



VERIFICATION REPORT OF “AFFORESTATION AND RESTORATION OF DEGRADED FORESTS IN EASTERN PARAGUAY OR FORESTAL AZUL CARBON PROJECT”



Document Prepared By TÜV SUD South Asia Private Limited

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Summary:

- **A brief description of the verification and the project**

The projects activity consists of afforestation of agricultural land, previously used for mechanized soy and implanted pastures, to establish quality timber plantations through Eucalyptus plantation with a rotation period of 12 years. The project consists of total 1,300 ha of agricultural land afforested.

- **The purpose and scope of verification**

The objective of the verification is to have an independent review ex post determination by a VVB (Validation and Verification Body) of the monitored GHG removals by sink that have occurred because of the implementation of the project activity during a defined monitoring period.

- **The monitoring period**

This is the 2nd monitoring period started from 01-January-2021 to 30-September-2022. In the last verification period from 01-June-2018 to 31-December-2020 certified by TÜV NORD, only 993 ha of plantation area was considered as this area has reached a measurable size at that time. In the verification of 2nd monitoring period, an area of 1,300 ha has been considered as the plantations on this area have reached to measurable size for verification. There is no new instance considered in the current monitoring period.

- **The method and criteria used for verification**

Verification is conducted using TÜV SUD South Asia Private Limited (TÜV SUD) procedures in line with the requirements specified in the latest version of the VCS Validation and Verification Manual and applying auditing techniques. The verification team assessed the project activity's compliance against the VCS Standard Version 4.4, the selected methodology and the project monitoring report. The project is eligible under Sectoral Scope 14 "Agriculture, Forestry and other Land Use (AFOLU)". The verification criteria followed the guidance documents provided by VCS included the following:

VCS Standard Version 4.4, VCS Program Guide Version 4.3, AFOLU Non- Permanence Risk Tool (NPRT) version 4.1, and the applied CDM methodology AR-ACM0003 – “Afforestation and reforestation of lands except wetlands” (version 2.0.0).

- **The number of findings raised during verification**

In the course of the verification, 3 (CAR), 4 Clarification Requests (CLs), 0 FAR (Forward Action Request) were raised. The assessment is included in the report.

- **Any uncertainties associated with the verification**

There are no restrictions of uncertainty.

- **Summary of the verification opinion**

In the 2nd verification from 01-January-2021 to 30-September-2022 (including both days), a total of 1,307 ha area has been considered for accounting of GHG ER. After considering net loss due to map adjustment, 7 ha of land was lost resulting into net area of 1,300 hectares of pasture-/agricultural land afforested through planting of Eucalyptus species.

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the registered PDMR version 4.3 of 01-March-2023;
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AR-ACM0003–version 2.0.0 and registered PDMR version 4.3 of 01-March-2023;
- the installed equipment essential for measuring parameters required for calculating emission reductions are properly maintained;
- the monitoring system is in place and functional. The project has generated GHG emission reductions.
- In addition, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV SÜD herewith confirms that the project has achieved emission reductions in the above-mentioned reporting period as follows:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)	Buffer pool allocation (15%)	VCUs eligible for issuance
2021	715	45,199	0	44,484	5,388	39,146
2022	0	33,349	0	33,349	4,002	29,347
Total	715	78,549	0	77,834	9,340	68,494

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1 INTRODUCTION

1.1 Objective

Forestal Azul S.A., Ltd has commissioned the TÜV SUD South Asia Private Limited (TÜV SUD) to carry out the Verified Carbon Standard (VCS) 2nd periodic verification of the project for the monitoring period from 01-January-2021 to 30-September-2022. The objective of verification is to have an independent review ex-post determination by a VVB of the monitored GHG removals by sink that have occurred because of the project activity implemented during a defined monitoring period. The evaluation is done against the requirements of the VCS Standard Version 4.4^{/VCS_STD/}, based on the monitoring report^{/MR/}, AR-ACM0003 Version 2.0.0^{/METH/}, NPRT Version 4.1^{/NPRT/} and other applicable requirements as explained in further sections. To confirm that the GHG removals by sink sound reasonable and meet the identified criteria, the verification involves the assessment of monitoring plan conformance to VCS rules and applied methodology. Verification is requirement and is seen as necessary to provide assurance on the generation of Verified Carbon Units (VCUs).

1.2 Scope and Criteria

The scope of the verification is to verify that: (a) the actual monitoring system and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan; (b) the GHG removals by sink data and express a conclusion with a reasonable level of assurance about whether he reported GHG removals by sink data are free from material misstatement; (c) the reported GHG emissions data is sufficiently supported by evidence. Verification shall ensure that the reported GHG removals by sink are complete and accurate in accordance with the applicable VCS criteria to be certified.

Verification is conducted using TÜV SUD procedures in line with the requirements specified in the VCS Standard 4.4^{/VCS_STD/} and ISO14064-3:2019^{/ISO/} requirements and applying auditing techniques. Verification team assessed and determines that the implementation and operation of the project activity, and steps to report GHG removals by sink comply with the VCS rules. The verification involved a document review of relevant documentation and interview with the project participants. Verification is not meant to provide any consultancy towards the project participants; however, stated request for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

1.3 Level of Assurance

All GHG sinks, sources and GHG emissions equal to or greater than 5% of the total GHG assertions are considered. As per registered PDMR^{/PDMR/}, the project size is categorized as Project, regarding its scale, subject to a 5% materiality threshold in line with the section 4.1.8 of the VCS Standard, v4.4^{/VCS_STD/}.

The assessment was conducted to provide a reasonable level of assurance of compliance against the defined audit criteria and materiality threshold within the audit scope. Based on the audit findings, the verification statement reasonably assures that the GHG assertion is materially correct and is a fair representation of the GHG data and information.

1.4 Summary Description of the Project

The project's activity consists of afforestation of agricultural land, previously used for mechanized soy and im-planted pastures, to establish quality timber plantations in pure plantations (1,159 ha), in a silvopastoral system (148 ha) and 485 ha of enrichment planting in degraded natural forest. Therefore, 1,307 ha are integrated within the scope of first instance and 993 ha was part of first verification (plantation years 2018 and 2019). Different species from the genera of eucalypts are selected, among them: *Eucalyptus grandis*, *E. urophylla*, *Corymbia variegata* as well as the hybrids *E. urogrands* (*urophylla* x *grandis*) and *E. grancam* (*grandis* x *camaldulensis*). Rotation period is 12 years.

A total production area of 1,307 ha of forest plantations has been established between 2018, 2019 and 2020 as described in the registered PD. The project is a grouped project as PP may expand in case potential expansion areas can be identified within the region. Although, in the current monitoring period, PP has not added any new area to the existing plantations. Through GIS mapping^{/GIS/}, PP has removed 7 ha of area as a loss due to remapping, thus total eligible area for carbon calculation is 1,300 ha.

Forestal Azul has acquired Forest Stewardship Council (FSC) certification in 2018 (FSC® C141437) for FSC Sustainable Forest Management Standard^{/FSC/}.

The current monitoring period is from 01-January-2021 to 30-September-2022. After deducting buffer of 12%, the total net carbon emission reduction of 68,493 tCO_{2e} has been determined.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The objective of verification is the ex-post assessment of the monitored GHG data and information. During the verification, the verification team has evaluated monitoring report and assessed the following:

- The extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated project description. This included ensuring compliance with monitoring plan.
- The extent to which GHG emission removals reported in the monitoring report version 1 07/06/2023 are materially accurate.

In determining the scope of verification, TÜV SUD has taken into account the physical boundaries, project sites and temporal boundaries i.e. the length of monitoring period. This verification includes assessment of GHG data and information reported in the monitoring report version 1 for the monitoring period 01-January-2021 to 30-September-2022 of the project activity “Afforestation and restoration of degraded forests in Eastern Paraguay” or Forestal Azul Carbon Project (VCS 2469) located in an area of 1,307 in Estancia Rodeo Guazu which is approximately 250km north of Asuncion.

A project specific Verification and Sampling plan was developed to guide the verification auditing process to ensure efficiency and effectiveness. The purpose of the verification and sampling plan is to present a risk assessment for determining the nature and extent of verification procedures necessary to ensure the risk with respect to material errors, omissions, and misrepresentations is reduced to a reasonable level. According to the ISO14064-3:2020, the criteria are the policy, procedure or requirement used as reference against which evidence is compared. Therefore, verification of the monitoring plan and the reported project results were measured for compliance against the key requirements in the following documents:

- VCS Standard, v4.4^{/VCS_STD/}
- VCS Program Guide, v4.3^{/VCS_STD/}
- VCS Program Definitions, v4.3^{/VCS_STD/}
- AFOLU Non-Permanence Risk Tool, v4.1^{/NRPT/}
- ISO 14064-2:2019^{/ISO/}

- Applied Methodology AR-ACM0003 “Afforestation and reforestation of lands except wetlands” Version 2.0^{/METH/} and Applied Tools referred in the registered VCS PDMR Version 4.3 dated 01/03/2022^{/PDMR/}

As per 4.1.2 of VCS Standard, v4.4, the verification team gathered evidence to verify statement of historical data and information of emission removals of the monitoring period 01-January-2021 to 30-September-2022 to a reasonable level of assurance that the project meets more than 5% of materiality requirement in line with 4.1.8 of VCS Standard, v4.4.

The verification process derived from all items in the verification criteria stated above. Field sampling and techniques based on the project parameters, scope, and best professional judgement of the verification team to meet a reasonable level of assurance. The verification consisted of the following three phases:

- Document review
- On-site assessment and interviews of project personnel
- The resolution of outstanding issues and the issuance of the final verification report and statement

For the monitoring of the volume standing Permanent Sample Plots (PSPs) were established. The PSPs consist of 188 planted trees (regardless of whether they survived or not) and are established randomly. In older areas, where second thinning was already conducted, the number of remaining trees in each plot was too small to conduct statistical analysis. Therefore, in 2022, after second thinning, whenever the trees in the plot were less than 8, the size of the plot was duplicated, meaning 40 equivalent trees were measured. According to internal procedures, the minimum density is 1 PSP every 10 ha, corresponding to a minimum sampling size of 0.2 % in terms of area^{/SOP/}. However, in actual, the average is 1 PSP every 6 ha, corresponding to 0.3% of the planted area as checked during on-site visit and inventory data^{/INV/}.

Depending on the spacing of the forest stand two types of PSPs were designed with different sizes of 200, 250 and 480 m² for 20 trees/plot and 500, 400 and 960m² for 40 trees/plot. Each tree is numbered and thus re-measurable. During the site audit, out of total 188 plots, in line with FSC Standard, FSC-STD-20-007, a sample of 8 plots was randomly selected which is $x=0.6 \cdot \sqrt{y}$, where x is the sampling size determined by verification team and y is the sample plots number determined by PP for the monitoring), and it has ensured a representative cross-section of all the blocks & plantation plots in all the these blocks.

During site visit, by sample plots observation and inspection, the verification team measured the sample plot area, counted the number of the trees inside plot, measured the DBH and height of the trees inside plot, and confirmed that the value of all trees from PP sampling data are correct and reasonable, hence it is verified that the calculation method used in the monitoring report is correct and actual.

The verification team member and technical reviewer composition are listed in the below table:

Table 2.1.1 Verification team member

N o.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings
1.	Team Leader, Verifier	IR	Kudtarkar	Shruti	TÜV SUD South Asia Pvt. Ltd.	☑	☑	☑	☑
2.	Technical Expert, Country Expert	EI	Pizzurno	Cecilia	TÜV SUD South Asia Pvt. Ltd.	☑	☑	☑	☑

Table 2.1.2 Technical reviewer and approver of the verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	EI	K	Sudheendra	TÜV SUD South Asia Pvt. Ltd.
2.	TE to Technical reviewer	IR	Rawat	Dr. Ashish	TÜV SUD South Asia Pvt. Ltd.
3.	Approver	IR	Chowdhury	Deepankar	TÜV SUD South Asia Pvt. Ltd.

2.2 Document Review

The VCS MR version 1 dated 07/06/2023^{MR/} and the current version 1.2 dated 04/04/2024, ER Calculations version 1 dated 07/06/2023^{ER/} and supporting documents related to the project implementation and monitoring were reviewed. Document review was conducted to ensure consistency with and identify any deviation from VCS program requirements. Desk review included an examination of the project details, data and parameters, and quantification of GHG removals.

Furthermore, the verification team used additional documentation by third parties like host party legislation, technical reports referring to the monitoring or to the basic conditions and technical data. The references used during this verification are summarized in Appendix 2.

The verification was performed based on the documents check, site inspection covering actual measurements in the sample plots by the verification team and interviews with relevant personnel. Please refer to section 4 of this report for the verification process detail and corresponding documents review.

2.3 Interviews

The objective of the interview process was to seek important information from personnel related to project and relevant to the verification process. On-site interviews and information discussions were conducted with project proponent^{/Interview Records/}, landowners, local communities^{/Interview Records/} and field team^{/Interview Records/}. The interviews were performed by the verification team on-site. Interview covered discussion on the topics such as technical details of the project, monitoring and measurement equipment and system, crediting period, new instance addition, ownership, inventory management, analysis of local stakeholder consultation, ongoing stakeholder feedback and grievance mechanism, non-performance risk analysis, net harm, safeguards, training of field staff, VCS MR and ER calculation.

It should be noted that large part of the field workers (often staff of service providers) interviewed come from local communities. In addition, documentation proving stakeholder engagement were assessed, including a job satisfaction survey applied to seventy workers in 2023. Thereof, 16 from Paso Tuna, 13 from Yvyra Petei and 5 from Costa Puku. Job satisfaction was high and the evaluation was found appropriate. List of persons interviewed is given in the table below:

Table 2.3.1 List of persons interviewed

Elías Román - Forestry planning and production manager
Cecilia Vázquez- Social officer
Lisa Alem – Administrative Officer – Local (Santa Rosa)
Lorenzo Denis - Field supervisor
Samuel Bogarín – Inventory Staff – Community member of Lima
Manuel Colmán – Inventory Staff - Community member of Lima
Jorge Silva – Inventory Staff - Community member of Lima
Jorge de León – Field Supervisor
Giannina Álvarez – Forestry Planning and Monitoring
Marlene González – Inventory Staff - Community member of Kororoi
Eladio Ramirez- Inventory staff – Community member of Kororoi

2.4 Site Visits

The verification site visit was conducted on 13-June-2023 to 23-June-2023. An on-site inspection of the eucalyptus plantation area was conducted and during site visit, members of the verification team visited 8 representative sample plots within the project area as described in 2.1 above by checking the map of the project location and PP's sampling plots inventory^{/SPI/}. During the site inspection, the verification team was accompanied by the project proponent and field team.

Refer to the section 4.4.1 of this report for the details of the sampling approach conducted by the verification team during site inspection and refer to table 4-7 of this report for the details of the sampling results concluded by the verification team.

2.5 Resolution of Findings

Material discrepancies identified during verification are addressed either as CARs, CLs or FARs.

A **Corrective Action Request (CAR)** is established where:

1. The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions,
2. VCS Standard Version 4.4 requirements have not been met,
3. There is a risk that the emission reductions cannot be monitored or calculated.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

A **Forward Action Request (FAR)** will be issued when certain issues related to project implementation should be reviewed during the next verification.

A detailed list of the CARs CLs and FAR raised and discussed in the course of this validation is included in Appendix 3 of this report.

During the verification, 3 CARs, 4 CLs and 0 FAR were raised. The assessment is included in the report.

2.5.1 Forward Action Requests

This is the 2nd verification, and there was 1 FAR raised in the 1st verification report^{/FVR/}. Refer Appendix for the CL 1.

2.6 Eligibility for Validation Activities

TÜV SUD South Asia Private Limited holds accreditation for both validation and verification of sectoral scope 14.

As per VCS Standard 4.1.23 (1), “Validation (including project crediting period renewal validation) and the first verification of a project (in a given project crediting period) may be undertaken by the same validation/verification body. However, the subsequent verification shall be undertaken by a different validation/verification body”, this is the 2nd periodical verification. The joint validation and 1st periodical verification was conducted by TUV NORD^{/VER1/}. Thus, this requirement of VCS Standard is fulfilled.

The 2nd verification period is from 01-January-2021 to 30-September-2022. Thus, the condition of VCS standard 4.1.23 (2) is met.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The GHG emission removals generated by the project have not counted or used under other GHG Programs i.e. UNFCCC-CDM, The Gold Standard, Plan Vivo Standard and/or other forms of environmental credit. The net GHG emission reductions from the project will not be used for compliance with emission trading programs or to meet binding limits on GHG emissions. The host country Paraguay does not have a national emissions trading scheme. Thus, it has been concluded that the project is not part of any emission trading program or it has not participated under any GHG programs and the same has been confirmed via checking the UNFCCC-CDM^{/unfccc/}, The Gold Standard^{/gs/}, Plan Vivo^{/planvivo/} and other GHG schemes' website.

Furthermore, the project is validated & registered through VCS as confirmed by checking joint validation and 1st verification which was conducted by TUV NORD for the monitoring period from 01-June-2018 to 31-December-2020^{/FVR/}. The issuance of VCUs have ensured the avoidance of double counting as the credits generated from the project were sold as offsets on VCS registry publicly, the series number of the issued credits can be tracked to avoid any potential double counting.

3.2 Methodology Deviations

During the monitoring period, there are no methodology deviations.

3.3 Project Description Deviations

The PP has included the diminution of 7 ha established in 2020 as a PD deviation. The area was never verified, and therefore, no loss event took place,.The evaluation of the kml has been conducted and corroborated in the field. This project description deviation has been found acceptable.

3.4 Grouped Project

Although, the project is a grouped project activity, PP has not included new project activity instance in the current monitoring period.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity is mainly implemented and in operation in accordance with the description contained in the registered PDMR Version 4.3 dated 01/03/2023 ^{/PDMR/}. As confirmed during the on-site inspection, interviews, the project implementer has implemented the activities as described in the registered PDMR in compliance with the VCS Standard Version 4.4 applicable requirements. The actual planted area accounts to 1,307 ha for the current monitoring period.

The implementation status of the project activity is identified, and the assessment steps are taken as the following.

Table 4.1. Assessment of implementation status of the project activity

Item	Assessment
The existence of any material discrepancies between project implementation and the project description.	No material discrepancies have been noted since last verification; absence of such material discrepancies was confirmed through onsite inspection and interviews with the project personnel.
The implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system (i.e., process and schedule for obtaining, recording, compiling and analyzing the monitored data and parameters).	The monitoring has been carried out mainly in accordance with the monitoring plan contained in the validated monitoring plan. The project stratifications for carbon calculations is ex-ante determined as plantation year and plantation density/ha of area. And the total sample plots are calculated by PP as 188 as per various spacing sizes distinctly.

The existence of any material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology.	As assessed above, there is no change of the sampling plots in the actual monitoring system comparing with the monitoring plan. Through detailed review and data testing on implementation of all relevant aspects of actual monitoring system, it is confirmed there is no material discrepancy between methodology and actual monitoring system. The actual monitoring system is implemented in line with the applied methodology.
Whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program or any other mechanism that includes GHG allowance trading.	It is confirmed, applying professional judgment, that there is very low risk of GHG removals having included in any other trading program or any other mechanism that includes GHG allowance trading which has been assessed and verified in the validation process.
Whether the project has participated or been rejected under any other GHG programs since validation or previous verification.	As described in section 3.1 above, the verification team has ascertained that there is no evidence of project's rejection from any other GHG programs as the UNFCCC-CDM ^{/unfccc/} , The Gold Standard ^{/gs/} , Plan Vivo ^{/planvivo/} since last verification.
Whether the project has received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification.	The verification team is unaware of any other environmental crediting program that project would be eligible to participate in since validation.
Sustainable development contributions.	Verification team checked SDG contributions claimed by PP which include providing 72 full time equivalent employment since 2018, specifically, 78 FTEs in 2022 itself out of which 69 FTEs were from rural areas. The data has been checked with employment records provided by the PP. Plantation on 1,300 ha project area which was verified based on plantation records, forest inventory data. Further, PP has claimed first thinning biomass replaced equivalent biomass being used thus preventing forest degradation for sourcing of biomass.
The implementation status of project activities that lead to the intended GHG benefits that commenced prior to monitoring period.	As confirmed during on-site inspection & interviews with stakeholders, the project activity has not lead to intended GHG

	benefits that commenced prior to the monitoring period under assessment.
List any previously validated methodology deviations, project description deviations, and minor changes to the project description (each verification report must contain an exhaustive list of all deviations or changes applied to the project).	This is the 2 nd periodic verification, via checking the registered PDMR and via site inspection, it is confirmed that there is no previously validated methodology deviations, project description deviations, and minor changes to the project description. CAR 1 was raised and closed.
When the project is in a supply chain, whether public statements have been made by the producer(s), retailer(s) or project proponent (as applicable) saying that VCU may be issued for the GHG emission reductions and removals associated with the impacted goods and services	The project supplies timber and is part of supply chain. It has published a statement on its web page ^{/statement/} regarding claim of emission reductions associated with this project. CL 1 was raised and closed.
When the project is in a supply chain, whether the producer(s) or retailer(s) of the impacted good(s) and service(s) have been notified of the potential risk of Scope 3 emissions double claiming via email (where applicable).	The project supplies timber and is part of supply chain. It has published a statement on its web page ^{/statement/} regarding claim of emission reductions associated with this project. CL 1 was raised and closed.

4.2 Safeguards

4.2.1 No Net Harm

The project is an afforestation project of agricultural land, previously used for mechanized soy and implanted pastures. The PP has legal land title^{/PR/}. The plantation activity is subject to an annual inspection by an independent third party^{/FSC/}, a standard that highly controls the use of pesticides and, for so-called Highly Hazardous Pesticides, has designed an elaborate application procedure that includes consultation of stakeholders and FPIC principles.

No negative environmental or socio-economic impacts due to the project activity were detected and are to be expected.

Thus, there are no negative environmental or socio-economic impacts due to the project activity. On the contrary, in terms of ecological aspects, the most important benefits are:

- Reduction of Erosion due to tree rows
- Contribution to improved water household
- Carbon sequestration
- Valid environmental licenses
- Improvement of fire prevention

In terms of socio-economic aspects, the most important benefits are:

- Continuation of cattle grazing due to the implementation of silvopastoral systems

- Increase of job opportunities compared to industrialized agriculture for which local entrepreneurs are hired.
- Strict adherence to international accepted health and safety requirements
- Elaboration and implementation of an out growers scheme

Assessment team confirms that the project activity does not lead to any net harm in regard to environmental and socio-economic impacts. The above mentioned was further confirmed by inter-viewing the field staff, technical staff, plantation managers, landowners, community leaders.

4.2.2 Local Stakeholder Consultation

The registered PDMR discusses the way stakeholders were involved in the project design initially, furthermore, the MR discusses the meeting and consultation regarding design, implementation, monitoring and benefits are shared with stakeholders and communities.

At the time of joint validation/verification, the PP had conducted local stakeholder consultation with communities Paso Tuna and Costa Pucu^{/PDMR, FVR/}.

During the monitoring period, PP has purchased around 3,030 ha in estancia Santa Ana. As part of ongoing communication with local stakeholders and to cover communities in new area purchased by, it has carried out consultation for Paso Tuna, Yvyra Petei, Piro'y, the last two communities are neighbouring in Santa Ana. Consultation with these communities have taken place during the expansion of project area in June/July 2022. After due diligence and consultation with communities, it was identified by the PP that there exists no conflict between plantation sites in and local communities.

To facilitate further communication with these communities, 2 Community Liaison Officers (CLO) has been appointed by the PP for continuous dialogue with the communities and management of grievances. Community engagement, grievance addressal has been verified by checking records maintained by CLO ^{/LSC/} and interaction with few of these stakeholders during on-site inspection. There were 3 grievances recorded and PP has followed up on the grievances to close them by taking appropriate corrective actions such as monthly assessment of conditions related to labour employment (employment as per national labour code, health & safety measures adopted at site) and bi-annual assessment of job satisfaction of sub-contracted labour^{/LSC/}.

It was noted by the audit team that the project has obtained FSC certification and undertakes FSC audit annually. In the last FSC audit conducted in 2022^{/FSC/}, the auditor has interacted with communities, workers, contractors and there were no negative comments as checked from the FSC report.

Refer CAR 2 and CL 4.

4.3 AFOLU-Specific Safeguards

The PP has a stakeholder identification and consultation processes are in place^{/LSC/}. Stakeholder engagement includes environmental and forest authorities, Non-governmental organizations (NGOs) and experts, local community members and associations, contractors, and workers. The management team keeps a complete list of stakeholders per FMU which are also contacted during the FSC Audits^{/FSC/}.

The main impact to local stakeholders is positive as the project is providing more job opportunities than the pre-project land use: (pasture-/agricultural land).

Besides this positive effect some potentially negative impacts are to be found in:

- Risks of accidents / Health and safety
- Non-observation of minimum labor benefits
- Dust and noise / accidents on the road

The consideration of socio-economic impacts for local stakeholders and contractors and their adequate processing is also controlled during the annual FSC Audits^{/FSC/}.

Further it must be mentioned that an ongoing grievance policy is established and publicly available as part of the Management Plan^{/policy/}. Grievances received are processed and documented^{/LSC/}. During the field visit “buzones des sugerencia y quejas” (Grievance letterboxes) could be observed at the estancia.

Further, the verification team has confirmed that the PP takes adequately due account of all, and any potential negative socio-economic impact. The above mentioned was further confirmed by interviewing the field staff, landowners and community representatives.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Monitoring approach

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDMR /PDMR/.

The following table describe for each parameter which data are fixed ex-ante. Data and parameters fixed ex-ante as listed in the monitoring report have been cross-checked and reviewed as applicable against the validated PDMR and applied methodology.

The following list shows the default values used in this verification for GHG removals calculation:

Table 4.4.1 Assessment of ex-ante determined parameters

Parameter	Description	Value applied	Assessment
MAI	Mean Annual Increment	35m ³ /ha/yr	Value sourced from growth estimation based on inventory data and eucalyptus growth simulator of EMBRAPA which is in line with registered PDMR.
Conversion factor from C to CO ₂	Carbon coefficient times the fraction oxidized times the ratio of the molecular weight of carbon dioxide to carbon	44/12 tCO ₂ /C	Value sourced from IPCC as per methodology guidance which is in line with registered PDMR and found to be appropriate.
R _{TREE_PROJE} _T	Root-shoot ratio published for Eucalyptus globulus and E. camaldulensis	0.37	Value sourced from Barton, C. V., & Montagu, K. D. (2006). Effect of spacing and water availability on root: shoot ratio in Eucalyptus camaldulensis. Forest Ecology and Management, 221(1-3), 52-62 & Fabião, A., Madeira, M., Steen, E., Kätterer, T., Ribeiro, C., & Araújo, C. (1995). Development of root biomass in an Eucalyptus globulus plantation under different water and nutrient regimes. Plant and Soil, 168(1), 215-223 as per registered PDMR and found to be appropriate.
R _{TREE_BSL}	Root-Shoot ratio of trees	0.25	Value sourced from methodological tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"

			Version 4.1 which is found to be appropriate.
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Wood density	Weight to volume relation of Eucalyptus grandis and E. urophylla	0.54 t/m ³	The value was calculated for Eucalyptus grandis and E. urophylla according to Zanne, A.E., Lopez-Gonzalez, G.*, Coomes, D.A., Ilic, J., Jansen, S., Lewis, S.L., Miller, R.B., Swenson, N.G., Wiemann, M.C., and Chave, J. 2009. Global wood density database. Dryad. Identifier: http://hdl.handle.net/10255/dryad.235 which is in line with registered PDMR and found to be appropriate.
B _{FOREST}	Total Aboveground biomass of trees in the country, where the AR CDM project activity is located	80 t d.m. ha ⁻¹	Value sourced from De Sy, V., Herold, M., Achard, F., Beuchle, R., Clevers, J. G. P. W., Lindquist, E., & Verchot, L. (2015). Land use patterns and related carbon losses following deforestation in South America. Environmental Research Letters, 10(12), 124004 for tropical forest in Paraguay, de Sy et.al <i>which is in line with registered PDMR</i> and found to be appropriate.
CF _{TREE}	Carbon fraction of tree biomass	0.47 t C (t.d.m.) ⁻¹	Value sourced from methodological tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities" Version 4.1 which is found to be appropriate.
DeltaC _{DW_BSL}	Conservative default factor expressing carbon stock in dead wood as a percentage of carbon stock in tree biomass	1%	Value sourced from IPCC for mean annual precipitation of 1300mm/yr.
DeltaC _{LI_BSL}	Conservative default factor expressing carbon stock in litter biomass as a percentage of carbon stock in litter biomass	1%	Value sourced from IPCC for mean annual precipitation of 1300mm/yr.

BEF	Biomass expansion factor for conversion of stem biomass to above-ground tree biomass for rubber	1.15	Value sourced from Table 3A.1.10 of IPCC GPG-LULUCF 2003 as per methodology guidance for broad leaf temperate forest since unavailability of data for sub tropical forest and found to be appropriate.
SOC _{REF,i}	Reference SOC stock corresponding to the reference condition in native lands	47 tC/ha	Value sourced from “Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities” for tropical moist climate regions and found to be appropriate.
f _{LU,i}	Relative stock change factor for baseline land-use in stratum I of the areas of land	Agriculture 0.48 Pasture 1	Value sourced from IPCC which is in line with registered PDMR.
f _{MG,i}	Relative stock change factor for baseline management regime in stratum I of the areas of land	Full tillage/Agriculture 1 Moderately degraded/pasture 0.97	Value sourced from IPCC which is in line with registered PDMR.
f _{IN,i}	Relative stock change factor for baseline input regime (e.g. crop residue returns, manure) in stratum I of the areas of land	Medium/cropland 1 Medium/grassland 1	Value sourced from IPCC which is in line with registered PDMR.

It is confirmed that the parameters listed above are fixed ex-ante and used for baseline and project emissions calculation in accordance with the applied methodology and methodological tools.

The following table describe for each parameter which is to be measured according to the monitoring plan and how the verification team has verified that the actual monitoring complies with the monitoring plan and that data have been assessed to correctly support the GHG removals being claimed.

Table 4.4.2 Assessment of ex-post determined parameters

Parameter	Description	Value applied	Assessment																				
FF	Form Factor for volume	0.4	PP has carried out measurement of 41 trees in different stem lengths in 2019 to determine the tree volume according to sectional diameter method 10.b of the methodology AR Tool 18. Also, the R2 factor is 0.98, above the minimum established of 0.85 and found to be appropriate.																				
A _i	Area of tree biomass stratum i	Refer project Inventory ^{/INV/}	The areas of stratum are measured through GPS (Garmin), QGIS software. Strata is plantation year and plant density/ha. Measurements are taken at the start of project and adjusted every year with satellite imagery ^{/shp/} and found to be appropriate. Finding- CAR 3																				
W _i	Relative weight of the area of stratum I, the area of the stratum i divided by the project area	Calculated based on W_i and total area <table><tr><th>Stratum (Year_tree density)</th><th>W_i</th></tr><tr><td>2018_714</td><td>0.12</td></tr><tr><td>2018_1000</td><td>0.14</td></tr><tr><td>2019_500</td><td>0.03</td></tr><tr><td>2019_714</td><td>0.19</td></tr><tr><td>2019_1000</td><td>0.27</td></tr><tr><td>2020_476</td><td>0.08</td></tr><tr><td>2020_500</td><td>0.01</td></tr><tr><td>2020_800</td><td>0.08</td></tr><tr><td>2020_1000</td><td>0.07</td></tr></table>	Stratum (Year_tree density)	W _i	2018_714	0.12	2018_1000	0.14	2019_500	0.03	2019_714	0.19	2019_1000	0.27	2020_476	0.08	2020_500	0.01	2020_800	0.08	2020_1000	0.07	Calculated based on A _i and total area and found to be appropriate.
Stratum (Year_tree density)	W _i																						
2018_714	0.12																						
2018_1000	0.14																						
2019_500	0.03																						
2019_714	0.19																						
2019_1000	0.27																						
2020_476	0.08																						
2020_500	0.01																						
2020_800	0.08																						
2020_1000	0.07																						

S _i	Estimated standard deviation of biomass stock in stratum i	T.d.m, calculated value		Calculated in accordance with AR tool and found to be in order.
		Stratum (Year_tree density)	Si	
		2018_714	21.22	
		2018_1000	25.79	
		2019_500	12.01	
		2019_714	20.65	
		2019_1000	21.30	
		2020_476	20.31	
		2020_500	17.54	
		2020_800	8.95	
		2020_1000	12.99	

n _i	Number of sample plots in stratum i	Calculated		For the monitoring of the volume standing Permanent Sample Plots (PSPs) were established. The PSPs consist of 8 planted trees (regardless of whether they survived or not) and are established randomly. According to internal procedures, the minimum density is 1 PSP every 10 ha, corresponding to a minimum sampling size of 0.2 % in terms of area^{SOP/}. Depending on the spacing of the forest stand two types of PSPs were designed with different sizes of 250m², 280m², 240m², 480m² and 200m². Each tree is numbered and thus re-measurable. During the field out of the in total 188 PSPs 8 plots were remeasured based on formula provided by the FSC Standard FSC-STD-20-007 ($X=0.6*\sqrt{y}$). For the calculation of the ex-post GHG emission reductions achieved the original approach was abandoned because the trees have adjusted their growth performance with age, i.e. the stands show a high homogeneity, so that for the inventory of the present verification, the forest stand were stratified according to their planting year. The homogeneity is confirmed
		Stratum (Year_tree density)	ni	
		2018_714	25	
		2018_1000	26	
		2019_500	12	
		2019_714	38	
		2019_1000	42	
		2020_476	17	
		2020_500	3	
		2020_800	12	
		2020_1000	13	

			via the result of the estimation of the precision level reached. The overall uncertainty of the inventory/average carbon stock per PSP for the present verification is 3.1% at a 90 per cent confidence level.
$A_{p,i}$	Size of a sample plot in stratum i	Field measurement	According to internal procedures, the minimum density is 1 PSP every 10 ha, corresponding to a minimum sampling size of 0.2 % in terms of area ^{SOP/} . Depending on the spacing of the forest stand two types of PSPs were designed with different sizes of 200m ² and 280m ² . Each tree is numbered and thus re-measurable. Finding- CAR 3.

DBH	Diameter breast height of tree	Refer inventory ^{/INV/}	PP has determined to measure DBH at the start of each verification period using Vertex IV Good Practice Guidance for Land Use, Land-Use Change and Forestry (GPG-LULUCF) and the inventory of same is maintained in the form of data sheets. DBH was cross-checked by the verification performing actual measurements of the sample plots selected as per the sampling plan explained in 2.1 above. The DBH is measured at 1.3 m length from the tree base. The measurement procedures followed at the site were confirmed during on-site visit and found to be in line with the registered PDMR^{/PD/}.
H	Height of tree planted	Refer inventory ^{/INV/}	Tree height is measured with a Vertex. Before every use, vertex is calibrated using internal procedure^{/SOP/} as observed during site audit. 8 PSPs were measured. Exactly the same measuring method was used for this. The audit team observed the measurements and found them to be in accordance with the monitoring plan.

T	Time period elapsed between two successive estimations of carbon stock in a carbon pool	Year	Recorded in inventory _{INV} . Difference in two successive estimations of carbon stock in carbon pool using fractional value of T1 and T2.
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GHG Emission Reduction and Removal Calculations

The GHG removals are calculated according the applied methodology AR-ACM0003 version 02 and validated PDMR^{/PDMR/} as below steps,

1. Baseline net GHG removals by sinks

The actual net GHG removals by sinks were estimated as the change in the carbon stocks in project occurring in the selected carbon pool, minus the increase in non-CO₂ GHG emissions within the project boundary as a result of the implementation of the A/R CDM project activity (Equation (2) in the applied methodology) and validated PD, which is shown as follows:

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

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 of trees and shrubs in 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, not included in the carbon pool under the conservative approach under applicability condition.

$\Delta C_{LI_BSL,t}$ = Change in carbon stock in baseline dead wood biomass within the project boundary, in year t, Not included in the carbon pool under the conservative approach under applicability condition

$\Delta C_{LI_BSL,t}$ = Change in carbon stock in baseline litter biomass within the project boundary, in year t, Not included in the carbon pool under the conservative approach under applicability condition.

The table below shows the distribution of the areas to be part of the verification distributed between the verification.

Table 4.4.3 Distribution of areas in the project

Stratum (Year_Density)	Total project area (ha)	Areas part of 1 st verification	New areas of 2 nd verification
2018_714	159	161	-2
2018_1000	186	185	2
2019_500	41	41	0
2019_714	252	252	0
2019_1000	353	354	-1
2020_476	104		104
2020_500	10		10
2020_800	108		108
2020_1000	88		88
Total	1,300	993	308

The table below displays the baseline carbon stocks for the pre-existing trees for the planting years 2018-2020 which are subject to this monitoring period.

Table 4.4.4 Baseline biomass for this monitoring period

Stratum (Year_Density)	Project year	Annual planted area (ha)	$C_{TREE_{BSL}}$ and $C_{SHRUBS_{BSL}}$ and (t CO ₂ e)	$C_{DW,i,t}$ and $C_{LI,i,t}$ trees (t CO ₂ e)	Total Baseline emission (t CO ₂ e)
2018_714	1	159	-	-	-
2018_1000	1	186	-	-	-
2019_500	2	41	-	-	-
2019_714	2	252	-	-	-
2019_1000	2	353	-	-	-
2020_476	3	104	646	7	653
2020_500	3	10	61	1	62
2020_800	3	108	-	0	0
2020_1000	3	88	-	0	0
Total	-	1,300	707	8	715

2. Project emissions

According to the selected methodology AR-ACM0003 (Version 02.0), actual net GHG removals by sinks were calculated as follows:

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

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 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 project activity, in year t, as estimated in the tool “Estimation of non- CO₂ GHG emissions resulting from burning of biomass attributable to a project activity”; t CO₂-e

The verifiable changes in the carbon stock in above-ground and below-ground biomass within the project boundary were estimated using the following equations.

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

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, not included in the carbon pool under the conservative approach under applicability condition

$\Delta C_{LI_PROJ,t}$ = Change in carbon stock in litter in project in year t, not included in the carbon pool under the conservative approach under applicability condition

$\Delta SOC_{AL,t}$ = 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

$$B_{TREE,j,p,i,t} = V_{TREE,j,p,i,t} \times D_j \times BEF_{2,j} \times (1 + R_j)$$

Where:

$BTREE_{j,p,i,t}$ = Biomass of trees of species j in sample plot p of stratum i at a point of time in year t ; t drymatter (d.m.)

$VTREE_{j,p,i,t}$ = Volume of trees of species j in sample plot p of stratum i at a point of time in year t , estimated by using the steps explained below; m^3

D_j = Density (overbark) of tree species j ; t d.m. m^{-3}

$BEF_{2,j}$ = Biomass expansion factor for conversion of stem biomass to above-ground tree biomass, for tree species j ; dimensionless

R_j = Root-shoot ratio for tree species j ; dimensionless

$j = 1, 2, 3, \dots$ tree species in plot p

$p = 1, 2, 3, \dots$ sample plots in stratum i

Table 4.4.5 Summary calculation B_{TREE} and C_{TREE}

Stratum	Area (ha)	w_i	$b_{TREE,t}$ t d.m. ha ⁻¹	$B_{TREE,t}$ t d.m.	$C_{TREE,t}$ t CO ₂ -e
2018_714	159	0.12	44.85	58,307	100,483
2018_1000	186	0.14			
2019_500	41	0.03			
2019_714	252	0.19			
2019_1000	353	0.27			
2020_476	104	0.08			
2020_500	9,5	0.01			
2020_800	108	0.08			
2020_1000	87,5	0.07			
TOTAL	1,300	1.00			

Table 4.4.6. Calculation of uncertainty

Stratum	S_i t.d.m. ha ⁻¹	n_i	U_c %	U_c mean (t CO ₂ -e)	U_c Discount (t CO ₂ -e)
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2018_714	25.8	26	5.6%	5,602	0
2018_1000	12.0	12			
2019_500	20.6	38			
2019_714	21.3	42			
2019_1000	20.3	17			
2020_476	17.5	3			
2020_500	9.0	12			
2020_800	13.0	13			
2020_1000	20.3	188			
TOTAL	20.3	188			

Change in soil organic carbon (SOC)

For ex-post estimation of the SOC changes under the project scenario for this monitoring period, the default method of the A/R Methodological tool 'Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities' (Version 01.1.0) is applied. The application and justification of the tool is outlined in section 4.2.

The rate of change in SOC stock in the project scenario until the steady state in SOC content is reached (assumed in 20 years from the time of the initial site preparation) is calculated as 0.61 tC/ ha/ yr which represents the weighted average value over all baseline strata.

For this monitoring period, for each new planting area included in a certain year, only nine months are assumed for that planting year with the dSOC value. It is calculated to be 6,572 tCO₂e.

Change in carbon stocks of trees

According to the tool AR-TOOL14 A/R Methodological tool 'Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities' (Version 04.1) at the first verification $C_{TREE, t2}$ is set equal to the carbon stock in the first verification. Based on this, the following table shows the change in carbon stock during the period between two points of time t1 (pre-existing baseline tree biomass for 2020 plantations and last monitoring period for the already monitored 2018 and 2019 plantations) and t2. The Excel sheet '2022

FASA Carbon Inventory M2' details the full calculation of emission reductions for this monitoring period and is available upon request. The following table show the change in carbon stocks of trees separated by the point of time t1.

Table 4.4.7. Change in carbon stocks during the period between two points of time t1 (pre-existing tree and shrub biomass) and t2.

Stratum (year_density)	Area strata included in year t (ha)	$C_{TREE,t1} = C_{TREE_BSL,t1}$ (M1 31-12-2020)	$C_{TREE,t1} = C_{TREE_BSL,t1}$ (plantation date)	$C_{TREE_PROJ_DISCO}$ UNT; t2	C_{DW_PROJ} ;t2	$\Delta C_{TREE+DW_PROJ}$ (t2-t1)
2018_714	159	6211		12,290		6,079
2018_1000	186	10648		14,377		3,729
2019_500	41	10648		3,169		- 7,479
2019_714	252	9000		19,478		10,478
2019_1000	353	3070		27,285		24,215
2020_476	104	-	653	8,039		7,385
2020_500	10	-	62	734		673
2020_800	108	-	0	8,348		8,348
2020_1000	88	-	0	6,763		6,763
TOTAL	1,300	39,577	715	100,483		60,191

Actual net greenhouse gas removals by sinks

The table below shows the distribution of the carbon based on the monitoring period (01-January-2021 to 30-September-2022).

Table 4.4.8 Actual net greenhouse gas removals by sinks for the different years of the monitoring period

Year	Project implementation (cum. months)	Cumulative tree net GHG removals by sinks, in year t; (t CO ₂ -e)	Actual tree net GHG removals by sinks, in year t; (t CO ₂ -e)	Actual SOC net GHG removals by sinks, in year t; (t CO ₂ -e)	Actual total net GHG removals by sinks, in year t; (t CO ₂ -e)
2021	12	41,129	41,129	4,070	45,199
2022	21	71,976	30,847	2,503	33,349
Total	21	71,976	71,976	6,572	78,549

Finding- CL3

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

During the verification assessment, the evidence provided by the PPs was sufficient in both quantity and quality to support the determination of GHG removals reported by the project. The threshold for materiality to the total GHG removals reported was met for this project; materiality is a concept that the errors, omissions and misrepresentations could affect the GHG removals assertion and influence the intended users.

The source and nature of the evidence (external or internal, oral or documented) for the determination of GHG emission reductions or removals has been assessed and verified in above section 4.4.1 together with each calculation step, thus the reliability of the evidence is confirmed. The evidence provided to determine GHG removals reported in the Monitoring Report included values, notations, units and sources; the evidences has been cross-checked with supplied GHG removals calculation spreadsheet^{ER/}.

The procedure for data generation and aggregation, recording, transfer and final transposition into the MR was also verified and found to be in compliance with the monitoring plan in the registered PDMR^{PDMR/}.

4.6 Non-Permanence Risk Analysis

The project utilized the VCS Procedural Document “AFOLU Non-Permanence Risk Tool” Version 4.1^{/NPR/} to assess risk according to internal risk, external risk, natural risk and mitigation measures for minimizing risk. At all levels has been evaluated the rationale, appropriateness and justifications of risk rating chosen by PP.

Each risk category was calculated based on the VCS guidance and the input provided by the PP. The risk has been reassessed at time of the verification and with that prior to any issuance of VCUs. The information was verified and cross-checked through Non-Permanence risk report ^{/NPR/}, on-site visit of the project area and interviews conducted.

In summary, the PP have accounted for risk factors in a reasonable manner and have reached an overall risk rating that encompasses all risks of non-permanence; the project is able to effectively manage risks to project benefits during the monitoring period and project lifetime. Risk mitigation strategies were confirmed to have been implemented as planned in the validated PD and are summarized in the non-permanence risk assessment conducted by the project. During the verification activity no additional risks to project benefits are identified. The overall risk rating according to the applied tool is 12%. The verification team concludes that this risk rating is purely based on the tool cited above, according to VCS requirements. The non-permanence risk report^{/NPR/} is provided by PP. The risk analysis is assessed for its appropriateness. The overall risk rating for the specific monitoring period is 12% and it represents the buffer applied (VCUs that must be deposited in the AFOLU pooled buffer).

Internal risk:

Project management	
Risk factor	Assessment opinion
a)	The trees planted in this project comprise non-native species, mainly Eucalyptus spp. and Corymbia spp. Eucalypts have a track record in the region since around 50 years, and they haven't presented limitations in terms of affecting the water balance or invasion into native ecosystems. Hence, risk rating of 0 is accepted.
b)	The FMUS of the project are established in private Estancias of landowners. Most of the FMUs are continuously used for agricultural and cattle purposes, and there-fore cattle or agricultural workers are continuously covering the private property. This was confirmed via interviews held with field staff, technical staff, responsible for social affairs, and land owners. Hence, risk rating of 0 is accepted.
c)	The company UNIQUE Wood, with over 20 years of experience managing forests and over 9 years of experience with plantations, was contracted to manage the silvicultural aspects of the plantations. Two forest engineers with over 5 years of experience together with two forest technicians manage the plantations and work together to ensure the high quality of silvicultural system applied.

	UNIQUE (Unique Wood Paraguay S.A. supported by Unique forest investment GmbH) has been contracted for managing forest plantations. The management team has significant experience with managing forest plantations according to IFC and FSC standards. UNIQUE has over 20 years of experience managing natural forests and over 9 years of experience with plantations in Paraguay, both under FSC certification. Hence, risk rating of -2 is accepted.
d)	UNIQUE Wood Paraguay is a Paraguayan company established in the country in 2001. The forest engineer Elías Román is located semi-permanently in the FMU, supported by a team in Fernando de la Mora (Gran Asunción), located 250 km away. Hence, risk rating of 0 is accepted.
e)	Forestal Azul contracted UNIQUE forestry and land use GmbH to develop this AFOLU, project, account for carbon from trees and other GHG sources, report and participate in validation and verification under respective VCS methodology and standard requirements. UNIQUE forestry and land use GmbH has a long track record in developing AFOLU Projects. Hence, risk rating of 0 is accepted.
f)	The project has adaptive management ^{/MP/} (operations plan, monitoring plan, roll out plan, feedback plan, supervisors, and internal control system) in place. The project is subject to regular reporting to investors, and its progress is supervised in quarterly Board Meetings by the investors, who monitor the project according to IFC Performance Standards. In addition, the project is FSC certified and subject to annual auditing by external third parties ^{/FSC/} . Hence, risk rating of -2 is accepted.
Total project management risk rating is -4.	

Financial viability	
Risk factor	Assessment opinion
a)	Not applicable
b)	Not applicable
c)	The audit team checked the project cash flow ^{/cash flow/} and can confirm the break-even point is 3 years from the current risk assessment. The quality of the documentation is deemed to be sufficient to evaluate the risk correctly. Hence, risk rating of 2 is accepted.
d)	Not applicable
e)	Not applicable
f)	Not applicable
g)	Not applicable
h)	Not applicable
i)	The investors are guaranteeing the funding of the project. The project has financial resources at least 50% of total cash out before project reaches breakeven. Hence, risk rating of -2 is accepted.
Total financial viability risk rating is 0.	

Opportunity cost	
Risk factor	Assessment opinion
a)	Not applicable
b)	
c)	Not applicable
d)	Not applicable
e)	Agriculture leads to an IRR of 96% and an investment needed of 0.4 million USD at a payback period of 2 years. Meanwhile forestry offers an IRR of 21% and an investment needed of 4.6 million USD at a payback period of 11 years. Having a look at a period of 30 years, the income to be generated from forestry is 45% higher than from agriculture. While the initial investment for forestry is much larger than for agriculture, and the payback period is much longer, the average annual income over a period of 30 years is 45 % higher. This leads to a 5% higher NPV over the project period of 30 years /PR3,AD2,AD5/. This could be confirmed in the course of the field visit via interviews held with technical staff, plantation manager and landowners/IM/.
f)	Not applicable
g)	Not applicable
h)	Not applicable
i)	Not applicable
Total opportunity cost risk rating is -2.	

Project longevity	
Risk factor	Assessment opinion
a)	The PP assumes a project lifetime of 30 years although the investor investing in Forestal Azul plans to exit after at least 15 years. The assumption is based on the outcome summarized in the sec. opportunity costs as during the first rotation period (costs related to establishment of the plantation) the profitability of the plantation is expected for the subsequent rotations/AD5/.
b)	Not applicable
Total project longevity risk rating is 15.	

External risks:

Land tenure and resource access/impacts	
Risk factor	Assessment opinion
a)	Forestal Azul is currently established in one FMUs purchased by the company, who is the legal owner of the land/PR/.
b)	Not applicable

C to f	Not applicable
g)	In Forestal Azul, all informal land uses and rights are identified and have been addressed. These are minor and do not jeopardize the projects land use or the owners access to resources. This could be confirmed in the course of the field visit via interviews held with technical staff, plantation manager and landowners/IM/.
Total risk rating is 0.	

Community engagement	
Risk factor	Assessment opinion
a)	Not applicable
b)	Not applicable
c)	Forestal Azul does not border directly with communities, the next is 7 km away and it does not depend on the project's resources as set out by the standard, the project is maintaining good relations, as almost all operational staff working for Azul come from neighboring communities. The communities are well known and described/USP/. The consideration of socio-economic impacts for local stakeholders and contractors and their adequate processing is also controlled during the annual FSC Audits/FSC/. The above mentioned was further confirmed by interviewing the field staff, com-munity members.
Total risk rating is -5.	

Political risk	
Risk factor	Assessment opinion
a)	Not applicable
b)	Based on the WGI data http://info.worldbank.org/governance/wgi/index.asp of the most recent 5 years Paraguay has a governance score of -0.39. Respective calculations have been provided and crosschecks with the World Bank Institute Worldwide Governance Indicators have been done. The source is provided by the VCS Standard and thus adequate. The calculation is correct. Hence, risk rate of 4 is acceptable.
c), d), e)	Not applicable
f)	The country has an established Designated National Authority under the CDM and has at least one registered CDM Afforestation/Reforestation project. Hence, risk rating of -2 is accepted.
Total risk rating is 2.	

Natural risk:

Fire

Risk factor	Assessment opinion
Significance	Fire is a high risk in Eucalyptus plantations, which it might lead to the loss of several hectares and the complete carbon stock of them. Rural communities often use fire to renew pastures, that spreads out and leads to forest fires during the dry period. The management team has extensive experience with fire prevention and control in other projects. Using mitigation measures such as firebreaks, training, and early warning during the dry season, fires can be successfully controlled. The total loss of a significant part of the asset by fire is considered very unlikely. The above mentioned was further confirmed by interviewing the field staff, technical staff, plantation managers, landowners, community leaders^{/IM/}. The fire risk significance is rated as 'minor' (5% to less than 25% loss of carbon stocks)." A minor significance rating is adequate and acceptable
Likelihood	Fires are a common problem in Paraguay and it is expected to happen less than every 10 years.
Score (LS)	5 is acceptable
Mitigation	The plantation area is always divided into compartments (smaller areas, 20-50 ha with similar characteristic, such as age and planted species), divided by roads or artificial firewalls which are established to minimize the risk of fire spread^{/shp/}. Annually before the dry season, trainings take place with the operative staff for fire prevention and firefighting. Further, the company cooperates with neighbors to ensure early warning and cooperation. The above mentioned was further confirmed by interviewing the field staff, technical staff, plantation managers, landowners, community leaders^{/IM/} as well es in the course of the inspection of infrastructure and equipment^{/Inf/}. The establishment of adequate mitigation measures regarding fire outbreaks is also controlled during the annual FSC Audits^{/MA,1SA/}. It can be concluded that appropriate tools and equipment for fire prevention and firefighting have been established. A mitigation rating of 0.25 is adequate and acceptable.

Pest and disease	
Risk factor	Assessment opinion
Significance	Eucalyptus sp. are vulnerable to pests and diseases such as the gall wasp <i>Lec-tocybe invasa</i>, the beetle <i>Costalimaita ferruginea</i>, and a fungal disease caused by the canker <i>Teratosphaeria zuluensis</i>, also known as <i>Coniothyrium zuluensis</i>. These pests affect mostly the quality of the timber and sometimes, to a certain degree, tree development, however, to date a significant growth stagnation or loss has not been detected and is considered minor (5% to less than 25% loss of carbon stocks). In cases of significant pests and disease outbreaks, the management team reacts quickly and seeks control the infestation. The above mentioned was further confirmed by interviewing the field staff, technical staff, plantation managers as well es in the course of the

	inspection of the forest stands respectively the re-measurement of sample plots. A minor significance rating is adequate and acceptable.
Likelihood	For the same reason areal outbreaks of significant pests and diseases are assumed to be very unlikely (every 25 to less than 100 years).
Score (LS)	2 is acceptable
Mitigation	Plantations are established with high density of trees and thinning is strong during the whole production cycle ^{/MP/} . This allows to select the most promising trees and reduce the risks of losing the expected biomass. Clones that have shown to be particularly vulnerable to certain pests are not employed anymore. Acute infestations are controlled chemically when such method is effective, respective management plans are in place ^{/SOP/} . The establishment of an adequate pest management is also controlled during the annual FSC Audits ^{/FSC/} . A mitigation rating of 0.25 is adequate and acceptable.

Extreme weather	
Risk factor	Assessment opinion
Significance	In the region droughts and floods might occur in different moments of the year. Floods are unlikely to affect the plantations, as lower areas prone to flooding are excluded from the production area. Droughts do affect the development of plantations, however mostly younger plantations during the first months of planting. Most plants that are affected by drought during the first months of planting still show an acceptable development after a few months. It can be conclude that the effect is unlikely to be very high. Trees included in carbon verifications are at least one year old, thus it is less likely that they are significantly affected by extreme weather events. The above mentioned was further confirmed by interviewing the field staff, technical staff, plantation managers/IM/ as well es in the course of the inspection of the forest stands respectively the re-measurement of sample plots/Inf/. A minor significance rating is adequate and acceptable.
Likelihood	Droughts are expected relatively often, while floods are less likely to affect plantations (less than every 10 years).
Score (LS)	2 is acceptable
Mitigation	Areas affected by flooding are not planted ^{/shp/} . Clone selection is conducted carefully and adapted to the site. Clones with more resistance to extreme weather are introduced in the areas more likely to be affected. Trees included in the carbon monitoring are always at least 1 year old, and according to the experiences in the region, extreme weather does not affect to older management units. A mitigation rating of 0.5 is adequate and acceptable.

Geological risk	
Risk factor	Assessment opinion

Significance	Not applicable as geological risk such as earthquakes and volcanos do not exist in the region.
Likelihood	Not applicable
Score (LS)	0 is acceptable
Mitigation	Not applicable

Other risks	
Risk factor	Assessment opinion
Significance	No other natural risks to the project activities and associated carbon removals are anticipated.
Likelihood	Not applicable
Score (LS)	0 is acceptable
Mitigation	Not applicable

Overall risk rating is:

Internal risk: 9

External risk: 0

Natural risk: 2.75

Total risk rating: 12%

Thus, the audit team concludes that the applied risk score of 12% is adequate for the project activity.

5 VERIFICATION OPINION

TÜV SÜD South Asia Private Limited has performed verification of the emission reductions reported for the project activity “Afforestation and restoration of degraded forests in Eastern Paraguay or Forestal Azul Carbon Project” in Paraguay VCS Registration Reference No. 2469, for the period 01-January- 2021 to 30- September-2022, with regard to the relevant requirements for VCS Version 4.4.

The project proponent in Forestal Azul S.A., who is responsible for:

1. The preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered PDMR, version 1.2 dated 01-March-2023

2. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project.

Based on the documented evidence and corroborated by an on-site assessment, TÜV SÜD can confirm that:

1. The project has been implemented and operated as per the validated PDMR,
2. The monitoring plan in the registered PDMR is as per the applied baseline and monitoring methodology.
3. The monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS requirements and
4. Level of assurance on the quantity of GHG emission removal in tCO₂e equivalent achieved by the project during the verification period as provided in the project's GHG statement is reasonable.

The GHG removals by sink were calculated correctly on the basis of the approved monitoring methodology AR-ACM0003 "Afforestation and reforestation of lands except wetlands", version 02.0 and the monitoring plan in the validated PDMR. Hence it is certified that the GHG removals by sink from the project during the monitoring period amount as follows:

Verification period: From [01-January-2020] to [30-September-2022]

Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)	Buffer pool allocation	VCUs eligible for issuance
2021	715	45.199	-	44.484	5.338	39.146
2022	-	33.349	-	33.349	4.002	29.347
Total	715	78.549	-	77.834	9.340	68.494

For the total monitoring period 01-January-2020 to 30-September-2022: the value is gross of the 12% (9,340 tCO₂e) buffer withholding based on the non-permanence risk assessment tool. This results in 68,494 tCO₂e equivalent of credits eligible for issuance as VCUs.

Pune, 04/04/2024

Shruti Kudtarkar

TÜV SÜD South Asia Private Limited

Verification Team Leader

APPENDIX 1: ABBREVIATIONS

Abbreviations	Full Texts
ARR	Afforestation, Reforestation and Revegetation
AFOLU	Agriculture, Forestry and Other Land Use
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CLO	Community Liaison Officer
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DBH	Diameter at Breast Height
DRSF	Derecho Real de Superficie Forestal
ER	Emission Reductions
FAR	Forward Action Request
FMU	Forest Management Unit
FSC	Forest Stewardship Council
GHG	Greenhouse gas(es)
GS	Gold Standard
GBH	Girth at Breast Height
Ha	Hectare
HSWD	Harmonized World Soil Database
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization of Standardization
IRR	Internal Rate of Return
MP	Monitoring Plan
MR	Monitoring Report
MoM	Minutes of Meeting

NGO	Non-governmental Organization
NPRT	Non-Permanence Risk Tool
NPR	Non-Permanence Risk Analysis Report
NPV	Net Present Value
LULUCF	Land Use, Land-Use Change and Forestry
PDMR	Joint Project Description Monitoring Report
PP	Project Proponent
PSP	Permanent Sample Plots
SOC	Soil Organic Carbon
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
VVB	Validation/Verification Body

APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED

No.	Title	References to the document
1	/METH/	Afforestation and reforestation of lands except wetlands
2	Methodological tool	Calculation of the number of sample plots for measurements within A/R CDM project activities, Version 02.1.0
3	Methodological tool	Estimation of non-CO ₂ GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity, Version 4.0.0
4	Methodological tool	Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities, Version 03.1
5	Methodological tool	Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities, Version 04.2

6	Methodological tool	Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity, Version 02.0
7	Methodological tool	Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities, Version 01.1.0
8	Methodological tool	Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities, Version 01
9	/PDMR/	VCS PDMR, Version 1.5 dated 09/03/2022
10	/FVR/	FVR, Version 1.4 dated 11/03/2022
13	/MR/	VCS MR, version 1 dated 31/05/2023, version 1.1 dated 14/09/2023
14	/ER/	VCS ER, version 1 dated 31/05/2023, version 1.1 dated 14/09/2023
15	/shp/	Shapefiles of project boundary, satellite images (2005-2022)
16	/fsc/	<u>FSC Search</u> , Certificate no. GFA-FM/COC-005670
17	/MP/	Adaptive management plan
18	/NPR/	Non-permanence risk analysis report
19	/DRSF/	Notarized transfer deeds of FMUs
20	/PLT/	Signed letters of property owners: 2021-04-07 Carta firmada_Rancho ZS 2021-04-28 Carta firmada_Cerro Verde 2021-05-07 Carta firmada_Rancho 068 2021-06-24 Carta firmada_Cerrito
21	/LSC/	Local stakeholder consultation meeting records, grievance register, ongoing feedback mechanism
22	/SOP/	Internal procedures on calibration, inventory, emergencies
23	/AD/	1. Paraguay Agricultural Sector Risk Assessment; Identification, prioritization, strategy and action plan; World Bank Group Report No. 93943-PY, June 2015 2. Forest plantations in Paraguay: Historical developments and a critical diagnosis in a SWOT-AHP framework; Szulecka et al, 12 November 2016
24	/cash flow/	Cashflow Calculations, Land use comparison FASA.xlsx
25	/inv/	Inventory records
26	/spi/	Sampling plot survey records of site audit

27	/interview records/	List of interviewees in site audit
28	/Insp/	On-site audit records
29	/policy/	<u>Microsoft Word - 2023 Unique Environmental Social and Governance Policy PV en (unique-wood.com)</u>
30	/GIS/	Satellite imagery for FMUs, software QGIS
31	/FVR/	Validation and Verification report prepared by TÜV NORD CERT GmbH version 1.4 dated 11/03/2022
32	/PDMR/	Registered PDMR version 1.5 dated 09/03/2022
33		2022 Registros de trabajadores FSP_Compendio.xlsx (record related to community development)
34		2023-08-10-Resumen_Ventas_Juilo 2023.xlsx
35		Forestal San Pedro- Diligencia Debida de Oronoz
36		Evaluacion ecologica y Linea de base Ambiental for estancia Oronoz
37		Estancia Oronoz- soils and land use
38		CARACTERISTICAS MORFOLOGICA DEL SUELO DE LA ESTANCIA ORONoz S.A
39		Letter of intention on long-term commercial relationship by Paracel S.A.
40		Carta no vinculante de Manifiesto LV_DH
41		Carta no vinculante de Manifiesto_R068
42		Acuse Carta Intencion no vinculante Cerro_verde
42	/actividades/	2023-01-27-FSP_2ndverific_Oronoz.xlsx
43		Ejemplo_inventario.xlsx
44		Cension de derechos y obligaciones del contrato de reforestacion (multiple)
45	/AD5/	AD5_FAO (2006). Tendencias y perspectivas del sector forestal en América La-tina y el Caribe.
46	/Inf/	Informe de Auditoria –ApepuFrostal S.A
47	/USP/	Umwelt-und SozialprüfungEstancia Rodeo Guazú, Paraguay; Andrea Braun UNIQUE forestry and land use GmbH; 03.12.2017
48	/PR/	Purchase contracts and public deed: 1 Forestal Azulprivate limited company;No 10832811dating 16.04.2018 2 Purchase “Rodeo Guazu” No 10832806dating 16.04.2018;

APPENDIX 2: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

CAR ID	CAR 1	Section no.	1.11	Date: 20/08/2023
Description of CL				
PP is required to provide in the MR SDG contribution achieved by the project activity till date and current monitoring period along with substantive evidence.				
Project participant response				Date: 22/12/2023
The annual report of 2022 is provided, together with the labour monitoring excel sheet for 2022 to provide evidence on the SDG target 1.1, in terms of showing the analytics on labour provided in the Department of San Pedro, one of the poorest regions in Paraguay. The annual report together with the excel monitoring sheet provided substantiates the evidence on quantity of employment (78 FTE in 2022) provided in 2022. It also documents the forest area and land use of the properties providing evidence on SDG target 15.1. Regarding SDG targets 9.1 and 9.2, at the moment the evidence shows that the project is conducted for quality timber (through observation of silviculture and production tables that are established for a cycle of 12 years). See also the public summary of the management plan: https://www.unique-wood.com/wp-content/uploads/2023/07/2021-2022-Forestal-Azul_Resumen-del-Plan-de-Manejo-4.pdf. However evidence for labour in the industry cannot yet provided as these are estimations for the future based on the PPs experience. At the moment, the trees are still too young and not employed for solid wood at the industry.				
Documentation provided by project participant				
	Changes in the MR	Section(s):	New version no:	
	Changes in ER xls	Worksheet(s):	New version no:	
	Other:	Evidences attached		
VVB assessment				Date: 02/01/2024
Justification provided by PP has been found acceptable. CAR 1 is closed.				

CAR ID	CAR 2	Section no.	2.1, 2.2, 2.3	Date: 20/08/2023
Description of CL				
Sections 2.1, 2.2 and 2.3 are not complete in line with VCS standard requirements.				
Project participant response				Date: 22/12/2023
Sub-section numbering has been corrected.				
Documentation provided by project participant				
	Changes in the MR	Section(s):		New version no:
	Changes in ER xls	Worksheet(s):		New version no:
	Other:			
VVB assessment				Date: 02/01/2024
Justification provided by PP has been found acceptable. CAR 2 is closed.				

CAR ID	CAR 3	Section no.	4.2	Date: 20/08/2023
Description of CL				
MR is not clear on the actual values of A_i measured for the monitoring period in section 4.2. Further, In W_i and S_i PP has mentioned the values are used from ex-ante calculations. Both the parameters are a monitored. PP is required to explain and correct these.				
Project participant response				Date: 22/12/2023
The total area of the current MR is 1,300 ha. This is described under strata in section 3.1 and the value has been updated in the table in section 4.2.				
W_i and S_i had an old sentence from PDD about ex-ante. The values are however updated and consistent with the excel calculations for Ex-Post M2. The sentence has been deleted.				
Documentation provided by project participant				
	Changes in the MR	Section(s):4.2		New version no:
	Changes in ER xls	Worksheet(s):		New version no:
	Other:			

VVB assessment	Date: 02/01/2024
Justification provided by PP has been found acceptable. CAR 3 is closed.	

CL ID	CL 1	Section no.	FAR 1 from validation	Date: 20/08/2023
Description of CL				
Forestal Azul S.A. is following a “first of its kind” approach approved by the national authorities by conducting enrichment plantings on 485 ha of degraded natural forest. Azul S.A. is aiming to integrate these areas (new instance) into the project once an applicable VCS methodology is developed and approved. At the time of the next verification a clarification has to be provided if and how those instances can be included and under which VERRA approved methodology.				
Project participant response				Date: 22/12/2024
PP is still considering the inclusion of this area in the future, but not part of the current MR.				
Documentation provided by project participant				
	Changes in the MR	Section(s):	New version no:	
	Changes in ER xls	Worksheet(s):	New version no:	
	Other:	Letters of interest uploaded		
VVB assessment				Date: 02/01/2024
PP has not included enrichment plantings in this area. Hence, CL 1 is closed.				

CL ID	CL 2	Section no.	1.10	Date: 20/08/2023
Description of CL				
Please clarify how the project’s GHG removals are not part of supply chain and potential risk of scope 3 emissions double claiming is avoided in line with 3.23.7-3.23.9 of VCS standard. MR should provide description on this in 1.10.				
Project participant response				Date: 22/12/2023

The version of the document has been updated to 4.2 and the part of supply chain is required. The following information has been included into the section:

Forestal Azul establishes forest plantations and sells the wood for further processing. The scope of the carbon certification only encompasses land use, meaning all emission reduction that occurs after harvesting is not captured by this certificate. In case in the future any methodology under any standard allows to account for harvested wood products affecting the value chain, the ownership and scope must be defined further downstream in the value chain.

To ensure full compliance with the standard unique has included a statement in its webpage, according to VCS Standard 4.4. section 3.23.8¹.

Documentation provided by project participant

Changes in the MR	Section(s):	New version no:
Changes in ER xls	Worksheet(s):	New version no:
Other:	Changes in website	

VVB assessment

Date: 02/01/2024

Justification provided by PP has been found acceptable. CL 2 is closed.

CL ID	CL 3	Section no.	5.4	Date: 20/08/2023
Description of CL				
PP has not provided long term average explanation including LTA calculation for each stratum in the current monitoring period as per LTA VCS guidance.				
Project participant response				Date: 22/12/2023

¹ <https://www.unique-forestinvestment.de/>

The following table (presented in the Excel M2 ex-post FASA) is now included in section 5.4 of the document, showing that the plantations are still too young to have reached the LTA:

Stratum	Average of bTREE, i	Average bTREE, i t CO2e	LTA Ex Ante	Δ LTA, t CO2e to reach LTA
2018_714	45,39	78,2	190,2	112,0
2018_1000	47,24	81,4	213,0	131,6
2019_500	35,18	60,6	180,5	119,8
2019_714	41,84	72,1	190,2	118,1
2019_1000	46,30	79,8	213,0	133,2
2020_476	48,72	84,0	180,5	96,5
2020_500	32,63	56,2	180,5	124,2
2020_800	37,59	64,8	190,2	125,4
2020_1000	51,82	89,3	213,0	123,7

Documentation provided by project participant

Changes in the MR	Section(s):	New version no:
Changes in ER xls	Worksheet(s):	New version no:
Other:		

VVB assessment

Date: 02/01/2024

PP has not reached LTA limit yet. Hence, CL 3 is closed.

CL ID	CL 4	Section no.	2.2	Date: 20/08/2023
Description of CL				
PP is requested to clarify ongoing communication mechanism and redressal of grievances established with stakeholders.				
Project participant response				Date: 22/12/2023
PP has introduced the results of stakeholder engagement in the verification period under Section 2.2.				
Documentation provided by project participant				
	Changes in the MR	Section(s):		New version no:
	Changes in ER xls	Worksheet(s):		New version no:
	Other:			
VVB assessment				Date: 02/01/2024
Justification provided by PP has been found acceptable. CL 4 is closed.				