned VCS-PD-MR is now updated as per the name reflected in Verra VCS project registry page. 2. The project information provided in the cover page of the VCS PD-MR is now aligned with proper formatting. 3. The VCS PD MR has been updated as per the latest available template, which is VCS-PD-MR template v4.1. 4. The name of the project implementer in section 1.11 of VCS PD-MR has been updated as per the VERR webpage. 5. Under section 1.3 of VCS PD MR, the eligibility of the project under scope of VCS has been described as per the latest version of VCS Standard v4.2 6. The Sustainable Development Contributions Activity Description in section 1.17 is now updated with the latest template requirement of VCS-Joint PD-MR (Version 2.0) 7. The total number of years considered for GHG net anthropogenic removals by sinks in first instance is now updated. It is now 2017 to 2037, which makes it a total of 20-years of first crediting period. 			
Documentation Provided as Evidence by Project Participant			
<ol style="list-style-type: none"> 1. Updated Joint VCS PD-MR 2. Below Poverty Line Cards of the participating farmers as an evidence of section 1.17 as Sustainable Development Contributions #1 (Proportion of population living below the national poverty line, by sex and age) 			
Information Verified by Team Leader		Date of review: 24-May-2022	

<ol style="list-style-type: none"> 1. Assessment team checked the revised VCS PD MR and was able to assess the name in cover page (above the logo) is still not replicating that mentioned in Verra project site – (Grouped reforestation project by cropzone agro forestry private LIMITED). Hence this part of CAR is OPEN. 2. Project information on cover page is aligned with formatting in revised PD MR, checked by assessment team and hence acceptable. Hence this part of CAR is Closed. 3. PD MR is updated as per the latest available template, it is checked by team and acceptable 4. In section 1.1 name of project implementer is still not updated in section 1.1 of VCS PD-MR and is not consistent with that mentioned in Verra page, Hence this part of CAR is OPEN. 5. Under section 1.3 of revised VCS Joint PD MR, PP mentions VCS Standard v4.1 as reference which is incorrect. PP to attend and justify how the project is eligible under the scope of VCS Standard version 4.2, Hence this part of CAR is OPEN. 6. Section 1.17 is now updated in revised PD MR as per the latest template requirement of VCS joint PD -MR ver 4.1, hence acceptable to team. 7. Revised PD MR is checked by assessment team and hence confirms that the total number of years considered for GHG net anthropogenic removals by sinks in first instance is now updated to 2017 to 2037 . <p>Hence, CAR 1 is OPEN.</p>	
<p>Project Participant’s response</p> <ol style="list-style-type: none"> 1. The name in the cover page has been updated. It now reflects the name mentioned in the Verra project site. 4. In the section 1.1, the name of the project implementer has been updated and is now consistent with the name mentioned in the Verra page.. 5. The PP has now described the project eligibility as per VCS Standard v4.2. The PP has also provided the web-link of the VCS Standard v4.2. <p>Documentation Provided as Evidence by Project Participant:</p> <ol style="list-style-type: none"> 1. Updated VCS PD MR 	<p>Date: 18-July-2022</p>
<p>Information Verified by Team Leader</p>	<p>Date of review: 20- 07-2022</p>

1. The name of the project in revised VCS PD has now been updated and referred correctly as “Grouped Reforestation Project by Crop Zone Agro Forestry Private Limited”. **Hence this part of CAR is now CLOSED.**

4. In the revised VCS PD, the project implementor has been updated now to reflect correctly as “Crop Zone Agro Forestry Private Limited”. **Hence this part of CAR is now CLOSED.**

5. In the revised PD, under section 1.3, PP has now included description of eligibility criteria as per latest implacable VCS standard- 4.3. **Hence this part of CAR is now CLOSED.**

Thus, CAR 1 is now CLOSED.

Date	Type & Number	Raised by	Reference
07/04/2022	CAR 2	Assessment Team	Sec 1.1
Non conformities raised			
<ol style="list-style-type: none"> 1. Under section 1.1, the total land area selected for project implementation in first instance is stated as 501.7 hac, However, in ER sheet provided, the land areas selected is indicated as 501.47 ha. PP provide correct value of land parcels selected. 2. PP to provide additional document as (i) Land title document, (ii) Baseline vegetation survey for assessment that project area is not be cleared of native ecosystems within the 10 year. 3. Under section 1.1, it is stated that “<i>The PP has made a contract with the farmers/landowners where they will be given tree saplings and technical support</i>”. PP to provide the above-mentioned contract for assessment. 4. Under section 1.1, additional information also to be reported pertaining to “<i>A brief description of the scenario existing prior to the implementation of the project.</i>” as per requirement of template filling guidelines for VCS PD-MR. 			
Project Participant’s response		11-May-2022	
<ol style="list-style-type: none"> 1. The total project area under the first instance has been updated as 501.47 hectares in the section 1.1. 2. Additional documents including (i) Land title document, (ii) Baseline vegetation survey has now been provided. 3. The contract documents between PP and the farmers/landowners are now provided. 4. Under the Section 1.1, information pertaining to “<i>A brief description of the scenario existing prior to the implementation of the project.</i>” as per requirement of template filling guidelines for VCS PD-MR v4.1 is now described. 			
Documentation Provided as Evidence by Project Participant			
Revised VCS PD-MR			
Information Verified by Team Leader		Date of review: 24-May-2022	

1. PP has submitted the revised VCS-PD-MR which has been assessed. The total project area has been updated as 501.47 ha in section 1.1 and consistent with ER sheet. Hence this part of CAR is CLOSED.

2. PP has submitted the Agreement and Land title combined documents (between Farmers and PP) which consists of 242 signed agreements and as per document “Farm land details”, it is also 242 farmers listed. However, as per Names of participating farmers in ER sheet under tab “Sheet 1”, it is 232 farmers listed. PP to provide clarification of difference in numbers observed conforming total number of farmers participating.

Verification Team was not able to trace the document “Baseline vegetation survey” in the submitted document. Kindly resend or share the same.

Hence this part of CAR is OPEN.

3. The contract documents between PP and the farmers are now provided, checked and verified by assessment team. However, as indicated in review above, PP to conform total number of farmers participating. Hence this part of CAR is OPEN. **Hence this part of CAR is Open.**

4. Section 1.1 in PD MR is now updated as per requirement of template filling guidelines for VCS PD-MR, assessment team checked and changes are acceptable to team.

Hence, CAR 2 is OPEN.

Project Participant’s response	Date: 18-July-2022
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<p>2. There is a mistake from the PP in putting the serial numbers in first column of the tab “Sheet 1”. It should be 242 instead of 232. Earlier, from cell A495 of “Sheet 1” onwards, it should have been 240 in cell A496, 241 in cell A497 and 242 in cell A498. However, it was by mistake marked 230 in cell A496, 231 in cell A497 and 232 in cell A498. The PP has rectified this error. Now from cell A495 of “Sheet 1” onwards, it is 240 in cell A496, 241 in cell A497 and 242 in cell A498 in “Sheet 1”.</p> <p>The baseline vegetation survey is provided now by the PP. Prior to the implementation of the project activity, the lands selected for the project were designated croplands with no vegetation and remain barren. The PP has provided a satellite-based baseline survey using QGIS application (Version 3.22.6) showing lands under the project activity were barren/fallow croplands.</p> <p>3. The PP confirms the total number of farmers is 242. The error in the tab “Sheet 1” of the ER sheet has been rectified.</p> <p>Documentation Provided as Evidence by Project Participant</p> <ul style="list-style-type: none"> • Updated ER sheet with rectified tab “Sheet 1”. • Baseline vegetation survey report • Updated ER sheet. 	
Information Verified by Team Leader	Date of review: 20- 07-2022
<p>2. PP has now submitted the revised ER sheet with corrections and the same has been assessed by Verification Team. As per corrected datasheet provided, the total number of participating farmers are 242 which has been conformed. Hence this part of CAR is now CLOSED.</p> <p>PP has submitted the Baseline ecological and Landuse Survey for assessment of land use at pre-project conditions.</p> <p>3. Total number of participating farmers have been now confirmed to be 242, hence this part of CAR is now CLOSED.</p> <p>Thus CAR 2 is now CLOSED.</p>	

Date	Type & Number	Raised by	Reference
07/04/2022	CAR 3	Assessment Team	ER sheet
Non conformities raised			

Below mentioned inconsistencies have been observed in ER sheet provided-

1. In VCS PD MR, it is stated as “*the project is expected to generate annual average GHG emission reductions of removals of 10,571 tCO₂e*”. However, in ER sheet provided the total GHG emissions reduction is calculated to be 10 673 tCO₂e. PP to clarify and provide correct calculated value for the same.
2. Under section 1.10, The estimated GHG emission reduction for year 2017 (1 877 (tCO₂e) is wrongly stated and is not consistent with value reflecting in ER sheet (3 916). Also, the duration considered (2017- 2036) does not accounts for 20 years’ period considered. PP to check and confirm.
3. The source of all default values to be included as reference for cross verification in ER sheet provided.

Project Participant’s response

Date: 11-May-2022

1. The VCS PD MR has been updated and now shows the annual average GHG emission reductions or removals of 10, 673 tCO₂e, which is the correct value.
2. The Section 1.10 has rectified and the estimation emission reduction now reflects the value in the ER sheet. The duration has also been also rectified and now accounts 20 years total.
3. The references of the default values are now provided in the ER Sheet in the worksheet titled – “Trees Parameters”.

Documentation Provided as Evidence by Project Participant

1. Updated ER Sheet.
2. Updated VCS PD MR

Information Verified by Team Leader

Date of review: 24-May-2022

1. Revised VCS PD MR has been checked by team and conclude that the value for annual average GHG emission reductions or removals in now updated as 10, 673 tCO₂e, which is the correct & consistent with ER sheet, hence acceptable to team.
2. Assessment team checked the Section 1.10 of revised PD MR and conclude that the section is now updated and consistent with corresponding ER sheet. The duration has also been checked and now accounts 20 years, changes are acceptable to team.
3. Assessment team checked and confirm that the source of all default values is now updated in the ER Sheet in the worksheet titled – “Trees Parameters”. Hence acceptable to validation team.

Thus, CAR 3 is closed.

Date	Type & Number	Raised by	Reference
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01/04/2022	CAR 04	Assessment Team	VCS PD MR
Non conformities raised			
<p>1. As per standard requirements under AFOLU Requirements, for ARR projects with harvesting shall include the loss of carbon due to harvesting in the quantification of project emissions. PP to demonstrate if this has been accounted and Step wise description for estimating Long-Term Average (LTA) has to be described in PD-MR report in accordance with procedure listed in applied VCS standard.</p> <p>2. Under section 1.3, it is stated <i>that “Under the project activity, harvesting and replanting are part of the project management plan”</i>. With reference to this and in accordance with requirement of VCS standards, PP to demonstrate and indicate in Joint PD-MR that the permanence of their carbon stock is maintained and shall put in place management systems to ensure the carbon against which VCUs are issued is not lost during a final cut with no subsequent replanting or regeneration.</p>			
Project Participant’s response		Date: 11-May-2022	
<p>1. The Long-Term Average (LTA) is now described in section 4.4 of the VCS Joint PD-MR.</p> <p>2. The permanence of the carbon stock is now described in the section 1.3. The harvesting and replanting is also described in the same section under eligibility conditions.</p>			
Documentation Provided as Evidence by Project Participant			
Revised PD-MR			
Information Verified by Team Leader		Date of review: 24-May-2022	
<p>1. As indicated in prior CL 2 response review, The project proponent included the long-term average under Section 1.10 of the PD, however PP shall conform and clarify if the long-term average was based on the expected annual change in the GHG benefit or the expected total GHG benefit to date. PP shall provide the values considered for LTA calculation formulae in ER sheet for easy reference and cross verification. Also, PP to indicate in VCS PD when long-term average is reached in project years.</p> <p>Hence this part of CAR is OPEN.</p> <p>2. PP has submitted revised VCS PD-MR which mentions that <i>“Under the project activity, harvesting and replanting are part of the project management plan. The future harvesting will target selective harvesting of Mahogany (Swietenia macrophylla) and Teak (Tectona grandis) only. The harvesting will be followed by replanting”</i>. Hence this part of CAR is now CLOSED.</p>			
Project Participant’s response		Date: 18-July-2022	

<p>1. PP has described in the VCS PD MR about the LTA calculation in the section 1.10. In the same section, the PP has mentioned that LTA is based on expected total GHG benefit to date. The PP has updated the ER sheet mentioning expected GHG benefit to date on the column F of sheet titled “Long term average” of ER sheet. The PP has indicated when the long-term average will be reached in project years in VCS PD MR. The PP has provided the reference, the value and formulae considered for the LTA calculation in the ER sheet under the sheet titled “Long term average”.</p>	
<p>Information Verified by Team Leader</p>	<p>Date of review: 20-07-2022</p>
<p>PP has provided revised VCS-PD which has been assessed by Verification Team.</p> <p>In the revised PD, under section 1.10, the details asked for has been now included. PP now conforms that LTA is based on expected total GHG benefit to date and it is expected that the project will achieve its long-term average GHG benefit from the project by the 13th year. The revised ER sheet with added details of LTA has been reviewed by Verification team. Hence, this CAR 4 is now CLOSED.</p>	

Date	Type & Number	Raised by	Reference
01/04/2022	CAR 05	Assessment Team	Joint PD-MR
<p>Non conformities raised</p>			
<p>Section 1.14 of the VCS template requires to “Identify and demonstrate compliance of the project with all and any relevant local, regional and national laws, statutes and regulatory frameworks”.</p> <p>The project proponent lists that “<i>There are no laws, rules and regulations in India that apply specifically to afforestation and/or reforestation activities</i>” but does not demonstrate compliance of the project with</p> <p>the existing legislation. The project proponent is required to demonstrate compliance of the project with all and any relevant local, regional and national laws, statutes and regulatory frameworks under Section 1.14 of the reporting document.</p>			
<p>Project Participant’s response</p>		<p>Date: 11-May-2022</p>	
<p>The relevant laws, rules and regulations are now described in the section 1.14 of Joint VCS PD-MR. The compliance of the same laws, rules and regulations are also described,</p>			
<p>Documentation Provided as Evidence by Project Participant</p>			
<p>Revised VCS PD-MR</p>			
<p>Information Verified by Team Leader</p>		<p>Date of review: 24-May-2022</p>	

PP has provided the revised VCS-PD-MR and Assessment team was able to verify description of prevalent laws listed (National Forest Policy (1988), Biological Diversity Act (2002), National Agroforestry Policy (2014), Environment Protection Act (1986)) in the section 1.14. However PP also to demonstrate compliance of the project with the other existing legislation indicated below-

Water (Prevention and Control of Pollution) Act, 1974
The Indian Forest Act (1927)
Forest (Conservation) Act, 1980

Hence CAR.05 is OPEN.

Project Participant's response

Date: 18-July-2022

The Project Participant has updated the section 1.14. The Project Participant has now described the existing legislations and compliance to the legislations. These legislations are Water (Prevention and Control of Pollution) Act, 1974 The Indian Forest Act (1927), and Forest (Conservation) Act, 1980.

Documentation Provided as Evidence by Project Participant:

Updated VCS PD MR

Information Verified by Team Leader

Date of review: 20-07-2022

PP has submitted the revised VCS PD which has been reviewed by Verification Team. In the revised PD , under section 1.14 , PP has now listed all the existing legislations and has described its project's compliance to it. The same is in line with template guidelines and accepted by Verification Team.

Hence CAR 5 is now CLOSED.

Date	Type & Number	Raised by	Reference
01/04/2022	CAR 6	Assessment Team	Joint PD-MR
Non conformities raised			

<ol style="list-style-type: none"> 1. Under section 2.2, the Dates of Stakeholder meeting conducted is inconsistent with the reference documents provided by PP. PP to check and reconfirm the dates. 2. Further, PP has not demonstrated and mentioned about the identified stakeholders considered for consultation process. 3. Also, as per VCS requirements for AFLOU projects, PP has not demonstrated how the project has or will communicate the following: <ul style="list-style-type: none"> • The project design and implementation, including the results of monitoring. • The risks, costs and benefits the project may bring to local stakeholders. • All relevant laws and regulations covering workers' rights in the host country. • The process of VCS Program validation and verification and the validation/verification body's site visit. 	
Project Participant's response	Date: 11-May-2022
<ol style="list-style-type: none"> 1. The dates of the stakeholder's consultation meeting are now updated as per the documents provided. 2. The process of identification of stakeholders and list of the same has been described in VCS PD MR. 	
Documentation Provided as Evidence by Project Participant	
Updated VCS PD MR	
Information Verified by Team Leader	Date of review: 24-May-2022

<p>1. Assessment team checked & confirms that under section 2.2 of revised PD MR the dates of the stakeholder’s consultation meeting are now updated as per the documents provided.</p> <p>2. PP has still not demonstrated and mentioned about the identified stakeholders considered for consultation process under the section 2.2. Hence this part of CAR is OPEN.</p> <p>3. The corrective action identified and mentioned above (subpoint -3) is not responded by PP.</p> <p>PP shall provide above mentioned information.</p> <p><i>Also, as per VCS requirements for AFLOU projects, PP has not demonstrated how the project has or will communicate the following:</i></p> <ul style="list-style-type: none"> • <i>The project design and implementation, including the results of monitoring.</i> • <i>The risks, costs and benefits the project may bring to local stakeholders.</i> • <i>All relevant laws and regulations covering workers’ rights in the host country.</i> • <i>The process of VCS Program validation and verification and the validation/verification body’s site visit.</i> <p>Hence, this part of CAR 06 is open.</p>	
Project Participant’s response	Date : 18-July-2022
<p>2. In the section 2.2, the PP has now described the stakeholders identified and considered for the stakeholders’ consultation process.</p> <p>3. The PP has now described the following as per requirement VCS Joint PD MR template Version 4.1 specifically for AFOLU project:</p> <ul style="list-style-type: none"> • The project design and implementation, including the results of monitoring. • The risks, costs and benefits the project may bring to local stakeholders. • All relevant laws and regulations covering workers’ rights in the host country. • The process of VCS Program validation and verification and the validation/verification body’s site visit. 	
Documentation Provided as Evidence by Project Participant	
Updated VCS Joint PD MR.	
Information Verified by Team Leader	Date of review: 24-May-2022

2. PP has provided the updated VCS PD and the same has been assessed by PP. In the revised PD the required information has been now included under section 2.2. The PP has now clearly outlined the stakeholders identified for the stakeholder's consultation process.

3. Also, the description of the section is now updated to be in line with template filling requirement and has been accepted.

Thus CAR 6 is now Closed.

Date	Type & Number	Raised by	Reference
01/04/2022	CAR 07	Assessment Team	Joint PD-MR
Non conformities raised			
<ol style="list-style-type: none"> 1. As per provided details in Geo coordinates excel sheet, total of 232 landowners are identified for the first instance. However, in ER sheet provided, under tab "Sheet 1", total number of beneficiaries listed is 241. PP to conform the total landowners identified and provide land documents/ contract documents signed with the identified landowners for cross verification. 2. Under section 1.13, PP to demonstrate the conditions existing prior to project initiation for all land parcels selected. PP to conform if any detailed ecological survey was conducted in the year in the area in order to understand different floral and faunal composition of the existing ecosystem. 3. Under section 1.12, In line with guideline, the project location for project shall be specified in the description in terms of its individual parcels of land considered under grouped instance. 4. For the project activity, PP to include in the map of the locations highlighting land parcels in each district of where the various measures are taking place, any reference areas and leakage belts. Section 3.3 also to be updated by providing Unique Identification of Parcels planted with geo-coordinates for easy reference during verification process. 			
Project Participant's response		Date: 11-May-2022	

<ol style="list-style-type: none"> 1. The total number of landowners in the first instance is 241. There was error in serial numbering of ER excel sheet. 2. The conditions existing prior to the initiation of the project activity are now described in the baseline section - section 3.4. 3. Under the section 1.12, the project location for the project has now been shared as a KML file which shows each location of the project instance. 4. The PP has now included the map with the locations showing land parcels in each district of each state. Each parcels are now updated with Unique Identification Number along with the geocoordinates. a KML file which shows each location of the project instance has also been shared, 	
Documentation Provided as Evidence by Project Participant	
<ol style="list-style-type: none"> 1. KML file showing land parcels 2. Updated VCS PD MR 3. Updated ER sheet 	
Information Verified by Team Leader	Date of review: 24-May-2022
<ol style="list-style-type: none"> 1. As indicated in CAR 2 above- PP has submitted the Agreement and Land title combined documents (between Farmers and PP) which consists of 242 signed agreements and as per document "Farm land details", it is also 242 farmers listed. However, as per Names of participating farmers in ER sheet under tab "Sheet 1", it is 232 farmers listed. PP to provide clarification of difference in numbers observed conforming total number of farmers participating. Hence this part of CAR is OPEN. 2. Validation team checked the revised PD MR that the conditions existing prior to the initiation of the project activity are described in the baseline section - section 3.4, but as per the raised CAR proper justification is required to conform if any detailed ecological survey was conducted in the year in the area in order to understand different floral and faunal composition of the existing ecosystem. Hence this part of CAR is OPEN. 3. Assessment team verified that shared KML file contains the project location for the project which shows individual parcels of land considered under grouped instance. Hence this part of CAR is Closed. 4. PP has submitted the map of the locations highlighting land parcels in each district along with klm file. Hence this part of CAR is Closed. 	
Hence, CAR 7 is open	
Project Participant's response	Date: 18-July-2022

<ol style="list-style-type: none"> 1. There is a mistake from the PP in putting the serial numbers in first column of the tab “Sheet 1”. It should be 242 instead of 232. Earlier, from cell A495 of “Sheet 1” onwards, it should have been 240 in cell A496, 241 in cell A497 and 242 in cell A498. However, it was by mistake marked 230 in cell A496, 231 in cell A497 and 232 in cell A498. The PP has rectified this error. Now from cell A495 of “Sheet 1” onwards, it is 240 in cell A496, 241 in cell A497 and 242 in cell A498 in “Sheet 1”. 2. The baseline vegetation survey is provided now by the PP. Prior to the implementation of the project activity, the lands selected for the project were designated croplands with no vegetation and remain barren. The PP has provided a satellite-based baseline survey using QGIS application (Version 3.22.6) showing lands under the project activity were barren/fallow croplands. 	
Documentation Provided as Evidence by Project Participant	
<ol style="list-style-type: none"> 1. Updated ER sheet 2. Baseline ecological survey 	
Information Verified by Team Leader	Date of review: 24-May-2022
<ol style="list-style-type: none"> 1. As indicated in response above in CAR 1 above, PP has now submitted the revised ER sheet with corrections and the same has been assessed by Verification Team. As per corrected datasheet provided, the total number of participating farmers are 242 which has been conformed. Hence this part of CAR is now CLOSED. 2. PP has submitted the Baseline ecological and Land use Survey for assessment of land use at pre-project conditions which has been reviewed and assessed by Verification Team. Hence this part of CAR is now CLOSED. <p>Thus CAR 7 is now CLOSED.</p>	

Date	Type & Number	Raised by	Reference
04/04/2022	CAR 08	Assessment Team	VCS PD MR
Non conformities raised			
<ol style="list-style-type: none"> 1. Under section 3, inline with template guidelines requirements, PP has not included the title and version number of any tools applied by the project. Also, PP has to demonstrate and justify how the project activity(s) meets each of the applicability conditions of the tools (where applicable) applied by the project. 2. Under section 3.5, it is stated that “There is no registered ARR VCS project in the respective project area”. However, there are few similar projects identified of similar manner in and around project locations (VCS Reference ID- 2404/ 1015/689). PP to explain its consideration for Step 4 Common practice analysis, for demonstration of Additionality. 			
Project Participant’s response		Date: 11-May-2022	

<ol style="list-style-type: none"> 1. PP has now included the title and version of all the tools applied. The applicability of each tool applied has been described now in the section 3.2. 2. The Step 4 Common practice analysis, has been elaborated as per the instructions described in the applied tool. 	
Documentation Provided as Evidence by Project Participant	
Revised VCS PD-MR	
Information Verified by Team Leader	Date of review: 24-May-2022
<ol style="list-style-type: none"> 1. Assessment team checked the updated VCS PD MR is now updated with the title and version of all the tools applied. The applicability of each tool applied is now described in the section 3.2. 2. Revised PD MR has been checked by assessment team and concluded that under section 3.5 the Step 4 Common practice analysis is elaborated in respect of project-2404. <p>However, PP to provide clarification for not considering other relevant projects of similar type VCS ID-1015/689/994 etc) for common practice analysis. Hence this part of CAR is Open.</p>	
Project Participant's response	Date: 18-July-2022
2. the PP has now described the other relevant projects of similar type – 1015/689/994 for common practice analysis.	
Documentation Provided as Evidence by Project Participant	
Updated VCS PD MR	
Information Verified by Team Leader	Date of review: 24-May-2022
<p>2.In the revised PD, under section 3.5, PP has now revised common practice analysis section and it now includes comparison of all relevant similar project. The same has been reviewed nowby Verification team and found to be acceptable.</p> <p>Hence CAR 8 is now CLOSED.</p>	

Date	Type & Number	Raised by	Reference
04/04/2022	CAR 09	Assessment Team	NPR
Non conformities raised			

In NON-PERMANENCE RISK REPORT,	
1. The title of the project is inconsistent with the name reflecting in Verra site.	
2. Cover page mentions Monitoring period as “01-June-2017 to 31-May 2036”, However the mentioned period is not reflecting anywhere in VCS PD-MR.	
3. For risk assessment under “Project Longevity, it is stated that “Harvesting will be done only for species <i>Tectona grandis</i> and <i>Swietenia macrophylla</i> after 21 years”. However In VCS PD-MR it is defined as “The PP has planted mahogany for harvesting purposes but the same tree will be harvested after 21 years.”. PP shall clarify the and redefine harvesting plan implied.	
4. The total score for Total Project Longevity (PL) is reported as -20 in NPR Report, however the same is reported as 0 in NPR calculation excel sheet.	
Project Participant’s response	Date: 11-May-2022
In Non-Permanence Risk Report	
1. The title of the Non-Permanence Risk Report is now updated as per the title of the project activity.	
2. The cover page now been updated showing actual monitoring period of the project activity.	
3. The harvesting plan includes both <i>Tectona grandis</i> and <i>Swietenia macrophylla</i> as well.	
4. The inconsistency has been rectified.	
Documentation Provided as Evidence by Project Participant	
Revised Non-Permanence Risk Report	
Information Verified by Team Leader	Date of review: 24-May-2022
1. PP has submitted the revised report. However, The title of the Non-Permanence Risk Report is not updated and it reflects as <i>Reforestation Project by Cropzone Agro Forestry Private Limited.</i> Hence this part of CAR is Open.	
2. Assessment team checked the cover page of Non-Permanence risk report and was able to asses that monitoring period has been attuned now. Hence this part of CAR is Closed.	
3. Assessment team checked the Non-Permanence Risk Report and found that the harvesting plan is consistent with VCS PD MR in which both the species <i>Tectona grandis</i> (Teak) and <i>Swietenia macrophylla</i> (Mahogany) will be subjected to harvested after 21 years. Hence this part of CAR is Closed.	
4. The total score for Total Project Longevity (PL) is still reflecting as -20 in NPR Report, however the same is reported as 0 in NPR calculation excel sheet. Hence this part of CAR is Open.	
Thus, CAR 9 is kept open.	

Project Participant's response		Date: 18-July-2022
<p>1. The title of Non-Permanence Risk Report is updated now.</p> <p>4. The Total Project Longevity (PL) is now reported as 0. However, as per the risk assessment tool, the two sub-components of Project Longevity, i.e., a) and b) are scored as 0 and -20 respectively. These are as follows:</p> <p>a) Without legal agreement or requirement to continue the management practice: 0</p> <p>b) With legal agreement or requirement to continue the management practice: -20</p> <p>The Total Project Longevity is 0 (because as per risk assessment Excel tool, total project longevity should not be less than zero).</p>		
Documentation Provided as Evidence by Project Participant		
Updated Non-Permanence Risk Assessment Report.		
Information Verified by Team Leader		Date of review: 20-07-2022
<p>1. Verification team has reviewed the revised Non-Permanence Risk Report submitted by PP and assessed it to have correct project name. Hence this part of CAR is now CLOSED.</p> <p>2. 4. The risk assessment has been reviewed and found to be acceptable by Verification Team. Hence this part of CAR is now CLOSED.</p> <p>Thus, CAR 9 is now CLOSED.</p>		

Table 3. FAR from this validation & verification

No FAR raised during current validation/verification.

FAR-ID	Section-No.	Date:
Description of FAR		
Project participant response		Date: DD/MM/YYYY
Documentation provided by project participant		
VVB assessment		Date: DD/MM/YYYY

APPENDIX 3: COMPETENCE OF TEAM MEMBERS

Personnel Name:		Anjana Sharma	
Qualified to work as:			
Team Leader	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier	<input checked="" type="checkbox"/>	Financial Expert	<input checked="" type="checkbox"/>
Technical Reviewer	<input checked="" type="checkbox"/>	Local Expert (India)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
SS: 01: Energy industries (renewable/non-renewable sources)	TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar		
	TA 1.2: Energy generation from renewable energy sources		
SS 3: Energy demand	TA 3.1. Energy Demand		
SS 5: Chemical industry	TA 5.1 Chemical industry		
SS 12: Solvents use	TA 12.1 Chemical industry		
SS 13: Waste handling and disposal	TA 13.1 Waste Handling and Disposal		
	TA 13.2 Manure		
Approved by (Manager C & T)	Manager C & T		
Approval date:	05/08/2021		

Personnel Name:	Shilpa Swarnim
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Qualified to work as:			
Team Leader(trainee)	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input type="checkbox"/>	Local Expert	<input type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
SS: 01: Energy industries	TA 1.2: Energy generation from renewable energy sources		
SS 14: Afforestation and reforestation	TA 14.1 Afforestation and reforestation		
Approved by (Manager C & T)	Shikha Sharma		
Approval date:	06/09/2021		

Personnel Name:		Varsha Bohiya	
Qualified to work as:			
Team Leader	<input type="checkbox"/>	Technical Expert	<input type="checkbox"/>
Validator/Verifier (Trainee)	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input type="checkbox"/>	Local Expert (India)	<input type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
NA	NA		
Approved by	Manager C & T		
Approval date:	18/11/2021		

Personnel Name:		S.Ranganathan	
Qualified to work as:			

Team Leader	<input checked="" type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier	<input checked="" type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input checked="" type="checkbox"/>	Local Expert (India)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
SS 01: Energy industries (renewable/non-renewable sources)	TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar		
	TA 1.2: Energy generation from renewable energy sources		
SS 2: Energy distribution	TA 2.1. Energy distribution		
SS 3: Energy demand	TA 3.1. Energy Demand		
SS 5: Chemical industry	TA 5.1 Chemical industry		
SS 12: Solvents use	TA 12.1 Chemical industry		
SS 13: Waste handling and disposal	TA 13.1 Waste Handling and Disposal		
	TA 13.2 Manure		
Approved by (Manager C& T)	Shikha Sharma		
Approval date:	05/05/2022		

Personnel Name:	ANDRIANARIVELO Ny Aina		
Qualified to work as:			
Team Leader	<input type="checkbox"/>	Technical Expert	<input checked="" type="checkbox"/>
Validator/Verifier	<input type="checkbox"/>	Financial Expert	<input type="checkbox"/>
Technical Reviewer	<input type="checkbox"/>	Local Expert (Madagascar)	<input checked="" type="checkbox"/>
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
SS 14: Afforestation and reforestation	14.1		

SS 15: Agriculture	15.1
Approved by (Manager C & T)	Sanjay Kandari
Approval date:	11/01/2018