VERIFICATION REPORT

UNITÁN AFFORESTATION AND REFORESTATION OF GRAZING LANDS PROJECT

ISO/IEC 17029:2019
23-OVV-002

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Prepared by	Colombian Institute for Technical Standards and Certification – ICONTEC ONAC ACREDITADO ISO/IEC 17029:2019 23-OVV-002
Approved by	Jimena Samper Validation and Verification Manager
Work carried out by	Maria Alejandra Torres Gómez – Lead auditor Carolina Carreño Cucaita – Technical Review

Summary:

ICONTEC has carried out the second verification of the "Unitán Afforestation and Reforestation of grazing lands project" in accordance with version 4.7 of the Verified Carbon Standard (VCS) and the host country criteria.

The objective of the verification consisted of assesing the conformity, by an independent third party, of the implementation of the monitoring plan and its compliance with the requirements of the VCS Standard v4.7 and AR-ACM 0003 Afforestation and reforestation of lands except wetlands V2.0 (section 1.2).

The verification was carried out in three phases:

1. Document review: review of the project monitoring report and the monitoring plan. This phase included verification of project mapping, land ownership rights and stakeholder interests, quantification of removals (ex-ante and ex-post), comparison of the Project Design Document (PD) with Monitoring Report (MR), and compliance with country regulations and standard requirements.

2. Interviews and Site Visit: Interviews with project stakeholders and a site visit. This phase included verification of project activities, delineation of areas through control points, and evaluation of measurement methodologies.

3. Issue Resolution and Final Review: Resolution of outstanding issues and internal technical review, followed by issuance of the final verification report and opinion.

During the verification process, 05 Corrective Action Requests (CAR) and 03 Requests for Clarification (CL) were raised, which have been satisfactorily resolved. In conclusion, the project continues to comply with the VCS criteria, host country regulations, and demonstrates effectiveness in removing CO2.

The long-term average GHG benefit (LTA = 120,432 tCO2e) is determined by averaging the expected total GHG benefit for the length of the project where a whole rotation and harvest take place (51 years: from 16/09/2016 – until 15/09/2067). The total GHG benefit expected at the end of crediting period is 142,756 tCO_2e. The sum of the expected GHG benefit annually when divided by 51 years (period for estimating LTA) results in 2,361 tCO_2e.

In conclusion, ICONTEC verified the period from 16 August 2021 to 09 August 2024. During this monitoring period, the project recorded the removal of 54,023 tonnes of CO2 equivalent (tCO2e).

1 INTRODUCTION

1.1 Objective

The objectives of the verification include the independent conformity assessment of the documents listed in section 1.2 under the guidelines of the methodology and monitoring procedures of the VCS program and the validated information, to ensure the occurrence of GHG emission removals and GHG emissions by the project activity during the monitoring period. Specifically, the objectives of the verification include:

- Assess the probability that the implementation of the planned GHG Project will result in higher GHG removals reported by the project proponent.
- Verify compliance with the implementation of the project mitigation activities, including those guidelines associated with the selected methodology.
- Evaluate and verify compliance with the principles of the monitoring, verification and reporting system necessary to comply with current legislation.
- Provide an independent verification opinion on the implementation and removal of GHG emissions that occurred during the monitoring period 16-August-2021 to 09-August-2024

1.2 Scope and Criteria

The scope of the verification audit consisted of assessing the GHG emission removals reported by the Unitán Afforestation and Reforestation of Grazing Lands Project (hereinafter Unitán Project), the application of the selected methodology and the implementation of the monitoring described in the validated Project Document (hereinafter PD). The verification time limits (VCS) are defined by the duration of the monitoring period from 16-August-2021 to 09-August-2024.

The scope w*as* defined as follows:

Project documents

- Spatial and temporal limits of the project
- Physical infrastructure, GHG removal activities, technologies and project processes.
- Activities for implementing the Monitoring Plan
- Sources *and* reservoirs of GHG are applicable to the project according to the methodology used and the validated PD.
- Types of GHG that are applicable to the project according to the methodology used and the validated PD.
- Reported information on emissions removals and GHG emissions *(*forest inventory and loss event)
- Deviations from the project description
- Consultation processes with local stakeholders
- Compliance with the SDGs

- Legal status of the project

The criteria *were* defined as follows*:*

VCS documentation

- *VCS Standard v4.7*
- VCS Program Guide v4.4
- VCS Program Definitions v4.*5*
- AFOLU Non-Permanence Risk Tool, v4.2
- *VCS Guidance.* Validation and Verification Manual, v3.2
- AR-ACM 0003 Afforestation and reforestation of lands except wetlands V2.0
- AR-TOOL 14 Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities V4.2
- AR-TOOL 15 Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity V2.0
- Calculation of the number of sample plots for measurements within A/R CDM project activities V2.1
- Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity v4.0.

ISO Standards

- ISO/IEC 17029:2019 Conformity assessment — General principles and requirements for validation and verification bodies
- ISO 14064-2:2019 Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements
- ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements
- ISO 14065:2020 Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition

ICONTEC conducted the verification audit of the GHG project in accordance with its code of ethics, regulations and internal procedures, which are consistent with the requirements established in the corresponding GHG program. Additionally, the audit exercise used a risk-based approach, which focuses on the identification and evaluation of potential risks associated with the declaration of GHG emission removals and the controls established to monitor the loss event (section 4.3).

In accordance with the above, the audit team together with Unitán SAICA (project proponent) and ProSustentia (VCS certification consultant) planned the verification activities. The verification plan included communication with the project stakeholders and on-site visit to corroborate the project limits and activities and obtain evidence of the approaches proposed in the documentation, evaluating their level of assurance and materiality.

The purpose of the verification was not to provide consulting services to the GHG project holders. However, requests for clarification (CL), corrective action (CAR) or future action (FAR) issued in the audit exercise may have provided clarification on requirements to improve project execution.

1.3 Level of Assurance

In accordance with the guidelines of the VCS Standard v4.7 and the ISO 14064-3:2019, the information declared by the client presented the level of assurance agreed upon at the beginning of the verification activities, that is, it was not less than 95%. The verification team evaluated the materiality of the information through the audit plan and considered that the relative importance was not greater than 5%.

In this regard, ICONTEC executed a verification audit plan (section 2.1) by developing: 1) strategic analysis and risk assessment and 2) evidence collection plan/sampling plan, which allowed minimizing the potential risks (control, inherent, detection) of omitting or not detecting a material discrepancy that could affect the GHG declaration.

Table 3 identifies and evaluates the level of risk associated with potential errors, omissions or misrepresentations that could have occurred during verification activities, and Table 4 establishes the control mechanisms (evidence collection plan) to minimize the potential risks identified.

Based on the results of the audit, a positive assessment statement provides reasonable assurance that the project's GHG assertions are materially correct and are a true representation of the GHG data and information. All versions of the verification report underwent an independent internal technical review prior to submission to the client to confirm that all verification activities were performed in accordance with the established scope and criteria. The technical review was performed by qualified technical reviewer(s) in accordance with ICONTEC qualification scheme for VCS validation and verification.

1.4 Summary Description of the Project

The project activity “Unitán Afforestation and reforestation of grazing land project” (hereafter, “Unitán project”) is an afforestation project on extensive cattle grazing pastures area and abandoned agricultural lands, Using native species such as *Schinopsis balansae* and exotic species of *Eucalyptus* (mainly hybrid and *cloeziana*) with the aim of producing, as a priority product, logs for the tannin industry and secondarily, firewood. The project is in a region where commercial forestry plantations are not common, or even non-existent. The afforestation with this species prevents the use of timber from native forests.

Unitán project is carried out in 5 properties (Don Antonio, Irineo, Sociedad Rural, Doña Virginia, Ex-Glombovski) located in Chaco and Formosa province, in the Northeast region of Argentina (the host country), on degraded grassland because of many decades of extensive cattle grazing and set aside agriculture land by previous owners. This degradation is expected to continue in the absence of the project. During validation and 1st verification (16/09/2016 to 15/08/2021) the project planted a total area of 894.83 ha. During this verification, an additional 461.35 ha has been planted, reaching a total of 1,356.18 eligible hectares (after cartographic adjustment). By 2025, the project estimates that an

additional 293.22 ha will be planted. This indicates that the eligible area that will be effectively planted for the Unitán project is 1,649.40 ha.

The project utilizes two main species: *Schinopsis balansae* (native specie) and *Eucalyptus gxc* (hybrid) and *Eucalyptus cloeziana* (defined as *Eucalyptus* various), occupying 16% and 84% respectively for the currently planted area, and with rotation periods of 40 years, 10 and 20, respectively. Biomass for this monitoring period was estimated based on the forest inventory conducted between June 12th and August 9th of 2024, meaning this second monitoring period is from August 16th, 2021, to August 9th, 2024.

In 2022 and 2023, during a dry summer, 239.62 and 8.38 hectares of Eucalyptus were burnt, respectively. Due to high temperatures and strong winds, the fire rapidly expanded despite activating the corresponding fire management plan. The event took place on January 13th, 2022, and February 7th, 2023. This area has already fully recovered, and the sprouts will be managed according to the Forest Management Plan.

The project sequesters CO_2 through forest plantation in grassland areas, generating net anthropogenic removals by sinks that can be measured, monitored and verified. The long-term average GHG benefit (LTA) is determined by averaging the expected total GHG benefit for the length of the project where a whole rotation and harvest take place (51 years: from 16/09/2016 – until 15/09/2067). The total GHG benefit expected at the end of crediting period (40 years) is 142,756 tCO_2e. The sum of the expected GHG benefit annually when divided by 51 years (period for estimating LTA) results in 120,432 tCO_2e. Reaching average annual VERs of 2,361 tCO_2e. During this monitoring period, a total of 54,023 tCO2e were removed from the atmosphere.

2 VERIFICATION PROCESS

The verification audit corresponds to an objective, systematic and documented evaluation of a GHG project regarding compliance with the established criteria, seeking to demonstrate that it complies with the requirements specified in the VCS program and the methodological document.

In accordance with the requirements established in ISO 17029:2019 and ISO 14064-3:2019 standards, the procedure carried out to complete the verification included:

a. Identification of GHG activities and type of audit
   - The type of service: Verification
   - Objectives, criteria and scope (section 1.1 and section 1.2)
   - Level of assurance and materiality: 95% and 5%, respectively (section 1.3)
b. Selection verification team (section 2)
c. Verification planning (section 2.1)
   - Strategic analysis and risk assessment
   - Development of the evidence collection plan/sampling plan
   - Development of the audit plan
d. Dissemination of the audit plan and sampling plan with the client

e. Execution of verification activities in accordance with the established audit plan (section 2)
f. Collection of documentary and on-site evidence in accordance with the established sampling plan (sections 2.2, 2.3 and 2.4)
g. Evaluation of GHG declarations (section 3 and section 4)
h. Issuance of the final validation and verification report and opinion (section 5)

In compliance with PE-PS-013 Specific validation and verification procedure for ICONTEC GHG mitigation projects, the planning of the verification service included:

- Development of strategic analysis and risk assessment (F-PS-1001). During October 2024, the audit team carried out an assessment of potential inherent, detection, and control risks that could lead to errors, omissions, or distortions in the GHG documentation. This assessment considered as the main input in the Monitoring Report, Carbon Stock Monitoring (Forest Inventory), Carbon Calculator, and records of the implementation of the monitoring plan (Table 3).
- According to the results of the risk assessment and analysis, the audit team considered it necessary to coordinate a visit to the site to corroborate aspects related to the relevance of the sources, sinks, and reservoirs of GHG, spatial boundaries of the project, property rights, project implementation status, data control and management, among others (see section 3.4). This means that the evidence collection plan/sampling plan included a documentary review of the information declared by the proponent, cross-checking of secondary information, and a site visit (tours and interviews).
- The established audit plan (Annex 3) was consistent with the criteria, scope, objectives, and level of assurance mentioned in section 1. The audit plan presented a detailed schedule of on-site audit activities, allowing an organized approach to the evaluation of qualitative and quantitative evidence. The on-site evaluation was carried out between November 4 - 13, 2024.

During the documentary review and site visit stages, the probability that the implementation of the planned GHG project produces the GHG removals declared by the project proponents was assessed, to subsequently establish an independent opinion on the verification of the project's GHG removals.

Table 1. Verification schedule

Date	Activity
18 – 23 oct 2024	Documentary review
04 nov 2024	Site visit: Opening meeting Presentation of OVV and presentation Unitán and ProSustentia team
04 – 13 nov 2024	Site visit: Interview with aggregators Verification of plot (Forest Investory)
19 nov 2024	Closing meeting and socialization of findings
14 jan 2025	Consolidation of findings report
04 feb 2025	Preparation of verification report

Date	Activity
08 feb 2025	First technical review
11 feb 2025	Preparation of verification report
14 feb 2025	Second technical review
14 feb 2025	Consolidation of verification report

Audit team

Listed below is ICONTEC's regulatory framework to carry out the selection of the validation and verification team for GHG projects and the monitoring of the qualification of personnel in technical services:

- PE-PS-013 SPECIFIC VALIDATION AND VERIFICATION PROCEDURE FOR GHG MITIGATION PROJECTS, section 5.3. Personnel qualification.
- E-PS-114 QUALIFICATION REQUIREMENTS FOR VALIDATION AND VERIFICATION SERVICES FOR GHG MITIGATION PROJECTS
- E-PS-0064 MONITORING THE PERFORMANCE OF VALIDATION AND VERIFICATION PROFESSIONALS
- P-CP-0001 PROCEDURE TO QUALIFY AND/OR AUTHORIZE PERSONNEL IN TECHNICAL SERVICES
- P-CP-0002 MAINTENANCE OF QUALIFICATIONS AND/OR COMPETENCE FOR TECHNICAL SERVICES
- F-PS-625 *SERVICE BASE TECHNICAL UNIT VALIDATION AND VERIFICATION*

ICONTEC ensures that the designation of verification audit team for GHG projects follow the guidelines of the procedures described above and, therefore, the selected audit team has the required professional skills and the respective qualification in the AFOLU sector (Annex 6).

The qualification described in Annex 6 was taken from the internal document "FCP002CONSOLIDADOVALIDACIONYVERIFICACIONPROFESIONALESCALIFICA-DOS20240527" updated on May 27, 2024, which is constituted as an official consolidated document of the validation and verification technical unit.

The verification roles and activities carried out by each professional during the audit are detailed below:

Table 2. Audit team and technical review team

Full name(s)	Role(s) or responsibility(s)	Activity(s) carried out
María Alejandra Torres Gómez	Lead Auditor	Documentary Review On-site visit Verification Report Declarations
Facundo Barrera	Technical expert	Documentary Review
Carolina Carreño Cucaita	Technical Reviewer	Technical Review

ICONTEC ensures that the designation of the GHG project verification audit team and the technical review team follows the guidelines of the procedures described above and, therefore, ensures that both teams have 1) a professional profile and experience in GHG mitigation projects (Annex 6) and 2) qualification to provide GHG validation and verification services (Annex 6) in the "Forestry and reforestation" sectoral area accredited by the OEC (Annex 7).

The technical qualification described in Annex 6 was taken from the internal document "FCP002CONSOLIDADOVALIDACIÓNYVERIFICACIONPROFESIONALESCALIFICA-DOS20240527.xlsx" updated on May 27, 2024, which corresponds to the consolidated qualification of the professionals who are part of the technical validation and verification unit in the "Forestry and reforestation" sectoral area accredited by the Conformity Assessment Body - OEC.

Below is a summary of the professional profile and related experience of the audit team and the technical review team (more information in Annex 6), as well as of the professionals Orlando Ramírez (Technical Leader of Validation and Verification) and Jimena Samper (Validation and Verification Manager), responsible for the review and approval of the final audit documents, respectively:

Profile María Alejandra Torres

Forestry Engineer with relevant experience in climate change mitigation projects (REDD+ and A/R), biodiversity conservation and sustainable forest management. Her professional career has been largely located in tropical rainforests, including those in the Amazon region, through the evaluation of mitigation projects in the AFOLU sector, execution of forest inventories, carbon quantification, ecological restoration and biophysical characterization of the landscape, with a focus on field work with indigenous and peasant communities under diverse ethnic and cultural contexts. Advanced handling of GIS tools and basic knowledge of statistical software, with skills in Portuguese and English and advanced command of Spanish (native language), and experience in audits under ISO 14064, ISO 14065 and ISO 17029.

Profile Facundo Barrera

Scientist and consultant with more than 15 years of experience working in global biogeochemical cycles. Specialist in the development of blue carbon credits, forestry and silvo-agricultural projects, with experience in technical and environmental aspects. He has led pre-feasibility studies in more than 15 projects in Chile, Argentina, Uruguay and Paraguay, working on the planning, design and execution of strategies for climate change mitigation. He has advanced skills in managing interdisciplinary teams, data analysis, environmental project development and international collaboration.

Profile Carolina Carreño Cucaita

Professional in Forest Engineering with a specialization in Engineering Project Management and training in Environmental Control, with 12 years of professional experience in greenhouse gas (GHG) mitigation and climate change projects. She has worked on validation and verification audits of REDD+ and A/R projects, as well as on the conformity assessment of forestry initiatives, forest inventory management, harvesting plans, and monitoring of deforestation and degradation. She has also provided expertise in

the formulation of environmental impact studies and sustainability management with an emphasis on the implementation of forest traceability systems and monitoring of policies for climate change mitigation, providing support to government and private entities in regulatory compliance and the optimization of environmental and forestry processes.

In compliance with the provisions of the VCS Validation and Verification Manual v3.2, ICONTEC establishes a policy framed in the guarantee of impartiality, confidentiality, independence and management of the conflict of interest that is required to act and make decisions objectively, autonomous, suitable and reliable, during all activities associated with the provision of the service and commercial management.

https://www.icontec.org/wp-content/uploads/2019/12/POGE009POLTICADEIMPARCIALIDADCONFIDENCIALIDADINDEPENDENCIAYMANEJODELCONFLICTODEINTERESESVS00.pdf

During the audit team selection stage, qualified professionals sign the declaration of impartiality using the form “F-GV-119 Declaration of Impartiality CDM-14065”, which constitutes a declaration of the non-existence of conflict of interest.

The terms of confidentiality are referred to in the contract signed between the parties (client and ICONTEC) in the thirteenth clause and, additionally, within the contract of each professional is provided the code of ethics "PO-GE-001 Code of Ethics V2.0".

The Code of Ethics seeks to materialize ICONTEC's philosophy, by establishing guiding criteria for action based on the highest principles and values of all its members and stakeholders. This Code is applied by all ICONTEC employees, bound by an employment contract, whether for a fixed term or indefinite; for the provision of services (contractors and subcontractors); and all those who, without a contractual relationship, have any type of relationship with ICONTEC, under any modality (members of the Board of Directors and other collegiate bodies). Contractors and subcontractors are those natural or legal persons who at any time provide their services to ICONTEC or on its behalf.

As a mechanism to safeguard impartiality, the ICONTEC Board of Directors established an Impartiality Committee as an advisory body to deal with issues related to Impartiality Risk Management. This initiative responds to the interest of this collegiate body to ensure trust and transparency in the provision of validation and verification services. The composition of the Committee considers the participation of external and independent people, and on their own behalf or on behalf of an entity associated with the interest groups related to the services provided by the institution.

ICONTEC assesses the risks resulting from its validation and verification activities and has taken appropriate provisions to cover the legal liabilities resulting from its operations in each of its fields of activity and geographical areas in which it operates. In this regard, ICONTEC has taken the contractual and extra-contractual civil liability insurance policy identified LRCG-180135863-1 with the insurer ZURICH COLOMBIA SEGUROS S.A. in force until December 31, 2025, for an amount of up to COP $3,000,000,000. Likewise, it has the civil liability insurance policy for errors and omissions identified

with the same insurer, policy EOFF-180153683-1 valid until December 31, 2025, with coverage up to USD $5,000,000.

2.1 Method and Criteria

In accordance with ISO/IEC 17029:2019, the audit planning process included risk assessment, preparation of the sampling plan/evidence collection plan, and design of the audit plan (Annex 3). The audit plan considered the potential identification of risks in the GHG statements and designed evidence collection activities (document review + interviews + on-site visit) to control the sources of possible errors, omissions or misrepresentations.

Table 3 shows the risks and treatments that may occur within the audit process in its different phases and that may result in errors in the estimation of the carbon calculation. As indicated in section 2, this assessment was considered to define the audit plan following the indications of the "PE-PS-013 Specific Validation and Verification Procedure for GHG Projects".

Table 3. Strategic analysis and risk assessment

No.	Risks that may lead to errors, omissions and potential distortions	Risk Assessment		Risk control system in the verification plan and/or in the sampling or evidence collection plan
		Risk Level	Justification	
	Control Risks:			
1	Human error in quantifying removals/emissions. Inaccuracy: double counting, significant manual transfer of key data, or inappropriate use of parameters	Low	There was no omission or error in the traceability of secondary information sources that relate to the quantification parameters.	100% of the data indicated in the spreadsheets are directly compared with the information sources described (scientific articles, technical reports, regional documents, etc.)
2	Lack of full data coverage: Exclusion of significant sources, incorrectly defined limits, leakage effects.	Low	There was knowledge of the requirements for applicability of the selected methodology.	The audit plan ensured that the inclusion and relevance of GHG sources and reservoirs, carbon stock monitoring and spatial boundaries, as well as other conditions of applicability of the methodology were assessed.
3.	Inconsistency: Lack of documentation of methodological changes in the calculation of GHG emissions or removals in relation to those used in previous years.	Middle	There was knowledge of the procedures for reporting methodological deviations or deviations from the project description.	The audit plan considered comparing the implementation of the project with the validated information, looking for changes that could affect the quantification of GHG removals.
	Inherent Risk:			
4.	Dependency on a technology platform designed for data capture: Occurrence of omissions and errors in the transfer of raw or raw data to the emission reduction excel spreadsheet.	Middle	There were some failures in the quality control of data transfer.	The audit plan considered verifying the data quality management procedures and instructions. The auditor conducted interviews with the personnel responsible for data recording and verified compliance with the quality procedure.
5.	Facts Discovered After Validation or Verification	Low	No changes are expected in the project that could affect the GHG Verification Statement.	The audit plan included an on-site visit to the project facilities to confirm the implementation status.
	Detection Risk:			
6.	Delays in the calibration of measuring equipment related to the quantification of GHG emissions.	Middle	There was no record of the calibration frequency of the equipment used to carry out monitoring measurements.	The audit plan included verification of the calibration status of 100% of the monitoring equipment.
7	Insufficient information to demonstrate the possession of the rights to use the land on which the forestry activity takes place.	Low	All land tenure documents are up to date.	The audit plan included a review of the ownership certificates and lease agreements for the properties that will be part of the project.

The criteria chosen within the sampling plan allowed for generate a verification procedure that detected the statements with the highest risk of material discrepancy and minimized the probability of audit errors.

Table 4. Sampling plan criteria

Criteria	Type of evidence	Evidence collection plan	Cross check
Project holders	Qualitative	Review of documents establishing legal ownership or lease of project lands. Interviews with Unitán and ProSustentia staff Interviews with residents of the lands that form part of the project boundaries	/60-68/ /71-76/
Project limits	Qualitative and quantitative	Review of official cartography of indigenous peoples near the project areas Field tours and review of the cartography to assess the correspondence of the vegetation cover present in the project area and forest fire events	/156-184/
Baseline and Additionality	Qualitative	Field tours and interviews to corroborate the social, political and environmental contexts described in the project documentation.	/4/
Carbon calculator	Quantitative	Review and evaluation of the relevance of the information sources associated with the quantification parameters, sources and reservoirs of GHG included Remeasurement of forest inventory plots to corroborate the assurance of carbon stock monitoring data	/1/ /2/ /3/ /250-262/

Criteria	Type of evidence	Evidence collection plan	Cross check
		Review of the time limits of the monitoring period and the temporal occurrence of forest fires Review of forest cover through satellite images.	
Uncertainty assessment	Quantitative	Evaluation of the accuracy, uncertainty and error associated with the information sources used Review of control and quality systems to periodically assess the accuracy of the data	/7-59/ /3/
Non-permanency and reversal risk assessment	Qualitative and quantitative	Review and evaluation of the development of the VCS non-permanence risk tool	/263-279/
Monitoring of the Monitoring Plan	Qualitative and quantitative	Follow-up evaluation of the implementation of the validated Sampling Plan Evaluation of compliance with the Sustainable Development Goals (SDGs). Visits to the areas where GHG removal activities were implemented and interviews with those responsible for monitoring.	/60-70/ /7-59/
Control and management of data quality	Qualitative	Review of the Project's Operational Plan. Review of the timing, responsible party, result, among others, of the indicators of the project's Monitoring Plan. Interviews with the development team and those responsible for monitoring activities to	/7-59/

Criteria	Type of evidence	Evidence collection plan	Cross check
		demonstrate the control processes in the monitoring records.	
Consultation with stakeholders	Qualitative	Interviews with project actors and other interested parties to corroborate the occurrence of the socialization of the project objectives and activities in the territory. Review of evidence (minutes of meetings, attendance lists, photographs, emails, etc.) of the spaces for socialization provided.	/185-249/
Compliance with national legislation	Qualitative	Legal review of the legal framework applicable to project activities. Review of the project's environmental legal matrix. Interviews with project stakeholders and other interested parties to inquire about the occurrence (or potential occurrence) of conflicts or impacts arising from the implementation of the project or non-compliance with the activities under the local and regional regulatory framework.	/60-68/
Others	Qualitative and quantitative	Evaluation of the other criteria provided by VCS program (SDG, Human Rights, Health & Safety, etc.)	/107-155/

The sampling plan or evidence collection plan (Annex 3) permitted an assessment of the documentation provided and its compliance with VCS requirements, including the control and assurance of the quality of the information and the management of risks associated with the audit.

Together with the project proponent, the strategic points to be visited during the on-site audit were specified, based on accessibility conditions, dispersion of the forest inventory sampling units, location of the interested parties and other implementation activities. Regarding the interviews with the interested parties, the PP managed communication spaces (virtual and in person) with neighbors, contractors, educational institutions, local and regional government (section 2.3).

Through the different rounds of findings, the proponent made the pertinent modifications and clarifications based on the observations issued by the audit team to reach the agreed level of assurance. The evidence presented by the PP and collected by the audit team supported the statements made in the Monitoring Report, since it presents the following characteristics:

- Sufficient evidence available: The project participant has provided records of all activities and actions implemented.
- Nature of the evidence: The raw data was obtained from reliable sources. They are detailed in the project documents and have been provided to the verification team and verified during interviews.
- Evidence verified: the audit team verified the information collected through stakeholder interviews and reproduced the quantification procedures to verify the claims.

2.2 Document Review

The documentary review is the corroboration of information to verify that the project documentation complies with the criteria and scope established in section 1.2 of this report. This corroboration was carried out by reviewing the GEI project data and information, cross-referencing the sources of information used, and recalculation procedures.

In accordance with the development of the preliminary activities (section 2) to establish the purpose and scope of the verification activities, the audit plan began with the documentary review by the audit team during November 08 - 23, 2023. Annex 2 details the list of all documents reviewed during the documentary review.

The declared GHG data and information have developed and systematized documentary support, complying with the principles of the VCS:

- Comprehensiveness: The content of the documentation addressed social, environmental, biological, legal and quantification issues in detail, providing a complete description of the context of the project area.
- Accuracy: The reviewed content was based on reliable sources of information and met the benchmarking criteria.

- Coherence: The declared information had the respective secondary documentary references and associated documentary annexes. There is documentary consistency throughout the project documentation.
- Updating: The documentary content is current and complies with the guidelines established in the applicable legal regulations as well as with the guidelines of the ISO standards.

2.3 Interviews

A site visit was conducted between November 4-13, 2024. During this visit, interviews were conducted with residents, contractors, educational institutions, local and regional government, and Unitán and ProSustentia staff.

Date	Activity	Participants	Place	Topics
04 November 2024	Audit Opening Meeting	**Unitán team** Ariel López Mato* Antonio Gil* Natalia Santiago* Gustavo Ferrer Ricardo Campos Cristian Aquino Raúl Ritter **ProSustentia team** Josefina Uit den Bogaard	Presential: Unitán facilities, Puerto Tirol, Chaco *Remote: via Teams	Audit Plan Sampling Plan
05 November 2024	Interview	Dante Boldorini Neighbor and Contractor Province of Formosa	Villa Dos Trece, Formosa	- Presentation of the attendees and request for permission to record - Knowledge of the Unitán project and the project proponents - Historical context and performance of Unitán SAICA in the territory
06 November 2024	Interview	Francisco Retamoso Unitán team	Pampa Almirón, Chaco	

Date	Activity	Participants	Place	Topics
06 November 2024	Interview	Julio Martínez Neighbor Province of Chaco	Pampa Almirón, Chaco	- Carbon market in the country and the northern provinces - Context of climate change - Knowledge of the mitigation objective and AR activities of the project - Importance of reforestation activities in the region - Duration of the GHG project - Dates of dissemination or training activities with interested parties - Articulation with research entities or institutions - Compliance with legal provisions - Other companies with GHG mitigation projects in the territory - Other companies dedicated to reforestation in the territory - Land tenure and occurrence of conflicts due to use or ownership of land - Media for disseminating the
06 November 2024	Interview	Iván Vera Neighbor and Contractor Province of Chaco	Margarita Belén, Chaco	
07 November 2024	Interview Regional Government	Carla Antonelli Vega Dirección de Bosques of the Province of Formosa	Remote: via Teams	
07 November 2024	Interview Regional Government and Research Institute	Lucas Vera Dirección Nacional Foresto Industrial and Universidad Nacional de Santiago del Estero Province of Chaco	Remote: via Teams	
08 November 2024	Interview	Darío Vergara Neighbor and Contractor Province of Formosa	Remote: via telephone	
11 November 2024	Interview Local Government	Humberto Pompert Mayor Puerto Tirol	Puerto Tirol, Chaco	

Date	Activity	Participants	Place	Topics
11 November 2024	Interview Regional Government	Hipólito Beveraggi Subsecretaría de Industria, Empleo y Comercio of the Province of Chaco	Resistencia, Chaco	status of project implementation - Compliance with socio-environmental safeguards (working conditions, human rights, gender equity, etc.) - Petition System, Complaints and Claims about the project.
11 November 2024	Interview	Julio César E.G.B. Nº 392 "Dr. Nazario Maderna"	Puerto Tirol, Chaco	- Positive and negative effects of project activities on the community and biodiversity - Mitigation of risks from project activities

Through the topics addressed, it was evident that the project actors presented a broad and reasonable knowledge regarding the objective and implementation status of the project in the territory. The audit team did not encounter any material discrepancies related to compliance with safeguards and the involvement of project stakeholders.

2.4 Site Visits

The on-site visit was conducted from November 4 to 13, 2024 and included both the execution of interviews with interested parties (section 2.3) and tours and data collection from the monitoring of the project's carbon stock (forest inventory).

The verification team collected spatial information on site using GPS and photographs to correlate the observations with the cartographic information provided; it also generated a Database with the observations collected during the remeasurement of the 32 sample plots to evaluate the quality of the data and the relevance of the methodology of the validated monitoring plan.

Table 5. Audit sampling plan (forest inventory)

Stratum	Number of samples	Sample plots
2016Eucalyptus hybrid	1	1
		DA09

Stratum	Number of samples	Sample plots		
2020 *Eucalyptus hybrid*	3	3	30	53
		320	3020	5320
2018 *Eucalyptus hybrid*	2	13	12	
		4618	4318	
2019 *Eucalyptus hybrid*	1	7		
		2819		
2018 *Eucalyptus* various	1	8		
		3518		
2021 *Eucalyptus hybrid*	3	50	34	12
		DA39	4121	1421
2022 *Eucalyptus hybrid* 2019 regrowth	2	1	38	
		319	4819	
2022 *Eucalyptus hybrid*	3	39	42	37
		3922	4222	3722
2018 *Eucalyptus hybrid*	1	1		
		MB20		
2022 *Eucalyptus hybrid* 2017 regrowth	1	9		
		1117		
2022 *Eucalyptus hybrid* 2018 regrowth	1	2		
		1518		
2021 *Eucalyptus hybrid*	1	2		
		MB25		
2022 *Eucalyptus hybrid* 2021 regrowth	1	9		
		5421		
2021 Euca/Quebracho 11252	1	4		
		DA06		
2017 *Eucalyptus hybrid*	1	1		
		117		
2022 *Eucalyptus* various 2018 regrowth	1	1		
		418		
2022 *Eucalyptys hybrid* 2018 regrowth (5000)	1	2		
		318		
2017 *Schinopsis balansae*	1	5		
		117		
2018 *Eucalyptus* various	1	1		
		MB22		
2019 *Schinopsis balansae*	1	4		
		419		
2016 *Schinopsis balansae*	2	2	20	
		DA08	DA29	
2023 *Eucalyptus hybrid* 2018 regrowth	1	2		
		5618		

Stratum	Number of samples	Sample plots
2022 *Eucalyptus hybrid*	1	2
		MB29
Total	**32**	

Plots underlined in color correspond to plots affected by forest fire

The audit team corroborated the following information and verified that the activities described in the validated monitoring plan comply with the scope and criteria of section 1.2:

a. Effective forest plantation areas. Use of remote sensors and field tours to corroborate the delimitation of the spatial limits of the project and the GHG removal activities. It was verified through surveys and review of the cartography that the eligible areas subject to verification correspond to the effective area of reported forest plantation.

b. Carbon reservoirs. Monitoring carbon stock by means of forest inventory. The processing of the data and the quantification of carbon present in the aboveground biomass and underground biomass of the forest plantations were verified. Additionally, through the remeasurement of 33 plots of the forest inventory, the following was confirmed:
   - Stratified design of the inventory and random distribution of the plots with a variable intensity and a sampling error of 4,62%.
   - Delimitation and establishment of 399 permanent rectangular plots (20 x 10 m), except for the species *Schinopsis balansae* which had plots of 400 m2 (20 x 20 m)
   - Recording field data associated with quantification parameters (DAP, H)

Figure 1. On-site visit map

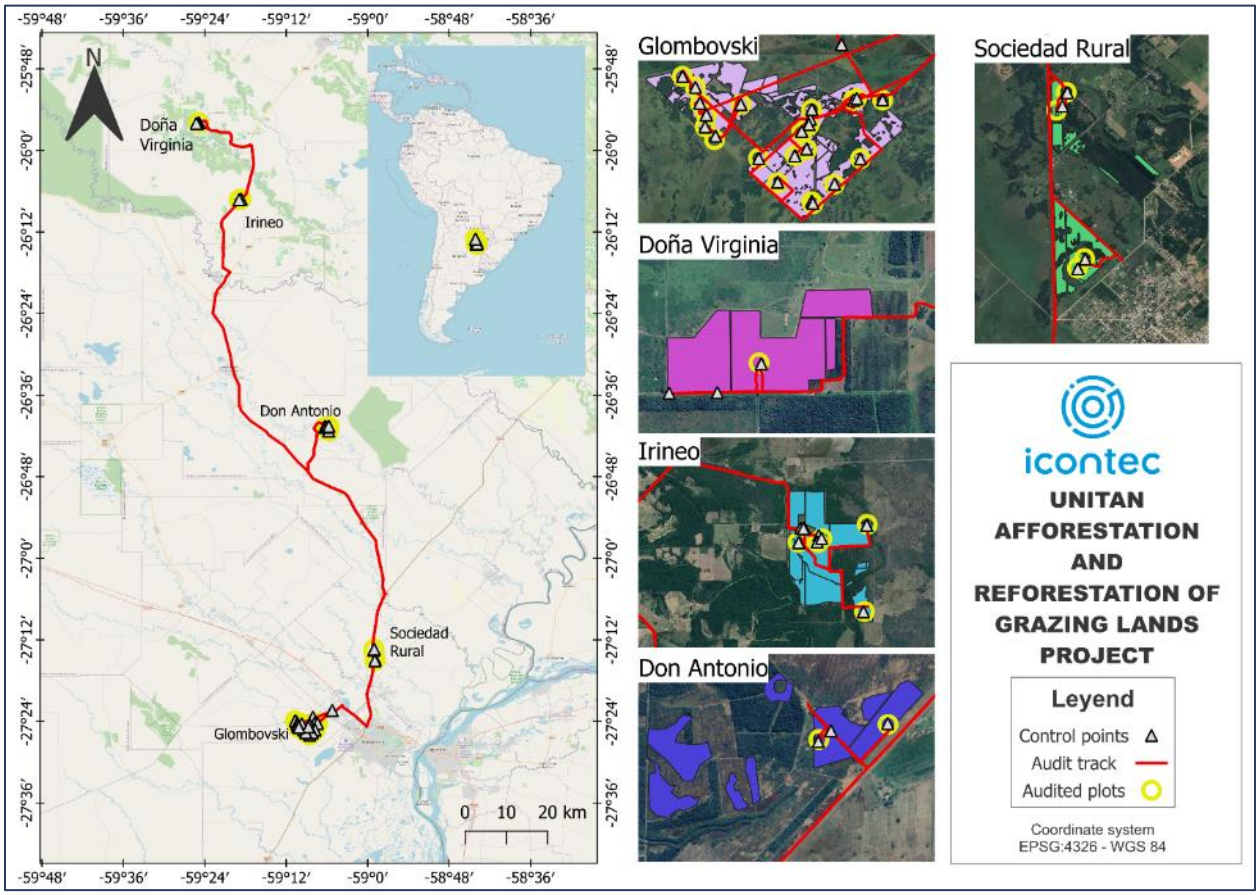

Figure 2. photographs on site visit

2.5 Resolution of Findings

The audit team raised five (5) CARs (Corrective Action Requests) and three (3) CLs (Clarification Actions), which were satisfactorily resolved by the project proponent through adjustments to the project documentation. During the verification, compliance with FAR 01 issued in the 1st verification was corroborated.

Annex 4 describes the findings found, the responses provided by the person responsible for the GHG mitigation initiative, the documentation modified to comply, and the auditor's evaluation of the adjustments made.

The main points addressed are summarized below:

CAR No. 01: During the review of the project cartography, discrepancies were detected in the areas and the number of parcels of several properties. A correction of the areas and an adjustment in the number of parcels in the documents was requested. The project developer corrected the values and updated the corresponding documents.

CAR No. 02: It was observed that the justification of the deviations of the project did not fully comply with the requirements of the VCS standard. The developer added a detailed justification for each deviation in the monitoring report, complying with the established criteria.

CAR No. 03: Typographical errors were found in the information on the forest fires and a discrepancy in the reports. The developer corrected the errors and adjusted the reports related to the fires on the affected properties.

CAR No. 04: Inconsistencies were found in the timing of reported fire events. The developer provided the signed loss event representation document, clarified the differences in the 2022 and 2023 fires, and improved the mapping and methodology to identify the areas affected by the fires.

CAR No. 05: The quantification associated with non-CO2 GHG emissions was not found. The developer included in the monitoring report the non-CO2 greenhouse gas emissions attributable to forest fires, following the corresponding methodology.

CL No. 01: Clarification was requested regarding the discrepancies between the areas of the properties reported in the project mapping and those in the PD. The developer corrected the information and explained the differences, especially for the Ex Glombovski property.

CL No. 02: Inconsistencies were detected in the dates of the project crediting period and the LTA estimate. The developer adjusted the dates to match those of the crediting period and the LTA.

CL No. 03: Problems were observed with the allometric regressions used to estimate the height of the eucalyptus species. The developer recalculated the regressions using a non-linear model at the stratum level, improving the accuracy.

Opportunities for improvement: Improvements were suggested in the delimitation of sampling points in the field and in the quality of data control. The developer implemented actions to improve these aspects, such as the installation of permanent stakes at the vertices of the plots.

ICONTEC satisfactorily closes a finding only if the project manager modifies or rectifies the project documents or provides additional information that demonstrates that the non-conformity has been resolved. In this sense, the project adequately corrected all non-conformities, delivering and modifying missing information or adjusting and reviewing the documentation.

2.5.1 Forward Action Requests

The audit team did not issue any Future Action Requests (FAR) during the current verification audit. However, during the previous verification (1st verification) the CAB issued the following FAR 01:

> *FAR01 (1st verification): Due to pandemic restrictions, the current validation/verification process was performed remotely. However, for the next verification process, an on-site audit will be mandatory.*

As the current verification audit included in an on-site audit, ICONTEC considers that FAR 01 of the 1st verification was satisfactorily addressed.

2.6 Eligibility for Validation Activities

This section is not applicable, as ICONTEC is accredited for the validation and verification of projects in sector 14 - Agriculture Forestry and Other Land Use (AFOLU).

3 VALIDATION FINDINGS

3.1 Methodology Deviations

During the current monitoring period, no methodological deviations were recorded; however, deviations were made to the PD, which are detailed in the following section.

3.2 Project Description Deviations

During the monitoring period, the PP applied some deviations to the Project Description in the MR (section 3.2.2). ICONTEC evaluated the relevance of these deviations in accordance with the requirements set forth in section 3.21 of the VCS Standard v4.7, as follows:

Deviation 1. Cartographic adjustments

a. Cartographic adjustments in the total extension of the project farms: The PP adjusted the area values corresponding to the 5 properties that are part of the project in the MR. The audit team reviewed the project validation cartography and confirmed that the total area of each farm corresponds to that described in section 3.2.2 of the MR. In this sense, it was evident that the differences detected came from inaccuracies in the calculation of the area described in Table 3 of the PD. The difference in the total areas of the properties only varied in decimal figures, except in the Doña Virginia property, which went from 205 ha in the PD to 141 ha in the RM due to the cartographic adjustment.

   In addition, the total project area has been updated to reflect the updated validated eligible properties. This results in a reduction of the total area from 2,348.7 ha to 1,649.40 ha. The LTA values have been adjusted accordingly.

   Based on the above, it is considered that the applicability of the methodology, the additionality, and suitability of the baseline scenario are not affected by the changes made.

b. Adjustments to the areas with plantations (project area): In accordance with the PD (Table 1), the project planned to have a planted area of 2,048.7 hectares by 2024. However, due to forest fires and cartographic adjustments, during this monitoring period a planted area of 1,356.18 hectares was reached (Table 4 of the MR) and, therefore, there was a deviation from the project design. The audit team verified the project cartography and the spatial boundaries in the field and confirmed that the project area effectively corresponds to the reported planted area.

   Based on the above, it is considered that the applicability of the methodology, the additionality, and suitability of the base scenario are not affected by the changes made, since the changes only incurred adjustments on the projection of the removals.

Deviation 2. Forest Management and Establishment Plan adjustments

a. Adjustments in the Forest Management and Establishment Plan: In accordance with the PD (section 1.11), the thinning and harvesting time for *Eucalypustus gxc* (hybrid) was established between 3-4 years and 6 years, respectively. However, during this monitoring period, a deviation from the Management Plan for this species occurred and the thinning period was extended to 6-8 years and the rotation period to 10 years due to the species' own growth dynamics. Additionally, the PP adjusted some planting designs within the strata which, together with the fire events that occurred, resulted in a re-stratification of the plantation areas (Table 5 of the MR).

The audit team verified the changes to the Forest Management and Establishment Plan in the field by inspecting the planting densities of the strata and corroborated the need to re-stratify the plantations based on the new densities and forest fire events, so that the new strata represent the conditions of each plantation area and therefore the monitoring of the carbon stock incurs improvements.

Based on the above, it is considered that the applicability of the methodology, additionality and suitability of the base scenario are not affected by the changes made.

Deviation 3. Carbon sequestration projected and LTA adjustments

a. Ex Ante Quantification and LTA adjustments: In accordance with the deviations described above, the PP modified the ex-ante and LTA quantification of the project, such that changes in project management such as forest fire events resulted in a reduction of the LTA, which reached a value of 120,432 tCO2e. The audit team verified the changes applied in the quantification and considers them pertinent since the cartographic adjustments, the forest fires that occurred and the updates in the Forest Management Plan directly impacted the project removals.

   Based on the above, it is considered that the applicability of the methodology, additionality and suitability of the base scenario are not affected by the changes made.

Deviation 4. Monitoring Plan

a. Adjustments to the carbon stock change estimate: As described in the PD (section 5.3), which mentions the use of permanent plots to estimate carbon stock change, the PP presented a deviation to the monitoring plan design using a new plot network, since it was not possible to find the previous sampling units in the field. However, for the next monitoring period, the same carbon estimation approach as described in the PD is expected, i.e. using the same monitoring plots (plus new ones).

   The audit team verified that the change in the carbon stock estimate was made during this verification using method a) described in AR TOOL 14 and not using the validated method b). Since it was verified that the plots have been satisfactorily georeferenced and staked in the field, it is expected that the next monitoring period will follow the validated method b).

   Based on the above, it is considered that the applicability of the methodology, additionality and suitability of the base scenario are not affected by the changes made.

b. Adjustments to quantification parameters: In accordance with what is described in the PD (section 5.1), where the validated data and parameters are mentioned, the PP presented a deviation to the density parameter for Eucalyptus and to the allometric equation for the species

Shinopsis balansae. Regarding the allometric equation, the PD mentioned that, once the trees reached 1.3 m in height, the equation of the Second National Inventory of Native Forests (INBN2) would be used.

Eucalyptus

- Validated density:
  0.396 – 0.566 td.m./m3
  (INTA Winck, R. et al, 2020)
- Deviant density:
  0.549
  (Clone 44 and 78 Basic density average – Regional Nursery clone information sheet; http://www.viverodonflorencio.com.ar/clones.htm)

Schinopsis balansae

- Validated allometric equation (<1.3 m height):
  BA (kg)=0.05619*DBH^2.7152
  (Atanasio, et al. 2013)
- Validated allometric equation (>1.3 m height):
  Vtree= -0.09996+0.00057954*DBH^2
  (Second National Inventory of Native Forests (INBN2). Report Region Forestal Parque Chaqueño. First revision. 2020. Section with equation at: Annex 4. Table 34)
- Deviant allometric equation (all heights):
  BA (kg)=0.05619*DBH^2.7152
  (Atanasio, et al. 2013)

The audit team verified these proposed deviations:

- In the case of the density for *Eucalyptus*, it was confirmed that the validated density comes from a value reported for the species *Eucalyptus grandis* while the proposed deviation uses the density value reported for the planted clone, so it is considered that the change is pertinent and tends to improve the precision of the parameters.

- To corroborate the relevance of the deviation using the Atanasio et al. (2013) equation, a detailed analysis of the validated equation and another secondary source available for the genus Schinopsis (red quebracho) was performed:

  (I) Gaillard de Benítez et al.'s (1994) equation for Schinopsis lorentzii
  (II) Validated general equation for natural forest

  These two equations have proven not to be the most appropriate for Schinopsis balansae in this project, given that:

- Equation (I) by Gaillard de Benítez (1994) does not correspond to the same species or the same region. In evaluating the calculation results, the PP has shown that it is more conservative to use the equation by Atanasio et al. (2013), given that the total sequestration values are 0.6% lower.

- Equation (II) is a general equation for natural forests that can generate significant uncertainty. Furthermore, the equation has restrictions on individual size, meaning that for very small DBHs, such as those currently monitored, the equation estimates a negative biomass.

In this sense, the use of the equation by Atanasio et al. (2013) was considered relevant because:

- It was calculated for individuals within the same project region (same province and district) and a semi-humid region.
- It comes from an official national institution: the National Institute of Agricultural Technology (INTA).
- It covers a representative diameter range (4.8–47.7 cm), which is why it was validated and used in the initial verification.
- Although the number of individuals used for the study (15) is lower than that of the requested tool, it was developed within the framework of the Environmental Payment Fund (GEF 2623) with the objective of establishing baseline and monitoring carbon for payments for environmental services based on measurable variables during forest inventories.
- The authors justify the number of individuals used based on species conservation and cost considerations, while ensuring a good fit of the equation ($R^2 = 0.997$).
- The equation has been available and cited in the forestry technical and research sector for more than 10 years.

Based on the above, it is considered that the applicability of the methodology, additionality and suitability of the base scenario are not affected by the changes made.

ICONTEC, as an accredited OVV to perform validations, satisfactorily verified that the deviations to the project design comply with the requirements of the VCS, i.e. that the PP adequately described in the Monitoring Report the timing and justification of the changes applied and must include these details in all subsequent monitoring reports.

Since none of the applied deviations were considered to affect the applicability of the methodology, the additionality or the suitability of the baseline scenario, the project remains in compliance with the applied methodology.

3.3 New Project Activity Instances in Grouped Projects

Not applicable, the Unitán Project does not correspond to a grouped project.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
Audit history	Type of audit: Verification Period: 16-August-2021 to 09-August-2024 Program: VCS 1. Document review: October 18 to October 23, 2024. During this stage, the audit team reviewed the documentation provided by the project holders (see document listing in section 2.2) and assessed compliance with VCS Standard v4.7 criteria. 2. Site visit and preparation of findings report: November 04 to November 13, 2024. In this phase, the audit team visited the project areas (see audit trail, section 2.4) to assess compliance with implementation activities and ARR activity boundaries. In addition, through interviews and meetings, an assessment of compliance related to stakeholder engagement was conducted (see groups interviewed and issues addressed, section 2.3). 3. Review and evaluation of the findings report: December 11 to December 12, 2024; December 26 to December 27, 2024; January 13 to January 14, 2025.

	The information collected and evaluated in Stages 1 and 2 constituted the primary input to generate the two (2) findings reviews described in the findings report (see traceability in Annex 4). This report details the non-compliance evidenced by the OVV under the VCS requirements and the respective treatment (documentary adjustments, explanatory notes, justifications) provided by the owner and developer to comply with such requests. 4. Preparation of the verification report: January 01, 2025, to January 21, 2025 After successfully completing the review of findings, i.e. the review and approval of the adjustments made by the owner and developer, the audit team described and concluded the compliance assessment of the project through the verification report, which followed the guidelines of the "VCS Verification Report Template v4.4". In addition, the information provided by the developer and the public information of the project evidence that what was reported in the MR "VCS MR ID2610 16082021_09082024V1.6_Clean" is traceable and credible. 5. Technical Review: February 5, 2025 Once the findings report was finalized, the technical review was responsible for issuing the final opinion on compliance with VCS requirements and current regulations in the country.
Double counting and participation under other GHG programs	The audit team verified, through public information (descriptive and cartographic) available on the platforms of Greenhouse Gas (GHG) certification programs such as Verra, BCR, Cercarbono and Gold Standard, as well as in the documents submitted by the PP, that the project has not incurred in double counting. This cross-assessment allowed demonstrating the project's compliance with VCS requirements as follows: 1. During this monitoring period, no double counting was in-curred, as the project is not registered under any other program.

	2. During this monitoring period, no double counting was incurred as the project had no spatial overlap with other GHG projects. 3. Since the project does not quantify GHG removals achieved during this period more than once, no double counting was incurred. Additionally, through stakeholder interviews, it was verified that the project has not been rejected by any other GHG program.
No double claiming with emissions trading programs or binding emission limits	The audit team verified, through documents, interviews with landowners and cross-checking information, that the project has not included emissions removals in the emissions trading program or in the binding emissions cap.
No double claiming with other forms of environmental credit	The audit team verified, through documents, interviews with owners, and cross-checked information, that the project has not sought, received, or plans to receive credits from another GHG-related environmental credit system.
Supply chain (scope 3) emissions double claiming	By reviewing Annex 7 of the MR and the website https://www.unitan.net/es-preservation.html, the audit team ensures that the project manager has published the required public statement indicating that carbon credits can be issued through the Verified Carbon Standard (VCS) for emissions removals associated with the proponent and relevant products. Furthermore, the PP indicated that no products have been generated during the recent monitoring periods. In the case of eucalyptus wood, once harvested, the company will use it internally for renewable energy generation, replacing the use of energy from the electricity grid. In this sense, the project activities do not affect the emissions footprint of any product that is part of the supply chain for this species. In the case of Schinopsis, it will be harvested for the tannin industry, owned by the project proponent. These products will subsequently be sold on the market.
Sustainable development contributions	The audit team verified the contribution to the following SDGs through the evidence declared by PP /107-155/. **SDG 4. Quality education** Goal: 4.7

Indicator: Participation through collaborations in activities driven by sustainable education to local communities

Current project contribution: Participation of local communities in 3 environmental activities (environmental education and planting day) led by the project was verified.

SDG 8. Decent work and economic growth

-Goal: 8.7

Indicator: 8.7.1 Proportion and number of children aged 5–17 years engaged in child labour, by sex and age

Current project contribution: No child labor in the project. The zero participation of children in tasks that promote child labor was verified.

-Goal: 8.8

Indicator: Level of compliance with national labor rights

Current project contribution: It was verified that 100% of jobs are in line with national regulations for labor rights.

SDG 11. Sustainable communities and cities

Goal: 11b

Indicator: Number of participants in activities to implement mitigation and adaptation measures to climate change in local communities

Current project contribution: It was verified that the project promoted community participation in a forestation day along green spaces close to the area of influence of the project, promoting a healthier and more sustainable environment.

SDG 13. Climate action

Goal: 13

Indicator: Tonnes of greenhouse gas emissions avoided or removed

Current project contribution: The removal of 49,694 tons of CO2 from the atmosphere was verified due to the implementation of afforestation and reforestation activities in the project areas during the monitoring period.

	SDG 15. Life of terrestrial ecosystems -Goal: 15.2 Indicator: Progress towards sustainable forest management: Areas with native species plantations (ha) Current project contribution: It was verified that during the monitoring period 42.7 hectares were forested exclusively with native species (*Schinopsis balansae*) -Goal: 15.2 Indicator: Progress towards sustainable forest management: Afforested areas (ha) Current project contribution: It was verified that during the monitoring period a total of 438.1 hectares were forested.
Additional information relevant to the project	During 2022 and 2023, forest fire events occurred /250-262/ affecting an eligible area of 239.62 and 8.38 hectares, respectively. Since the surface area was fully recovered (sprouts), there was no reversal in GHG removals; only the loss event was quantified.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	During the on-site visit, the audit team conducted 11 interviews (section 2.3) with the project's stakeholders, which are described in Annex 3 of the MR /185/. The interviews conducted covered the following typologies: neighbour/producer, local government, regional government, worker/contractor, educational/research institution, and project development team, so that a representative sample of the identified stakeholders was addressed. Annex 5 contains the respective assistance; the audit team has the recording record. The audit team also verified that the stakeholders identified in the monitoring period correspond essentially to those identified in the PD

	(Table 5), except for those persons who represented a public office and eventually changed.
Legal or customary tenure/access rights	The audit team verified the land ownership information for the project /60-68/ and corroborated the validated information, namely that the project activities are established on privately owned land and on a leased property (Sociedad Rural farm), which have a legal lease agreement between the parties /62-63//68/. Additionally, through interviews it was verified that during the monitoring period there were no land disputes or conflicts that put the ownership of the properties at risk, and it was also confirmed that the properties do not overlap with territories owned by Indigenous Peoples or others (local communities, holders of customary rights).
Stakeholder diversity and changes over time	The audit team verified that the stakeholders identified since the validation have not changed substantially, except for those government institutions that have changed their public officials due to their changeable nature throughout the change of government. As mentioned above, during this verification the audit team conducted interviews to address such updates to the stakeholders (section 1.3).
Expected changes in well-being	Through interviews with stakeholders, the audit team verified that during the monitoring period, project activities did not generate negative impacts on the well-being of the community. No complaints or conflicts were reported. On the contrary, stakeholders reported positive impacts from project activities: job creation and diversification, research into the afforestation of native species, perception of well-being thanks to forests in the environment, reflection on the phenomenon of climate change and productive activities that exacerbate it, interest in public policies framed in sustainability.
Location of stakeholders	The project stakeholders are in the provinces of Chaco and Formosa, Argentina. As shown in sections 2.3 and 2.4, the audit team travelled to the population centres closest to the project areas to conduct interviews with stakeholders: Pampa Almirón (Don Antonio farm), Margarita Belén (Sociedad Rural farm), Villa Dos Trece (Irineo), Puerto Tirol (Glombovski), Resistencia (capital of Chaco), and together with cartographic information /156-184/, verified the location of the stakeholders. In other words, it was possible to confirm that the location is consistent with the documentation provided.
Location of resources	The project areas are in the provinces of Chaco and Formosa, Argentina. This information was verified using cartography and visits

	to all the properties located in the provinces. Therefore, it is concluded that the information is consistent with that presented by the project developer.

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Ongoing consultation	Evidence of communication processes with stakeholders /202-219/ during the monitoring period was verified. This evidence includes press releases on activities carried out with the community, records of visits to the project area (Annex 4 of the MR), a summary of meetings with local and regional authorities, and a communication of the start of the verification process to stakeholders with a place for comments. Therefore, it is concluded that the process carried out and the documentation that supports it are transparent and reliable.
Date(s) of stakeholder consultation	The audit team verified the timing and frequency of the communications described in Annex 4 of the MR through the evidence provided /202-219/. In this way, it confirmed that the communication procedures have been frequent (approximately 3 communications per year) and are framed within the current monitoring period. Therefore, it is concluded that there are documentation and traceable dates.
Communication of monitored results	The audit team verified the occurrence of communications related to the project verification process through the evidence provided /213-219/. This evidence includes 7 official communications from the PP to the interested parties, indicating the project objectives, project activities, removals achieved, monitoring period and the occurrence of the 2nd verification audit by ICONTEC. Therefore, it is concluded that there are documentation and traceable dates.
Consultation records	The audit team verified all records related to communication with interested parties by reviewing the evidence provided /202-219/. This evidence includes communications addressed with signatures of receipt, communications by email with acknowledgement of receipt, published press releases and meeting minutes. Therefore, it is concluded that there is a complete record of the communications carried out.

Stakeholder input	It was verified that to respond to and manage the comments received during the consultation with the stakeholders on the expansion of synergies and feedback with the institutional stakeholders, the project has sought to maintain the cooperation agreements with research institutions /189-201/ such as INTA, UNAF, UNSE and IFA to work together on forestry issues. It was confirmed by the validity of these agreements that the project areas have been the site of study in the last 4 years.

ICONTEC considers that these consultation and feedback mechanisms with stakeholders guarantee their participation in the implementation of project activities. Stakeholder consultation is considered effective, as all interviewees acknowledge the project's implementation status, demonstrating that it is in line with VCS requirements.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	It was found that the FPIC does not apply, as there are no Indigenous Peoples, Local Communities or Customary Rights Holders in the project areas. Therefore, there is no room for consent agreements.
Outcome of FPIC discussion	It was found that the FPIC does not apply, as there are no Indigenous Peoples, Local Communities or Customary Rights Holders in the project areas. Therefore, there is no room for consent agreements.

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Grievance received and steps taken to resolve the grievance including the outcomes of the resolution	It was verified through interviews with stakeholders and the project proponent that no complaints were received during the monitoring period. In any case, to comply with section 3.18.4 of the VCS Standard v4.7, the PP will post resolved complaints on Unitan's website https://www.unitan.net/es-preservation.html.

Grievance redress procedure	The audit team verified the existence of a Complaints and Suggestions Procedure /186/ that details elements related to the scope, definitions, receipt of the complaint and management of complaints. ICONTEC concludes that the Complaints and Suggestions Procedure is adequate, as it ensures a legitimate, accessible, predictable, equitable, transparent and rights-respecting complaints process.

4.2.5 Public Comments

Comments received	Actions taken by the project proponent	Evidence gathering activities, evidence checked, and assessment conclusion
No comments were received during the public comment period on Verra´s webpage.	Not applicable	No reports of comments were found on the project platform during the monitoring period.
One interested party (a teacher) asked that the project further expand information and generate synergies with other actors	The project proponent has signed agreements with different research institutions such as INTA, UNAF, UNSE and IFA to work together on forestry matters.	The audit team verified that the project managed to establish cooperation agreements with research institutions during this monitoring period. Thus, the PP's willingness to address and manage new synergies is evident.

4.2.6 Risks to Local Stakeholders and the Environment

1.1.1.1 Management Experience

The audit team verified through the documentation provided and interviews with interested parties the information related to the experience and expertise of Unitán management team. The interested parties corroborated Unitán historical trajectory in the forestry industry of the region, the joint work with local communities, sustainable forest management and the implementation of GHG mitigation projects that include, among other activities, afforestation with native species. The specialized training and technical skills of Unitán's management team were verified through attached evidence /71-76/. Additionally, the institutional relationship capabilities and proactivity to involve local actors in the improvement of forest management were verified through agreements and synergies /189-201/.

ICONTEC believes that Unitán management team has the necessary experience and expertise to execute the reforestation and afforestation project under VCS standards. The organization's structure is solid and has a collaborative approach with the community.

1.1.1.2 Risk Assessment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Natural and human induced risks to stakeholders' wellbeing	During the interviews, the audit team did not identify other natural or man-induced risks to the well-being of the stakeholders. It was verified through the Forest Management and Establishment Plan /69/, Monitoring Plan /70/, Firefighting Equipment and Training /79-106/ and Labor Risk Matrix /77/, that the PP manages forestry implementation activities appropriately and in line with legal compliance, so that potential risks to workers and stakeholders such as neighbours or producers are minimized.
Risks to stakeholder participation	No risks were identified in terms of stakeholder participation, as the socialization and communication spaces /202-219/ show active participation. The interviews conducted indicate that stakeholders consider the mitigation project as a very beneficial opportunity.
Working conditions	During interviews with workers and contractor personnel, it was confirmed that the occupational risks identified by the PP coincide with those stated by the interested parties. The following risks were mainly mentioned: toxicity due to exposure to agrochemicals, insect and animal bites, injuries from handling tools or heavy machinery, and electrical risk. It should be noted that the occupational risks identified are related to accidental situations that can become more serious if the personal protection elements required for each activity are not used. The audit team verified that the PP has a risk assessment matrix /77/ in which the level of risk and the corrective and mitigation actions for each type of risk identified are rated. Additionally, evidence was provided of the occupational risk mitigation activities carried out during the monitoring period /95-106/, such as training in forest fire control and safe use of heavy machinery.
Safety of women and girls	During interviews with stakeholders, it was confirmed that there is no risk for women or girls. The project is being carried out in a rural area with low population density.

Safety of minority and marginalized groups, including children	During interviews with stakeholders, it was confirmed that there is no risk to the safety of minority and marginalized groups, including children. There are no minority or marginalized groups within the project areas, and the rural area where the project is located has a low population density.
Pollutants (air, noise, discharges to water, generation and release of hazardous materials and chemical pesticides and fertilizers	During the interviews conducted with workers and contractor personnel, it was confirmed that the contamination risks identified by the PP coincide with those expressed by the interested parties. The following contamination risks were mainly mentioned: accumulation of agrochemicals and rapid spread of fires through plantations. The audit team verified that the PP has a risk assessment matrix /77/ in which the level of risk and the corrective and mitigation actions for these types of risk are rated. It was found that the use and disposal of agrochemicals is described in the Forest Management and Establishment Plan and follows the regulations of national legislation /69/, there is an emergency procedure for forest fires /86/ and the elements required for fire control are available /79-93/.

4.2.7 Respect for Human Rights and Equity

1.1.1.3 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination	The project proponent implements, as part of its internal policies, procedures against discrimination. The detail of the related internal policies was reviewed in the Forest Management Plan /69/. During the interviews and communication with the stakeholders, no cases of cultural, racial or gender discrimination were reported.
Sexual harassment	The project proponent implements, as part of its internal policies, procedures against sexual harassment, following the provisions of national law. During the interviews and communication with the stakeholders, no cases of violence or sexual harassment were reported.
Gender equity in labor and work	In accordance with national laws related to labor rights, it was verified that the project proponent implements hiring procedures in favor of gender equity. While it is true that most forestry operational activities

	are carried out by men, due to the nature of heavy work in the field, no gender-biased behaviour was evident.
Forced labor	It was verified through interviews that project activities do not use victims of human trafficking and do not promote forced labor or child labor.
Child labor	It was verified through interviews that project activities do not use victims of human trafficking and do not promote forced labor or child labor.
Human trafficking	It was verified through interviews that project activities do not use victims of human trafficking and do not promote forced labor or child labor.

1.1.1.4 Human Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	Through the review of the project's cartography /156-184/, it was confirmed that the spatial boundaries of the farms where the project is being developed are owned by Unitán, except for one property that is leased /61-68/ and such boundaries do not overlap with other owners (indigenous peoples, peasant communities, etc.). Therefore, it was verified that the project activities do not have any negative impact and do not generate risks on the human rights of indigenous peoples or marginalized populations. People directly linked to the project also did not report violations of their human rights by the implementation of activities.

1.1.1.5 Indigenous Peoples and Cultural Heritage

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	Through the review of the project's cartography /156-184/, it was confirmed that the spatial boundaries of the farms where the project is being developed are owned by Unitán, with the exception of one farm that is being leased /61-68/ and these boundaries do not overlap with other owners (indigenous peoples, peasant communities, etc.) nor are they adjacent to territories with these

	characteristics. During the interviews, no evidence of conflicts of any kind with indigenous peoples or marginalized groups was presented. In other words, there is no record that the project activities have generated negative effects on these populations.

1.1.1.6 Property Rights

Risks identified	Evidence gathering activities, evidence checked, and assessment conclusion
No risk identified	Through the review of the project maps /156-184/, it was confirmed that the spatial boundaries of the farms where the project is being developed are owned by Unitán, with the exception of one farm that is leased /61-68/ and these boundaries do not overlap with other owners (indigenous peoples, peasant communities, etc.) nor are they adjacent to territories with these characteristics. During the interviews, no evidence of legal or land tenure conflicts with indigenous peoples or marginalized groups was presented. In other words, there is no record that the project activities have generated disputes over land tenure or related conflicts.

1.1.1.7 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	Not applicable as the project areas are privately owned, meaning there is no impact on property rights.
Benefit sharing during the monitoring period	Not applicable as the project areas are privately owned, meaning there is no impact on property rights.

4.2.8 Ecosystem Health

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	During the monitoring period, no risk to biodiversity and ecosystems was identified due to the implementation of the project. Through cartographic analysis /156-184/ it was verified that the project area

	does not involve or intervene in areas with native forests to establish forestry activities. On the contrary, the project converts areas formerly degraded due to intensive uses into areas to develop an ARR activity. It was cartographically corroborated that the biological corridors surrounding the project area have not been affected by ARR activities, which implies a high probability that the forest masses of the project area act as a refuge and safe passage for wildlife, since it is developed in areas of degraded land with agricultural potential.
Soil degradation and soil erosion	It was confirmed that ARR activities do not pose a risk of soil degradation or erosion. Although forestry activities include soil preparation, these activities do not pose a risk. On the contrary, it was confirmed on site that, once the plantation is established, favourable conditions are generated for the accumulation of organic matter in the soil, habitat for macroinvertebrates to reduce the risk of erosion or leaching.
Water consumption and stress	During the interviews, it was confirmed that the forest plantations have not negatively affected the historical hydrological cycle, and during the on-site visit, it was verified that there are no lagoons or watercourses in the plantation area where chemical carryover could occur.

1.1.1.8 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	It was verified in the IUCN red list that the endangered or critically endangered species correspond to: *Matilebias toba* – Critically Endangered (CR) –> Wetlands *Ctenomys bonettoi* – Edangered (EN) --> Shrublands
Areas needed for habitat connectivity	It was verified that the geographic distribution of these species is not limited to the project area.

	Evidence gathering activities, evidence checked, and assessment conclusion

Habitats for rare, threatened, and endangered species	Through historical cartographic review (Google Earth and Planet Explorer) it was verified that during the monitoring period no disturbances have been recorded on natural habitats or biological corridors located in areas adjacent to or near the project area. In any case, it was verified that the project area is not geographically limited to the distribution area of the habitats of rare, threatened or endangered species reported for the provinces of Chaco and Formosa.
Areas for habitat connectivity	Through the cartographic review of the project /156-184/ and the visit to the site, it was confirmed that the project areas correspond only to forest plantation areas. The relict forests and biological corridors are not located within the eligible area. Through the historical cartographic review (Google Earth and Planet Explorer) it was verified that these relict natural forests adjacent to the project area have not been affected or disturbed during the monitoring period by the implementation activities and do not correspond to habitats of rare or threatened species.

1.1.1.9 Introduction of Species

Species introduced	Evidence gathering activities, evidence checked, and assessment conclusion
Schinopsis balansae	There was no evidence in the field or through interviews of any adverse effects from the use of this species, since it is a native species of the region.
Eucalyptus hybrid (gxc)	It was verified that the species is not listed as an invasive species. Additionally, in accordance with the provisions of Resolution No. 31 of Law 25,080, the PP is responsible for non-native regeneration outside the boundaries of the plantation and, therefore, has a Management Plan /69/ that establishes actions for potential invasion events in neighbouring properties.
Eucalyptus various (*cloeziana* and *corymba*)	It was verified that the species is not listed as an invasive species. Additionally, in accordance with the provisions of Resolution No. 31 of Law 25,080, the PP is responsible for non-native regeneration outside the boundaries of the plantation and, therefore, has a Management Plan /69/ that establishes actions for potential invasion events in neighbouring properties.

Existing invasive species	Evidence gathering activities, evidence checked, and assessment conclusion
Not aplicabble	It was verified that no invasive species exist in the project area

	Evidence gathering activities, evidence checked, and assessment conclusion
Invasive species	It was verified that the implementation of ARR activities is not carried out with invasive species.

1.1.1.10 Ecosystem conversion

Item	Evidence gathering activities and evidence checked
Ecosystem conversion	Through analysis of satellite images from Google Earth and Planet Scope, it was verified that during the monitoring period there was no ecosystem conversion due to the implementation of project activities. In other words, the eligibility of the plantation areas complies with the VCS guidelines. In any case, it is worth highlighting that the validated eligibility analysis showed that a large part of the project's baseline coverage corresponded to coverage already transformed by intensive agricultural uses and not to natural forest ecosystems.

4.3 Accuracy of Reduction and Removal Calculations

During the review of the documents, the input data, parameters, equations, calculation methodologies, statistics, uncertainty management and output data were satisfactorily verified, ensuring the consistency of the project documents with the VCS program guidelines. The review of the quantification of removals and emissions included the reproduction of the calculations and the evaluation of the relevance of the parameters used, both through the carbon calculator provided by the proponent and by searching for and confirming secondary sources. Additionally, it was confirmed that the information from the monitoring period was consistent with the validated information and the deviations from the project description applied.

The precision and consistency of the ex-post quantification and of all the parameters evaluated during the audit was corroborated. The procedures to quantify the emission reductions and removals were carried out in accordance with the criteria established in the AR-ACM0003 Methodology v2.0.

Carbon pools and emission sources

Carbon pools selected to account for carbon stock changes must be at least aboveground biomass and belowground biomass, other pools are optional. It was verified that validated pools were included during the monitoring period.

Table 6. Carbon pools and emissions sources

	Sources	Gas	¿Included?	Justification/Explication
POOLS	Above-ground biomass	CO_2	Yes	This is the main carbon reservoir subject to the project activity, made up of forest plantations. The biomass quantification of this reservoir comes from forest inventory sampling
	Below-ground biomass	CO_2	Yes	Carbon stocks in this pool are expected to increase due to the implementation of the project activity. Belowground biomass field data is not collected and will be calculated using ABG biomass and root and shoot proportions.
	Soil organic carbon	CO_2	No	. Although it is expected to increase due to project activity it will be conservatively neglected.
	Dead wood	CO_2	No	Although expected to increase due to project activity, since it does not virtually exist in the pre-project situation, will not be accounted for.
	Litter	CO_2	No	Although expected to increase due to project activity, since it does not virtually exist in the pre-project situation, will not be accounted for.
SOURCES	Burning woody biomass	CO_2	No	Burning will not be part of project implementation.
		CH_4 and NO_2	Yes	Since a forest fire event occurred during the monitoring period, non-CO2 emissions were quantified.

Project data and parameters

The data and parameters used in the quantification of emissions and GHG emissions were corroborated by the cited sources of information. It was verified that the spreadsheet developed the mathematical procedures following the referenced parameters.

Table 7. Project data and parameters

Parameter	Species	Key data	Reference
Carbon fraction	All	0.47	IPCC "Good Practice Guidance for LULUCF". 2006. Table 4.3.
Biomass Expansion Factor (BEF)	*Eucalyptus*	1.15	IPCC "Good Practice Guidance for LULUCF". 2003. Table 3A.1.10. Annex 3A.1.
	Schinopsis balansae	2.00	Table 3A.1.10 of IPCC GPG-LULUCF 2003 for *Schinopsis*
Wood density (tn/m3)	*Eucalyptus hybrid*	0.549	Clone 44 and 78 Basic density average - Regional Nursery clone information sheet
	Eucalyptus various	0.549	Clone 44 and 78 Basic density average - Regional Nursery clone information sheet
	Schinopsis balansae	1.2	INTI-CITEMA wood density report for *Schinopsis balansae*
Root/Shoot Ratio (R)	Trees	R=e^(-1,085+0,9256*lnB)/B	CDM_AR_tool_14. "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities". Page 25
Factor C to CO2	All	3.67	CDM_AR_tool_12. "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities",Equation 12. Page 14.

Table 8. Allometric equations

Species	Volume and tree Biomass equations	Comments	Reference
Eucalyptus gxc	*VTREE (dm3) = exp(-3.11072 + 1.83316. LN(DBH)+ 1.07762 LN(H))*	Volume with bark	Glade, J. (1984)
Eucalyptus various	*VTREE (dm3) = exp(-3.11072 + 1.83316. LN(DBH)+ 1.07762 LN(H))*	Volume with bark	Glade, J. (1984)
Schinopsis balansae	*Biomass (kg)=0,05619*DBH^2,7152*	Total biomass dry weight	Atanasio, et al. 2013

The data and parameters used in the quantification of NON-CO2 emissions were corroborated by the cited sources of information. It was verified that the spreadsheet includes these parameters to estimate the NON-CO2 emissions produced by the forest fires that occurred during the monitoring period.

Table 9. Data and parameters of NON-CO2 emissions

Factor	Combustion parameters	Key data	Reference
COMFi	Combustion factor for stratum i; dimensionless	0.45	National GHG Emission Report for cultivated forests and based on IPCC 2006 Guidelines
EF CH4	Emission factor for CH4 in stratum i; g CH4 (kg dry matter burnt)-1	6.8	National GHG Emission Report for cultivated forests and based on IPCC 2006 Guidelines
GWP CH4	Global warming potential for CH4; dimensionless	21	Default value of 21 is used based on methodology tool
EF N2O	Emission factor for N2O in stratum i; g N2O (kg dry matter burnt)-1	0.2	The value used is 0.20, the value used in the National GHG Emission Report for cultivated forests and based on IPCC 2006 Guidelines as the case for methane emission factor
GWP N2O	Global warming potential for N2O; dimensionless	310	Default value of 310 is used based on methodology tool

a. Baseline emissions

In accordance with validated information and criteria in the IPCC Good Practice Guidance on Land Use, Land-Use Change and Forestry (2003), Chapter 3, the adequacy of the emission removals in the baseline was verified, i.e., that the sinks in this scenario are equal to zero.

Net GHG removals in the reference scenario were verified in accordance with the guidelines of the AR-ACM 0003 v.2.0 methodology, section 5.4, as follows:

$$\Delta C_{BSL,t} = \Delta C_{TREE\_BSL,t} + \Delta C_{SHRUB\_BSL,t} + \Delta C_{DW\_BSL,t} + \Delta C_{LI\_BSL,t}$$

$$= 0$$

Where,

$\Delta C_{BSL,t}$ = Baseline net GHG removals by sinks in year *t*; tCO_2-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 A/R CDM project activities"; tCO_2-e

= 0 (AR-TOOL 14 – Section 5)

$\Delta C_{SHRUB\_BSL,t}$ = 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"; tCO_2-e

= 0 (AR-TOOL 14 – Section 5)

$\Delta C_{DW\_BSL,t}$ = 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"; tCO_2-e

= 0 (carbon pool not included)

$\Delta C_{LI\_BSL,t}$ = 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"; tCO_2-e

= 0 (carbon pool not included)

b. Project emissions

According to the methodology, it was verified that during the monitoring period the net removals of GHGs in the included reservoirs were calculated following the equation:

$$\Delta C_{ACTUAL} = \Delta C_P - GHG_E$$

Where,

ΔC_{ACTUAL} = Actual net greenhouse gas removals by sinks; tCO2-e

ΔC_p = Sum of the changes in above-ground and below-ground tree biomass, dead wood, litter and soil organic carbon stocks in the project scenario; tCO2-e

GHG_E = Increase in GHG emissions because of the implementation of the proposed A/R CDM project activity within the project boundary; tCO2-e

Δ C_p: Sum of the changes in above-ground and below-ground tree biomass

According to the methodology, it was confirmed that the biomass estimation during the monitoring period was carried out using stratified samples; this considering that the biomass throughout the project areas is not distributed homogeneously. The stratification was carried out in terms of species, year of planting, planting density and occurrence of forest fires. In this way, it was verified that the changes in the carbon stock during the monitoring period were calculated as follows:

$$\Delta C_P = \Delta C_{TREE} + \Delta C_{DW} + \Delta C_{LI} + \Delta C_{SOC}$$

Where,

ΔC_p = Change in carbon stock in all selected carbon pools in the project scenario, tCO2-e

ΔC_{TREE} = Change in carbon stock in tree biomass in project, as estimated in the tool "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities"; tCO2-e

ΔC_{DW} = Change in carbon stock in dead wood biomass in project, 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"; tCO2-e

= 0 (carbon pool not included)

ΔC_{LI} = Change in carbon stock in litter biomass in project, 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"; tCO2-e

= 0 (carbon pool not included)

ΔC_{SOC} = Change in carbon stock in SOC in project, in areas of land meeting the applicability conditions of the tool "Estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities", as estimated in the same tool; tCO2-e

= 0 (carbon pool not included)

Since dead wood, litter and soil organic carbon pools are not included, changes in carbon stock correspond to:

$$\Delta C_P = \Delta C_{TREE}$$

ΔCp = 54,149 tCO2e (before substracting project emissions)

Where,

$$\Delta C_{TREE} = C_{TREE,t_2} - C_{TREE,t_1}$$

ΔC_{TREE} = 65,485 tCO2e (carbon stock of this verification) – 11,335 tCO2e (carbon stock 1st monitoring) = 54,149 tCO2e (before substracting project emissions)

Where,

$C_{TREE,t1}$ = Carbon stock in trees as estimated at time t1; t CO2e

$C_{TREE,t2}$ = Carbon stock in trees as estimated at time t2; t CO2e

The carbon stock in aboveground and belowground biomass was estimated according to AR TOOL 14 "Carbon stock estimation and change in carbon stocks of trees and shrubs in the A/R CDM project activity Version 4.2". During the on-site visit, it was confirmed that the carbon estimates in trees were based on DBH and HT measurements (monitored parameters) within each forest inventory sampling unit. The method used to estimate the change in carbon stocks in trees is found in section 8.1.1 of the tool "Difference of two independent stock estimates", using the estimate based on 399 plots from a stratified random sampling.

Using the parameters in Table 7, Table 8 and Annex 1 (Plot biomass measurement methods) of AR-TOOL 14, the biomass per plot was estimated (see procedure below); by applying the conversion parameters to tCO2e, a carbon stock of 61,156 tCO2e was verified at the end of the monitoring period.

$$b_{TREE,p,i} = \frac{B_{TREE,p,i}}{A_{PLOT,i}}$$

$$B_{TREE,p,i} = \sum_{j} B_{TREE,j,p,i}$$

$$B_{TREE,j,p,i} = \sum_{l} B_{TREE,l,j,p,i}$$

Where,

$b_{TREE\ p,l}$ = Tree biomass per hectare in sample plot *p* of stratum *i*; t.d.m. ha^{-1}

$B_{TREE\ p,l}$ = Tree biomass in sample plot *p* of stratum *i*; t.d.m.

$A_{PLOT\ l}$ = Size of sample plot in stratum i; ha

$B_{TREE\ j,p,l}$ = Biomass of trees of species j in sample plot p of stratum i; t.d.m.

$B_{TREE\ l,j,p,l}$ = Biomass of tree l of species j in sample plot p of stratum i; t.d.m.

Tree biomass (BTREE) is estimated to use:

$$B_{TREE,l,j,p,i} = f_j(x_{1,l}, x_{2,l}, x_{3,l}, \ldots) \times (1 + R_j)$$

$$B_{TREEj,p,i,t} = V_{TREEj,p,i,t} * D_J * BEF_{2,J} * (1 + R_J)$$

Where:

$B_{TREE,j,p,i,t}$ = Biomass of tree of species j in sample plot p of stratum i, at mid-2021

f_j = Above-ground biomass of the tree returned by the allometric equation for species j relating the measurements of tree l to the above-ground biomass of the tree; t d.m.

Rj = Root shoot ratio for tree species j;dimensionless

The value of R_j is estimated as:

$$R_j = \frac{e^{(-1.085+0.9256\times \ln b)}}{b}$$

Where b is the above-ground tree biomass per hectare (in t.d.m.ha^{-1}), unless transparent and verifiable information can be provided to justify a different value.

Note, if trees have grown as coppice regeneration after a harvest, then the value of R_j should be multiplied by a factor equal to $V_{harvest}/V_{tree}$ or 1, whichever is greater, where $V_{harvest}$ is the volume per hectare of trees harvested and V_{tree} is the volume per hectare of trees standing in the plot at the time of measurement

$V_{TREE,j,p,i,t}$ = Stem volume of tree species using field measurements of tree parameters (DBH, neck diameter, height), default values (tree shape factor) and complemented with data processing (interpolation of non-measured heights); m3.

Mean tree biomass per hectare in a stratum (b_{TREE}) and the associated variance (si^2) was estimated as follows:

$$b_{TREE,i} = \frac{\sum_{p=1}^{n_i} b_{TREE,p,i}}{n_i}$$

$$s_i^2 = \frac{n_i \times \sum_{p=1}^{n_i} b_{TREE,p,i}^2 - \left(\sum_{p=1}^{n_i} b_{TREE,p,i}\right)^2}{n_i \times (n_i - 1)}$$

Where,

$b_{TREE\ p,l}$ = Tree biomass per hectare in plot p of stratum i; t.d.m. ha-1

n_i = Number of sample plots in stratum i

S_i^2 = Variance of mean tree biomass per hectare in stratum i; (t d.m. ha-1)

Mean carbon stock in trees within the tree biomass estimation strata and the associated uncertainty was estimated as follows:

$$C_{TREE} = \frac{44}{12} \times CF_{TREE} \times B_{TREE}$$

$$B_{TREE} = A \times b_{TREE}$$

$$b_{TREE} = \sum_{i=1}^{M} w_i \times b_{TREE,i}$$

$$u_C = \frac{t_{VAL} \times \sqrt{\sum_{i=1}^{M} w_i^2 \times \frac{s_i^2}{n_i}}}{b_{TREE}}$$

Where,

C_{TREE} = Carbon stock in trees in the tree biomass estimation strata; tCO2-e

CF_{TREE} = Carbon fraction of tree biomass; t C (t.d.m)-1

A default value of 0.47was used.

B_{TREE} = Tree biomass in the tree biomass estimation strata; t.d.m

A = Sum of areas of the tree biomass estimation strata; ha

b_{TREE} = Mean tree biomass per hectare in the tree biomass estimation strata; t.d.m ha-1

w_i = Ration of the area of stratum i to the sum of areas of tree biomass estimation strata (i.e. wi=Ai/A); dimensionless

b_{TREEi} = Mean tree biomass per hectare in stratum i; t.d.m. ha-1

Uc = Uncertainty in CTREE

T_{val} = Two-sided Student's t-value for a confidence level of 90 percent and degrees of freedom equal to n-M, where n is total number of sample plots within the tree biomass estimation strata and M is the total number of tree biomass estimation strata

s_i^2 =Variance of tree biomass per hectare across all sample plots in stratum i; (t.d.m. ha-1) ^2

n_i = Number of sample plots in stratum i

Table 10. Stock ERR monitoring period II by stratum (tCO2e) before forest fire discount

Planta-tion Year	Species	Stratum	Eligible area (ha)	Biomass (AGB+BGB) tonnes/ha	AGB+BGB in the stratum (tonnes/Stratum)	Stock ERR monitoring pe-riod II (tCO2e)/stra-tum)
2016	Eucalyptus hybrid	1	57.1	**130.7**	7,459	12,855
2017	Eucalyptus hybrid	2	3.8	**80.2**	305	525
2018	Eucalyptus hybrid	3.1	99.6	**63.9**	6,357	10,955
2018	Eucalyptus hybrid	3.2	19.1	**77.2**	1,473	2,539
2019	Eucalyptus hybrid	4	63.8	**62.1**	3,965	6,833
2020	Eucalyptus hybrid	5	189.2	**34.5**	6,537	11,266
2021	Eucalyptus hybrid	6.1	182.3	**13.7**	2,490	4,291
2021	Eucalyptus hybrid	6.2	12.1	**24.1**	2,91	502
2022	Eucalyptus hybrid	7.1	149.3	**6.8**	1,021	1,759
2022	Eucalyptus hybrid	7.2	6.9	**14.0**	97	167
2023	Eucalyptus hybrid	8.1	42.1	**1.1**	47	81
2023	Eucalyptus hybrid	8.2	5.2	**0.9**	5	8
2024	Eucalyptus hybrid	9	0.0	**0.0**	0	0
2025	Eucalyptus hybrid	10	0.0	**0.0**	0	0
2016	Eucalyptus various	11	0.0	**0.0**	0	0
2018	Eucalyptus various	12.1	48.6	**58.1**	2,825	4,868
2018	Eucalyptus various	12.2	6.2	**36.5**	225	388
2016	Schinopsis balansae	13	72.9	**1.3**	94	162
2017	Schinopsis balansae	14	21.6	**8.1**	175	301
2018	Schinopsis balansae	15	9.2	**2.4**	22	39
2019	Schinopsis balansae	16.1	41.5	**2.8**	118	203
2019	Schinopsis balansae	16.2	2.5	**7.9**	19	33
2020	Schinopsis balansae	17	20.1	**0.4**	7	13
2021	Schinopsis balansae	-	0.0	**0.0**	0	0
2022	Schinopsis balansae	19	22.1	**0.4**	8	14
2023	Schinopsis balansae	20	21.3	**0.0**	1	1
2024	Schinopsis balansae	21	0.0	**0.0**	0	0
2025	Schinopsis balansae	22	0.0	**0.0**	0	0
2021	Euca/Quebracho 1125	23.1	10.1	**28.3**	286	494
2021	Euca/Quebracho 1000	23.2	1.7	**23.3**	39	67
2022	Eucalyptus hybrid 2017 regrowth	24	41.0	**23.9**	978	1,686
2022	Eucalyptus hybrid 2018 regrowth	25.1	17.9	**32.7**	585	1,007
2022	Eucalyptys hybrid 2018 regrowth (5000)	25.2	10.7	**24.0**	257	443
2022	Eucalyptus various 2018 regrowth	26	15.5	**17.9**	276	476
2022	Eucalyptus hybrid 2019 regrowth	27	123.6	**12.0**	1,488	2,565

Planta-tion Year	Species	Stratum	Eligible area (ha)	Biomass (AGB+BGB) tonnes/ha	AGB+BGB in the stratum (tonnes/Stratum)	Stock ERR monitoring pe-riod II (tCO2e)/stra-tum)
2022	Eucalyptus hybrid 2021 regrowth	28	31.1	**13.6**	424	730
2023	Eucalyptus hybrid 2018 regrowth	29	8.4	**14.8**	124	214
		TOTAL	**1,356.2**	**818**	**37,999**	**65,485**

GHG_E: Increase in GHG emissions because of the implementation of the proposed A/R CDM project activity within the project boundary

In line with the forest fire event (loss event) that occurred on January 13th, 2022, and February 7th, 2023, the quantification of NON-CO2 GHG emissions from the project was verified based on the tool "Estimation of non-CO2 GHG emissions resulting from biomass burning attributable to a CDM A/R project activity" Version 4.0 (Equation 6 and 7).

$$GHG_{FF,t} = GHG_{FF\_TREE,t} + GHG_{FF\_DOM,t}$$

Where,

$GHG_{FF,t}$ = Emission of non-CO2 GHGs resulting from forest fire, in year t; t CO2-e

$GHG_{FF\_TREE,t}$ = Emission of non-CO2 GHGs resulting from the loss of aboveground biomass of trees due to forest fire, in year t; t CO2-e

$GHG_{FF\_DOM,t}$ = Emission of non-CO2 GHGs resulting from the loss of dead organic matter due to forest fire, in year t; t CO2-e

= 0 (dead wood is not included)

The PP performed a fire severity analysis based on the normalized burn rate (NBR). The NBR is an index designed to highlight burned areas in large fire zones. The formula combines the use of near-infrared (NIR) and short-wave infrared (SWIR) wavelengths. A high NBR value indicates healthy vegetation, while a low value indicates bare ground and recently burned areas. Unburned areas are typically attributed to values close to zero. The difference between the pre- and post-fire NBR obtained from the images is used to calculate the delta NBR (dNBR or ΔNBR). A higher dNBR value indicates more severe damage, while areas with negative dNBR values may indicate regrowth after a fire. In this line, the audit team verified the satellite analysis carried out and confirmed that the total affected area was 239.62 ha (2022) + 8.38 ha (2023), which represents a loss of 3,041.82 tCO2, equivalent to 26.83% of the ERR verified for the monitoring period from September 16, 2016, to August 15, 2021 (monitoring period I). The details of the affected areas are presented below:

Table 11. Loss event detail

Species	Year	Original stratum (Validation)	New stratum (Monitorig period II	$A_{BURN, i, t}$ (ha)	AGB verified in monitoring report I	
					$B_{TREE, i, tL}$ (tdm/ha) only ABG	AGB (tdm) verified burnt
Eucalyptus gxc	2017	2	24	40.95	11.04	452.15
	2018	3	25	28.56	71.11	2,621.80
			29	8.38		
	2019	4	27	123.57	30.73	3,685.16
Eucalyptus varios	2021	6	28	31.12	-*	-*
	2018	12	26	15.45	21.11	312.81

*Taking into account that 1) tL = 2021 is the year in which the last verification was carried out before the occurrence of the fire and that 2) the stratum was established after the monitoring period I, the value bTREE i,tL does not apply, since the average aboveground biomass of the trees per hectare in the previous monitoring is not known.

It was verified that the non-CO2 GHG emissions resulting from the loss of aboveground tree biomass due to the wildfire were calculated using the aboveground biomass of the relevant strata at the last verification (see Table 11) and a combustion factor (Table 9):

$$GHG_{FF\_TREE,t} = 0.001 * \sum_{i=1}^{M} A_{BURN\,i,t} * b_{TREE\,i,t_L} * COMF_i * \left(EF_{CH4,i} * GWP_{CH4} + EF_{N2O,i} * GWP_{N2O}\right) \quad (7)$$

Where,

$GHG_{FF\_TREE,t}$ = Emission of non-CO2 GHGs resulting from the loss of aboveground biomass of trees due to forest fire, in year t; t CO2-e

$A_{BURN,i,t}$ = Area burnt in stratum i in year t; ha

The area burnt was measured using GIS data based on the identified area after the fire event, adjusted based on the area affected identified during the forest inventory.

$b_{TREE\,i,tL}$ = Mean aboveground tree biomass per hectare in stratum i in year tL, which is the year in which last verification was carried out before occurrence of the fire (monitoring period I); t d.m. ha-1

$COMF_i$ = Combustion factor for stratum i; dimensionless.

The value used is 0.45, the value used in the National GHG Emission Report for cultivated forests and based on IPCC 2006 Guidelines.

$EF_{CH4,I}$ = Emission factor for CH4 in stratum i; g CH4 (kg dry matter burnt)-1

The value used is 0.68, the value used in the National GHG Emission Report for cultivated forests and based on IPCC 2006 Guidelines.

$GWP_{CH\ 4}$ = Global warming potential for CH4; dimensionless

Default value of 21 is used based on methodology tool.

$EF_{N\ 20,I}$ = Emission factor for N2O in stratum i; g N2O (kg dry matter burnt)-1

The value used is 0.20, the value used in the National GHG Emission Report for cultivated forests and based on IPCC 2006 Guidelines as the case for methane emission factor.

$GWP_{N\ 20}$ = Global warming potential for N2O; dimensionless

Default value of 310 is used based on methodology tool.

I = 1, 2, 3 … M strata

T = 1, 2, 3, … years elapsed since the start of the project activity

The non-CO2 GHG emissions resulted as follows:

$$GHG_{FF,t} = GHG_{FF\_TREE,t} + GHG_{FF\_DOM,t}$$

$GHG_{FF,t}$ = 126.43 tCO2

In this regard, the actual net GHG removals during the monitoring period were as follows:

$$\Delta C_{ACTUAL} = \Delta C_P - GHG_E$$

ΔC_{ACTUAL} = 54,149 tCO2e – 126.43 tCO2e

= 54,023 tCO2e

c. Leakage emissions

According to the tool "Estimation of the increase in GHG emissions attributable to the displacement of pre-project agricultural activities in a CDM A/R project activity" v.2, the leakage emissions attributable to the displacement of grazing activities under the following conditions are considered negligible and are therefore counted as zero:

a. Animals are moved to existing grazing land and the total number of animals on the receiving grazing land (displaced and existing) does not exceed the carrying capacity of the grazing land;

b. Animals are moved to existing ungrazed pastures and the total number of displaced animals does not exceed the carrying capacity of the receiving pastures;

c. Animals are moved to cropland that has been abandoned in the last five years;

d. Animals are moved to forest land and there is no tree felling or reduction in tree and shrub canopy cover due to the displaced animals;

e. Animals are moved to a zero-grazing system.

The audit team confirmed that condition "a" applies to the Unitán Project. It was verified by reviewing the baseline analysis that livestock is the most predominant activity, which was corroborated on site. On the other hand, the fact that the total eligible area of the project is not completely forested in the same year (the first areas were planted in 2016 and the last will be in 2025), implies that the movement of livestock to other grazing lands is done gradually, based on the staggered annual planting plan and, therefore, does not exceed the carrying capacity of the receiving grazing lands. It should be noted that the type of production carried out in this region is extensive, which justifies the justification that livestock moved to areas without forest plantations or to neighbouring farms does not exceed the carrying capacity. Livestock moved due to project activities can be in pastures within the same property or in other grazing farms owned by Unitán, but always outside the project boundary.

In accordance with the AR-ACM 0003 v.2.0 methodology (section 5.6), the audit team confirmed that since the project activity does not foresee any displacement of agricultural activities present in the project boundaries before the start of the project, emissions from leakage meet the criteria to be considered negligible and were therefore accounted for as zero, as follows:

$$LK_t = LK_{AGRIC,t} = 0$$

Where,

LKt = GHG emissions due to leakage, in year *t*; tCO_2-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 displacement of pre-project agricultural activities in A/R CDM project activity"; tCO_2-e

d. Quantification of GHG emission reduction and removals

The audit team verified that net GHG removals by sinks were calculated as actual net GHG removals by sinks minus baseline net GHG removals, minus leakage. The following formula was used to calculate net GHG removals by sinks from an A/R project activity (tCO2-e):

$$C_{AR-CDM} = \Delta C_{ACTUAL} - \Delta C_{BSL} - LK$$

= 54,023 tCO2e

Where:

$C_{AR\text{-}CDM}$ = Net anthropogenic GHG removals by sinks; tCO_2-e

ΔC_{ACTUAL} = Actual net GHG removals by sinks; tCO_2-e

ΔC_{BSL} = Baseline net GHG removals by sinks; tCO_2-e

= 0

LK = Total GHG emissions due to leakage; tCO_2-e

= 0

Table 12. GHG emissions removal during the monitoring period

Vintage period	Baseline emissions (tCO_2e)	Project emissions (tCO_2e)	Leakage emissions (tCO_2e)	Buffer pool allocation (tCO_2e)	Reductions VCUs (tCO_2e)	Removals VCUs (tCO_2e)	Total VCU issuance (tCO_2e)
16-Aug-2021 to 31-Dec-2021	0	-6,806	0	1,838	0	-6,806	4,967
01-Jan-2022 to 31-Dec-2022	0	-18,006	0	4,862	0	-18,006	13,144
01-Jan-2023 to 31-Dec-2023	0	-18,133	0	4,896	0	-18,133	13,236
01-Jan-2024 to 09-Aug-2024	0	-11,078	0	2,992	0	-11,078	8,086
Total	**0**	**-54,023**	**0**	**14,588**	**0**	**-54,023**	**39,433**

ICONTEC considers that the calculation procedure was presented clearly and consistently in the spreadsheets attached by the proponent. The equations used in the spreadsheets are consistent with the information described in the Monitoring Report, the validated Project Document and the methodological guidelines. Therefore, the GHG removals achieved during the monitoring period are accurate and realistic.

4.4 Quality of Evidence to Determine Reductions and Removals

The details of the data and parameters used to calculate the removals of GHG emissions can be found in Section 4.3 of this report.

ICONTEC considers that the documentation provided by the proponent is sufficient and of quality, which supports the quantification of the removals of GHG emissions during the monitoring period. Through the on-site visit and remeasurement of the plots, the assurance and quality control of the technical procedures that support the accuracy of the data recorded and monitored, as well as the results of the carbon modelling and estimation, were corroborated. The calculation procedures applied did not incur

material errors that put carbon accounting at risk; typing errors and some mathematical operations were corrected at the request of the audit team and appropriately corrected by the project proponent.

It was verified that the activity data, recorded and monitored, are the result of professional and technical experience in the field, and are aligned with the procedures established in the project Monitoring Plan. The information collected is digitalized, reviewed and incorporated into a project database, categorized by type (cartography, measurements and quantification, monitoring report, etc.). During the documentary and field review, it was verified that all the information is georeferenced and systematized within the GIS. The digital files are stored in an electronic folder on the UNITÁN and ProSustentia server and will be kept for the entire life of the project, as well as for at least two years after the end of its accreditation period, in accordance with the VCS Standard.

4.5 Non-Permanence Risk Analysis

ICONTEC successfully verified the development of the non-permanence risk assessment tool AFOLU v4.2 of the VCS Standard. The risk rating is associated with the assessment of the current monitoring period and must be re-evaluated at each verification event. The rating obtained (27%) was credible, transparent and sufficiently documented, as well as being consistent with the discount value applied to the net GHG removals for the monitoring period. The assessment of internal, external and natural risks is detailed below, along with the respective associated rating.

Table 13. Non permanence risk analysis

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
INTERNAL RISK = 16		
Project Management = 0		
Q1	It was verified that the existence of an adaptive management plan that includes a monitoring plan was verified /69-70/. = Yes	Risk rating is appropriate
Q2a	The planted species (where applicable), which are associated with more than 25% of the assets for which greenhouse gas (GHG) credits have been issued, are not native but are adapted to the project region = 0	Risk rating is appropriate
Q2b	The project is implemented entirely on privately owned land, with clear legal titles and no evidence of land use conflicts or encroachment by neighbouring communities /60-68/ = 0	Risk rating is appropriate
Q2c	The project management team demonstrates substantial experience in forestry and land management. Curriculum vitae and	Risk rating is appropriate

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
	professional records were reviewed /71-76/ and found to be credible and comprehensive = 0	
Q2d	Unitán´s regional headquarters are based near the project areas. Puerto Tirol´s headquarter in Chaco, is located between less than 30 minutes and 1 and 30 minutes away by car from Unitán Project plots in that province. In the case of the one located in Formosa City, Formosa, it takes 2hs by car to reach the project´s properties = 0	Risk rating is appropriate
Q2e	The management team did not submit a loss report within two years of detecting a loss event = 2	Risk rating is appropriate
Q3h	The management team was verified to include individuals with significant experience (i.e., more than five years) in the design and implementation of AFOLU projects, carbon accounting, and reporting under the VCS Program or other approved GHG programs /71-76/ = -2	Risk rating is appropriate
Financial Viability = 1		
Q1d	A payback period within the range of 7 to 10 years was verified, as detailed in the financial model provided in the file /263/ = 1	Risk rating is appropriate
Q2i	Unitán is the only investor in the project and has secured more than 80% of the funding needed before reaching breakeven for the project. This is done through the revenues of the industries related to the company (tannin industry). Moreover, Unitán is currently the owner of more than 70% of the lands expected to cover the whole project area /263/ = 0	Risk rating is appropriate
Q3	It is verified that the project has at least 80 percent of the total cash available, as demandable and guaranteed financial resources, before the project reaches the break-even point /263/ = 0	Risk rating is appropriate
Opportunity Cost = 0		
Q1	The project proponent indicated that baseline activities are not subsistence-driven = No	Risk rating is appropriate
Q2f	Extensive livestock farming was found to be the main alternative land-use activity within the project boundaries. However, given the	Risk rating is appropriate

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
	limitations on agricultural activity due to soil quality and the strong regional presence of perennial forage crops on agricultural land, explained by livestock farming, the NPV of project activities is expected to be more than 50% more profitable than that of the most profitable alternative land-use activity /263/ = -4	
Q3	The answer to question 1 is 'No', as the baseline activities are not subsistence-driven, so this section is not applicable = N/A	Risk rating is appropriate
Q4i	The project intends to continue management practices that protect accredited carbon stocks throughout the project's accreditation period = 0	Risk rating is appropriate
Project longevity = 15		
Q1	The project applied for registration before January 1, 2024. Evidence of registration may be found on the VCS Project Registry (https://registry.verra.org/) = No	Risk rating is appropriate
Q2	It has been verified that the project does not have a legally binding agreement covering at least a 100-year period from its start date = No	Risk rating is appropriate
Q3	The project's useful life is 40 years = 40	Risk rating is appropriate
Q4	The project proponent submitted a comprehensive Business Plan /263/ outlining the project's financial structure, implementation strategy, and long-term sustainability. A detailed Monitoring Plan /69-70/ was also provided, outlining procedures for monitoring project performance and maintaining carbon stocks = Yes	Risk rating is appropriate
Q5	The project was verified as an ARR with harvesting activities = Yes	Risk rating is appropriate
Q6	It was verified that the project has a management plan that guarantees commitment to establishment, management and replanting /69/ = Yes	Risk rating is appropriate
Q7b	There is a legal agreement in place to continue the management practice given the project´s participation in Law 25080 forestry promotion for the whole rotation period of the project´s plantations in place (more than 40 years) = 15	Risk rating is appropriate

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
Q8	The audit team confirmed that the project is not a grouped project = No Not applicable	Risk rating is appropriate
EXTERNAL RISK **Land Tenure (Ownership) and Resource Access or Impacts = 0**		
Q1	The project proponent confirmed that due process was undertaken to identify and resolve any existing or potential disputes concerning land tenure, access to resources, or usage rights /60-68/ = Yes	Risk rating is appropriate
Q2	Unitán currently owns more than 70% of the land in the project area and has documents proving its ownership. The remaining 30% of the land is leased, with lease agreements in place that guarantee the right to control and operate project activities /60-68/ = Yes	Risk rating is appropriate
Q3a	Ownership and resource access or use rights are held by the Unitán /60-68/ = 0	Risk rating is appropriate
Q4e	There is no evidence of expropriations affecting private rural lands with valid property titles, such as those in the project area. Furthermore, interviews with project staff and consultations with our local specialist confirmed that there has been no government intervention in the past 20 years = 0	Risk rating is appropriate
Q5h	Through on-site interviews with stakeholders, attestations from the project team and document review /60 – 68/ the audit team confirmed that no land tenure or ownership disputes exist in the project area = 0	Risk rating is appropriate
Q6k	Through on-site interviews with stakeholders, project team statements and document review /60 – 68/ the audit team confirmed that there are no disputes regarding access to or use of resources in the project area = 0	Risk rating is appropriate
Q7m	The project does not implement WRC activities = 0	Risk rating is appropriate

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
Q8	None of the mitigations apply to the project = 0	Risk rating is appropriate
Stakeholder Engagement = 0		
Q1	The project proponent confirmed that local populations, including those living within the project area and within a 20 km radius, do not rely on the project area for their livelihoods or subsistence needs = No	Risk rating is appropriate
Political Risk = 0		
Q1c	The audit team independently recalculated Argentina's governance score and confirmed that the value presented by the PP = -0.14 /264/ is consistent = 2 The latest available information for 2022 was used in the 2023 update report https://www.govindicators.org/sites/default/files/2023-08/wgidataset.xlsx Source: https://info.worldbank.org/governance/wgi/Home/Reports	Risk rating is appropriate
Q2f	The validation team reviewed Argentina's NDC submission, the full text of Law No. 27.520, and official government publications outlining national climate strategies /277-279/. The documentation was found to be credible, current, and sufficient to support the project proponent's claims. The legal and policy instruments reviewed clearly demonstrate Argentina's commitment to supporting AFOLU projects as part of its national climate agenda = -2	Risk rating is appropriate
NATURAL RISK = 10.20		
Fire	Fire history records, spatial analysis, and secondary sources used were reviewed /269 – 273/, and it was determined that the records are accurate and consistent with the project's fire mitigation strategy /78 – 93/. Given the increase in fire frequency, it was verified that LS increased from 2 to 5, compared to the previous verification evaluation. LS= 5	Risk rating is appropriate

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
	M= 0.5 LS x M = 2.5	
Pest and disease outbreaks (PD)	In accordance with the project's management and monitoring plan /69 – 70/, continuous recording of various variables, such as the phytosanitary status of plantations and planting material, is carried out to detect the spread or potential spread of diseases or pest attacks. While climate change has observed changes in pest distribution and disease outbreaks, these events are controlled in accordance with the management plan. The rationale for species selection, ecological studies, and scientific literature /14-15/ /266-267/ were reviewed and found to be scientifically sound and well-founded. LS = 4 M = 0.5 LS x M = 2	Risk rating is appropriate
Extreme weather (W)	Records of extreme events and historical disasters in Argentina's provinces were reviewed and found to be reliable /268/. Mitigation measures to counteract these events are linked to the plantation management plan /69/. LS= 4 M = 1 LS x M = 4	Risk rating is appropriate
Geological risk (G)	No carbon stock losses expected to be caused by geological risks LS = 0 M = 0 LS x M = 0	Risk rating is appropriate
Future Climate Impact	The audit team reviewed /266-272/ the project's submission and a sample of references to support their claims about the impacts on mean air temperature, extreme heat, cold spells, mean precipitation, soil moisture, agricultural and ecological drought and fire weather.	Risk rating is appropriate

Risk	Assessment of Rationale, Assumptions, and Justification	Conclusion Risk Rating
	The documents provided were from peer-reviewed journals and are therefore seen as high-quality.	

OVERALL NON-PERMANENCE RISK RATING AND BUFFER DETERMINATION		
Internal Risk = 16	Project Management	0
	Financial Viability	1
	Opportunity Cost	0
	Project Longevity	15
External Risk = 0	Land Tenure (Ownership) and Resource Access or Impacts	0
	Stakeholder Engagement	0
	Political Risk	0
Natural Risk = 10.2	Projected Future Climate Impact on Natural Risk	10.2
Overall Risk Rating	**27%**	

It was verified that the project had presented a risk assessment of 27%. This translates into a total of 13,417 credits, which will be deposited in the AFOLU account.

ICONTEC satisfactorily verified the risk assessment for the current monitoring period, considering that it is consistent with the supporting documentation provided by the project proponent. The conformity of the assumptions and justifications used to determine the risk rating for each factor is based on documentary support using conservative methods.

5 VERIFICATION OPINION

5.1 Verification Summary

ICONTEC has verified that “Unitán Afforestation and Reforestation of grazing lands project” is fully compliant with the VCS Standard v4.7, without any qualifications or limitations. The implementation of the project during the monitoring period has been carried out as described in the validated Project Document, considering the deviations to the project design assessed.

UNITÁN, the project proponent, has demonstrated that the monitoring plans are aligned with the validated description and requirements of the VCS. The findings of this verification report indicate that the project complies with the scope and applicable criteria (section 1.2 of this report).

The review of the Monitoring Report, together with the supporting documents and the interviews conducted, have provided ICONTEC with sufficient evidence to perform a positive verification. The audit was carried out by evaluating the compliance of the GHG mitigation project with the requirements,

principles and criteria of ISO 14064-2:2019, ISO 14064-3:2019, ISO 14065:2020 and ISO/IEC 17029:2019 standards.

5.2 Verification Conclusion

ICONTEC ensured compliance with the requirements of ISO 14064-3:2019, ISO 14065:2020 and ISO/IEC 17029:2019. Consequently, a materiality of 5% was applied in accordance with the requirements of the VCS v4.7 standard.

Considering all the elements collected during the strategic analysis of the project and the evaluation carried out throughout the audit, ICONTEC concludes that:

- The analysis procedures are representative.
- The evidence collected is adequate and sufficient to support a conclusion on the verification process.

A positive verification opinion is issued for 54,023 tCO2e in GHG emission removals associated with the monitoring period of August 16, 2021, to August 9, 2024. The overall non-permanence risk rating for this period was 27%, resulting in a total of 14,588 reserve credits to be deposited into the AFOLU pooled reserve account.

Verification period: From 16 August 2021 to 09 August 2024

Verified GHG emission reductions and carbon dioxide removals in the above verification period:

The non-permanence risk rating (%)	27
If applicable, the Long-term Average (LTA), whether it has been properly updated, and if it has been reached.	120,432 tCO2e Due to deviations from the project design described in section 3.2, the LTA was successfully updated. During this verification the removals achieved were lower than the LTA.
Whether a loss has been appropriately accounted for, in accordance with the VCS Program rules, if applicable.	As described in section 4.3, the PP developed procedures associated with the wildfire loss event in accordance with the VCS program rules.

Vintage period	Baseline emissions (tCO2e)	Project emissions (tCO2e)	Leakage emissions (tCO2e)	Buffer pool allocation (tCO2e)	Reductions VCUs (tCO2e)	Removals VCUs (tCO2e)	Total VCU issuance (tCO2e)
16-Aug-2021 to 31-Dec-2021	0	-6,806	0	1,838	0	-6,806	4,967
01-Jan-2022 to 31-Dec-2022	0	-18,006	0	4,862	0	-18,006	13,144
01-Jan-2023 to 31-Dec-2023	0	-18,133	0	4,896	0	-18,133	13,236
01-Jan-2024 to 09-Sept-2024	0	-11,078	0	2,992	0	-11,078	80,86
Total	**0**	**-54,023**	**0**	**14,588**	**0**	**-54,023**	**39,433**

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
16-Aug-2021 to 31-Dec-2021	42,726	-6,806	-84.1	A higher surface was initially projected to be planted by this period.
01-Jan-2022 to 31-Dec-2022	39,546	-18,006	-54.5	Fire event that affected biomass of different vintages plus a higher surface was projected to be planted by this period.

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jan-2023 to 31-Dec-2023	49,288	-18,133	-63.2	Fire event that affected biomass of different vintages plus a higher surface was projected to be planted by this period.
01-Jan-2024 to 09-Aug-2024	-2,801	-11,078	495.5	No thinning nor harvest took place as initially stated.
Total	**86,033**	**-54,023**	**-37.2**	

6 ANNEX 1: COMMERCIALLY SENSITIVE INFORMATION

Section	*Information*	*Justification*	*Assessment method and conclusion*
	NA	No sensitive information was reported	

7 ANNEX 2: DOCUMENTATION REVIEW

ID	File name
Documents VER I	
/1/	Unitán VCS Forest Inventory_Ver I.xlsx
/2/	Unitán VCS LTA ex-post_ID 2610.xlsx
Monitoring Report	
/3/	ERR carbon calculationsV1.6.xlsx
/4/	VCS MR ID2610 16082021_09082024V1.6_Clean.docx
/5/	VCS MR ID2610 16082021_09082024V1.6_Clean.pdf
/6/	VCS MR ID2610 16082021_09082024V1.6_Track.docx
Measurement	
/7/	Regresiones alturas Euca.xlsx
/8/	Revision superficie.xlsx
/9/	Delimitación 1.jpeg
/10/	Delimitación 2.jpeg
/11/	Delimitación 3.jpeg
/12/	Delimitación 5.jpeg
/13/	Delimitación.jpeg
/14/	CLON 44_density.jpg
/15/	CLON 78_density.jpg
/16/	Eucalyptus 2016V2.xlsx
/17/	Eucalyptus híbrido 2021V2.xlsx
/18/	Eucalyptus+QuebrachoV2.xlsx
/19/	INVENTARIO FORESTAL DON ANTONIO.pdf
/20/	Quebracho colorado 2016.xlsx
/21/	Quebracho colorado 2017.xlsx
/22/	Resultados Don Antonio EucaV2.xlsx
/23/	Resultados Quebracho.xlsx
/24/	Doña Virginia 2019 3.5 X 1.5.xlsx
/25/	Doña Virginia 2019 3.5 X 3.5.xlsx
/26/	Doña Virginia 2023.xlsx
/27/	INVENTARIO FORESTAL DOÑA VIRGINIA.pdf
/28/	Resultados Doña Virginia.xlsx
/29/	Cinta métrica.jpg
/30/	Forcícula y varilla.jpeg
/31/	Forcícula.jpeg
/32/	GPS.jpg
/33/	Machete.jpg
/34/	Spreadsheet.jpg
/35/	Suunto.jpeg
/36/	INVENTARIO FORESTAL GLOMBOVSKY.pdf
/37/	Ex Glombovsky Euca 2017 Sin incendio.xlsx
/38/	Resultados Glombovsky 2017 con Glade.xlsx
/39/	Euca 2018 - Incendio año 2022 - 2x1.xlsx
/40/	Euca 2018 - Incendio año 2022-2x2.xlsx
/41/	Resultados Glombovsky 2018.xlsx
/42/	Ex Glombovsky Euca 2019 con incendio.xlsx
/43/	Ex Glombovsky Euca 2019 sin incendio.xlsx
/44/	Resultados Glombovsky 2019.xlsx

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/45/	Ex Glombovsky 2020.xlsx
/46/	Resultados Glombovsky 2020.xlsx
/47/	Glombovski 2021 EucaV2.xlsx
/48/	Res Glombovsky 2021V2.xlsx
/49/	Puerto Tirol 2022V2.xlsx
/50/	Quebracho 2022.xlsx
/51/	Res Glombovsky 2022 V2.xlsx
/52/	Resultados Quebracho 2022.xlsx
/53/	Eucalyptus gxc 2023V2.xlsx
/54/	Resu Glombovsky 2023V2.xlsx
/55/	INVENTARIO FORESTAL IRINEO.pdf
/56/	IRINEO 2017.xlsx
/57/	IRINEO 2018.xlsx
/58/	IRINEO 2020.xlsx
/59/	Resultados IRINEO.xlsx
Legal Compliance	
/60/	Bill from Martina, Osvaldo Rubén to Unitán_start date.pdf
/61/	Certificado Domino Puerto Tirol 09-04-2020 11.16.44.pdf
/62/	Contrato segundo lote-bis.pdf
/63/	Primer contrato - Margarita Belén-bis.pdf
/64/	acuerdo -1.jpg
/65/	acuerdo -3.jpg
/66/	acuerdo-2.jpg
/67/	acuerdo-4.jpg
/68/	Contrato de arrendamiento-Yatay Corá Vedia- bis.pdf
Managements plans	
/69/	Plan de manejo Forestal.pdf
/70/	Plan de Monitoreo_Unitan.pdf
Unitán Team	
/71/	Certificación -EQUIPO DE GESTIÓN.docx
/72/	CURRICULUM VITAE - GUSTAVO FERRER.docx
/73/	CURRICULUM VITAE.AOG.docx
/74/	CV Aquino Cristian Adrian.docx
/75/	DETALLE PERSONAL VIVERO Y CAMPOS (2).docx
/76/	MODELO DE CV ALM2024.doc
Safety and Health	
/77/	2024-EVALUACIÓN DE RIESGOS LABORALES - FORESTACIÓN.pdf
/78/	20181111_085050.jpg
/79/	Batefuegos.jpg
/80/	Bombonas para reserva de agua.jpg
/81/	Fire chief.jpg
/82/	Hachas Pulasky.jpg
/83/	Mochilas para agua 16 lts de capacidad-cascos.jpg
/84/	Mochilas rigidas.jpg
/85/	motobomba montada- adaptada ..jpg
/86/	Procedimiento de emergencia-Incendios forestales ago 2024.docx
/87/	Rastra de disco 3 puntos.jpg
/88/	rastra doble t de arrastre.jpg
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/92/	Tanque australiano reserva de agua DA.jpg
/93/	Tractor zanello 230.jpg

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/98/	Capacitación Quema controlada en Ctes. 2019.jpg
/99/	Capacitación uso seguro tratores.jpg
/100/	combate de incendio 13-8-24 a.jpg
/101/	combate de incendio 13-8-24.jpg
/102/	Combate de incendio forestales 1.pdf
/103/	Combate de incendio forestales 2.pdf
/104/	Combate Incendio 13-8-24.jpg
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/106/	curso tractorista-inta Colonia Benitez Retamoso.jpg
Sustainable Development Goals	
/107/	41.Informe de Aguas de Laguna, Perforación y Río de Negro.pdf
/108/	41a.Informe de Agua de Laguna.pdf
/109/	41b.Informe de Agua de Perforación.pdf
/110/	41c.Informe de Agua de Río Negro.pdf
/111/	MEMORIA DESCRIPTIVA EXPEDIENTE 05_013_004_21.pdf
/112/	2018_Donation Parish.pdf
/113/	Anexo donaciones.docx
/114/	2020_Donation Hostería Niño Jesús.pdf
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/116/	2021_Donation Caritas.png
/117/	2021_Donation EFP N57.jpg
/118/	2021_Donation Ferro Voley.jpg
/119/	2021_Donation Free Baccalaureate for Adults.pdf
/120/	2021_Donation kindergarten.pdf
/121/	2021_Donation Manuel Belgrano 2.jpg
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/123/	2021_Donation Merendero Móvil.pdf
/124/	2021_Donation Municipality Puerto Tirol 2.jpg
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/126/	2021_Donation Más por menos 2.PDF
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/133/	2022_Donation Más por menos.PDF
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/135/	2022_Donation Seedlings.jpg
/136/	2022_Donation Trees.jpg
/137/	2023_Donation Anunciación de María Parish 2.pdf
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/139/	2023_Donation Anunciación de María Parish 4.pdf
/140/	2023_Donation Anunciación de María Parish 5.pdf
/141/	2023_Donation Anunciación de María Parish.pdf
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/154/	2024_Donation Parish.jpg
/155/	2024_Donation Sport Competition.jpg
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/184/	Predial Sociedad Rural.shp
Stakeholders	
/185/	26.9.24_Listado stakeholders.xlsx
/186/	Procedimiento Quejas y Reclamos de Partes Interesadas -BONOS DE CARBONO (1).pdf
/187/	Tablas Anexo evidencias.docx
/189/	1er convenio.pdf
/190/	20240822Convenio.pdf
/191/	Actas 1 y 2.pdf
/192/	Actas 3, 4 y 5.pdf
/193/	Actas 6 y 7.pdf
/194/	Adendas.pdf
/195/	Convenio IFA.pdf
/196/	CONVENIO INTERC. Y COOP. UNITAN.pdf

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/199/	Convenio UNSE_ Santiago del Estero.pdf
/200/	ConvMarcoUNAF2018.pdf
/201/	Res-CD-FCF-190_2023-FCF_UNITAN-SAICA (1).pdf
/202/	2021_Afforestation actions kindergartens-Diario Norte.pdf
/203/	2021_Forestation Tirol.pdf
/204/	2021_Reforestation-Diario Norte.pdf
/205/	2021_Research in plantations.pdf
/206/	2022_PEFC Certification-El Comercial.docx
/207/	2022_PEFC Certification-El Comercial.PNG
/208/	2023_Carbon credits in Unitán-Diario Norte.jpg
/209/	2023_Forestation plan-La Mañana.pdf
/210/	2023_Meeting with Governor of Chaco-Libertad Digital.docx
/211/	2024_ Email Javier Waldemar.docx
/212/	2024_Aapresid congress-AgroPerfiles.docx
/213/	Carta Resumen_Formosa.pdf
/214/	Carta Resumen_Puerto Tirol.pdf
/215/	Escaneo notas a actores firmadas..pdf
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/219/	Nota actores.pdf
/220/	2021_ Chamber of Foreign Trade.pdf
/221/	2021_ Provincial Deputy Bergia.pdf
/222/	2021_ Provincial Deputy Gutiérrez.pdf
/223/	2021_ Provincial Deputy Spoljaric.pdf
/224/	2021_Council of Agronomist Engineers.pdf
/225/	2021_IIFA.pdf
/226/	2021_INTI Newspaper.pdf
/227/	2021_INTI.pdf
/228/	2021_Multiple visitors Newspaper.pdf
/229/	2021_Provincial Deputy Bergia Facebook post.jpg
/230/	2021_Undersecretary of Labor and of Health.pdf
/231/	2021_UNNE Representatives 2.pdf
/232/	2021_UNNE Representatives.pdf
/233/	2021_UNNE.pdf
/234/	2022_ University of Santiago del Estero Newspaper.pdf
/235/	2022_Barranqueras Institute.pdf
/236/	2022_Forestry Engineer.pdf
/237/	2022_IIFA.pdf
/238/	2022_Multiple visitors.pdf
/239/	2022_National Deputy.pdf
/240/	2022_University of Santiago del Estero.pdf
/241/	2023_Argentine Forestry Association.pdf
/242/	2023_CFI.pdf
/243/	2023_Multiple visitors.pdf
/244/	2023_National Technological University.pdf
/245/	2024_Delegate of the National Directorate of Industrial Forest.pdf
/246/	2024_Dr. Omar López Mato.pdf
/247/	2024_Felipe Varela.pdf
/248/	2024_National Technological University.pdf
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/250/	Unitán VCS Forest Inventory_Project emissions.xlsx
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/253/	VCS-Loss-Event-Representation-v4.2-Final_FIRMADO.pdf
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/263/	CashFlow _ VCS UNITAN v.1.xlsx
/264/	Gobernance index.xlsx
/265/	VCS_NPR_REP_ Project ID 2610_V.1.1.pdf
/266/	Barberis et al (2012).docx
/267/	INTA-Guia_de_Buenas_Practica_Forestales_para_la_Provincia_de_Corrientes.pdf
/268/	INDEC (1944-2022)_eventos_extremos_y_desastres.xlsx
/269/	anuario_de_estadistica_forestal_2018-2020.pdf
/270/	anuario_de_estadistica_forestal_2019-2021.pdf
/271/	anuario_forestal-_edicion_2023_1_0.pdf
/272/	Fire Index_calculation.xlsx
/273/	Incendios_2023_CONAE_AQD_202212_202401_FormosayChaco_DptosTodos.xlsx
/274/	Formosa Decreto reglamentario 574.pdf
/275/	Formosa Ley 426.pdf
/276/	Ley 562.W_Chaco.pdf
/277/	Argentina_Segunda Contribución Nacional_2020.pdf
/278/	Long term strategy (2050).pdf
/279/	pnaymcc_2022_-_vf_resol.pdf

8 ANNEX 3: AUDIT PLAN

Title of the GHG mitigation project initiative	UNITÁN AFFORESTATION AND REFORESTATION OF GRAZING LANDS (Unitán Project)			
Full name and position of the project manager	Antonio Gil Unitán S.A.I.C.A. Josefina Uijt den Bogaard ProSustentia			
Email address	alm@unitan.net; jbogaard@prosustentia.com	Phone	+54 911 41920204 +54 911 50367019	
Address, including the country.	Unitán S.A.I.C.A. Paseo Colón 221 P. 10; CABA – Argentina			
Data and position of the contact person	Antonio Gil Unitán S.A.I.C.A. Josefina Uijt den Bogaard ProSustentia			
Type	Validation		Verification	X
	Completely remote		Partially remote	X
Audit criteria	- ISO 14064-2:2019 - Methodology AR-ACM 0003 Afforestation and reforestation of lands except wetlands V2.0			

	- Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities V1.0 - AR-TOOL 14 Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities V4.2 - AR-TOOL 15 Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural activities in A/R CDM project activity V2.0 - Calculation of the number of sample plots for measurements within A/R CDM project activities V2.1 - Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity" v4.0. The verification of the GHG mitigation project will be carried out through: - Audit with the support of technological means (partially remote)
Audit objectives	**For verification:** Verify compliance in the implementation of mitigation project activities, including those associated with the methodology selected for the project, considering the following: • Compliance with applicable verification criteria, including the principles and requirements of relevant GHG standards or programs within the scope of verification. • Information and documentation of the GHG project planning, including procedures and criteria for the project, baseline, quality control and assurance, risk management, and documents for this verification. • Emissions, removals, and increases in removals reported in the baseline and the GHG project. • Any significant changes in GHG emissions, removals, and increases in removals since the last reporting period. • Compliance with the principles and actual controls of the project and the monitoring, verification, and reporting system necessary to comply with its documented procedures and current legislation in accordance with the audit criteria.
Audit scope	• Project boundaries including its scenarios and baseline scenarios The Unitán Project is a project that carries out forestation and reforestation in areas that previously corresponded to extensive pastures for livestock and degraded agricultural lands. The areas subject to verification correspond to 1,294.7 hectares

of established forest plantations (year 2016-2023) with the species Eucalyptus gxc, Eucalyptus various and Shinopsis balansae within 5 properties: four (4) private properties (Don Antonio, Doña Virgina, Irineo, Ex Glombovski) and one (1) leased property (Sociedad Rural).

During the monitoring period between 08/16/2024 – 08/09/2024, a total removal of 51,583 tCO2e was achieved. Within the area to be verified, a total of 402 rectangular plots of 300 m2 (Eucalyptus) and 400 m² (S. balansae) were established. Below is the detail of the strata to be verified:

Year	Species	Stratum	Area (ha)	N° Plots
2016	Eucalyptus hybrid	1	57.1	19
2017	Eucalyptus hybrid	2	3.8	2
2018	Eucalyptus hybrid	3.1	99.49	31
2018	Eucalyptus hybrid	3.2	12.62	3
2019	Eucalyptus hybrid	4	36.98	10
2020	Eucalyptus hybrid	5	181.21	56
2021	Eucalyptus hybrid	6.1	173.00	51
2021	Eucalyptus hybrid	6.2	12.07	4
2022	Eucalyptus hybrid	7.1	144.2	42
2022	Eucalyptus hybrid	7.2	6.2	2
2023	Eucalyptus hybrid	8.1	42.1	12
2023	Eucalyptus hybrid	8.2	5.2	2
2024	Eucalyptus hybrid	9		0
2025	Eucalyptus hybrid	10		0
2016	Eucalyptus various	11	0.0	0
2018	Eucalyptus various	12.1	47.5	13
2018	Eucalyptus various	12.2	5.5	4
2016	Schinopsis balansae	13	72.8	22
2017	Schinopsis balansae	14	22.3	7
2018	Schinopsis balansae	15	12.8	4

2019	Schinopsis balansae	16.1	41.5	12
2019	Schinopsis balansae	16.2	2.5	1
2020	Schinopsis balansae	17	23.3	7
2021	Schinopsis balansae	-	0.0	0
2022	Schinopsis balansae	19	21.4	7
2023	Schinopsis balansae	20	21.3	7
2024	Schinopsis balansae	21	0.0	0
2025	Schinopsis balansae	22		0
2021	Euca/Quebracho 1125	23.1	11.0	4
2021	Euca/Quebracho 1000	23.2	1.7	2
2022	Eucalyptus hybrid 2017 regrowth	24	41.0	15
2022	Eucalyptus hybrid 2018 regrowth	25.1	17.9	3
2022	Eucalyptys hybrid 2018 regrowth (5000)	25.2	10.6	3
2022	Eucalyptus various 2018 regrowth	26	14.8	7
2022	Eucalyptus hybrid 2019 regrowth	27	119.8	38
2022	Eucalyptus hybrid 2021 regrowth	28	24.9	10
2023	Eucalyptus hybrid 2018 regrowth	29	8.4	2
			1294.7	402.0

Tomado de "*ERR carbon calculationsV1.2.xlsx*"

It is worth noting that the planting activities will be completed between 2016 and 2025, both owned and leased properties, to reach a total area of 2,348.7 ha.

	• Physical infrastructure, activities, technologies and processes of the GHG project Unitan SAICA is an Argentine company that is a pioneer in the extraction and commercialization of vegetal tannins for the industry. Within the scope of the project, Unitán executes a forestation and reforestation plan in the provinces of Chaco and Formosa with species such as Quebracho Colorado and Eucalyptus. This project has the following objectives: - Promote an integrated management scheme with the ecosystem on privately owned lands, avoiding the extraction of natural forests, specifically those dominated by Schinopsis balansae, which are harvested for the tanning industry. - Install an innovative plantation of native species that will bring with it environmental benefits such as soil protection, regulation of water runoff and benefits for biodiversity. At the same time, it will generate new information on the management of native species forests - Develop and improve a new mechanism to finance projects in the forestry sector. - Increase the demand for labour from the local population: the shift towards forest plantation activities will generate a much greater demand for labour compared to current activities carried out separately, including new labour qualifications. ProSustentia is an Argentine consultancy firm specializing in the management of projects that contribute to the mitigation of climate change and the sustainable development of regions. Its services include: - Decarbonization plans - Greenhouse gas inventories - Carbon credit certification - Carbon footprint calculation - Financing advice - Communication of corporate climate change strategies • Sources, sinks and/or reservoirs of GHG **Source:** Plantation of *Eucalyptus* (híbrid and various) and Schinopsis balansae

Reservoirs of GHG:

Reservoir	Included
Aboveground and underground biomass	Yes
Soil organic carbon	No
Leaf litter	No
Dead wood	No

• Types of GHG

CO_2

• Defined time periods to execute the project activity

Accreditation period: 16.09.2016 – 15.09.2055

First verification: 16.09.2016 – 15.08.2021

Second verification: 16.08.2021 – 09.08.2024

Level of assurance	95%	**Materiality - Relative Importance**	5%

Sampling plan/Evidence collection plan

The sampling plan was derived from the review of the GHG mitigation project documentation, including procedures and methodological criteria, quality assurance and data control, and risk management:

Parameters	Sampling (%)	Level of Assurance (%)
Methodologies and tools used to calculate removals	100	100
Estimation of removals	100	100
Forest inventory sampling	33 plots	95
Interviews with interested parties	8 interviews	95

The sampling plan/evidence collection plan is detailed below:

Year/Specie/Stratum	Sample	Optional samples					
2016Eucalyptus hybrid 1	1	1	8				
		DA09	MB04				
2020Eucalyptus hybrid 5	3	18	3	30	54	28	53
		1820	320	3020	5420	2820	5320
2018Eucalyptus hybrid 3.1	2	13	6	12	8		
		4618	3218	4318	3418		
2019Eucalyptus hybrid 4	1	1	7				
		119	2819				
2018Eucalyptus various 12.1	1	7	8				
		3018	3518				
2021Eucalyptus hybrid 6.1	3	2	50	46	34	12	43
		221	DA39	5521	4121	1421	5121
2022Eucalyptus hybrid 2019 regrowth 27	2	26	1	38	25		
		3519	319	4819	3419		
2022Eucalyptus hybrid 7.1	3	39	42	37	33	22	24
		3922	4222	3722	3322	2222	2422
2018Eucalyptus hybrid 3.2	1	1	3				
		MB20	MB23				
2022Eucalyptus hybrid 2017 regrowth 24	1	1	9				
		217	1117				
2022Eucalyptus hybrid 2018 regrowth 25.1	1	2					
		1518					
2021Eucalyptus hybrid 6.2	1	2	3				
		MB25	MB26				

2022Eucalyptus hybrid 2021 regrowth 28	1	8	9				
		4921	5421				
2021Euca/Quebracho 11252 23.1	1	2	4				
		DA03	DA06				
2017Eucalyptus hybrid 2	1	1	2				
		117	1017				
2022Eucalyptus various 2018 regrowth 26	1	1	4				
		418	1318				
2022Eucalyptys hybrid 2018 regrowth (5000) 25.2	1	2	1				
		318	218				
2017Schinopsis balansae 14	1	5					
		117					
2018Eucalyptus various 12.2	1	1					
		MB22					
2019Schinopsis balansae 16.1	1	4	11				
		419	1219				
2016Schinopsis balansae 13	2	4	16	2	20		
		DA12	DA25	DA08	DA29		
2023Eucalyptus hybrid 2018 regrowth 29	1	1	2				
		4818	5618				
2022Eucalyptus hybrid 7.2	1	1	2				
		MB28	MB29				
2018Schinopsis balansae 15	1	4					
		418					
	33						

Interviews:

Province	Typology	# Interviews
Chaco	Local government	1
	Regional government	1
	Research institution	1
	Neighbor/Producer	1
Formosa	Local government	1
	Regional government	1
	Research institution	1
	Neighbor/Producer	1
Total		**8**

Lead auditor	Maria Alejandra Torres Gómez	**E-mail:**	mtorres@icontec.org
Local expert	Facundo Barrera	**Technical reviewer**	Carolina Carreño
Opening meeting	04.11.2024	**Time**	15.30 hs
Closing meeting	19.11.2024	**Time**	10.00 hs
Filling date	03.11.2024		

PLAN OF ACTIVITIES ON SITE

Date (dd.mm.year)	Time	Activity	Auditor	Audited
04.11.2024	15:30 hs	Opening meeting	AT	Josefina Uijt Den Bogaard Pro Sustentia Ariel Mato Unitán

				Antonio Gil Unitán Gustavo Ferrer Unitán Raúl Ritter Unitán Cristian Aquino Unitán
05.11.2024 al 13.11.2024	06:00 – 16:00 hs	Re-measuring of plots Interviews	AT	Josefina Uijt Den Bogaard Pro Sustentia Raúl Ritter Unitán Cristian Aquino Unitán

Observaciones:

- During the interviews, the audit team will review, on a sample basis, the documentation referenced within the project description and/or in the monitoring report.
- This activity plan is flexible and can be modified by mutual agreement with the project owner.
- All project owner personnel related to the GHG mitigation initiative must be available if requested by the audit team for the purpose of evaluating any requirement.
- During any phase of this evaluation process (document review, prior to the on-site visit, on-site visit, drafting of the audit report or technical review) findings may be declared, which must be resolved before sending the relevant documentation (project description, monitoring report, spreadsheets, audit reports, among others) to the GHG program.
- The schedule of the Validation/verification activities is described in document F-GV-086 NOTIFICACION DE SERVICIOS VALIDACION Y VERIFICACION

9 ANNEX 4: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

CAR No.	01	**Requirement No.**	2.2 VCS Standard v4.7	**Date:** 27.10.2024
Request description				
During the review of the project cartography (01. Monitoring report\Evidence\Measurement) the audit team found the following: 1. The layers of the strata of each property (.shp) present a total extension of 1,302.06 hectares, but the area to be verified described in the RM and calculations corresponds to 1,294.67 hectares. It is requested to review and adjust the total area of VER so that there is correspondence. 2. The layer "Parcelas Sociedad Rural" relates 32 plots, but the "Data_base" and "Annex_Plots" tabs of ERR carbon calculationV2 relate 34 and 31 plots, respectively. It is requested to review and adjust the number of plots so that there is correspondence. 3. The layer "Parcelas Doña Virginia" relates 21 plots, but the "Data_base" and "Annex_Plots" tabs of ERR carbon calculationV2 relate 20 plots. Please review and adjust the number of plots so that there is correspondence. 4. The "Parcelas Don Antonio" layer relates 21 plots, but the "Data_base" and "Annex_Plots" tabs of ERR carbon calculationV2 relate 38 plots. Please review and adjust the number of plots so that there is correspondence. 5. For the Glombovski property, the "Data_base" and "Annex_Plots" tabs of ERR carbon calculationV2 relate 296 and 291 plots, respectively. Please review and adjust the number of plots throughout the documents so that there is correspondence.				
Project Developer Response				**Date: 29/11/2024**

1. The differences in the stratum area were corrected so that values in the shp, and now MR and *ERR calculation spreadsheet* match. In the case of Don Antonio, the differences corresponded to a 2024 plantation area that was not considered in this monitoring period so it was deleted; in Glombovski farm, the difference corresponded to minor cartographic adjustments that were not updated in the attribute table at the time.

	Stratum area (ha)
Don Antonio	112.64
Doña Virginia	65.31
Soc. Rural	96.39
Irineo	46
Glombovski	974.39
Total	1294.7

2. The difference in the number of sample plots for Soc. Rural in Data base sheet was because there were two sample plots (2.1 and 2.2) that should have been assigned to Glombovski farm. The correct total number of plots for the farm is 32. This is now corrected.

3. The correct number of simple plots for Doña Virginia is 20. The difference was because there was one plot that was repeated in the shp. This is now corrected.

4. In the case of Don Antonio farm, the correct number of sample plots is 38. The shp file was corrected as DA 10 and DA 20 are not included in this monitoring period and correspond to a 2024 plantation. This is now corrected.

Moreover, in the "Annex_Plots" sheet of the ERR carbon calculation spreadsheet, the "tree number" column was adjusted so that it can be used to filter and count the plots numbers.

5. In Glombovski farm, the correct number of sample plots is 298. In "Annex_Plots" of the ERR carbon calculation spreasheet, plot 27.19 didn´t have tree number, so that may have caused problems when filtering. This is now corrected.

Documentation submitted by the project developer

Evaluation of the audit team	**Date: 27.12.2024**
1. The PP correctly adjusted the cartographic layers of the properties, so that the eligible areas coincide throughout all the documents (1,294.7 ha). **Item closed** 2, 3, 4 and 5. The PP adjusted the number of sample plots for each property in the ex post quantification document. **Item closed** **Finding has been closed**	

CAR No.	02	**Requirement No.**	3.21 VCS Standard v4.7	**Date:** 28.10.2024
Request description				
During the review of section 3.2.2 of the RM, it was found that the justification for the project deviations does not fully comply with requirements 1-4 (as applicable) established in the VCS Standard v4.7. In this regard, 1. The PP must justify in detail in the Monitoring Report how each of the applied deviations is in line with the criteria of section 3.21 of the VCS Standard v4.7. It is recommended to assign a number to each of the applied deviations since, in accordance with section 3.21.2 of the VCS Standard v4.7, these must be included in all subsequent Monitoring Reports.				
Project Developer Response				**Date: 29/11/2024**
In each deviation, an explanation on the applicability condition in line with section 3.21 of the standard was included, stating that additionality, baseline or methodology are not affected by the deviation and why.				
Documentation submitted by the project developer				
Evaluation of the audit team				**Date: 27.12.2024**

The PP adjusted section 3.2.2 of the MR, detailing the application of the deviations to the PDD and their compliance with the criteria of section 3.21 of the VCS Standard v4.7 **Finding has been closed.**

CAR No.	03	**Requirement No.**	2.2 VCS Standard v4.7	**Date:** 28.10.2024
Request description				

When reviewing the information related to the forest fires that occurred during the monitoring period, typing errors were found that must be adjusted:

1. Typing error in Table 4 of the RM, the 2021 stratum affected by the fire must correspond to the 2021 stratum with regrowth.

Eucalipto híbrido 2017 rebrote	Rebrote después de fuego	*Eucalipto híbrido* 2017	Fuego
Eucalipto híbrido 2018 rebrote		*Eucalipto híbrido* 2018	
Eucalipto híbrido 2019 rebrote		*Eucalipto híbrido* 2019	
Eucalipto híbrido 2021 rebrote		*Eucalipto híbrido* 2020	

2. Section 5.4 of the RM justifies the difference between ex ante and ex post removals due to a forest fire event that occurred in the period 08/16/2021-12/31/2021; however, no disturbance event was reported for that year.

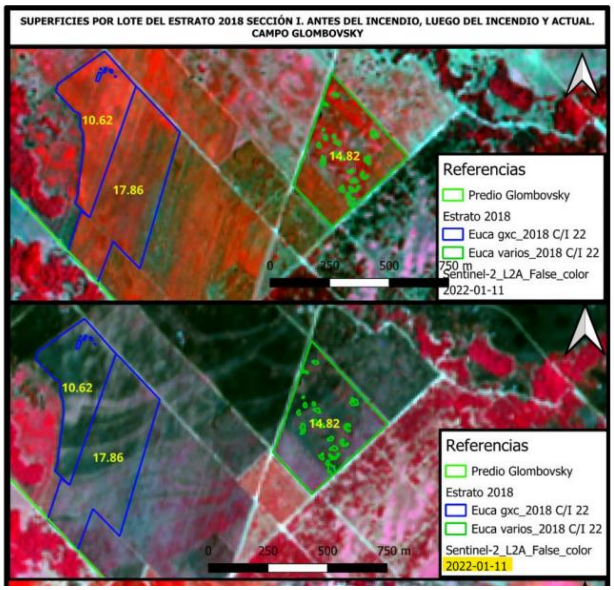
Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
16-Aug-2021 to 31-Dec-2021	42,726	6,483	-84,83	Fire event that affected biomass of different vintages plus no thinning took place as initially stated.

3. The document "GLOMBOVSKY FOREST INVENTORY.pdf (01. Monitoring report\Evidence\Measurement\01.INVENTORY REPORTS) illustrates through satellite analysis the occurrence of a fire on the Ex Glombovski property in 2022; however, the legend of the satellite image "after the fire" presents an erroneous temporality, since it should reference the date of 01/16/2022.

Antes del incendio (11-01-2022)

Luego del incendio (16-01-2022)

Actual (02-09-2024)



Project Developer Response	Date: 29/11/2024

1. The correct stratum affected by fire is Eucalyptus hybrid 2021. In Table 4 of the MR there is no reference to Eucalyptus hybrid 2020, nevertheless it was adjusted but to add Eucalypts various 2018 regrowth which was missing.

2. The reason for the differences between ex ante and ex post were adjusted in the MR. In this particular case, the reason was due to a reduction in the project area planted in comparison to the ex-ante projection.

3. Glombovski´s forest inventory report was updated in order to include both the figure update as well as the results due to height recalculation. This last was updated in all forest inventory reports.

Documentation submitted by the project developer

Evaluation of the audit team	Date: 28.12.2024

1. The PP adjusted the information and occurrence of wildfires in the project documents. However, a typo is still evident in Table 4 of the MR, where fire occurrence in 2020 is mentioned instead of fire occurrence in 2021. **Item remains open**

2020	Irineo	*Schinopsis balansae*	20,8	23,25	Carto adjust
	Ex-Glombovski	*Eucalyptus hybrid*	194	181,21	Fire
2021	Don Antonio & Ex-Glombovski & Soc Rural	*Eucalyptus hybrid*	-	185,07	New
	Don Antonio	Euca1125/Quebracho125	-	11,01	New
	Don Antonio	Euca1000/Quebracho250	-	1,72	New

2. The PP correctly adjusted section 5.4 of the RM. **Item closed**

3. The PP successfully updated the Glombovski forest inventory report. **Item closed**

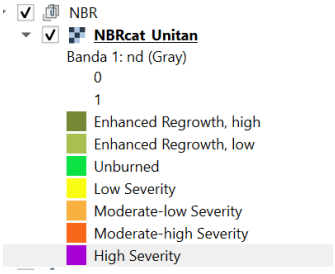
Finding remains open

Project Developer Response	**Date: 07.01.2025**
Sorry about that, the table has now been updated.	
Documentation submitted by the project developer	
Evaluation of the audit team	**Date: 14.01.2025**
1. The PP correctly adjusted the RM **Finding has been closed.**	

CAR No.	04	**Requirement No.**	3.2.20 - 3.2.21 VCS Standard v4.7 5.3.3 Registration and Issuance Process v4.6	**Date:** 15.11.2024
Request description				

In accordance with the criteria in section 3.2.20 and 3.2.21 of the VCS Standard v4.7 and section 5.3.3 of the Registration and Issuance Process v4.6, which indicates the details of the procedures applicable to loss events, the PP must:

1. Attach the signed loss event representation document https://verra.org/documents/vcs-loss-event-representation-v4-2/
2. Clarify why the document "VCS-Loss-Event-Report-Template-v4.0_V1.docx" only contemplates the 2022 fire?; since the "GLOMBOVSKY FOREST INVENTORY.pdf" and the RM (Table 4) additionally mention the occurrence of fire in the year 2023 for the 2018 stratum.
3. Delimit the cartography of forest fires for each year, so that the affected area can be tracked in each temporality. This information will be used to verify the values of the ABURN,i,t parameter in the quantification of non-CO2 emissions.
4. Detail in the loss event report the methodology or GIS procedure (delta NBR) used to analyze the areas affected by the forest fire and what was the criterion to delimit the affected area. The report proposes a remote analysis through categories of severity of the affectation, but it is not clear from which category(ies) of affectation the data of 228.95 hectares with fire is derived.



Project Developer Response	Date: 29/11/2024

1. The document is now included in the Google Drive folder 2. The fire event that took place in 2023, in 8 ha approximately, is now included in the Loss Event Report with the corresponding detail. 3. A new column has been included in the stratum shp file of Glombovski farm, where the year of the fire event is reported for each area. 4. Further detail was now included regarding the analysis. It must be stated that this analysis was only added to demonstrate that the loss estimation is conservative as the fire severity is variable in the affected area, but 100% of biomass loss is considered for the affected area. The total affected area is still determined based on the report conducted at the time of the event and the observations during the forest inventory.
Documentation submitted by the project developer

Evaluation of the audit team	**Date: 02.01.2025**

1. The signed loss event representation document was attached. **Item closed**

2. The details of the forest fires that occurred in 2022 and 2023 were included in the Loss Event Report. **Item closed**

3. The cartography of the areas affected by forest fires in each stratum was delivered. The affected areas described in the .shp layers coincide with the values of the ABURN,i,tL parameter used in the quantification of non-CO2 GHG. **Item remains open**

However, it is requested:

To attach the quantification of the 1st VER, so that the values of the bTREE,i,tL parameter can be corroborated (AGB in last verification), since it was not possible to trace said data through the public documents uploaded to VerraRegistry.

Review the information in the Monitoring period II tab of the document "Unitán VCS Forest Inventory_Project emissions.xlsx", as it presents values that do not match the attached ex post quantification

regrowth (	26	11	24,2	257	443				Total - Buffer
3 regrowth	27	15	19,1	283	487	Stock ERR Monitoring period I	ER ΔCt monitoring peirod	Net carbon /strata Buffer 27% NPRT	
) regrowth	28	120	12,1	1446	2492				
regrowth	29	25	13,3	332	572				
	TOTAL	1286	845	36350	62644	11335	51308	37455	

4. The GIS procedure used to analyze the areas affected by the forest fire was detailed in the Loss Event Report. **Item closed**

Finding remains open.

Project Developer Response	**Date: 07.01.2025**

3.

a. The ERR calculation for the first monitoring period is now shared in the google folder. The AGB from the last verification used as bTREEi,tL can be found in the "Equation-total" sheet.

b. "Unitán VCS Forest Inventory_Project emissions.xlsx" was missing an update after the last findings were completed. This is now done and the values match those in the ex-post quantification.

Documentation submitted by the project developer

Evaluation of the audit team	**Date: 14.01.2025**

3. a. The PP attached the ERR calculation for the first monitoring period, so that the value of the parameter bTREE,i,tL used in the quantification of non-CO2 GHG emissions could be verified. b. The document "Unitan Forest Inventory VCS_Project Emissions.xlsx" has been successfully updated. **Finding has been closed.**

CAR No.	05	**Requirement No.**	Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity" v4.0.	**Date:** 15.11.2024
Request description				
In accordance with Table 2 of the AR-ACM0003 v2.0 methodology, the PP must include in the ex post quantification the GHG emissions (non-CO2) resulting from forest fire events. The quantification of GHG emissions (non-CO2) for the strata affected by the fire must follow the methodological provisions of the tool "Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity" v4.0.				
Project Developer Response				**Date: 29/11/2024**
The project emissions due to the fire events are now included in the MR in line with the mentioned tool. This total represent 651.3 tCO2 emitted as project emissions in year 2022.				
Documentation submitted by the project developer				
Evaluation of the audit team				**Date: 29.12.2024**

The PP included the estimation of non-CO2 GHG emissions 2022 in the quantification of the monitoring period. **Finding has been closed.**

CL No.	01	**Requirement No.**	2.2 VCS Standard v4.7	**Date:** 04.11.2024
Request description				

The audit team reviewed the cartography of the project boundaries (properties) and found that there are properties that report different areas in this verification with respect to the validated information (Table 3 of the PDD "PROJ_DESC_2610_28112022.pdf", available in Verra Registry).

Property	**Total area (ha)** **Table 3 of the PDD**	**Total area (ha)** **2nd VER Cartography**
Sociedad Rural	225.6	225.93
Don Antonio	195	196.75
Ex Glombovski	2,347	2,931.74
Doña Virginia	205	141.38
Irineo	359	352.72

Table 3 of the PDD "PROJ_DESC_2610_28112022.pdf"

Although section 3.2.2 of the RM (Table 4) presents the details of the deviations from the PDD in relation to the cartographic adjustments made to the area of the strata, there is no mention within the RM of cartographic adjustments made to the total areas of the properties. This aspect is relevant since the spatial limits of the project correspond to the delimitation of the 5 properties and, therefore, the eligibility/applicability analysis was derived from this delimitation.

In this regard:

1. The PP must clarify why the area of the properties in this verification is different from the area of the properties in the PDD, especially in the case of the Ex-Glombovski property. This justification must be included in detail in section 3.2.2 of the RM, so that it complies

2. The PP must ensure that the eligibility/applicability analysis in section 3.2 of the PDD and Annex 5 of the RM was carried out based on the adjusted areas of each property. Since, for example, the satellite image of the Doña Virginia property shows a different delimitation than the cartography of this VER.

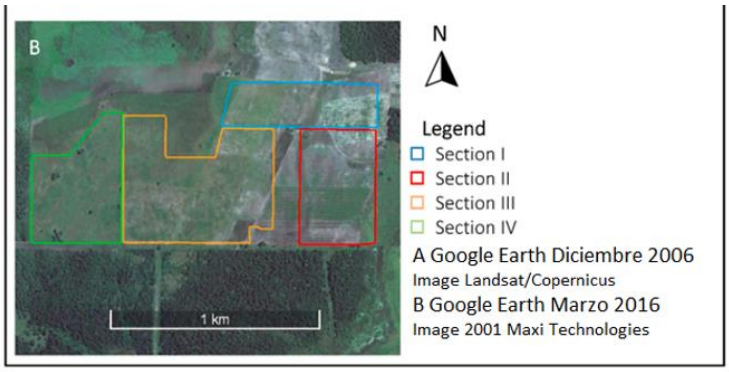
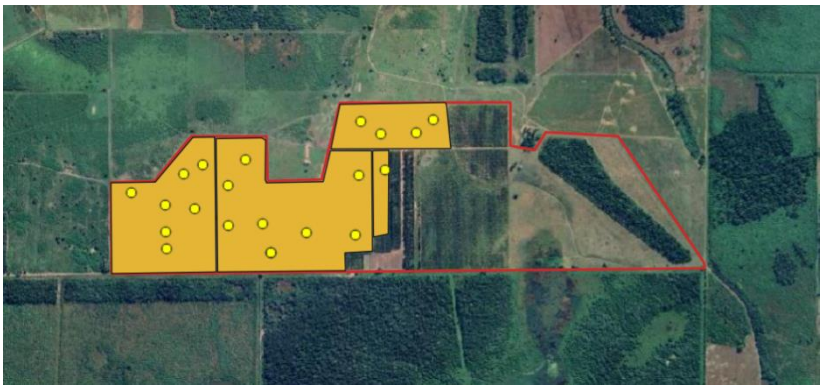


Figure 12 of the PDD



2nd VER Cartography "Predio Doña Virgina.shp"

Project Developer Response	Date: 11/12/2024

1. First, it must be stated that the Glombovski farm area is not more than 2,347ha as validated. There must have been a mistake in the shp file or addition of the surface area as, by notarial documentation, the farm does not have more than the mentioned area.

Second, there was a mistake in table 4 of the PD and the total area reported in it does not match the shp/kmz files information for Doña Virginia farm. In this line, the deviation has been included in the MR with the corresponding justification.

The table below has been added to the deviation section. It can be seen that, with the exception of Doña Virginia, the farms have the same area as the one initially validated and reported in table 4 of the PD, if rounded to the nearest whole number.

Propiedad	**Área total (ha) Tabla 3 del PDD**	**Total área adjusted (ha) VER**
Sociedad Rural	225.6	225.6
Don Antonio	195	195.2
Ex Glombovski	2,347	2346.9
Doña Virginia	205	141
Irineo	359	358.8

2. Once again, in the case of Doña Virginia, there is one of the farms plot that is not represented in the figure 12 of the PD, but is included here. It corresponds to plot V and has been included in the deviation section. They are 37.28 ha of which only 9.81 ha will take park in the project area, complying with the applicability criteria as demonstrated during validation.

Documentation submitted by the project developer

Evaluation of the audit team	Date: 01.02.2025
1 and 2. The PP clarified the requested information and included the respective detail of the change in the areas in section 3.2 of the RM. **Finding has been closed**	

CL No.	02	Requirement No.	3.9 VCS Standard v4.7	Date: 07.11.2024
Request description				
A review of the information published on the Verra Registry platform revealed that the project's crediting period is from 16.09.2016 to 15.09.2056 (40 years). However, the RM mentions a crediting period (16.09.2016 – 15.09.2055) that includes 39 years. Similarly, it is mentioned that the LTA is estimated based on 50 years, but the dates indicated in the RM (16.09.2016-15.09.2065) include 49 years. Please clarify this situation and, if necessary, adjust the periods in the RM and "Unitán VCS LTA ex-post" Excel. Considering the project start year (2016) as year zero (0) allows the crediting period to coincide with 2056 (40 years) and the LTA to coincide with 2066 (50 years).				
Project Developer Response				**Date: 29/11/2024**
The dates were corrected in the MR so that the period coincide with those stated as crediting period (40 years) and LTA (50 years).				
Documentation submitted by the project developer				
Evaluation of the audit team				**Date: 01.01.2025**
The PP corrected the time limits of the project, so that the accreditation period corresponds to 40 years and the LTA to 50 years. **Finding has been closed.**				

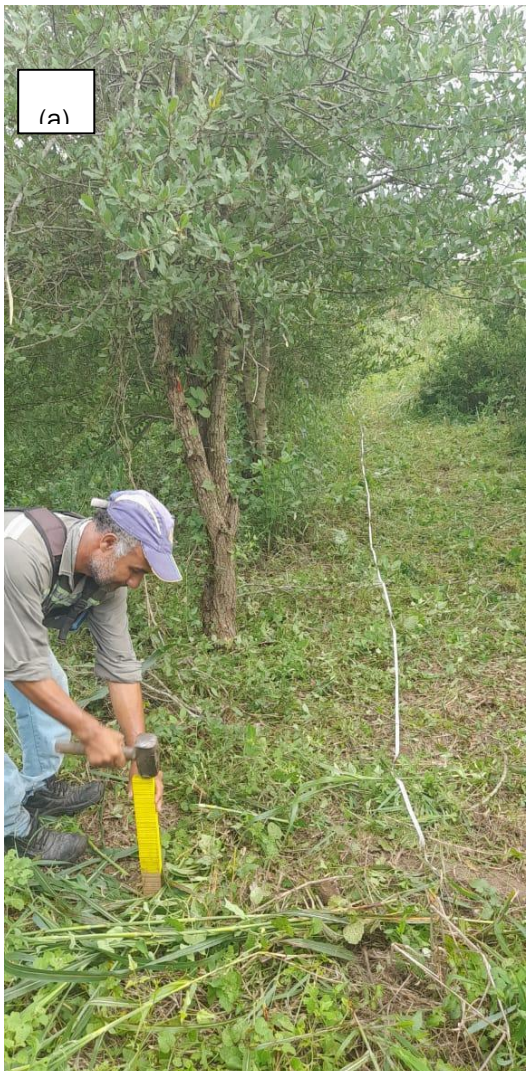
CL No.	03	Requirement No.	2.2 VCS Standard v4.7	Date: 15.11.2024
Request description				
When reviewing the quantification parameters for the species Eucalyptus gxc and Eucalyptus various, it was evident that part of the total height (Ht) data is derived from the application of allometric regressions modeled for each plot. However, during the on-site audit activities it was observed that there are plots with a regression that: 1) presents substantial differences between the predicted value vs. the value observed in the field (residual behavior), 2) uses little input data (height data observed in the field) to perform the modeling, or 3) presents a low R2 fit. In this regard, the PP is requested to indicate whether when performing height regressions by stratum, the allometric modeling presents a more robust statistical fit.				
Project Developer Response				**Date: 29/11/2024**
New regression curves were calculated at a stratum level, where better R2 values were reached. The polynomial curve was the one with better adjustment, with a higher R2 value, compared to lineal and sigmoidal so the heights in the *ERR calculation spreadsheet* were updated based on these equations and at a stratum level.				
Documentation submitted by the project developer				
Evaluation of the audit team				**Date: 02.01.2025**
The PP satisfactorily adjusted the estimation of heights through non-linear regressions by stratum. The ex post quantification was adjusted in accordance with the new model. **Finding has been closed.**				

Opportunities for improvement:

- Use fixed points in the field to permanently delimit the vertices of each sample unit (plot) and its respective identification
- Use a distinctive sign on the tree or vertex that starts the consecutive number of each sampling plot
- Identify critical points in the control and quality of the inventory data (for example, transcribing field data into digital format) and establish improvement strategies
- It is recommended that the project's Complaints and Claims Procedure include a more detailed guide to compliance with the numerals in Section 3.18.4 of the VCS Standard v4.7. Although the guidelines described in this section are generally followed, a more precise detail can be generated on how to proceed with each instance of complaint/claim management.

Improvement actions carried out:

The project proponent has already applied these improvement recommendations, installing stakes in the plots vertex as it can be seen from the picture (a) below, and a stake with a plate in order to identify the first tree of the plot, as in picture (b).



10 ANNEX 5: INTERVIEWS

Name	Position	Place
Dante Boldorini	Neighbor and Contractor Province of Formosa	Villa Dos Trece, Formosa
Francisco Retamoso	Unitán worker	Pampa Almirón, Chaco
Julio Martínez	Neighbor Province of Chaco	Pampa Almirón, Chaco
Iván Vera	Neighbor and Contractor Province of Chaco	Margarita Belén, Chaco
Carla Antonelli Vega	Dirección de Bosques of the Province of Formosa	Remote: via Teams
Lucas Vera	Dirección Nacional Foresto Industrial and Universidad Nacional de Santiago del Estero Province of Chaco	Remote: via Teams
Darío Vergara	Neighbor and Contractor Province of Formosa	Remote: via telephone
Humberto Pompert	Mayor Puerto Tirol	Puerto Tirol, Chaco
Hipólito Beveraggi	Subsecretaría de Industria, Empleo y Comercio of the Province of Chaco	Resistencia, Chaco
Julio César	E.G.B. Nº 392 "Dr. Nazario Maderna"	Puerto Tirol, Chaco

The audit team has the entire record of the recordings.

11 ANNEX 6: QUALIFICATION OF THE AUDIT TEAM AND TECHNICAL REVIEW TEAM

Last Name First Names	Email	Profession	Regional	Current Qualification	Initial Qualification Date	Lead Auditor	Auditor	Technical Expert	Sector	Remarks
Torres Gomez Maria Alejandra	mtorres@icontec.org	Ing. Forestal	Antioquia	Validator/Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector Afforestation and reforestation VCS	12/01/2023	X	X	X	14.1	Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020
Torres Gomez Maria Alejandra	mtorres@icontec.org	Ing. Forestal	Antioquia	Validator/Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector Afforestation and reforestation Biocarbon Registry	12/01/2023	X	X	X	14.1	Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020

Last Name First Names	Email	Profession	Regional	Current Qualification	Initial Qualification Date	Lead Auditor	Auditor	Technical Expert	Sector	Remarks
Torres Gomez Maria Alejandra	mtorres@icontec.org	Ing. Forestal	Antioquia	Validator / Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector Afforestation and reforestation Cercarbono	12/01/2023	X	X	X	14.1	Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020
Torres Gomez Maria Alejandra	mtorres@icontec.org	Ing. Forestal	Antioquia	Validator/Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector AFOLU 3B Land Use-REDD	12/01/2023	X	X	X	14.1	Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020

Last Name First Names	Email	Profession	Regional	Current Qualification	Initial Qualification Date	Lead Auditor	Auditor	Technical Expert	Sector	Remarks
Carreño Cucaita Angie Carolina	acarrenoc@icontec.org	Forestry Engineering	Center	Validator/Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector AFOLU 3B Land Use-REDD	15/09/2021	X	X	X	14.1	* Qualified as a technical reviewer on 25/04/2023Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020
Carreño Cucaita Angie Carolina	acarrenoc@icontec.org	Forestry Engineering	Center	Validator / Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector Afforestation and reforestation Cercarbono	15/09/2021	X	X	X	14.1	* Qualified as a technical reviewer on 25/04/2023Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020

Last Name First Names	Email	Profession	Regional	Current Qualification	Initial Qualification Date	Lead Auditor	Auditor	Technical Expert	Sector	Remarks
Carreño Cucaita Angie Carolina	acarrenoc@icontec.org	Forestry Engineering	Center	Validator/Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector Afforestation and reforestation Biocarbon Standard	15/09/2021	X	X	X	14.1	* Qualified as a technical reviewer on 25/04/2023Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020
Carreño Cucaita Angie Carolina	acarrenoc@icontec.org	Forestry Engineering	Center	Validator/Verifier in GHG mitigation projects in 14064-2: 2006 and 2019 Sector Afforestation and reforestation VCS	15/09/2021	X	X	X	14.1	* Qualified as a technical reviewer on 25/04/2023Authorized to provide services under the scope of ISO/IEC 17029:2019 and ISO 14065:2020

12 ANNEX 7: ONAC ACCREDITATION

ONAC ACREDITADO

ONAC ACREDITA A:

INSTITUTO COLOMBIANO DE NORMAS TÉCNICAS Y CERTIFICACIÓN – ICONTEC

NIT. 860.012.336-1

Avenida Calle 26 No. 69 – 76 / Torre 4 / Piso 9 y 10 – Edificio Elemento, Bogotá D.C., Colombia

La acreditación de este organismo de Evaluación de la Conformidad se ha realizado con respecto a los requisitos especificados en la norma:

ISO/IEC 17029:2019

Principios generales y requisitos para los organismos de validación y verificación

Esta Acreditación es aplicable al alcance establecido en el anexo de este certificado, identificado con el código:

23-OVV-002

Página 1 de 2

FR 3.5.3-03 V7 Aprobado 2023-07-18

ONAC
ORGANISMO NACIONAL DE ACREDITACIÓN DE COLOMBIA

Fecha de publicación del Otorgamiento:	2023-12-29
Fecha de Renovación:	
Fecha de publicación última actualización:	
Fecha de vencimiento:	2026-12-28

La vigencia de este certificado puede ser verificada en onac.org.co/directorio-de-acreditados/buscador-por-organismo o escaneando el código QR

Director Ejecutivo

ANEXO DEL CERTIFICADO

INSTITUTO COLOMBIANO DE NORMAS TÉCNICAS Y CERTIFICACIÓN – ICONTEC
23-OVV-002
ACREDITACIÓN ISO/IEC 17029:2019
Alcance de la acreditación aprobado / Documento Normativo

Para la validación y verificación, especificadas en la norma internacional ISO/IEC 17029:2019, para:

ACTIVIDAD	SECTOR	Documento Normativo o Programa
ISO 14065:2020 **VALIDACIÓN/VERIFICACIÓN DE PROYECTOS GEI** ISO 14064-2: 2019 ISO 14064-3: 2019	Forestación y reforestación	– Programa VCS (Verified Carbon Standard). – Programa CERCARBONO (Certificadora de Carbono). – Estándar para el Mercado Voluntario de Carbono BCR Estándar
	Industrias Energéticas (fuentes renovables / no renovables)	– Programa VCS (Verified Carbon Standard). – Estándar para el Mercado Voluntario de Carbono BCR Estándar – Programa CERCARBONO (Certificadora de Carbono).
	Demanda energética	– Programa VCS (Verified Carbon Standard). – Estándar para el Mercado Voluntario de Carbono BCR Estándar – Programa CERCARBONO (Certificadora de Carbono).
	Transporte	– Programa VCS (Verified Carbon Standard). – Estándar para el Mercado Voluntario de Carbono BCR Estándar – Programa CERCARBONO (Certificadora de Carbono).
	Manejo y eliminación de residuos	– Programa VCS (Verified Carbon Standard). – Estándar para el Mercado Voluntario de Carbono BCR Estándar – Programa CERCARBONO (Certificadora de Carbono).

Sitios cubiertos por la acreditación
Sede principal: Avenida Calle 26 No. 69 – 76 / Torre 4 / Piso 9 y 10 – Edificio Elemento, Bogotá D.C., Colombia