JOINT VALIDATION & VERIFICATION REPORT

Mixed planting of native and non-native species in Paraguay-I

BCR-PY-451-14-001

VERSA Expertos en Certificación |

Validation & Verification Report	
Project Title	Mixed planting of native and non-native species in Paraguay-I
Project ID	BCR-PY-451-14-001
Project holder	Desarrollos Madereros S.A.
Project Type	Agriculture, forestry and other land uses (AFOLU).
Grouped project	Does not correspond to a grouped project.
Version number of the Project Document to which this report applies	6.2
Applied methodology(ies)	BCR0001_ARR Activities Version 4.0 09/02/ 2024.
Project location	Paraguay. Municipality of Hernandarias, Department of Paraná and San Juan Nepomuceno Municipality Caazapá.
Project starting date	01-12-2018
Quantification period of GHG emissions reductions/removals	2018-12-01 to 2058-11-30 (40 years).
Estimated total and average annual amount of GHG	Total emissions reduction: 153,133 tCO 2 Annual average: 3,828 tCO 2 /year

emission reductions/removals	
Monitoring period	1/12/2018 a 31/5/2023 (4,5 years)
Total amount of GHG emission reductions/removals achieved by the project in this monitoring period	15.917 tCO 2 3.713 tCO2 /year
Contribution to Sustainable Development Goals	SDG 1: No Poverty SDG 2: Zero Hunger SDG 3: Good Health and Well-Being SDG 4: Quality Education SDG 6: Clean Water and Sanitation SDG 9: Industry, Innovation and Infrastructure SDG 12: Responsible Consumption and Production SDG 13: Climate Action SDG 15: Life on Land
Special category, related to co-benefits	N/A
Version and date of issuing	Version 5, January 29, 2025
Work carried out by	Lead auditor: Diana Rauchwerger Technical Expert: Cesar Marin
Approved by	

	CAMILO ANDRES MONTAÑA SALAMANCA Firmado digitalmente por CAMILO ANDRES MONTAÑA SALAMANCA Fecha: 2025.01.30 11:33:02 -05'00' Camilo Andrés Montaña Salamanca CEO Director general Versa Expertos En Certificación S.A.S

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1 Executive summary

The Mixed Planting of Native and Non-Native Species in the Paraguay-I Project is part of the AFOLU sector and focuses on GHG removal activities. Its primary goal is to enhance forest carbon stocks by planting Eucalyptus spp. trees in two locations: Hernandarias, in the Department of Alto Paraná, and San Juan Nepomuceno, in the Department of Caazapá. Trees will be pruned at six years of age and harvested at ten years, followed by the introduction of 11 undisturbed native species. After each harvest, eucalyptus will be replanted, covering three harvest cycles. Once the project's crediting period ends in 2048, no additional eucalyptus will be replanted, allowing native species to establish a natural forest in the area. The carbon credits generated will be entirely traded on the voluntary market.

The purpose of this GHG project is to restore the ecosystem's ability to absorb atmospheric carbon and store it in biomass and soil through forest plantations, thereby contributing to climate change mitigation. Besides climatic benefits, the forest plantation can offer additional advantages, such as creating biological corridors and enhancing connectivity between ecosystems in Hernandarias and San Juan Nepomuceno.

The project has been validated for generating several additional benefits, including job creation and economic enhancement at both local and regional levels, along with contributing to the conservation of native biodiversity. This will be achieved by planting native trees, which will provide habitat and support the natural regeneration of flora and establishment of fauna. Additionally, the project will control soil erosion and improve soil structure by increasing organic matter content compared to five years ago, which the GHG Project demonstrated was used intensively as cattle grazing pasture.

The implementation status of the activities outlined in the Monitoring Report was verified and confirmed to promote sustainable development. We established the project's compliance with the defined criteria, described in section 2 of this document, as well as with the legal regulations and commitments assumed by the Republic of Paraguay applicable to carbon markets. The methodology used to calculate emission reductions was examined, and the effectiveness of the methods and procedures defined by the GHG Project proponent were evaluated. All of this ensured compliance with the audit process principles and guaranteed the integrity and credibility of the results obtained during the project's verification.

2 Objective, scope and criteria

The verification process carried out by VERSA's audit team for the Mixed Planting of Native and Non-Native Species in the Paraguay-I Project involved a rigorous and detailed evaluation of 100% of the evidence provided by the project holder, Desarrollos Madereros S.A. (DMSA). A field visit was conducted to validate and verify the accuracy of measurements, review the sampling design, identify possible errors or discrepancies in the declared information, collect additional information that was not reported, and assess the effectiveness of the proposed activities.

The audit aimed to perform an objective evaluation of the project to ascertain:

- That the project, its activities, methods, and procedures described in the Project Design (PD) document and its corresponding annexes, including the monitoring plan, comply with the criteria established for this validation and verification, which are described later in this section.
- Assess the adequacy of the project and the effectiveness of the proposed actions against the objectives, scope, principles, and criteria.
- Verify the material accuracy of greenhouse gas (GHG) emission reductions.
- Identify and evaluate any significant changes to the GHG project procedures or criteria described in the PD.

In accordance with Proposal No. GEI-P-146 and Legal Agreement No. VERSA-P-0150, the audit criteria are as follows:

- ISO 14064-2:2019 /92/.
- ISO 14064-3:2019 /93/.
- BCR Standard Empowering Sustainability, Redefining Standards, V3.4 June 28, 2024 /83/.
- BCR0001 Quantification of GHG Removals V4.0, February 2024 /84/.
- BCR Tool: Sustainable Development Goals V1.0 July 13, 2023 /85/.
- BCR Tool: Permanence and Risk Management V1.1 March 19, 2024 /86/.
- BCR Tool: Monitoring, Reporting and Verification V1.0 February 13, 2023 /87/.
- BCR Tool: Baseline and Additionality V1.3 March 1, 2024 /88/.
- BCR Tool: Avoiding Double Counting V2.0 February 7, 2024 /89/.
- Tool 14: Carbon Stock Estimation and Carbon Stock Change of Trees and Shrubs in F/R CDM Project Activities V04.2 /90/.
- Manual de Validación y Verificación. Proyectos GHG. Versión 2.4, 23 de marzo de 2024 /91/.
- BioCarbon Standard Requirements.

3 Validation and verification process

3.1 Level of assurance and materiality

To meet the requirements of ISO IEC 17029: 2019, ISO 14065:2020, ISO 14064-3:2019, ISO14064-2:2019 and the BioCarbon Standard, a 95% confidence level was established, and material discrepancies were confirmed to be less than 5%. To ensure compliance, the audit team conducted a strategic analysis of the key components of the GHG project. Following the audit plan and section 10.2.5 of the BCR validation and verification manual, the audit activities were conducted as follows:

1. A detailed review of 100% of the evidence provided by DMSA was carried out, which is described in Annex 3. Documentation review, and was compared with available official information, as detailed in Table 3. Level of assurance and Table 4. Validation and Verificaton process, cross-checked data and documents, with the aim of identifying possible methodological deviations that could arise with respect to the criteria described in section 2 of this document and generating the audit plan along with the risk assessment.
2. To corroborate the DMSA measurements of trees in relation to the estimation of carbon stored in non-permanent plots, and using a 95% confidence interval and a materiality not exceeding 5%, the VERSA audit team applied the sample size formula (Equation 01 of this document), 17 plots were measured across 6 of the project's 8 strata, as the remaining 2 strata were not planted at the time of sampling. It's important to note that the Mixed Planting Project of Native and Non-Native Species in Paraguay-I estimated a total of 20 non-permanent plots using Equation 23 from section 17.3.1.4 of the BCR0001 methodology version 4.0 to calculate the number of temporary sampling plots; this procedure is detailed more thoroughly in section 3.2.2 Sampling.
3. Interviews were conducted with those involved in the project, as detailed in section 3.2.3.2 Interviews of this document.
4. It was validated and verified that the GHG sinks and sources were consistent with the project activities, this procedure is detailed more thoroughly in section 4.5.3 Project boundary, sources and GHGs. Additionally, it was confirmed that the project areas did not qualify as forest five years before the project start date, please refer to section 5.5.1 Start date and quantification period of this document for further details. The baseline scenario was considered zero, as the land use five years prior to the commencement of the project was beef cattle ranching. The completion of the contract and the sale of cattle were also demonstrated, the full details of this process are available in section 5.5.4 Baseline or reference scenario of this document.

5. The quantification of mitigation results in comparison with the validated baseline, in accordance with applicable national regulations and/or the methodology applied, as appropriate, the full details of this process are available in section. In this context, the assurance level for the validation and verification of the GHG Project was determined to be 95%. During the process, inconsistencies were identified in the spreadsheets, as detailed in finding 18. However, the project implemented corrective measures to adjust the identified errors, demonstrating that these errors did not exceed 5%.

Thus, it was ensured that there was no material discrepancy in the calculated data, consolidating the reliability of the project information. The verification activities were conducted in accordance with the BCR manual, ensuring that the appropriate procedures were followed and maintaining the integrity of the information presented. Through this rigorous process, it is asserted that the GHG Mitigation Project meets the criteria set in the NTC-ISO 14064-3: 2019 standard and that the results obtained are consistent with the BioCarbon Standard guidelines.

3.2 Validation and verification activities

3.2.1 Planning

The step-by-step verification process for the "Mixed planting of native and non-native species in Paraguay-I" project, carried out by VERSA's audit team, is detailed as follows:

1. **Pre-commitment activities:** Previous agreement and economic agreement between VERSA and DMSA: in this stage, the two companies defined the type of commitment for the development of the validation process and joint verification of the project. The contract established the level of guarantee, objectives, criteria, scope and materiality threshold according to the needs of the intended user defined in the FOR 129-P COMMERCIAL PROPOSAL VALIDATION VERIFICATION PROJECT GHG. This process took place on: June 14, 2023, according to ISO IEC 17029:2020 and ISO 14065:2019 which are subject to VERSA accreditation with ONAC.

2. **Selection of the validation and verification team:** The selection of the audit team was carried out according to the procedures defined to manage risks to impartiality and to ensure the competence of the audit teams available to provide services in the scopes currently covered by VERSA's accreditation before the ONAC (National Accreditation Body Colombia), to mitigate this risk there is a legally binding agreement (FOR-108 Assignment Service to ensure impartiality during the service), whereby the audit team undertakes to:

- Comply with the processes and instructions of VERSA, including those related to fairness and confidentiality.
- Declare any previous or present association on their part, or by another person or organization with which they have a relationship (for example, a family member or employer), with a client of the VVB.
- Disclose any situation known to them that may present a perceived or actual threat of conflict of interest to them or to VVB, whether internal or external, that may influence validation/verification activities, which ensures that they act in an unbiased manner

Section 3.2 on the audit team and Annex 1 on the competence of team members and technical reviewers provides more detail on these aspects. It is essential to review these sections to gain a detailed understanding of them.

3. **Validation planning:** Validation planning involved strategic analysis, risk assessment and audit plan design. Because VERSA's audit team identified a high risk, it was necessary to perform 100% corroboration activities of the in-situ forest inventory as part of the evidence collection plan.
The guidelines established by VERSA were followed to ensure the integrity of the process, as described in the documents: PRO-108 Validation and Verification, Ver 11, FOR 135 Risk Analysis and Evidence Generation Plan Ver and the FOR-109 GHG Validation and Verification Audit Plan, V4.0. They are an integral part of the processes established by VERSA as VVB to carry out validation and verification activities with respect to the requirements specified in ISO/IEC 17029:2019 (The accreditation access has the code 23-VVB_005 and can be consulted at the following link: https://onac.org.co/certificados/23-VVB-005.pdf).

4. **Execution of validation activities:** During the documentary review and the field visit, VERSA's audit team evaluated the sufficiency of the evidence with respect to the previously established verification and validation (V/V) criteria. The evidence provided by the Project Proponent was carefully reviewed in four rounds of findings response, finally managing to establish the compliance of the GHG Project with the activities and procedures proposed in the PD and foreseen in the MR in relation to the audit criteria. This activity was developed from July 24, 2023, with the delivery of the findings, until April 15, 2024, when the Project Proponent resolved 100% of the findings.

   Based on the above, it can be concluded that the validation team conducted the audit activities in accordance with the validation plan. Evidence gathering

activities were conducted according to the corresponding plan, the GHG statement was evaluated, and this validation report was prepared as a result.

5. **Independent Review:** This process was carried out by a competent and independent professional of the audit team responsible for the audit activities, designated by VERSA and approved by the client, following the guidelines of ISO IEC 17029:2019 No: 7 y 9.6, ISO 14065:2020 No: 7 y 9.6, ISO 14066:2014 No: 3.1 y 7, ISO 14064-2:2019 No 8 and ISO 14064-3:2019 No: 8.

6. **Opinion Issuance:** drafting of the verification opinion in accordance with the requirements of section 5.3.7 of ISO IEC 17029:2019 and ISO 14064-2:2019 Chapter 9.

3.2.2 Sampling

The audit plan was executed in accordance with the stipulations in Annex 5, based on the information validated and verified during the Documentary Review and Strategic Planning stages. This approach allowed for the establishment of a robust sampling plan, which was socialised by the VERSA audit team and approved by the client, in line with the guidelines of the most recent versions of ISO IEC 17029 and ISO 14065 standards.

The sampling plan was developed considering the required level of assurance, risk management, and a thorough review of available documentary information. This plan was specifically designed to guide data collection during the field visit, thus ensuring a comprehensive and objective evaluation of the GHG project. The project established two main strata for its evaluation:

1. Baseline Scenario: Pertains to the current land use in the project area.
2. Project Scenario: Corresponds to the year of planting.

To validate the baseline scenario, the audit team reviewed SENACSA certificates, confirming the processing of 12 steers on two specific dates: 22 December 2010 and 4 November 2010. Additionally, grazing contracts with the company Asteria Intil S.A. /27/ and other lessees were examined, demonstrating that the lands had been leased since 2005, 2010, and 2007, which corroborates that the historical land use of the GHG project area corresponded to livestock farming, /57/58/ and /59/.

Using equation 23 from section 17.3.1.4 of BCR0001 methodology version 4.0, DMSA estimated the carbon stored in 20 non-permanent circular plots (400 m^2, radius of 11.96 m) in the plantation of three hybrid Eucalyptus species (further details are provided in section 15.1, Description of the Monitoring Plan).

To corroborate the phytosanitary status, planting density, and the measurements taken by the Project Holder, it was determined, within the sampling process, how many plots needed to be visited. To this end, the audit team used Equation 1 (sample size formula) from Cochran, W. G. (1977) /157/, considering a population size of 20 non-permanent plots (generated from DMSA monitoring), a confidence level of 95%, a materiality of 5%, and a margin of error of 10%. In total, the team visited 17 of these plots.

Equation 1. Sample size formula

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1-p)}{(E^2 \cdot (N-1) + Z^2 \cdot p \cdot (1-p))}.$$

where:

(n) = sample size

(N) = total population size (in this case, 20 plots)

(Z) = Z value corresponding to the confidence level (for a 95% confidence level, (Z \approx 1.96))

(p) = estimated proportion of the population (0.5)

(E) = margin of error (in proportion; a 10% would be 0.1)

Substituting the values into the formula:

1. Numerator:

   N * Z^2 * p * (1-p) = 20 * 1.96^2 * 0.5 * (1 - 0.5) = 20 * 3.8416 * 0.5 * 0.5 = 19.208

2. Denominator:

   E^2 * (N-1) + Z^2 * p * (1-p) = 0.10^2 * (20 - 1) + 1.96^2 * 0.5 * (1 - 0.5) = 0.01 * 19 + 3.8416 * 0.5 * 0.5 = 0.19 + 0.9604 = 1.1504.

3. Final Calculation:

   n = 19.208 / 1.1504 ≈ 16.69

Since it is not possible to have a fraction of a plot, the sample size should be rounded up, resulting in a total of 17 plots.

The formula used to calculate the sample size is based on the theory of sampling and statistical inference. The adjustment for finite populations is essential, as it

allows for estimating population parameters, such as means or proportions, from a subset (sample) of that population. The use of the Z value is crucial for establishing the confidence level, ensuring that the results obtained are not merely a product of chance.

By considering an estimated proportion of 0.5, the required sample size is maximized, which is a common practice in research when no prior information is available. This conservative approach ensures that even in situations of high variability, the calculated sample size will be sufficient to obtain accurate estimates.

Table 1. Plots visited during the audit

Stratum	Year of Planting	Pitches (ni)
1	2018	2
2	2019	4
3	2019	3
4	2020	4
5	2021	3
6	2022	1
	Total	17

Source: VERSA, 2025

Regarding the quantification of greenhouse gas (GHG) emissions, Table 2 presents the level of assurance envisaged for the audit. This level was determined based on the data provided by the project owner and establishes the framework for evaluating the accuracy of the information to be used for the quantification of GHG emissions. In Annex 3, all the cross-check documents are listed, allowing for clear and organized identification of each of the materials used in the validation process. This listing facilitates consultation and access to the information, ensuring that all relevant documents are available for review and analysis.

Table 2. Level of assurance

Parameter or Requirement	Type of Evidence	Information Source	Level of Assurance
Legal documents	Quantitative	Property and carbon rights documentation (land tenure). Cross-Check documents: /10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 25/44/ 45/ 46/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/ 77/ 83/ 84/ 91/ 92/ 93/ 96/ 97/ 98/ 99/ 118/ and 119/.	100%
Cartography		Project Boundaries - GIS Files. Cross-Check documents: /6/ 7/ 8/ 9/ 10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 25/44/ 45/ 46/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/ 77/ 82/ 83/ 84/ 91/ 92/ 93/ 118/ and 119/	100%
Year		Project start date documentation. Cross-Check documents: /27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42 43/ 83/ 84/ 91/ 92/ 93/ 96/ 97/98/ and /99/.	100%
Area		Eligibility analysis – GIS. Cross-Check documents: /1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12/ 13/ 27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42 / 43/83/ 84/ 91/ 92/ 93/ 113/ 114/ 117/ 118/ 120/ 121/ 122/ 123/ 124/ 125/ 126/ and 127/.	100%
Area		Baseline, detailed evaluation of how the project describes and substantiates, with evidence, the without-project scenario, which in this case corresponds to pastures for extensive livestock farming. Cross-Check documents: 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12/ 13/ 27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ 43/83/ 84/ 88/ 90/ 91/ 92/ 93/ 113/ 114/ 117 and 118/.	100%
Biomass		Quantification Results: Review of the procedures and the spreadsheet in the	95%

Parameter or Requirement	Type of Evidence	Information Source	Level of Assurance
		PD and RM, interviews with the individuals responsible for the forestry inventory to verify their competence and the proper implementation of the procedures established by DMSA, and verification of the overall condition of the plots. Reference documents: 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 80/ 81/ 82/ 83/ 84/ 87/ 91/ 92 and 93/.	
Interviews		Implementation Activities. Reference documents: 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 60/ 61/ 62/ 63/ 64/ 66/ 67/ 68/ 71/ 72/ 73/ 74/ 75/ 83/ 84/ 91/ 92 and 93/.	100%

Source: VERSA, 2025.

The methodology applied in planning this audit aims to ensure an objective and rigorous evaluation of the forest GHG project during the field visit, complying with the standards required by BioCarbon Standard and the applicable ISO regulations.

Additionally, the risks that could occur during the audit process were evaluated, which was considered in defining the sampling plan in its different phases. These risks could result in errors in the estimation of carbon calculation, as shown in Table 3.

Table 3. Risk assessment in the audit process.

INHERENT RISKS	RISK LEVEL	IMPACT	RISK ASSESSMENT	RISK MANAGEMENT
CONTROL RISKS				
The presented forest inventory does not align with the actual field measurements due to deficiencies in training or the incorrect application of data collection	HIGH	HIGH	MEDIUM	Measurements will be carried out on the diameter at chest height, the coordinates of the plots, the area of the plot, the planting densities, and the height of each of the trees present in the plot.

INHERENT RISKS	RISK LEVEL	IMPACT	RISK ASSESSMENT	RISK MANAGEMENT
methodologies, which is reflected in the reported growth data.				Given that the plantation owners do not directly carry out the measurement and monitoring services of the plots but instead outsource these, an interview will be conducted with the contracted company. During this process, the calibration of the personnel involved in conducting the measurements will be verified, thus ensuring the quality and accuracy of the collected data, as well as the competence and procedure for personnel replacement
Human error in quantifying emissions accuracy: double counting, significant manual transfer of key data, and inappropriate use of emission factors.	HIGH	HIGH	HIGH	100% of the data indicated in the spreadsheet is cross-checked with the information available in the data source and in the information provided by the GHG project.
The documentation of factors influencing the growth and development of the plantations is insufficient or absent (such as pests, fires, diseases, or others). This lack can have a significant impact	HIGH	HIGH	HIGH	Advance with an assessment of possible pests and diseases during the field visit. Review the crop management plan of the plantation.

INHERENT RISKS	RISK LEVEL	IMPACT	RISK ASSESSMENT	RISK MANAGEMENT
on the provided capture estimates.				
Lack of full data coverage. Exclusion of significant sources, incorrectly defined limits, leakage effects.	HIGH	HIGH	HIGH	It is ensured that all data from the Validation and verification period was considered within the defined limits of the project.
Human error in quantifying emissions.	LOW	HIGH	MEDLE	Se llevará a cabo una verificación del 100% de las hojas de cálculo.
Inherent Risk:				
Reliance on a technology platform designed for data capture, which can result in omissions and errors in the transfer of raw or raw data to the emissions reduction or removal EXCEL spreadsheet.	HIGH	HIGH	HIGH	The project proponent provides the procedures and activities they have in place to quantify the data, capture it, and store it. The auditor verifies compliance with the various procedures through interviews with the project developer. The project proponent must demonstrate how data transfer is carried out and how it is verified. The auditor should include in the audit plan a section for interviews with the personnel responsible for recording and verifying the data in accordance with their procedures
Detection Risk				
Delays in the calibration of measurement or monitoring equipment related	HIGH	HIGH	MEDLE	The project proponent should establish a procedure whereby a recording check of the calibration frequency of

INHERENT RISKS	RISK LEVEL	IMPACT	RISK ASSESSMENT	RISK MANAGEMENT
to the quantification of GHG removals or reductions.				the measuring equipment is carried out to ensure its precision and accuracy. Additional information on the number of plots.
Insufficient information to demonstrate the possession of the rights to use the land on which the forestry activity takes place	HIGH	HIGH	HIGH	The project proponent does not provide the evidence that accredits them as the holder of land use rights.

Source: VERSA, 2025.

After considering all the elements collected during the strategic analysis of the project, as well as the assessment conducted throughout the project's development and the on-site audit, it was established that the gathered evidence is appropriate and sufficient to draw a conclusion based on the validation and verification processes.

According to the above, VERSA in FOR 109 - Greenhouse Gas Validation and Verification Audit Plan, defines that to meet the objectives of the process, the auditing process takes a total of 3 days, and no additional virtual interviews are required.

After considering all the elements collected during the strategic analysis of the project, as well as the evaluation carried out throughout the project's development and the on-site audit, it was established that the collected evidence is appropriate and sufficient to draw a conclusion based on the validation and verification processes.

Everything related to the land ownership rights of the project and the boundaries of the areas that form part of it is based on the deeds of the properties. As mentioned earlier, the audit team reviewed 100% of the deeds provided by the person responsible for the GHG project.

It was evidenced through documentary review and interviews with the local authorities that the project leader has specific activities to fulfil the environmental obligations determined by laws and regulations and to ensure compliance over time.

The monitoring of how the project contributes to the Sustainable Development Goals (SDGs) and the safeguards is described in the PD and RM. These impacts were evaluated by the audit team during the field visit with the authorities, neighbors, and other stakeholders involved.

3.2.3 Execution

The joint validation and verification of the project were conducted through a comprehensive evaluation, as detailed in the Evidence Collection Plan (Appendix 5). Key activities included reviewing 100% of all submitted documents. In this context, Annex 3 lists all the documents studied, which are part of the cross-verification process. This allows for clear and organized identification of the evidence provided by DMSA and the secondary information sources used to corroborate the accuracy of the information. Additionally, the inspection of 17 temporary sampling plots out of a total of 20 was performed, and interviews with stakeholders were conducted. In this case, no deviations from the planned audit were reported, except for the completion of an additional round of findings. Furthermore, VERSA managed the data efficiently, ensuring that all evidence was properly stored, managed, and tracked throughout the process.

Table 4. Validation and Verification process, cross-checked data and documents.

Parameter or Requirement	OEC Evaluation	Cross-Check data or document (see Annex 3)
Compliance with spatial boundaries	The compliance of the project with the applicability conditions of BCR0001 Quantification of GHG Removals V4.0, February 2024, was thoroughly evaluated. This assessment included confirming that the project areas are neither included in nor overlap with the geographical boundaries of other existing projects. To ensure a comprehensive evaluation, a cross-check	/1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ /11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ /19/ 20/ 21/ 22/ 23/ 24/ 25/44/ /45/ 46/ 47/ 48/ 49/ 50/ 51/ /52/ 53/ 54/ 55/ 77/ 82/ 83/ /84/ 91/ 92/ 93/ 118/ 119/ 120/ /121/ 122/ 123/ 124/ 125/ 126/ /127/ and 128/.

Parameter or Requirement	OEC Evaluation	Cross-Check data or document (see Annex 3)
	was conducted against national records and/or available data from governmental or national registry systems.	
Applicability of the methodology	The evaluation focused on assessing the project's alignment with the applicability conditions outlined in BCR0001 Quantification of GHG Removals V4.0. This document provides essential guidelines and criteria that projects must meet to ensure they effectively contribute to climate change mitigation efforts. The assessment considered various factors, including adherence to ecological criteria like the absence of forests and wetlands, the prohibition of flood irrigation and invasive species, and maintaining carbon stock stability, alongside project design and expected outcomes, to ensure compliance with environmental and social safeguards. By determining the project's compliance, stakeholders can ensure that it is robust, transparent, and capable of delivering on its climate objectives while promoting sustainable forest management and community benefits.	/ 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ /11/ 12/ 13/ 27/ 28/ 29/ 30/ 31/ /32/ 33/ 34/ 35/ 36/ 37/ 38/ /39/ 40/ 41/ 42 / 43/83/ 84/ /91/ 92/ 93/ 113/ 114/ 117/ 118/ /120/ 121/ 122/ 123/ 124/ 125/ /126/ and 127/.
Prevention of double counting	A search was conducted on other platforms and GHG standards to ensure that the project does not overlap	/1/ 2/ 3/ 4/ 5/ 6/ 83/ 84/ 89/ /99/ 100/ 105/ 111/ 118/ 120/ /121/ 122/ 123/ 124/ 125/ 126/ and /127/.

Parameter or Requirement	OEC Evaluation	Cross-Check data or document (see Annex 3)
	with or is included in other projects, using the BCR TOOL AVOIDING DOUBLE COUNTING (ADC) V2.0.	
Ownership and carbon rights	A thorough review was conducted of all the deeds and titles presented by DMSA that support land ownership. To ensure their validity, these documents were cross-referenced with the current laws and regulations of Paraguay regarding private property rights.	/10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ /18/ 19/ 20/ 21/ 22/ 23/ 24/ /25/44/ 45/ 46/ 47/ 48/ 49/ /50/ 51/ 52/ 53/ 54/ 55/ 77/ /83/ 84/ 91/ 92/ 93/ 96/ 97/ /98/ 99/ 118/ and /119/.
Baseline Scenario and Additionality	The procedures and activities, along with their supporting documentation, were reviewed to understand how the greenhouse gas (GHG) mitigation project identified the baseline scenario, additionality, types of GHGs, and the need for sources, sinks, and reservoirs to be conservative. This included verifying how DMSA adhered to these guidelines during the evaluation process. To determine the baseline scenario and demonstrate additionality, the "BCR GUIDELINES. BASELINE AND ADDITIONALITY" tool in its most recent version was applied, along with Tool 14: "Carbon Stock Estimation and Carbon Stock Change of Trees and Shrubs in F/R CDM Project Activities V04.2." The assessment	/1/ 2/ 3/ 4/ 5/ 6/ 27/ 28/ 29/ /30/ 31/ 32/ 33/ 34/ 35/ 36/ /37/ 38/ 39/ 40/ 41/ 42/ 43/ /57/ 58/ 59/ 60/ 66/ 67/ 68/ /83/ 84/ 88/ 92/ 93/ 100/ 101/ /102/ 105/ 106/ 118/ and /119/.

Parameter or Requirement	OEC Evaluation	Cross-Check data or document (see Annex 3)
	focused on how DMSA complied with these directives throughout the process.	
Quantification of Mitigation	The implementation of BCR 0001 V4.0 was evaluated to identify the mitigation results within the project area and the possible leaks, verifying the consistency of the formulas and factors used.	/1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 80/ /81/ 82/ 83/ 84/ 87/ 91/ 92/ and /93/.
Risk Management and Permanence	The identification of risks and the permanence of the project were analyzed through document review and interviews with the involved stakeholders, in accordance with the BCR TOOL PERMANENCE AND RISK MANAGEMENT V1.1, section 14 of the BCR Standard V3.4, and section 14 on Risk Management of BCR Standard Empowering Sustainability, Redefining Standards, V3.4.	/1/ 2/ 3/ 4/ 5/ 6/ 7/ 10/ 11/ 12/ /13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ /21/ 22/ 23/ 24/ 25/ 26/ 27/ /28/ 29/ 30/ 31/ 32/ 33/ 34/ /35/ 36/ 37/ 38/ 39/ 40/ 41/ /42/ 43/ 44/ 45/ 46/ 47/ 48/ /49/ 50/ /51/ 52/ 53/ 54/ 55/ /56/ 57/ /58/ 59/ 60/ 61/ 62/ /63/ 64/ /65/ 66/ 67/ 68/ 74/ /75/ 83/ /84/ 86/ 100/ 101/ /104/ 113/ /118/ and /119/.
Monitoring, Reporting, and Verification (MRV)	Compliance with the monitoring plan, information collection activities, quality control management, and allocation of responsibilities was evaluated in accordance with the TOOL BCR MRV 2023.	/1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 80/ /81/ 82/ 83/ 84/ 87/ 91/ 92/ and /93/.
Legal Compliance and Document Management	Compliance with environmental legal requirements and the implementation of procedures to ensure the quality of information and document control were verified.	/1/ 2/ 3/ 4/ 5/ 6/ 7/ 83/84/86/ /100/ 101/ 102/ 103/ 104/ 105/ /106/ 107/ 108/ 109/ 110/ 111/ /112/ 113/ 114/ 115/ 116/ and /117/.

The validation and verification methodology included a document review to assess the methodological suitability, applicability of assumptions, data origin, and ownership. A total of 30 findings were identified, detailed in Annex 2, and documents, records, and monitoring data described in Annex 3 were reviewed, with their analysis presented in Tables 3 and 4. The VERSA audit identified 32 findings, all of which were successfully addressed. These comprised four clarification requests and 28 corrective action requests; no future action requests were issued.

The VERSA audit team concludes that the GHG mitigation project proposed by DMSA meets the established requirements, demonstrating integrity and effectiveness. The resolution of 100% of the identified findings, along with the evidence provided by the project proponent (Annexes 2 and 3), is crucial to ensuring the overall validity of the GHG declaration.

3.2.3.1 Onsite inspection

Plantation, Diana Rauchwerger, 2023.

Interviews with plantation workers and others involved in the GHG Project began on July 18 through July 20, 2023, with the fundamental purpose of validating and verifying the execution of the various activities contemplated as part of the GHG Project (listed in Table 5).

One of the key points during the field visit was to identify how the GHG Project Proponent implements the processes defined for the capture and processing of the information needed to carry out the forest inventory. As well, understand how complaints and claims are handled, as well as any other aspect related to the interaction between workers and DMSA and CAMBIUM, such as training on the use of tools and personnel rotation, among others. This interview process was carried out with the objective of gaining an in-depth understanding of the

operational and management dynamics of the Eucalyptus spp. plantation, thus allowing an assessment of the effectiveness and adequacy of the implementation of project activities.

During the second day of the audit, 100% of the temporary plots were verified to confirm the accuracy and effectiveness of the monitoring procedures of the carbon pools that are part of the MR. The main objective of this verification was to ensure the correct implementation of the procedures, defined to estimate the volume and live biomass in DMSA's plantations, which is essential to verify the accuracy of the reported data.

3.2.3.2 Interviews

July 17, 2023, marked the beginning of the audit process with the opening meeting, which was attended by the personnel responsible for the project (DMSA and CAMBIUM). During this meeting, the following points were discussed:

1. The role played by the company Versa as a conformity assessment body, in charge of carrying out the Verification of the PMCC.
2. General presentation of the validation and joint verification process and socialization of the audit plan where emphasis was made on the previously defined criteria, purpose and scope of the validation and joint verification.
3. Ratification of the confidentiality commitment by the VERSA audit team.
4. Explanation of the process of identifying findings and their classification.
5. Communication channels available to handle comments, complaints and claims.
6. Explanation of the types of feedback.
7. Reasons that could generate the loss of confidence of the audit team.
8. Causes that could stop the audit process.

Source: VERSA, 2025.

From July 18 to 20 a series of interviews were conducted; all interviewees are listed in Table 5. At this point it is important to note that there were no virtual interviews.

Table 5. Persons interviewed during the Validation and Verification Process.

Name	ROLE
Derlis Osorio	Forest Inventory Manager of the INAFO company
Lic. Carlos Antonio López	Hernandarias District Hospital
Ing. Gloria Zárate	General Director of Health, Hygiene and Environment of the Municipality of Hernandarias
Eng. Zulma Sandoval	In charge of the Environment of the Municipality of Hernandarias.
Eng. Héctor Benítez:	Environmental Officer of the Municipality of Hernandarias
Sr. Carlos Santacruz	Neighbor of the Community of Heart of Mary
Student Adrián Vega Orué	Neighbor of the Community of Enramadita

Name	ROLE
Mr. Sergio Chaparro	Park Ranger of the Tapytá Nature Reserve (Moisés Bertoni Foundation)
Mr. Roberto Martinez	Park Ranger of the Tapytá Nature Reserve (Moisés Bertoni Foundation)

Within the framework of the evaluation of the activities of the DMSA company and its impact on the local community, structured interviews were conducted with the neighbors of the forest plantation located in Tapytá and Hernadarias. The objective of these interviews was to collect data on the community's knowledge of the company, its relationship with it, the activities carried out for the benefit of the community and the perceived impact of these activities.

The project's activities are aligned with several of the Sustainable Development Goals (SDGs) and the Cancun Safeguards, ensuring a holistic and respectful approach towards community and environmental development. Compliance with SDG 1 (No poverty) and SDG 2 (Zero hunger) is evidenced in the generation of employment and the strengthening of economic security, also promoting the rights of the community and its sustainable development, as proposed by the Cancun Safeguards. Compliance with SDG 3 (Good health and well-being) and SDG 6 (Clean water and sanitation) is reflected in infrastructure improvements and support for a healthier environment, in line with the safeguard that seeks to protect human well-being. Investment in education and training, linked to SDG 4 (Quality Education), responds to the principle of full and effective stakeholder participation, emphasised by safeguards. Progress in infrastructure and sustainable practices, related to SDG 9 (Industry, innovation and infrastructure) and SDG 12 (Responsible consumption and production), and the commitment to mitigating environmental impacts, linked to SDG 13 (Climate action) and SDG 15 (Life on land), are in harmony with the safeguard that emphasizes the conservation of biodiversity and environmental services. Thus, the project supports both an inclusive and ecologically responsible approach, promoting community well-being and environmental integrity in accordance with the principles established by the Cancun Safeguards.

Interviewees were asked to recount the history of the land parcels leased by DMSA. Unanimously, they recalled the land being leased to local individuals or families, primarily utilized for extensive cattle ranching (beef cattle fattening). They described the typical farming practices employed, noting the cyclical nature of the cattle operations. Upon the conclusion of each lease agreement, the interviewees consistently reported the sale of the livestock for slaughter, marking a clear end to the agricultural cycle on those specific parcels before DMSA's acquisition. This consistent testimony provides valuable contextual

Name	ROLE
information regarding the previous land use and supports the claim of past grazing activities.	
Ing. Samuel Chávez	Social area/extension Moisés Bertoni Foundation
Ing. César Florentin	Head of INFONA Regional Office of Caazapá
Eng. Jorge Guillén	INFONA Technician of Asunción
Mr. Elvio Fleitas	INFONA Technician of San Juan Nepomuceno
Structured interviews were conducted with representatives of various government entities. The questions focused on their knowledge of the company, the nature of any collaboration regarding the GHG project, and their perception of the impact of such collaborations. As a result, the interviewees mentioned that the GHG project activities effectively comply with the selected Sustainable Development Goals (SDGs) and the Cancun Safeguards. The interviewees confirmed that the traditional use of the property was focused on livestock, an activity now replaced by sustainable practices that support SDG 1 (No poverty) and SDG 2 (Zero hunger) through the generation of jobs and improved food security. The company contributes directly to SDG 3 (Good Health and Well-being) by donating medicines, improving access to health care in the local community. In addition, its environmental education campaigns in schools reinforce SDG 4 (Quality Education) by promoting environmental awareness from an early age. Actions that ensure responsible water use are aligned with SDG 6 (Clean water and sanitation). The commitment to greener infrastructure and the adoption of sustainable practices is related to SDG 9 (Industry, innovation and infrastructure) and SDG 12 (Responsible production and consumption), promoting cleaner and more efficient processes. Efforts to reduce emissions comply with SDG 13 (Climate Action), while reforestation initiatives promote SDG 15 (Life on Land). All these activities not only support the SDGs, but respect the Cancun Safeguards by fostering sustainable development, protecting community rights, conserving biodiversity, and managing natural resources sustainably, demonstrating a comprehensive approach that benefits both the local community and the global environment.	
Leonel Mingo	Project Consultant
Miguel Rios	DMSA Forestry Chief
Carlos Arévalos	DMSA R+D Manager

Name	ROLE
Mario Ramos	DMSA Technical Advisor
Lilian Giménez	FSC DMSA Manager
Pablo Aquino	Project Holder
Juan Murillo Arias	Cambium Earth SL
Ricardo Rodolfo Kiriluk	DMSA Principal Conductor
In the interviews conducted with the staff of the DMSA company, it was inquired about how the project addressed issues related to the identification of eligible areas, the definition of the baseline scenario, additionality, stratification, uncertainty management, land tenure supports, calculations, cartography, leakage, the monitoring plan, the review of information processing, and the systems of registration and data management. Through these interviews, it was possible to establish that the DMSA company has solid procedures that guarantee the traceability of the information. The data provided by the company was extensive and sufficient to meet the established requirements. The deviations identified by the audit team during the desk review were not due to a lack of information, but rather to aspects related to the presentation of information. This finding underscores the need to improve clarity and organization in the way data is presented, thus ensuring more effective and efficient understanding by evaluators.	

Source: VERSA, 2025

3.2.3.3 Findings

VERSA has established clear procedures for identifying areas in a GHG Project that require correction, improvement, or clarification during joint Validation and Verification. This procedure is the responsibility of the Lead Auditor and was communicated to the GHG Project Proponent at the beginning of the process. The findings detected are compiled on the FOR 101 form, where the Project Holder provides their answers and additional evidence if necessary.

The main objective of the validation and verification process was to identify deviations from the criteria defined for the GHG project audit. To this end, parameters included in the Project Document (PD) and the Monitoring Report (RM) were evaluated, especially those related to equations, parameters and key data that indicated the alignment of the project with the established criteria. This

assessment included the baseline scenario, additionality, layering and monitoring plans, thus ensuring the quality of the information.

A detailed environmental and social assessment was carried out and stakeholders were consulted to ensure transparency and legal compliance. A total of 32 findings were identified. Based on this, the findings of non-conformity were categorized as follows:

- CAR: Corrective Action Request

The VERSA team identified 28 Corrective Action Requests (CARs), related to non-compliance with the requirements of the standards and the BioCarbon Standardprogram. The CARs identified are derived from:

- Material misstatement: material errors affecting the decision of the intended user of the GHG inventory or project (ISO 14064-3:2019).
- Situations that influenced the ability of the project or inventory to achieve actual, measurable and verifiable GHG emissions quantification, reduction and/or removal.
- Any situation of risk that GHG emissions, reductions and/or removals cannot be monitored and/or calculated.

The list of corrective action requirements identified by VERSA's audit team and their response by the Project Holder can be consulted in greater detail in Annex 2 of this document, respectively.

- CL: Clarification Request

After performing this evaluation, four clarification requests (CLs) were identified, which were resolved in their entirety, due to the responses provided by the Project proponent. These were comprehensive and duly supported with evidence to address the CLs raised. The relevant adjustments were included in both the Project Document (PD), Monitoring Report (MR), evidence and relevant annexes. The list of clarification requests identified and their response by the Project Holder can be found in more detail in Annex 2.

- FAR: Future Action Request

During the stage carried out by the audit team for this validation and retroactive verification process, a total of 28 corrective action requests (CAR), 4 requests for clarification (CL) and 0 requests for future action (FAR) were identified, all of which were satisfactorily closed.

3.3 Audit team

Table 6. VERSA Personnel Assigned to the GHG Project Validation/Verification.

Full name	Role(s) or responsibility(ies)
Diana Rauchwerger Londoño*	Lead Auditor
Type of activity(ies) developed*	In accordance with ISO 14066 and ISO 14065 standards in their latest version, as well as the procedures established by VERSA for carrying out the validation/verification process, the activities of the lead auditor included: developing the strategic plan, risk assessment, designing activities for evidence collection, designing and implementing the validation/verification plan, conducting field visits, leading the audit according to the validation/verification plan, evaluating changes in GHG statements, and drafting a joint validation and verification report.
Profile	Experienced professional with four years of tenure as a technical expert at ONAC (National Accreditation Body), specializing in AFOLU sector conformity assessments for GHG validation and verification bodies (including ICONTEC, AENOR, VERSA, VERIFIT, and Deutsche Certification Body). Possesses extensive expertise in climate change mitigation, gained through contributions to the development of six regulatory packages at Colombia's Ministry of Environment and Sustainable Development, supporting the implementation of the Paris Agreement's Article 6. Experience also includes serving as an ICCO REDD+ project expert, with project involvement such as Los Riscales. Currently serves as a lead auditor for forestry and reforestation projects at VERSA, recently joining AENOR as well. ColCX: - Validation and verification for the ARR La Tabaca project, ID COLCX-14-0020. - Validation and verification for the DEIYIABENA REDD+ Núkak Baká project, ID ColCX-14-0021. CERCARBONO: - Second verification of the Planeta Agradecido project with the Bajo Río Guainía and Río Negro indigenous reservation, Code 146. - Validation and first verification of the Planeta Agradecido II project with the Bajo Río Guainía and Río Negro indigenous reservation, Code 64. - Validation and first verification of the Agrupado ITXAWA REDD+ project, code 172.

	- Validation and first verification of the YUXIBÚ II REDD+ project, code 189. - Second verification of the mitigation project in the land use sector, change in land use and silviculture due to the establishment of Hevea brasiliensis sp. forest systems in the municipality of Barrancabermeja, Santander, Colombia, code 25. BioCarbon Registry: - Validation and first verification of the Paramuno Proyecto 1, ID BCR-CO_635-14. - Second verification of the CO2BIO P2 project, ID BCR-CO-635-14-005. - Validation and verification of the Mixed planting of native and non-native species in Paraguay-I project, ID BCR-PY-451-14-001. - Validation and verification of the REDD+ Awia Tuparro +9 project, ID BCR-CO-CO-14-004. - Validation and verification of the REDD+ MARENA ICHENA-NAG+MA ENOYE RAFUE project, ID BCR-CO-338-14-001. - Validation and verification of the REDD+ Lomas de Nogales project, ID BCR-AR-365-14-001 as Observer
Full name	Role(s) or responsibility(ies)
Cesar Marín *	Technical expert
Type of activity(ies) developed*	In accordance with ISO 14066 and ISO 14065 standards, the activities of the technical expert included providing technical support to the audit team in understanding aspects related to conformity assessment. He evaluated and analyzed technical and scientific information related to assessment methods and environmental management practices, contributed to the development of the audit plan, providing his expertise to define the appropriate scope and criteria, and offered on-site advice on technical and regulatory issues that arose during the audit. He also participated in reviewing findings, ensuring that technical aspects were considered in the conclusions, collaborated in report writing by providing technical content that supported the conclusions, and kept updated on technical and regulatory issues related to environmental management and auditing.
* **Profile**	Botanist with 25 years' experience in fieldwork characterizing vegetation in Amazonian, Andean, and páramo ecosystems. Expertise in biodiversity characterization methodologies, project coordination, ethnobotany, ecological restoration, landscape management, ecological

	analysis, and carbon estimation in high-altitude wetlands. Proven ability to lead and collaborate within interdisciplinary teams. - Lead Auditor and ISO 14065-2 Technical Expert: VERSA Expertos en certificación SAS. - Technical Coordinator, Monitoring, Reporting, and Verification: Chemonics International Inc. (USAID project) - Research Assistant III: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. - Coordinator, Bogotá Flora and Reference Collections; Curator, JBB Herbarium: Jardín Botánico de Bogotá. - Research Associate II: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. - Professor Assistant: Escuela de Biología, Universidad Industrial de Santander; Curator Director, UIS Herbarium. - Full-time Professor: Universidad Antonio Nariño. - Adjunct Lecturer: Department of Biological Sciences, Herbert H. Lehman College, City University of New York. - Researcher III: Instituto Amazónico de Investigaciones Científicas – SINCHI. - Researcher I: Instituto Amazónico de Investigaciones Científicas – SINCHI. - Research Technologist: Instituto Amazónico de Investigaciones Científicas – SINCHI. - Environmental Technologist: Ingeniería e Hidrosistemas Ltda
Full name	Role(s) or responsibility(ies)
Lucas Rivera	Technical Reviewer
Type of activity(ies) developed*	In the project, the technical reviewer played a key role in ensuring quality and compliance of the documents. His work included the technical review of key documents, ensuring that they met the requirements established by applicable regulations, such as ISO 14064-2 and 14064-3. In addition, he evaluated the methodologies used, verifying their validity and relevance in the context of the project, as well as the consistency in the application of the procedures. The reviewer worked closely with the team to identify possible deviations and proposed adjustments that optimized the validation process. He also reviewed the evidence collected during audits and verifications, ensuring that they were sufficient and appropriate to support the project opinion.
* **Profile**	Forestry engineer from the Universidad Distrital de Colombia. Consultant with more than fifteen years of international experience in REDD+, ARR, transportation, waste and energy projects for their formulation, validation, verification and issuance of carbon credits.

	With a Master's degree in Environmental Management, a Master's degree in Financial Administration and Forestry Engineering. Carbon and GHG Footprint Auditor with courses such as Lead_Auditor_Greenhouse_Gases_and_Carbon_Footprint_GHG SGS and Developer_Forest_Carbon_Projects as well as in ISO 14064 and REDD+. He has participated as a climate change consultant in Colombia and Globally in REDD+, AR, transportation, waste and energy carbon projects in the Pacific region, Amazonas and Andes in Colombia. He also participated as a lead auditor for the ORINOCO2 REDD+ project and as a technical reviewer for projects such as Deiyiabena REDD+ Nükak, the Vichada Nucleus Forestry Project - Meta CO2CERO, Kuvei Mäcärö Vidi REDD+ Carurú - KUMAVI REDD+, the YUMA AGRÍCOLA project, the Baudo basin REDD+ project, El Tigre REDD+, among others. Experience leading multidisciplinary teams and working with ethnic and rural communities.
Full name	Role(s) or responsibility(ies)
Camilo Montaña*	Issuance of verification opinion
Type of activity(ies) developed*	The managing director oversaw the correct application of the OVV procedures, verifying that the methodologies used were technically sound and that the evidence collected during the audit was sufficient and appropriate. Once the technical team and reviewers completed their work, the Director General assessed the consistency, completeness and clarity of the report, ensuring that it faithfully reflected the findings and conclusions. By signing the final report and opinion, the Director General not only endorsed the results, but also guaranteed the impartiality and credibility of the process, establishing the official position of the OVV vis-à-vis stakeholders and regulatory bodies.
* **Profile**	Mechanical engineer and project holder with over 12 years of experience in conformity assessment and monitoring of technical regulations. Former head of the technical regulations group at the Superintendence of Industry and Commerce. He has completed the courses for lead formulators for the validation and verification of greenhouse gas (GEI) mitigation projects provided by Asocarbono-Asocec. Currently serving as the General Director of Versa Expertos en Certificación SAS

*The competence of the VERSA team is related to the Annex 1.

VERSA Expertos en Certificación SAS is a legally constituted company specializing in conformity assessment. The company's funding sources are exclusively derived from conformity assessment activities and, when necessary, from loans granted by financial institutions. It is important to emphasize that VERSA does not offer consulting or advisory services.

The company's services guarantee security and support for clients and other stakeholders, ensuring that products and services meet the requirements established in applicable regulations and/or standards. This guarantee is backed by the accreditation that allows VERSA to act as a Validation and Verification Body (VVB) under ISO/IEC 17029:2019, issued by the Colombian National Accreditation Body (ONAC).

This accreditation applies to the Validation and Verification scheme for Greenhouse Gas (GHG) Projects in accordance with ISO 14065:2020, IAF MD 6:2023, ISO 14064-2:2019, and ISO 14064-3:2019, specifically for the afforestation and reforestation sector. For more information, please consult the following link: https://onac.org.co/certificados/23-OVV-005.pdf](https://onac.org.co/certificados/23-OVV-005.pdf .

The competence of the VERSA Validation and Verification team selected to carry out the audit process of the Marena Ichena-Nag+Ma Enoye Raufe REDD+ Project meets the competency requirements defined in ISO 14065:2020, IAF MD6:2023, ISO 14066:2023, and sections 8.2.1 and 8.2. of the GHG Project Validation and Verification Manual, V2.4. Therefore:

They possess knowledge of the BCR STANDARD, including eligibility requirements, applicable legislation, and validation and verification guidelines, as well as the scope of GHG emissions or removals to be reported. They also possess knowledge of project types, including sectors and technological areas, applicable methodologies, and emission reductions or removals.

1. They possess technical knowledge and experience on GHGs, global warming potentials, activity data and emission factors, the application of the relative importance of errors and material discrepancies, as well as GHG sources and sinks in the relevant sector and techniques and procedures that guarantee data quality.
2. They possess knowledge and experience in auditing data and information, including data and information audit methodologies, risk assessment methodologies, data and information sampling techniques, and GHG data and information control systems.

In accordance with the above, VERSA has a legally binding agreement (FOR-108 Service Assignment) aimed at guaranteeing impartiality during the provision of

the audit service. Through this agreement, each member of the audit team commits to following a series of guidelines and commitments that promote objectivity and transparency in all their activities. The team's main obligations include:

1. Compliance with VERSA's processes and instructions: This involves adhering to the company's established policies and procedures, including those specifically related to impartiality and confidentiality.
2. Declaration of any previous or present associations: The audit team undertakes to report on any relationship, whether personal or professional, that could affect their objectivity. This includes disclosure of any kind of relationship with the VVB client, such as family ties or employment links, which could create a perception of bias.
3. Disclosure of conflict-of-interest situations: Auditors are obligated to report any circumstance they may become aware of that presents a real or perceived threat of conflict of interest, both internal and external.

This agreement establishes a framework of trust and professionalism that strengthens the credibility of the audit process. The following link provides details of the Quality Policy and impartiality management: https://equipoversa.com/politica-calidad-imparcialidad/#:~:text=POL%C3%8DTICA%20GESTION%20DE%20IMPARCIALIDAD&text=Todo%20el%20personal%20de%20VERSA,que%20pueda%20comprometer%20la%20imparcialidad](https://equipoversa.com/politica-calidad-imparcialidad/#:~:text=POL%C3%8DTICA%20GESTION%20DE%20IMPARCIALIDAD&text=Todo%20el%20personal%20de%20VERSA,que%20pueda%20comprometer%20la%20imparcialidad .

4 *Validation findings*

During the audit of the Mixed planting of native and non-native species in Paraguay-I project, VERSA's audit team identified certain aspects that the proponent of the GHG project solved in its entirety in 4 ROUNDS of response by the auditor and its description is as follows:

Clarification requests (CLs)

In total, 3 CLs were identified, related to: the scope of the project, spatial and temporal boundaries and its alignment with Paraguay's NDC.

Findings 3 and 4 were related to the lack of clarity in defining the objectives and scope of the GHG mitigation project, based on the needs and expectations of the intended user. To address this situation, the GHG project leader incorporated these considerations into sections 1.1 (Scope) and 3.1.1 (Applicability Conditions of

the PD), as well as in sections 1.2 (Sectoral Scope) and 1.3 (Applicability Conditions of the Monitoring Report). The objectives of the project were clarified and included in section 2.2 (Objectives of the PD) and section 1.5 of the monitoring report.

Finding 8 highlights the lack of clarity in the description of project activities in the PD, which did not align with what was observed during the corroboration visit. To resolve this, all project activities were detailed in section 2.3 of the PD, and the description of the technologies was adjusted in the monitoring section. Additionally, all technologies were included in section 13 of the PD and in section 2.3, and this information was added to section 4 of the monitoring report.

Corrective actions request (CARs)

A total of 29 CARs related to non-compliance with the versions of the BioCarbon Standarddocuments were identified. This issue was resolved by using the latest versions of all documents defined by the BioCarbon Standardfor this purpose, ensuring compliance with current requirements and improving the quality of the documentation.

Regarding the applicability of the methodology, all elements noted in the finding in section 1.1 (Project Scope) and section 1.2 (Sectoral Scope and Type of Project) of the monitoring report were completed. This ensures that the project is being executed within the defined parameters, securing its effectiveness and alignment with the expectations of the BioCarbon Registry.

For the identification of the stakeholders involved in the project, a comprehensive and sufficient description was included in the PD and in the RM, as evidenced by the VERSA audit team in the field. This not only helps to clarify responsibilities but also enhances transparency and accountability among all stakeholders.

Concerning the sinks and sources of GHG, these were properly identified both in the PD and the RM, ensuring that they correspond to those indicated in the PD. This consistency is crucial to ensure that emission reduction estimates are accurate and verifiable.

The eligible areas were adjusted according to the requirements of the latest version of the BCR methodology, ensuring that all project activities are eligible and meet the established criteria, facilitating resource mobilization and financing.

The baseline scenario was developed in accordance with the steps established by the BCR tool and methodology, allowing for a clear framework to measure the project's impacts compared to a non-intervention scenario.

Additionality was also developed following the same framework, demonstrating that the expected emission reductions exceed what would have occurred in its absence, thus ensuring the validity of the generated carbon credits.

Regarding the management of uncertainty, the project included a description of the procedures and actions contemplated in the PD that are implemented in the RM. This ensures that there is a systematic approach to address and mitigate any associated risks, establishing a solid foundation for informed decision-making.

Finally, in relation to compliance with public policy regarding carbon markets and alignment with the NDC and monitoring plan, a list of applicable legal regulations was included, along with how the various activities proposed and implemented by the project comply with such regulations. This approach not only guarantees legal compliance but also strengthens the legitimacy of the project among market actors and other stakeholders."

- Forward action request (FARs)

They are findings related to the implementation of future actions, which guarantee the veracity of the project that is required to be reviewed during the next verifications as appropriate.

For this project, there were no findings categorized as a FAR.

All deviations identified during the requirements audit process are described in greater detail in Annex 2.

4.1 Project description

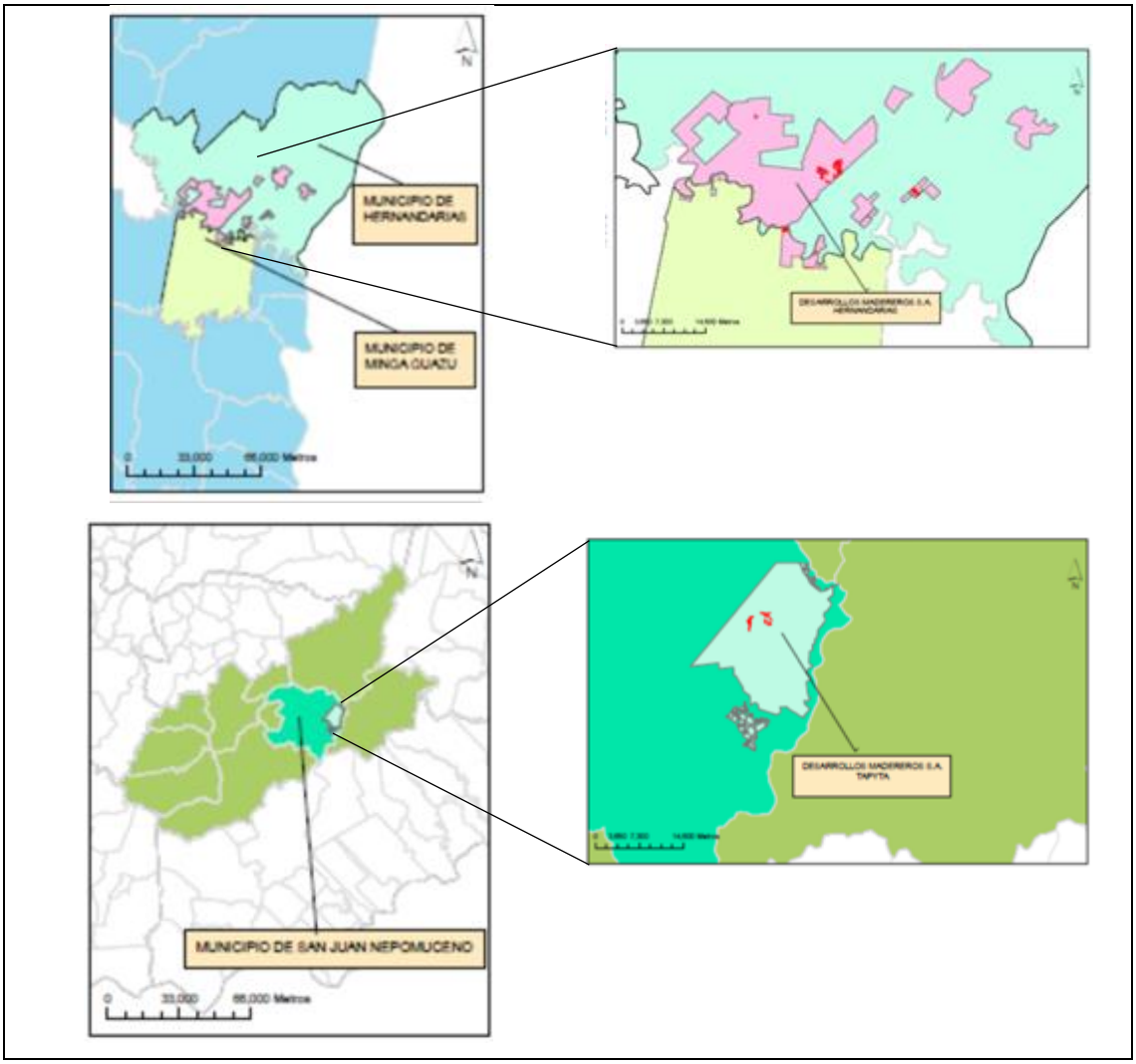
The “Mixed planting of native and non-native species in Paraguay-I” project is an initiative within the AFOLU sector (Agriculture, Forestry and Other Land Uses), which focuses its efforts on climate change mitigation. Its main objective is to capture carbon dioxide from the atmosphere by planting forests to generate carbon credits, which will subsequently be traded in their entirety on the voluntary market. In addition, the project seeks to make a positive contribution to the community and the biodiversity of the area by leaving a legacy of a forest composed of native species after 40 years, thus replacing the pasture areas that were historically used for cattle ranching.

The project is geographically located in Paraguay, in two ranches, the first is in the municipality of Hernandarias, Department of Alto Paraná, called UMF11 Tapytá, hereinafter referred to as Hernandarias, and the second, UMF Tapytá, is located in the Department of Caazapá, as shown in Table 7.

Table 7. Geographical coordinates and area of the project's farms

Estancia	Reference location	Project surface area (ha)
Hernandarias	-25,361682 -54,773279	138,80
Tapytá	-26,207745 -55,771425	34,00

Figure 1. Geographic Location of the GHG Project



Source: DMSA, 2023

It is estimated that the project will achieve a reduction of approximately tCO2e. This will result in 153.133 tCO2 over 40 years of the project, with an annual average of 3,828 tCO2/year. The audit process developed by VERSA's audit team for the validation and joint verification of the Project "Mixed planting of native and non-native species in Paraguay-I" corresponds to an objective assessment of the reduction and/or elimination of emissions resulting from the project activities during the evaluation period, in accordance with the requirements established by ISO 14064-2:2019 and ISO 14064-3:2019 standards.

In this context, the audit process encompasses a comprehensive review of compliance with the criteria defined for the project, applicable legal regulations, methodologies used to calculate emission reductions and the effectiveness of the methods defined by the project owner to ensure adherence to the principles governing the audit process.

During the validation, the VERSA audit team assessed, based on objective evidence, whether the project design complied with the relevant requirements of the BCR. To do this, we assessed whether the assumptions or statements made in the DP were complete, conservative, and accurate. It was also evaluated whether the selected methodology complied with the BCR Standard, as well as the conditions of applicability and the tools/guidance issued by BioCarbon Standard.

The following areas were reviewed according to the validation process record:

Project design: It was verified that the project was clearly defined and that the objectives and activities were aligned with the BCR criteria.

Emissions calculation methodology: The applicability of the selected methodology for the type of project and the specific conditions of the site was evaluated.

Baseline: The accuracy and reliability of the data used to establish the emissions baseline was analyzed.

Monitoring, Reporting, and Verification (MRV): The MRV plan was reviewed to ensure that it was adequate to measure and report emission reductions.

During verification, the VERSA audit team evaluated and compared with valid information that the proposed project activities resulted in GHG emission reductions. The following areas were reviewed according to the verification process record:

Project implementation: Verified that project activities had been implemented according to the approved design.

Calculation of emission reductions: The accuracy and reliability of the calculation of reported emission reductions was assessed.

Monitoring and Reporting: The accuracy and completeness of the information reported on the monitoring of the project was verified.

The GHG project successfully demonstrates its alignment with the objective of capturing carbon dioxide from the atmosphere through the establishment of a forest plantation for the generation of carbon credits that will then be fully traded in the voluntary market and allow and encourage the establishment of native species so that at the end of the project a forest remains.

4.2 Project type and eligibility

Project "Mixed planting of native and non-native species in Paraguay-I" is part of the AFOLU sector (Agri-culture, Forestry and Other Land Uses) and with a focus on forestry activities of Aforestation Reforestation (ARR), has an area of 172.76 hectares. Its main objective is to reduce emissions of greenhouse gases (GHG), mainly carbon dioxide equivalent (CO_2e), through the absorption and storage of carbon by forest vegetation.

During the first monitoring period, which ran from December 2018 to May 2023, a removal of 16,711 tons of CO_2 was reported. To ensure the permanence and effectiveness of the long-term emissions reductions, the project designated 20% of these removals as reserves. This reserve, known as a buffer, acts as a safeguard that ensures that the reductions achieved are sustainable and lasting over time.

In addition to its contribution to climate change mitigation by reducing GHG emissions, the project has also been shown to generate positive socio-economic impacts. The implementation of forest systems involving species of Eucalyptus spp. has created employment for the local communities neighboring the project, reflecting the commitment to the sustained development of the region.

In conclusion, the project owner has complied with the requirements established in the BCR Standard by adequately identifying the scope, the type of project, the activities. Through reserve measures and the creation of benefits for the community, the effectiveness and sustainability of the project in the long term is guaranteed. At this point, it is important to clarify that for this type of initiative the scale does not apply.

Table 8. Project type and eligibility

Eligibility criteria	Evaluation by validation body
Scope of the BCR Standard	AFOLU
Project type	AFOLU sector activities other than REDD+

Project activity(es)	Aforestation, Reforestation and Revegetation (ARR)
Project scale (if applicable)	N/A

Project Scope Review

- Objective: To verify if the owner has correctly identified the scope of the project. In the case of ARR (Afforestation, Reforestation and Revegetation) activities, it is crucial to determine that they are developed in areas that meet the required conditions, that is, areas not considered natural forests or natural vegetation covers.
- OVV Evaluation: The project site was verified as being outside of natural forests and protected areas. This was confirmed by reviewing three existing lease agreements (references /57/, /58/, and /59/) and a livestock sale order (reference /60/), all dating back five years prior to project initiation. This confirms the accuracy of DMSA's data and its alignment with the evaluation criteria (section 2). Specifically, the suitability of the area for the planned activities (references / 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ and /43/) and compliance with environmental regulations (references /71/ 72/ and /73/) were verified.

Project Type Identification

Objective: To confirm that the owner has correctly classified the project type as "ARR".

OVV Assessment: During a field visit, VERSA evaluated the status of the project's plantation, categorized as afforestation, reforestation, and revegetation (ARR) due to its emphasis on commercial fast-growing forest plantations. This initiative covers 172.76 hectares and employs Eucalyptus grandis and hybrids to improve soil conditions and provide shade, thereby promoting the growth of native species. From 2024 onwards, the planting of these native species will take place progressively after thinning the eucalyptus trees. By 2029, it is anticipated that native species will occupy 42% of the areas planted between 2018 and 2022, as well as 27% per hectare in the 36.31 hectares planted in 2023. Notably, the native species will remain unthinned and unharvested. Among the eleven native species introduced are Balfourodendron riedelianum, Inga laurina, Cordia trichotoma, Rollinia emarginata, Enterolobium contortisiliquum, Pterogyne nitens, and Cedrela fissilis.

Review of Project Activities

Objective: To determine if the activities described in the project are consistent with the methodologies and good practices for ARR activities, in accordance with the BCR Standard.

OVV Assessment: The project's activity plan, as described in section 2.3 of the PD, was validated through a review of tree planting orders (references /28/28/30/31/32/33/34/35/36/37/38/39/40/41/41/and /43/). This documentary review confirmed that the mitigation project successfully reduces GHG emissions and improves carbon sequestration in soil and biomass. Furthermore, it was verified that the activities align with the principles of sustainability and proper natural resource management.

4.3 Grouped project (if applicable)

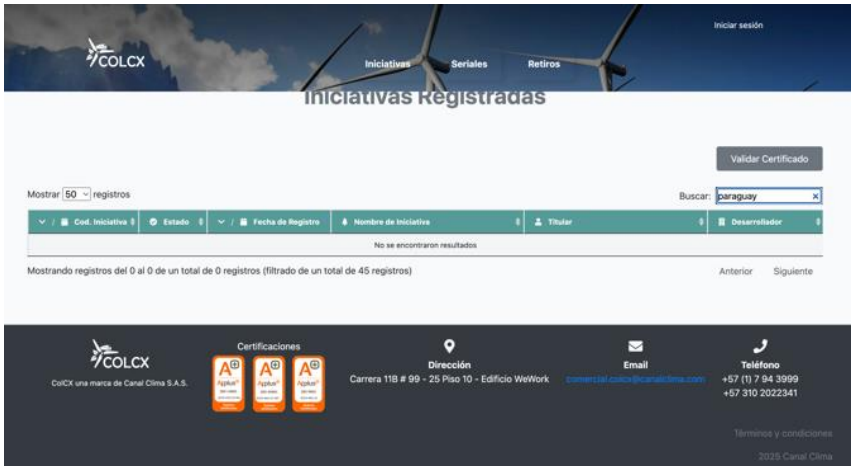
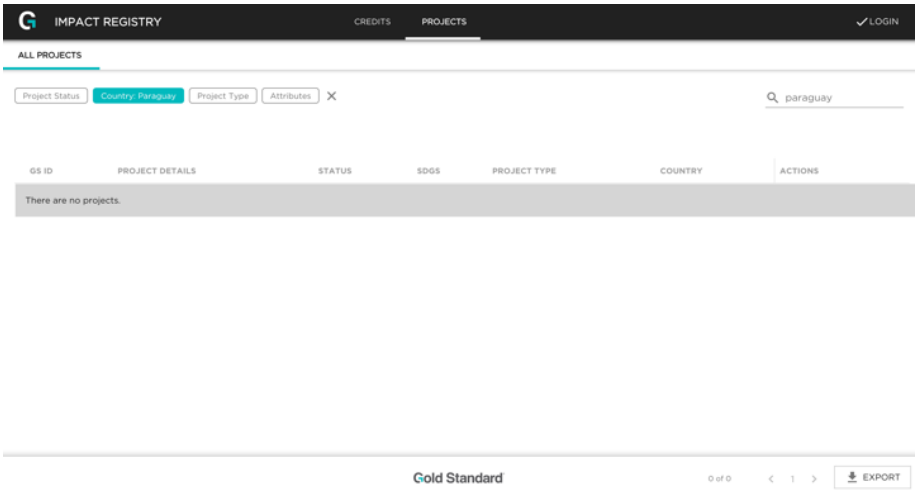
This item does not apply because this GHG project is not grouped.

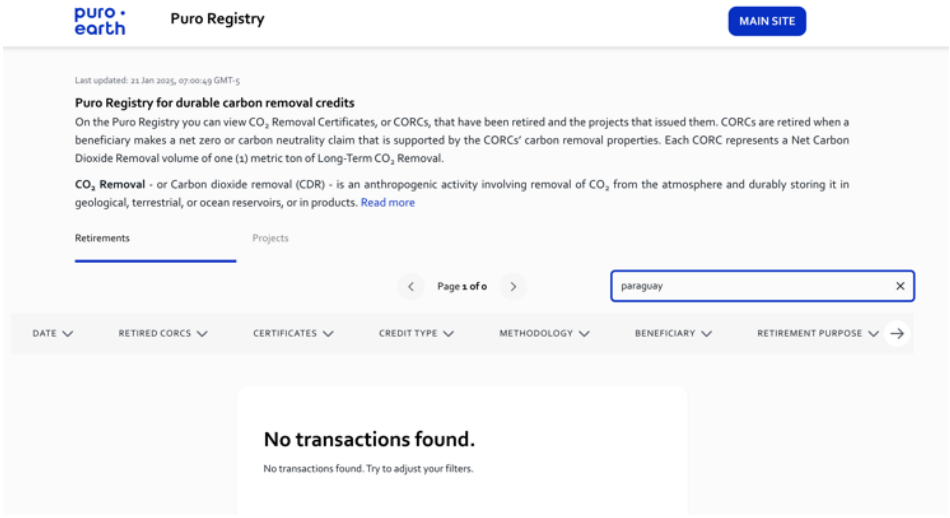
4.4 Other GHG program

During the document review, the audit team examined the platforms of greenhouse gas (GHG) program and standards. It was found that the project "Mixed planting of native and non-native species in Paraguay-I" is not registered in GHG programs and standards such as ColCX, Gold Standard, Puro Earth, Global Carbon Council, Cercarbono Clean Development Mechanism, Plan Vivo, Climate Action Reserve, and VERRA. The main objective of this procedure is to ensure the project does not have duplicate accounting by being registered in another GHG program or standard. Finally, it is evident that only the BioCarbon Standard (1 project, see Table 8) and VERRA (10 registered projects, see Table 10) have projects in Paraguay. According to the project registration, it has not been canceled in another standard, and the GHG reductions or removals generated by the project are not part of another registered project, either in BioCarbon or another GHG program (see Figure 2).

Therefore, the evidence confirms that the project is not registered in other GHG program and standard platforms and that it meets and is consistent with the criteria established in section 2 of this document, as well as with the requirements of the BCR Standard and the AFOLU Sector Methodological Document / BCR0001.

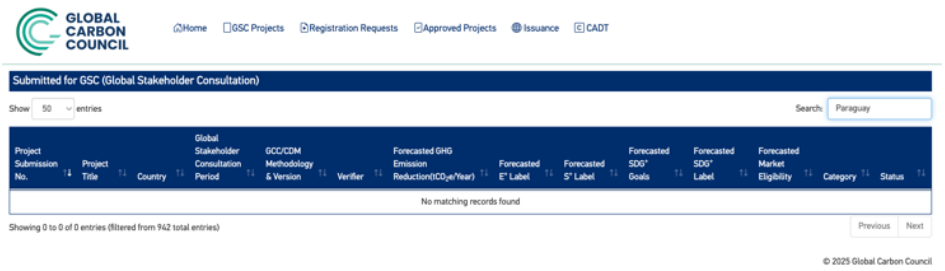
Table 9. GHG program or standards analysis.

ColCX

Fifty registered initiatives were identified, with four in pre-registration and five unregistered. A search of the ColCX registry https://colcx.com/SistemaRegistro/ revealed no projects in Paraguay utilizing this standard, thus confirming no overlaps.
Gold Standard: Filter “Land Use Activities + Nature Based Solutions”

No evidence was found to suggest that Gold Standard has registered any projects in Paraguay.
Puro Earth



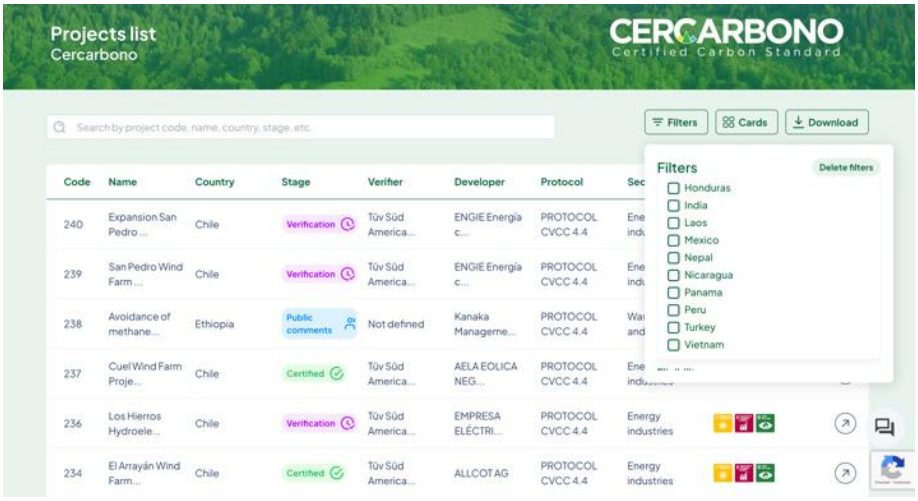
No evidence was found to suggest that Puro Earth has registered any projects in Paraguay.

Global Carbon Council



No evidence was found to suggest that Global Carbon Council has registered any projects in Paraguay.

Cercarbono

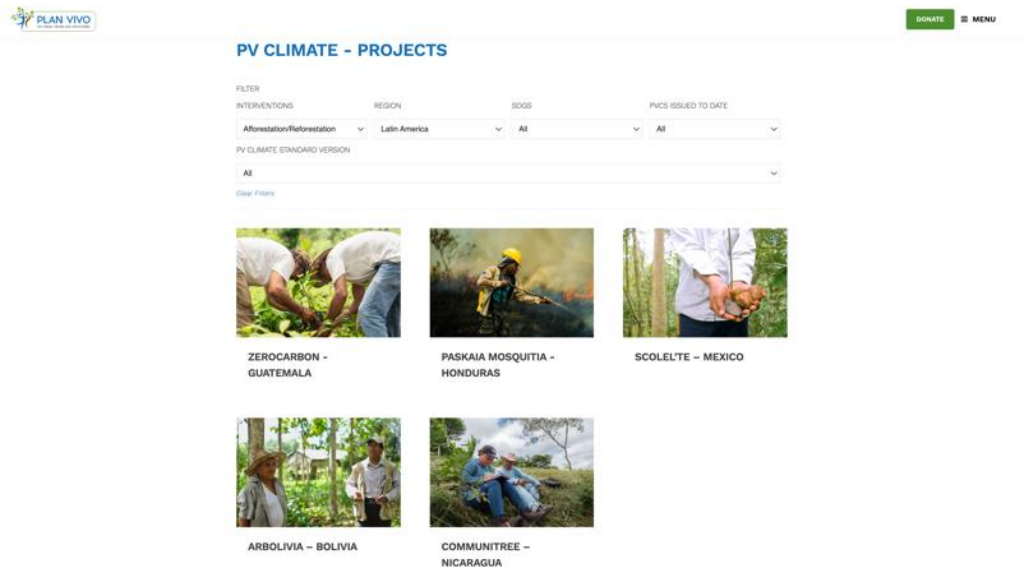


No evidence of CERCARBONO registered projects was found in Paraguay.

Clean Development Mechanism CDM United Nations

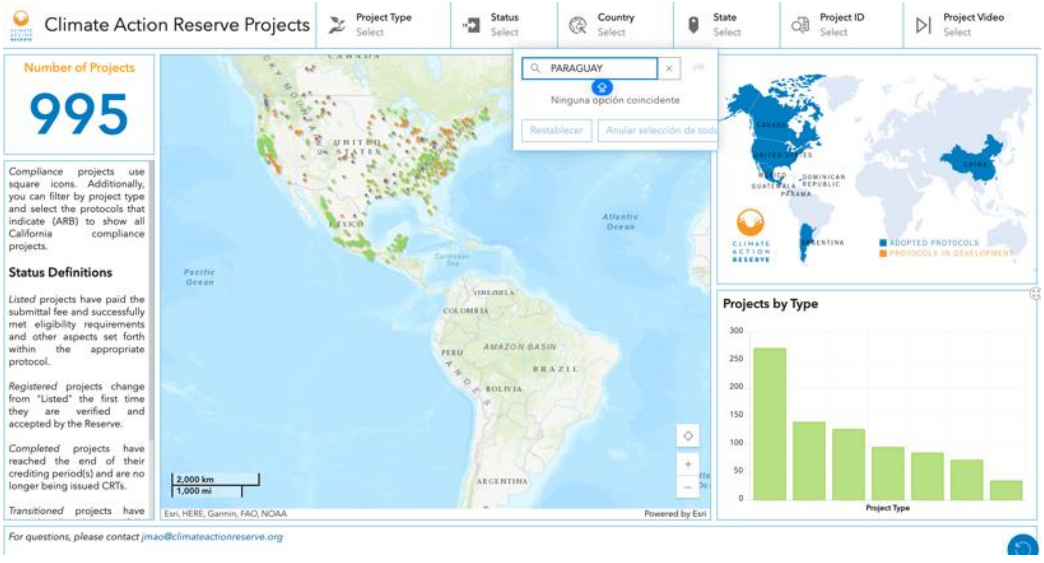
No evidence of Clean Development Mechanism CDM United Nations registered projects was found in Paraguay.

Plan Vivo



No evidence of Plan Vivo registered projects was found in Paraguay.

Climate Action Reserve



No evidence of Climate Action Reserve registered projects was found in Paraguay.

VERRA VCS

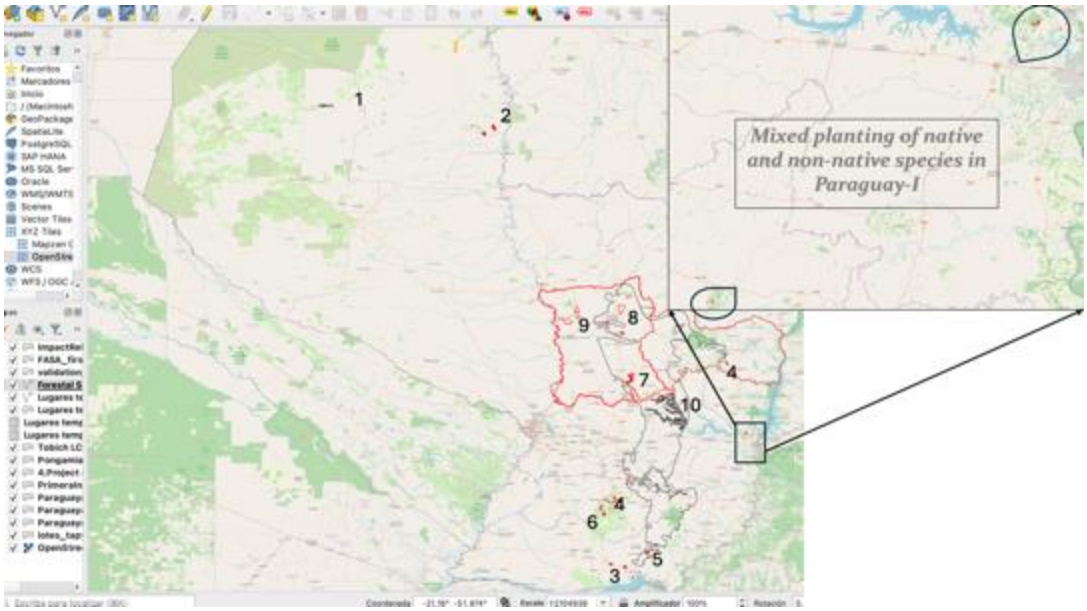


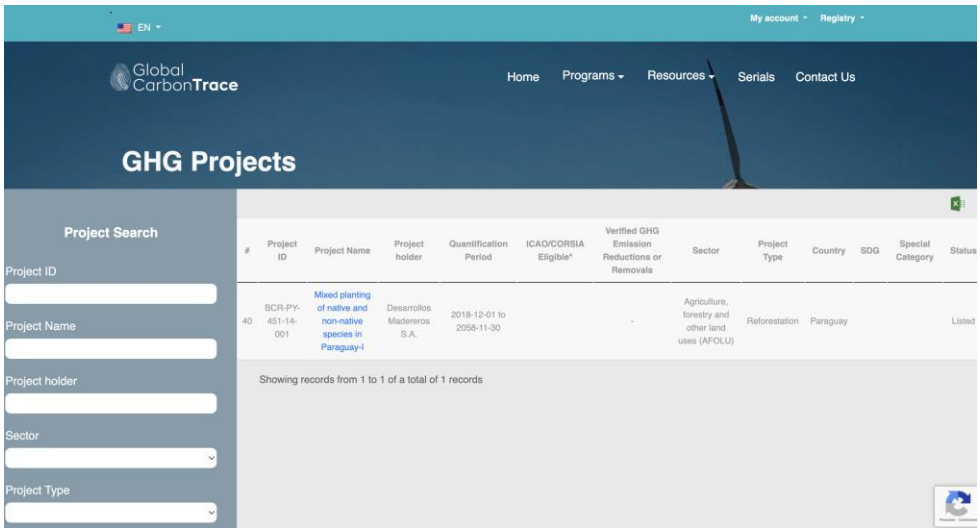
Figure 3. VERRA's cross-check platform

ARR: 1. The Paraguayan Chaco Neem Reforestation Project, 2. Southern Paraguay Sustainable Afforestation Project, 3. Afforestation of degraded grasslands in Caazapa and Guairá, 4. Impact reforestation in the Chaco Project, 5. Forestal Apepu Carbon Project, 6. Afforestation and restoration of degraded forests in Eastern Paraguay or Forestal Azul Carbon Project and 7. Afforestation in cooperation with local landowners for Forestal San Pedro S.A.

REDD+: 8. Corazón Verde Del Chaco Project, 9. The Paraguay Forest Conservation Project – Reduction of GHG Emissions from Deforestation and Forest Degradation in the Parana Atlantic Ecosystem – Forest Protection in the La Amistad Community, San Rafael and 10. The Paraguay Forest Conservation Project - Reduction of GHG emissions from deforestation and forest degradation in the Chaco-Pantanal ecosystem.

VERRA's cross-check platform (127/) identified 19 AFOLU mitigation projects (12 ARR, 7 REDD+). However, only 10 of these projects (7 ARR, 3 REDD+) are currently registered. All projects had associated polygons, and the audit team, using QGIS, confirmed that none of the registered projects overlapped. (See Figure 3 for details).

BioCarbon Standar



Evidence was found only related to the registration of this project on the Global Carbon Trace platform.

Source: VERSA, 2025.

4.5 Quantification of GHG emission reductions and removals

The design of the activities to carry out the verification and validation of the project was carried out following the requirements and guidelines established in the methodological documents of the AFOLU sector of the BCR program, specifically in the methodological document BCR0001 V4.0 "Quantification of GHG Removals".

Project activities designed to reduce GHG emissions while allowing for biodiversity conservation and meeting the current and future needs of neighboring communities involved with the GHG Project are detailed below. Section 3 of the PD /6/ includes a comprehensive and documented description of the methodological conditions for calculating project emission reductions in accordance with the contemplated project activities. For this, the Project Developer relied on the selected methodology, which describes each of the conditions, parameters, assumptions and methodological development around the properties that are part of the project.

The audit team reviewed 100% of the information contained in the Annex 3 and considers it to be credible and sufficient in the scenario of formulation and quantification of ex ante reductions, cross-check documents: Annex 3, related documents: / 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 80/ 81/ 82/ 83/ 84/ 87/ 91/ 92/ and /93/.

4.5.1 Start date and quantification period

- Start date:

The start date of the "Mixed Planting of Native and Non-Native Species in Paraguay-I Project" is established as December 1, 2018, according to the evidence reviewed by VERSA during the visit to DMSA's offices and the related documents in Annex 3 (10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 77, 83, 84, 91, 92, 93, 96, 97, 98, 99, 118, and 119).

This date corresponds to the Service Provision Contract, Service Provision Contract / 28/, signed between DMSA and its suppliers for the establishment of the planting and the Work Orders / 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ and / 43/, which confirms the validity of the data provided. The contract confirms the planning and execution of the site preparation for cultivation starting December 1, 2018.

In conclusion, the documentation and contracts reviewed support the information about the project's start, ensuring that appropriate procedures are being followed for its implementation in accordance with the criteria of Section 11.4 of the November 30, 2058

- Project duration:

The "Mixed Planting of Native and Non-Native Species in Paraguay-I" project is a 40-year initiative, running from December 1, 2018, to November 30, 2058. This timeframe meets the requirements outlined in section 11.5 of BCR Standard V 3.4. The project's activities are planned to continue throughout its entire 40-year duration.

The activities that will result in greenhouse gas (GHG) reductions correspond to the establishment of 172.76 hectares, initiated with the planting of Eucalyptus grandis and its hybrids on December 1, 2018. Subsequently, these will be thinned to 50% after 6 years of planting and harvested after 10 years of life, with the third harvest cycle remaining unharvested. The last cycle will not be harvested in order to maximize carbon capture and minimize soil disturbance, as well as the effect of eucalyptus harvesting on native species, which will have reached a considerable size by then (November 30, 2058).

- Quantification period:

The "Mixed Planting of Native and Non-Native Species in Paraguay-I" project (40-year quantification period: December 1, 2018 – November 30, 2058) focuses on

planting 172.76 hectares of Eucalyptus grandis and its hybrids to reduce greenhouse gas emissions. The plan involves a 50% thinning after 6 years, harvesting after 10 years, and leaving the third harvest cycle unharvested to optimize carbon sequestration, minimize soil disruption, and protect co-planted native species which will mature by 2058. This strategy aligns with the project's defined mitigation criteria.

4.5.2 Application of the selected methodology and tools

4.5.2.1 Title and Reference

The validation and joint verification process carried out by VERSA's audit team for the "Mixed planting of native and non-native species in Paraguay-I" project consisted of a comprehensive assessment of historical data and an on-site verification visit. The objectives of this process were the following:

- Provide an independent third-party opinion on the evaluation of activities, methods and procedures outlined in the PD /6/ and MR /7/.
- Determine project compliance with the verification principles and criteria established by relevant regulations and the BCR Standard, v3.3.1 dated March 1, 2024 /84/.
- Verify the material accuracy of the greenhouse gas emission reductions reported for the first monitoring period.

The Project Description contains complete information about the project activities, project start date, project crediting period, project scale, project location, project boundary, baseline scenario, additionality and monitoring. The Project Description was designed to conform to the Standard BCR v.3.4 (March 2024) /83/, specifically as an ARR project under the AFOLU project types (BCR0001 Quantification of GHG Removals V4.0, February 2024 /84/). The project. applied the approved CDM Afforestation and Reforestation methodology: AR-ACM0003 A/R Large-scale Consolidated Methodology "Afforestation and Reforestation of lands except wetlands" - Version 2.0. The tools used are:

- BCR Tool: Sustainable Development Goals V 1.0 July 13, 2023, /85/.
  The audit team evaluated SDG 1: End poverty, SDG 2: Zero hunger, SDG 3: Health and well-being, SDG 4: Quality education, SDG 6: Clean water and sanitation, SDG 9: Industry, Innovation and Infrastructure SDG 12: Responsible Consumption and Production SDG 13: Climate Action, SDG 15: Life of terrestrial ecosystems.
- BCR Tool: Permanence and Risk Management V1.1 March 19, 2024 /86/.
  The audit team evaluated risks for fires, winds, Pests and diseases, Floods, Resources secured for the establishment of the project, Resources secured for

project maintenance, financial capacity of the project holder, Land disputes, Political risks, Opportunity cost.

- BCR Tool: Monitoring, reporting and Verification V1.0 February 13, 2023 /87/.
- BCR Tool: Baseline and Additionality V 1.3 March 1, 2024 /88/.
  The audit team evaluated Step Zero. Project Start Date. Step 1: Identification of Land Use Alternatives, Step 2: Investment Analysis, Step 3: Barrier analysis, Step 4. Impact of Project Registration.
- BCR Tool: Avoiding Double Counting V2.0 February 7, 202 /89/.
  The audit team evaluated BioCarbon Registry, VERRA, Gold Standard, Cercarbono, Puro Earth, Global Carbon Council, Clean Development Mechanism, Plan Vivo, Climate action reserve.
- Tool 14 Carbon stock estimation and carbon stock change of trees and shrubs in F/R CDM Project Activities V 4.2 /90/.

4.5.2.2 Applicability

During the validation and joint verification activities, it was possible to confirm that the project proponent successfully demonstrated compliance with each of the applicability conditions of the methodology that has been evaluated, as presented in Table 10 below:

Table 10. Evaluation of compliance with the applicability conditions of the BCR 0001 methodology of the Project "Mixed planting of native and non-native species in Paraguay-I".

Conditions of applicability of BCR0001 methodology version 4.0. /84/	**VVB Evaluation**
The areas within the geographical boundaries of the project do not correspond to the forest category (according to the national definition adopted by the country in which the project activity is proposed) or to natural vegetation cover other than forest at the beginning of the project activities or 5 years prior to the project start date.	The result of the assessment indicates that the criteria defined by the GHG Project proponent to distinguish between forest and non-forest areas as defined by Paraguay in Article 42 of Law 422/1973 /98/ were confirmed at the start of activities. It was determined that the areas within the geographical boundaries of the project do not meet the category of forest (according to the national definition adopted by the country where the project activity is proposed) or natural vegetation cover other than forest at the start of project activities or five years prior to the start date of the project /76/82/. In this case, the verification of the current area could have been done using unmanned aerial vehicle (UAV) imagery, but since it could not be compared to the original date, the best option was to use high resolution satellite imagery.

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	It has been confirmed that this information pertains to satellite images, in this case Landsat 8 /82/, which has a spatial resolution of 30 meters. Analysis revealed that the GHG project area, five years before its inception, consisted of a landscape characterized by a system of weedy pasture crops used for both extensive and intensive livestock farming /57/58/59/. At the start date of the project there was no forest or forest plantations within the project area, therefore, it meets the applicability condition. The cross-check information vas: 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 25/44/ 45/ 46/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/ 77/ 82/ 83/ 84/ 91/ 92/ 93/ 118/ 119/ 120/ 121/ 122/ 123/ 124/ 125/ 126/ 127/ and 128/.
The project activities do not generate the transformation of natural ecosystems.	In line with the above, 100% of the GHG Project area is not located in areas with natural ecosystems /82/. The project owner was able to demonstrate that historically the geographic area where the GHG Project is located has been encouraged by government policies that favor the development of agricultural activities, which is why there are very few areas within this zone where natural ecosystems are still present /6 /76/82/83/84/. This information was independently verified by VERSA through cross-referencing with supporting secondary data sources, specifically documents referenced as /102/150/ and /151/. This secondary data provided additional context and confirmation of the findings. In addition to the previously mentioned verification using secondary data (references 102, 150, 151, etc.), compliance with applicability requirements was further confirmed through interviews with project neighbors and relevant authorities conducted by VERSA's audit team during a site visit. Further details are provided in section 3.2.3.2 of this document.
The areas within the geographical boundaries of the project do not correspond to the wetland category.	In section 3.1.1 of the Project Document (PD), DMSA states that 100% of the GHG project area falls outside

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	wetland classifications, based on their soil studies (/70/). VERSA independently verified this through a review of official secondary data (/152/153/155/156/), interviews (detailed in section 3.2.3.2), and direct field observations. DMSA's land use assessment indicated organic matter content below 12%, precluding classification as organic soils typical of wetlands. This is further supported by the project's location outside Paraguay's six RAMSAR sites (Rio Negro, Estero Milagro, Tifunque, Laguna Chaco Lodge, Laguna Teniente Rojas Silva, and Lago Ypoá) (/156/). The field visit revealed no evidence of waterlogging or saturated soil. Typical floodplain species (reeds, canes) were not observed, nor were irregular growth patterns noted. No signs of plant stress (yellowing, wilting, weakened stems) indicative of water saturation were present. Furthermore, an assessment of pests and diseases associated with humid environments—including eucalyptus weevils (Gonipterus spp.), leafhoppers (Membracidae), scale insects (Coccoidea), root fungi (Phytophthora spp. and others), eucalyptus borer larvae (Phoracantha spp.), and aphids (Aphidoidea)—revealed no infestations across the 17 surveyed plots. The absence of these conditions, which would increase susceptibility to pests and diseases, further supports the conclusion. Therefore, it can be confirmed that the project's location is outside any wetland area. Conclusion: The evidence strongly supports DMSA's assertion that the entire GHG project area is located outside wetland classifications. This conclusion is based on multiple lines of evidence: DMSA's own soil studies, as stated in the Project Document. Independent verification by VERSA through: a) Review of official secondary data b) Interviews with relevant stakeholders c) Direct field observations

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	Land use assessment showing organic matter content below 12%, which is inconsistent with organic soils typical of wetlands. The project's location outside Paraguay's six designated RAMSAR sites. Field observations revealing: a) No evidence of waterlogging or saturated soil b) Absence of typical floodplain vegetation c) No irregular growth patterns or signs of plant stress associated with water saturation Lack of pests and diseases typically associated with humid environments across the surveyed plots. The consistency of these findings across multiple methods of verification lends strong credibility to the conclusion. The absence of wetland indicators in soil composition, vegetation patterns, and ecosystem health all point to the same conclusion. Therefore, it can be confidently stated that the project area is located outside any wetland classification. This finding has important implications for the project's environmental impact assessment, land use planning, and compliance with relevant regulations and standards for GHG projects. It also suggests that the chosen location is suitable for the intended land use, without the complications and environmental sensitivities associated with wetland areas
The areas within the geographical boundaries of the project do not contain organic soils.	According to the historical land use assessment described in the PD /6/, the agrological and taxonomic soil classification, and the soil analysis /70/ conducted by the project proponent, indicate that the geographical area of the GHG Project contains no organic soils (with organic carbon content exceeding 12% by weight). In Tapytá, the organic matter content is 1.3%, and in Hernandarias, it is 3% /70/. VERSA corroborated this assertion by interpreting the soil analysis results (/70/) submitted by DMSA and available secondary information, including general

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	agrological classification maps and land use conflict maps (/150/151/155/). Conclusion: Based on the project proponent's data, VERSA's independent verification, and the absence of evidence to the contrary, we conclude that the GHG project area is not located on organic soils and therefore does not fall under the definition of a wetland.
It is possible that carbon stocks in soil organic matter, litter and dead wood decrease, or remain stable, in the absence of project activities, i.e., relative to the baseline scenario.	Through cartographic analysis of satellite imagery (/80/), DMSA demonstrated that the baseline scenario consisted of pastureland. This is corroborated by land lease agreements (/57/58/59/) and livestock sale records (/60/). Consequently, a change in land use to forest cultivation results in increased carbon stocks. VERSA validated this information by reviewing the lease agreements and livestock sale orders (/57/58/59/60/) and by analyzing DMSA's processes for processing satellite imagery from five years prior to project initiation (/80/). Conclusion: Therefore, VERSA concludes that the change in land use from pasture to forest plantation within the GHG project area will result in a net increase in carbon stocks. The evidence presented by DMSA in the PD, and independently verified by VERSA, is comprehensive and sufficient to support DMSA's conclusions.
Flood irrigation is not used	DMSA affirms that its management practices exclude flood irrigation. This was verified by VERSA through review of secondary sources (/138/-/143/) and DMSA's supporting documentation (/68/, /71/, /72/). According to precipitation studies from the Paraguay Information System (see Annex 3, /137/) and climatological yearbooks (see Annex 3, /138/-/144/), average regional precipitation exceeds 1800 mm/year. Studies by Liu et al. (2017) on eucalyptus evapotranspiration in subtropical China show figures around 1300 mm/year. Therefore, the likelihood of water deficit is very low, rendering investment in a

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	flood irrigation system unnecessary (see Annex 3, /1/-/73/). Conclusion: The evidence strongly supports DMSA's claim of not using flood irrigation in their management practices. This assertion is backed by multiple sources of verification, including secondary sources and DMSA's own documentation. The decision to exclude flood irrigation appears to be well-founded, given the regional climate conditions and the water requirements of eucalyptus plantations.
Project activities do not include planting and/or management of species reported as invasive.	DMSA ensures that eucalyptus is not considered an invasive species in Paraguay. VERSA corroborated this information through interviews with INFONA officials, who confirmed that eucalyptus species are not considered invasive in the region (see Section 3.2.3.2 for further details). This assertion was further validated by cross-referencing with the IUCN Invasive Species List (/157/), which contained no entries for eucalyptus species. **PLANTAS TERRESTRES** Acacia negra (*Acacia mearnsii*) Acacia pálida (*Leucaena leucocephala*) Arbol de la pimienta (*Schinus terebinthifolius*) Arbol de la quinina (*Cinchona pubescens*) Arroyuela (*Cecropia peltata*) Caña común (*Arundo donax*) Carpinchera (mimosa) (*Mimosa pigra*) Carrizo marciego (*Imperata cylindrica*) Cayeputi australiano (*Melaleuca quinquenervia*) Chumbera (*Opuntia stricta*) Clidemia (*Clidemia hirta*) Ednchuo (*Hedychium gardnerianum*) Falopia japonesa (*Fallopia japonica*) Faya (*Myrica faya*) Guaco (mikania) (*Mikania micrantha*) Guayabo fresero (*Psidium cattleianum*) Hiptage (*Hiptage benghalensis*) Kudzú (*Pueraria montana var. lobata*) Lantana (*Lantana camara*) Lechetrezna frondosa (*Euphorbia esula*) Ligustro (*Ligustrum robustum*) Mezquite (*Prosopis glandulosa*) Miconia (*Miconia calvescens*) Pino resinero (*Pinus pinaster*) Salicaria púrpura (*Lythrum salicaria*) Shoebutton ardisia (*Ardisia elliptica*) Siam weed (*Chromolaena odorata*) Conclusion: The evidence strongly supports that eucalyptus is not considered an invasive species in Paraguay. This conclusion is based on multiple sources of verification, including official statements

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	from INFONA, and the absence of eucalyptus species in the IUCN Invasive Species List. VERSA's independent corroboration through interviews and cross-referencing with authoritative sources further strengthens this conclusion. This finding has important implications for the environmental impact and sustainability of eucalyptus plantations in the region, suggesting that their cultivation is in line with local ecological considerations.
The effects of drainage are negligible, so GHG emissions, other than CO_2, can be omitted.	DMSA opinion that the plantations present in the study area are healthy, as they have strict management procedures and constant monitoring in place, /61/62/63/64/67/and68/. This opinion was corroborated by VERSA through a review of the evidence provided by DMSA /61/62/63/64/67/and 68/ and through an epidemiological evaluation of the plantation during the plot visits. Conclusion: The health of the plantations in the study area is well-established. This conclusion is supported by DMSA's rigorous management procedures and continuous monitoring, as well as VERSA's independent verification through document review and on-site epidemiological evaluation. The consistency between DMSA's internal practices and VERSA's external assessment provides strong evidence of the plantations' good health status, indicating effective management and a positive outlook for the project's long-term sustainability.
Soil disturbances due to project activities, if any, are carried out in accordance with appropriate soil conservation practices and do not recur for less than 20 years.	DMSA states that their procedures do not generate soil disturbances, and that any project-related activities are carried out in accordance with appropriate soil conservation practices, without recurrence for more than 20 years. This is because DMSA has identified that the practices developed during planting are directly related to soil conservation.

Conditions of applicability of BCR0001 methodology version 4.0. /84/	VVB Evaluation
	The plantations have forest management plans that are implemented through sustainable management practices with FSC (Forest Stewardship Council) certification, a quality management system certification that is being implemented to prevent uncontrolled soil disturbance /61/67/71/72/ and /73/. VERSA corroborated this information through the review of the evidence provided by DMSA and through the phytosanitary evaluation conducted during the plot visits. As mentioned earlier, the audit team did not find any evidence related to the presence of diseases or pest attacks. The procedures defined by DMSA for plantation management are clear and effective. Conclusion: the available information strongly supports that DMSA's project activities do not generate significant soil disturbances, thanks to the implementation of sustainable forest management practices and the certification and monitoring systems in place

Source: VERSA, 2025.

Based on the detailed analysis presented, it can be concluded that the BCR0001 methodology version 4.0 is applicable to the DMSA GHG project. The main aspects verified that meet the applicability criteria are:

- The project area has historically been used for agricultural activities and does not correspond to forest categories or natural vegetation covers.
- The project does not generate the transformation of natural ecosystems and is located outside of wetlands or organic soils.
- The change in land use from grasslands to forest plantations results in an increase in carbon stocks.
- There is no use of flood irrigation, and forest management practices do not generate significant disturbances in the soils.
- The species used, specifically eucalyptus, are not considered invasive in Paraguay.

These findings support the applicability of the selected methodology for this DMSA GHG project. The evidence provided by DMSA is sufficient and appropriate to support the opinions in section 3.4 of the PD /6/.

4.5.2.3 *Methodology deviations (if applicable)*

According to the evidence presented by the responsible for the GHG Project, no methodological deviations were identified for this Validation and Joint Verification.

4.5.3 *Project boundary, sources and GHGs*

In accordance with the PD and the RM, this GHG Project only considers carbon dioxide CO_2 as a greenhouse gas, and its capture occurs through the carbon reserves generated by the planting of 172.76 ha of eucalyptus and a group of 11 native species on 2 properties, which in the absence of the project would possibly have continued to be used for cattle ranching. The reservoirs taken into account for the CO_2 estimation are aboveground biomass and belowground biomass in roots.

The plantations are in two Forest Management Units (FMUs) owned by DMSA:

- Hernandarias, 138,74 ha
- Tapytá, 34,02 ha

The audit team reviewed 100% of the related evidence supporting that Desarrollos Madereros S.A. (DMSA) is the owner of the land where the project is developed, /10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ /18/ 19/ 20/ 21/ 22/ 23/ 24/ /25/44/ 45/ 46/ 47/ 48/ 49/ /50/ 51/ 52/ 53/ 54/ 55/ 77/ /83/ 84/ 91/ 92/ 93/ 96/ 97/ /98/ 99/ 118/ and /119/, for additional information, please see section 4.8 Carbon ownership and rights. It is important to mention that Desarrollos Madereros S.A. is the legal name of the company in Paraguay, but the commercial brand is POMERA MADERAS, under which another company of the same business group also operates in Argentina: Garruchos SA. Although the company is known by the brand name POMERA MADERAS and its official website is under this name.

In addition to the deeds and the RUC (Taxpayer Registry) / 10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 44/ 45/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/and / 56/, VERSA also had access to the Ownership Condition Report /46/, which was duly processed by a Notary Public. Based on official secondary information, it was possible to establish that DMSA is the owner of the two properties that make up the GHG Project and that there is no evidence suggesting that the properties belong to indigenous communities, according to the data on indigenous communities /157/.

Conclusion: The analysis conducted by VERSA definitively establishes Desarrollos Madereros S.A. (DMSA) as the legal owner of the properties involved in the GHG

Project. This conclusion is firmly supported by a range of evidence, including property deeds, Taxpayer Registry (RUC) information, an Ownership Condition Report, and other official sources. The absence of any evidence suggesting indigenous ownership further strengthens this determination. The documentation reviewed provides comprehensive and irrefutable proof of DMSA's legal land ownership.

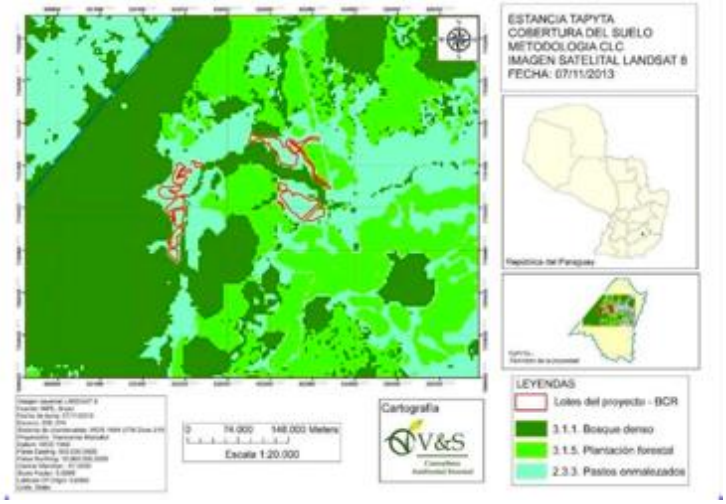
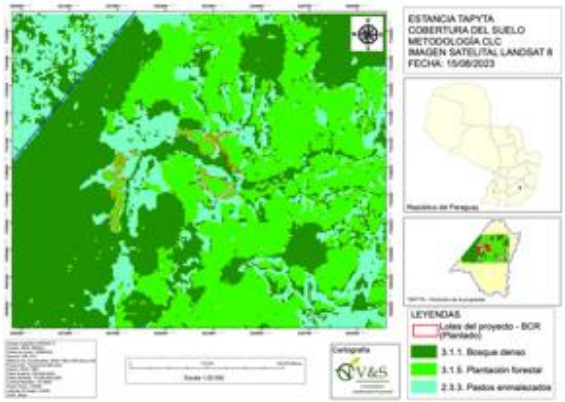
4.5.3.1 Eligible areas in the GHG project boundaries (for AFOLU projects)

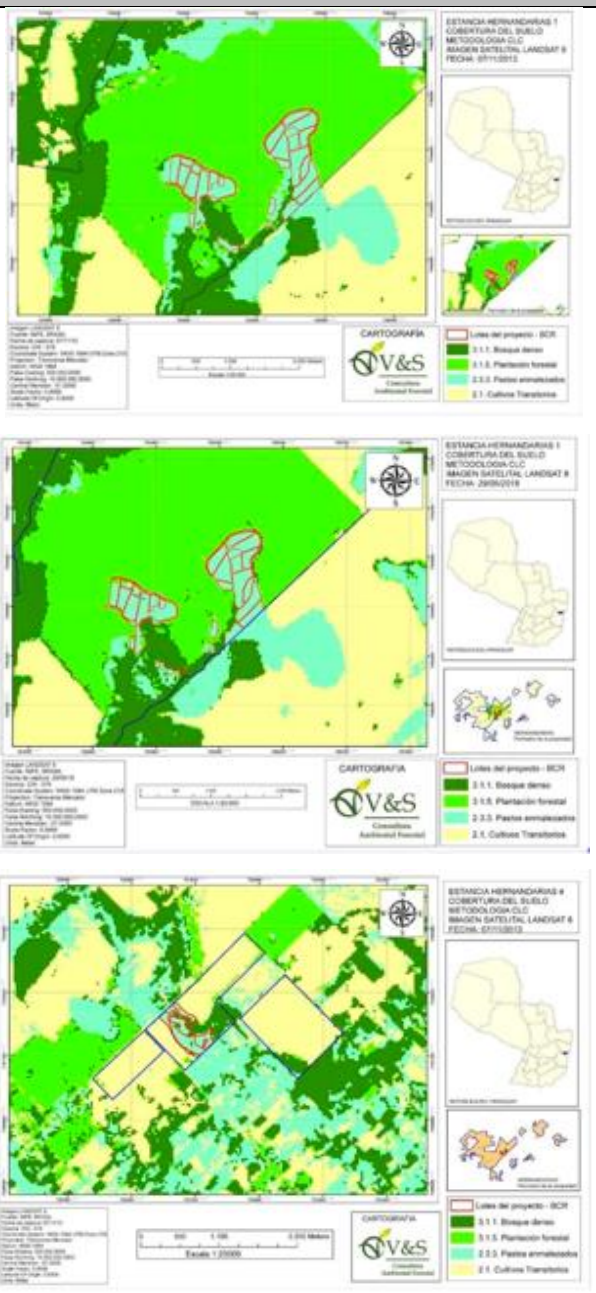
The GHG project managed to demonstrate with ample and sufficient evidence, that the geographic boundaries correspond to the category of non-forest according to the definition granted by Paraguay in Article 42 of Law 422 of 1973, at the beginning of the activities, nor 5 years before the start of the project. It defines forest as: "Eastern Region of Paraguay, in which this project is located: minimum area of 1 hectare (1 ha), with a tree height equal to or greater than five meters (5 m) reaching a minimum canopy cover in its natural state of at least thirty percent (30%). " The procedure for analyzing compliance with the applicability of the GHG Project methodology is described in Table 11.

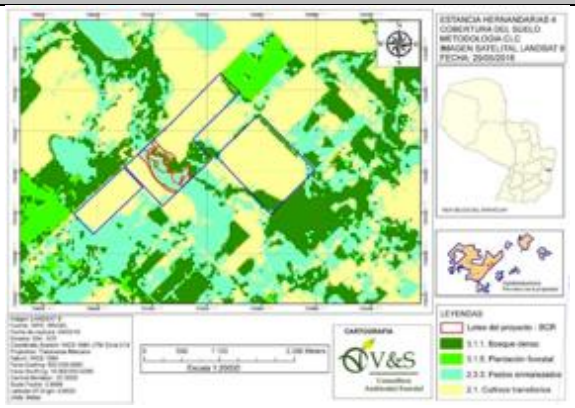
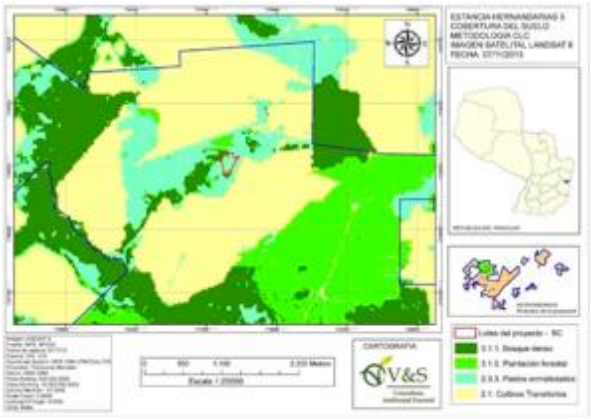
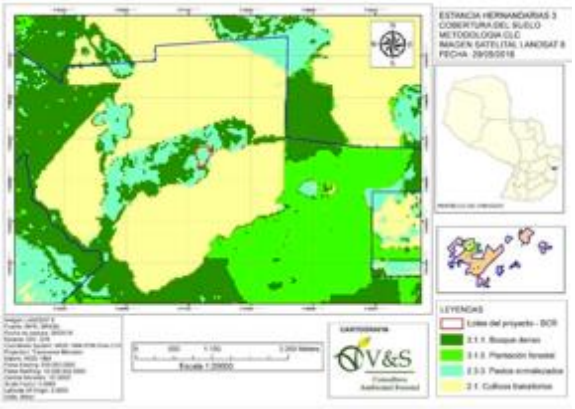
Table 11. Criteria for establishing the eligible areas for ARR projects. BCR0001

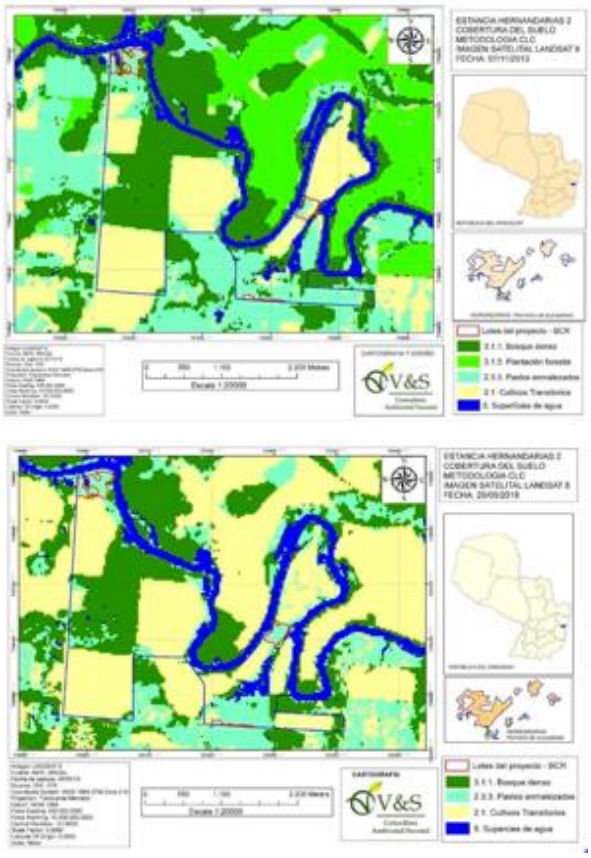
Criteria	OVV Justification
Forest or natural vegetation cover other than forest does not cover it.	A five-year multi-temporal analysis preceding project initiation confirmed the historical use of the land designated for the GHG Project as livestock pasture. This analysis, conducted by the project proponent, establishes the land's prior use. During a visit to DMSA's offices, the deeds associated with the properties were reviewed and provided to the audit team as additional evidence (see Annex 3, 45/ 47/ 49/ and 51/), including the property boundary descriptions. These descriptions correspond to those provided by DMSA in PD 3.2.1 Spatial Limits of the Project and RM 1.4 Project Location and Project Boundaries. a) Assumptions, methods, parameters, data sources, and factors are transparently applied, justified appropriately, and supported by adequate evidence: this information was corroborated by evidence provided by DMSA, which included: Project parameters, including plot boundaries (defined by geographic coordinates in the KML file, Appendix /80/), were meticulously documented. Analysis utilized Landsat 8 imagery (30m resolution, 2013-2023), ESA WorldCover 10m v200 (2021), and high-resolution satellite imagery (Appendix /82/). ArcGIS 10.5 performed supervised classification using 600 manually
Is not temporarily without forest or non-forest vegetative cover, because of human intervention such as harvesting or natural causes, or is not covered by natural cover in juvenile stages, which could reach a canopy density or height equal to national values and which has the potential to become forest without human intervention.	

Criteria	OVV Justification
	labeled points (70% training, 30% validation), achieving >95% accuracy in differentiating forest cover from other land uses, even at 30m resolution and near older plantations. The KML file's boundary descriptions corroborate details in documents PD 3.2.1 and RM 1.4, validating spatial data accuracy. VERSA comprehensively investigated existing Paraguayan AFOLU projects, verifying carbon credit registrations (e.g., CERCARBONO and VERRA) to ensure no project overlap (see Section 5.8, Double Counting Avoidance). DMSA-provided documentation, including legal deeds (properties /10/-/23/, /45/, /47/, /49/, /51/, /53/, /55/) and official records from the General Directorate of the National Cadaster Service (/119/), substantiates the project's assumptions, methods, and parameters. This documentation confirms the absence of conflicts with third parties, including Indigenous territories. It's important to note that a legally registered, valid private title without defects cannot generally be re-assigned to an Indigenous community in Paraguay if the title is already in effect. This is primarily due to the principle of private property enshrined in Paraguay's Constitution and legal system; a legitimate title represents a legally recognized property right the National Constitution of Paraguay (/96/), the Civil Code of Paraguay (/97/), Law 422/73 (/98/), Law 1871/2002 (/99/). Conclusion: VERSA's findings are robustly supported by the comprehensive review of official sources, including the General Directorate of the National Cadaster Service (documents /118/ and /119/), the National Constitution of Paraguay (/96/), the Civil Code of Paraguay (/97/), Law 422/73 (/98/), Law 1871/2002 (/99/), and the legal deeds provided by DMSA. This thorough verification strengthens the accuracy and reliability of the project's parameters and data. b) uncertainty is considered and there was used prudential assumptions: To demonstrate the absence of forest five years prior to project commencement, DMSA conducted a land use mapping analysis using the BCR0001 V 4.0 Methodology (Section 10) and the Corine Land Cover methodology. This analysis utilized Landsat 8 imagery (30m resolution) from 2013-2023, supplemented by the ESA WorldCover 10m v200 product (2021) and high-resolution

Criteria	OVV Justification
	satellite imagery (see Annex 3, 82). Supervised classification was performed using ArcGIS (10.5) with 600 manually labeled points (70% for training, 30% for validation). The model achieved high accuracy (>95%), effectively differentiating forest cover from other land uses, even considering the 30m resolution and the proximity of older forest plantations. DMSA's analysis confirms the absence of forest within the project area both at its start date and five years prior, a period during which the land was primarily used for pasture. TAPYTÁ   HERNANDARIAS

Criteria	OVV Justification
	

Criteria	OVV Justification
	  

Criteria	OVV Justification
	 Three lease agreements for the properties are presented, which indicate that the lands were leased for the development of cattle grazing systems (see Annex 3, /57/58/59). The dates of these contracts are five years prior to the establishment of the Eucalyptus spp. plantation, along with the certificates of sale of the cattle for slaughter (see Annex 3, /60/). c) relevant national as also when applicable to sectoral policies and circumstances was considered and are listed in the project description: The project demonstrates robust compliance with Paraguay's relevant national and sectoral policies (see Annex 3, /100/ 101/ 102/ 103/ 104/ 105/ 106/ 107/ 108/ 109/ 110/ 111/ and /115/), as well as the country's specific circumstances. It adheres to the National Climate Change Plan and Policy, complies with forestry and environmental legislation, integrates into the carbon market framework, respects biodiversity conservation, supports the country's international commitments, utilises IPCC-recommended methodologies, and carefully considers national

Criteria	OVV Justification
	circumstances. This comprehensive alignment with Paraguay's political and regulatory context not only enhances the project's viability but also maximises its potential to generate significant positive impact in line with the country's sustainable development priorities. Stakeholder interviews independently corroborated the land lease agreement, providing strong support for the submitted documentation and reflecting the established land management practices. Detailed interview information and participant responses can be found in Chapter 3.2.3.2. d) the procedures for identifying the baseline scenario maintain consistency with the emission factors, activity data, projection variables of GHG emissions, and the other relevant parameters: This project utilizes criterion "c" from BCR0001 methodology version 4.0, concerning historical and probable land-use scenarios. VERSA confirmed the project area's historical land use as extensive cattle ranching, supported by documented interviews (section 3.2.3.2) and sales receipts / 60/. Three plausible land-use alternatives: extensive cattle ranching, agriculture, and forest crops, were identified, reflecting local practices and enabling a comprehensive GHG emissions assessment. The feasibility and likelihood of each alternative were evaluated to ensure realistic scenario projections. VERSA's analysis incorporated historical Paraguayan land use data and reports such as "Transforming our world: the 2030 Agenda for Sustainable Development" / 113/, "National System of Protected Wild Areas of Paraguay (SINASIP)" / 114/, and "Reserves and Biodiversity" / 115/. The project considers aboveground and belowground biomass as carbon reservoirs. Following the BCR0001 V4.0 methodology and for a conservative assessment, the quantification of dead wood, litter, and soil organic carbon was excluded. An increase in carbon stocks (CO_2) is expected due to the growth of trees (leaves, branches, and trunk) in the plantation, exceeding the baseline levels (pastureland). The emission factors described in the PD section 16.1 / 1/ 2/ 3/ 4/ 5/ 6/ and RM section 15.2 / 7/: basic wood density of tree species, biomass expansion factor, root/shoot ratio for Eucalyptus spp., and carbon fraction of tree biomass, are consistent with the values used in Paraguay's National Forest Emission Reference Levels (FREL) / 102/,

Criteria	OVV Justification
	submitted to the United Nations Framework Convention on Climate Change (UNFCCC). Conclusion: the project's procedures for identifying the baseline scenario and calculating GHG emissions align with the criteria outlined in section 2 of this document. The methodology consistently applies BCR0001 V4.0 (criterion "c"), incorporating historical land-use data and plausible future scenarios (extensive cattle ranching, agriculture, and forest crops) informed by local practices and relevant Paraguayan reports. The use of emission factors consistent with Paraguay's National Forest Emission Reference Levels (FREL) further strengthens the methodological rigor. The evidence provided by DMSA, including documents and sales receipts, was sufficiently comprehensive to support the analysis and ensure a robust and realistic assessment of GHG emissions.

Source: VERSA, 2025.

Conclusion: The verification of the GHG Project's land use history demonstrates robust compliance with Paraguayan regulations and policies. A five-year multi-temporal analysis, corroborated by DMSA's land use mapping (using Landsat 8, ESA WorldCover, and high-resolution imagery) and lease agreements dating back five years prior to project commencement, confirms the land's historical use as pasture. This is further supported by on-site verification of property deeds and stakeholder interviews. The project's alignment with Paraguay's National Climate Change Plan, forestry and environmental laws, and carbon market framework ensures its compliance and maximizes its positive impact within the country's sustainable development goals.

4.5.4 Baseline or reference scenario

To evaluate the baseline scenario described for the validation of the GHG project, the applicable validation requirements related to the establishment of the baseline scenario in the applied methodology of the BioCarbon StandardProtocol and the BCR 0001 methodology were followed. The step-by-step process performed by VERSA's audit team is described as follows:

- Assumptions, methods, parameters, data sources and factors were applied in a transparent manner, adequately justified and supported by ample and sufficient evidence.
- Uncertainty was considered and verified to be conservative (less than 10%).

- Relevant national carbon market policies and programs and sectoral circumstances were considered.
- The procedures described in the PD to identify the baseline scenario were verified to be consistent and coherent with the criteria defined in section 2 of this document. In addition, it was ensured that the emission factors, activity data, GHG emission projection variables and other relevant parameters were coherent and consistent with the evidence provided by the GHG Project Holder, as well as with the data reported in the Monitoring Report (MR).

The audit team's baseline assessment confirmed the following:

1. The audit team reviewed the assumptions, methods, parameters, data sources, and factors used. The baseline scenarios considered 1. Continuation of pre-project activities (extensive cattle ranching), 2. Agriculture, and 3. Forest crops for timber harvesting (Annex 3, / 1/ 2/ 3/ 4/ 5/ 6/83/84/91/92 and /93/) and the supporting evidence provided by the project proponent (Annex 3, / 27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ 43/ 57/ 58/ 59/ 60/ 66/ 67/ 68/83/84/91/92 and /93/) are deemed adequate. The procedure for identifying these scenarios is considered consistent with the BCR Standard and the applied methodology. The methods for deforestation and degradation (Section 3.3, "Identification and Description of the Baseline or Reference Scenario" of the PD) are based on the calculations in Annex 3 (/ 8/ and / 9/), verified by the audit team and found to comply with the methodology's equations (Sections 4.5 and 5.2.2 of this report).
2. In compliance with Section 16. GHG Removal by sinks of the BCR 0001 V 4.0 methodology, in the PD section 3. Quantification of GHG Emissions Reduction (see Annex 3, /1/2/3/4/5/6/83/84/91/92 and /93/) and in MR section (See Annex 3, /7/83/84/91/92 and /93/) Section 16 Quantification of GHG Emission Reduction / Removals of the MR, the VERSA verified that the project holder has procedures that implement the mechanism for managing uncertainty, which was considered using the emission factor and parameters based on the Forest Reference Emission Levels for Paraguay (2018-2022, see Annex 3, /102/); this information is further elaborated in Section 5.2.2 of this report.
3. The project assessed the applicable regulations in Section 4 Compliance with Applicable Legislation of the PD and implemented periodic monitoring of legislative compliance as part of its development in the MR Chapter 5 Compliance with Applicable Legislation. VERSA, through cross-checking with the current legal regulations for carbon markets and the implementation of the Paris agreements assumed by Paraguay (see Annex 3, / 100/ 101/ 102/ 103/ 104/ 105/ 106/ 107/ 108/ 109/ 110/ 111/ 112/ 113/ 114/ 115/ 116 and / 117/), considers that

the project complies with legal requirements; this information is further elaborated in Section 4.7 Compliance with Laws, Statutes and Other Regulatory Frameworks of this report.

4. The procedures identified in the baseline scenario maintain consistency with the emission factors, activity data, projection variables of GHG emissions, and the relevant parameters (see Annex 3, /1/2/3/4/5/6/83/84/91/92 and /93/). The baseline of the REDD+ project complies with the requirements of the applied methodology as expressed in the PD and the calculations (see Annex 3, / 1/ 2/ 3/ 4/ 5/ 6/ 27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ 43/ 57/ 58/ 59/ 60/ 66/ 67/ 68/ 83/ 84/ 88/ 92/ 93/ 100/ 101/ 102/ /105/ 106/ 118/ and /119/). Therefore, the audit team considers that the ex-ante estimation results presented in the PD are credible, consistent, and accurate.
5. The audit team has verified the effective implementation of data quality assurance procedures in accordance with the ISO 14064-2 standard, the requirements of the BCR001 V 4.0 methodology, and the additional criteria detailed in section 2 of this document. This comprehensive data quality framework ensures the integrity and reliability of the project's monitoring and reporting processes.

Conclusion: According to the information provided by the initiative Project Holders, it can be concluded that the project establishes its baseline for validation and joint verification according to the criteria defined by the BCR0001 methodology and the "BASELINE AND ADDITIONALITY" tool. The baseline has remained consistent and the GHG reduction project has not undergone significant changes from what was described in the PD. This consistency is in line with the methodological guidelines of the BioCarbon Standard, which stipulate that a reassessment is required if the implementation of the monitoring plan results in a different baseline scenario or a different net GHG removal than originally planned.

The documentation used to determine the baseline scenario is relevant and properly justified, ensuring that the project is consistent with the established methodological requirements and that the baseline remains appropriate for measuring the expected GHG reductions. The documents have been fundamental in establishing the baseline of the project, as they provide the technical, legal and strategic framework necessary for the planning, implementation and monitoring of initiatives related to land management, climate change mitigation and forest sustainability in Paraguay. SNC Resolution 200 ensures the correct georeferencing of property titles, key to determining areas eligible for reforestation activities. The National Forest Strategy for Sustainable Growth (ENBCS) and the National Climate Change Strategy guide the objectives of reducing emissions and preserving forest resources. The Second Reference Level of Forest Emissions (NREF) provides

historical data that is essential to measure the results of REDD+ projects, while the Guide to prepare Adaptation Plans and the Proposal for the National Climate Change Plan articulate adaptation and mitigation actions at the local and national level. The National Climate Change Policy frames all these actions within a long-term plan to comply with international commitments under the UNFCCC.

4.5.5 Additionality

The Project Proponent presents a comprehensive list of baseline scenarios that are supported by historical evidence from the areas where the GHG project activities will be implemented (see Annex 3, 1/ 2/ 3/ 4/ 5/ 6/ 27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ 43/ 57/ 58/ 59/ 60/ 66/ 67/ 68/ 83/ 84/ 88/ 92/ 93/ 100/ 101/ 102/ 105/ 106/ 118/ and /119/), as demonstrated in Chapter 3.4 of the PD (see Annex 3, /6/). It was established that to determine the most reasonable baseline scenario of what would occur in the absence of the proposed project activity, the GHG Project Proponent used the criteria from Section C (carbon stock changes at project boundaries, identifying the most likely land use at project initiation) of the BCR Tool: Baseline and Additionality V 1.3, March 1, 2024. The steps outlined in Table 10 were adhered to.

Table 12. Steps and applicability analysis of the methodology selected by the GHG Project Proponent.

STEP	JUSTIFICATION
Step 0.	In accordance with BCR Standard v3.4, section 11.6 /84/, an evaluation of the project's activity start date was conducted. Based on the evidence provided by the project proponent, the start date of the Greenhouse Gas (GHG) Project is December 1, 2018. This information is substantiated by contracts and work orders contracted by POMERA for the establishment of the eucalyptus plantation. The documents supporting the project execution include: - The service contract between Desarrollos Madereros and Innovación Agroforestal S.R.L for the planting of the plantations in Hernandarias and Tapytá /27/. - The work order for the Hernandarias Plantations, which covers plots 2615-c, 2617-b, 2619-b, 2620-A, 2621-A, 2622-A, 2623-A, 2624-A, 2625-A, 2626-A, 2627-A, 2628-A, 2629-A, 2630-A, 2900-A, and 2901-A. - The work order for the Tapytá Plantations, which covers plots 1051-1402b and 1052-1403-A. - The plot descriptions are detailed in Annex 3, /27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ and /43/. Conclusion: During the visit to the DMSA facilities, the VERSA audit team conducted a thorough verification process of the evidence related to the mitigation project. This process involved a meticulous review of 100% of the

STEP	JUSTIFICATION
	submitted documentation, thus ensuring the integrity and validity of the collected information. The audit focused not only on evaluating the provided data but also on understanding the context and the effectiveness of the measures implemented to mitigate the risks associated with the project. To facilitate an adequate evaluation, all relevant documentation was provided digitally.
Step 1a.	The GHG project analyzed the following scenarios: -Scenario 1: continue with the activity prior to the proposed project extensive cattle ranching. -Scenario 2: agriculture. -Scenario 3: forest crops for timber harvesting. VERSA's audit team corroborated that the scenarios proposed by the GHG project proponent are consistent with the historical use of soils in the region, which could be verified during the field visit through interviews with the project's neighbors and through literature review. The bibliography used in the project comes from official sources, which confirms its validity and consistency with the information presented in the PD, (see Annex 3, /153/ and /154/). The VERSA audit team verified that the scenarios proposed by the GHG project promoter are consistent with the historical land use in the region. This validation was carried out during a field visit through interviews with project neighbors and through the analysis of secondary sources of official information (see Annex 3, /151/ /152/). Conclusion: In accordance with the above, it is possible to conclude that the evidence provided by DMSA is extensive and sufficient to support the proposed land use scenarios. The collected data demonstrate a deep understanding of territorial dynamics and the associated environmental impacts. Moreover, the analyses conducted support the feasibility of the suggested alternatives, ensuring that both social and economic aspects are considered.
Sub-step 1b.	The project proponent has demonstrated that the three scenarios identified in sub-step 1a (livestock, agriculture, and forestry plantations) comply with Paraguay's national and regional legislation (see Annex 3, /151/ /152/). This compliance ensures that the activities are carried out within the appropriate legal framework, allowing for responsible management of natural resources. Conclusion: the results indicate that the implementation of crops, especially soybeans, maize, and other high-value crops, is in line with current regulations that promote sustainable agricultural practices. Thus, it has been verified that the project's activities not only respect the legislation but also contribute to a sustainable approach in agriculture, ensuring environmental

STEP	JUSTIFICATION
	protection and efficient use of resources (see Annex 3, /151/152/153/ and /154/). These findings are detailed in section 4.7 "Compliance with current legislation" of the document, reinforcing the project's viability within the legal and environmental context of Paraguay.
Step 2.	DMSA to conduct the financial analysis of the three activities (livestock, agriculture, and forestry plantations) was based on a case study Economic and Financial Analysis of Four Modal Farms of Mechanized Agriculture in Paraguay (see Annex 3, / 154/). The analysis consisted of comparing the Net Present Value Analysis (NPV) and the Internal Rate of Return. Estos indicadores incorporan el valor del dinero en el tiempo en la determinación de los flujos de efectivo netos del negocio o proyecto, con el fin de poder hacer comparaciones correctas entre los flujos de efectivo en diferentes períodos a lo largo del tiempo. Conclusion: as a result of the evaluation of the project presented in section 3.4 of the PD, logging in plots is the least viable activity, therefore its execution mainly depends on the incentives provided by carbon credits (see Annex 3 / 1/ 2/ 3/ 4/ 5/ 6 / 151/ 152/ 153/ and / 154/). After the document review conducted by VERSA, it is concluded that the study carried out by DMSA for the financial analysis is based on official information. Additionally, it is confirmed that their conclusions are accurate and valid.
Sub-step 2a.	The GHG Project at this stage performed an investment comparison analysis (IRR and NPV) with the objective of demonstrating that the project, without the revenues from the planned sale of Verified Carbon Credits (VCCs), is economically and/or financially less attractive than the other two alternatives identified in step 1. (see Annex 3, / 1/ 2/ 3/ 4/ 5/ 6 / 151/ 152/ 153/ and / 154/). Conclusion: the investment comparison analysis conducted in the context of the GHG project has successfully demonstrated that, without the revenues from the planned sale of Verified Carbon Credits (VCCs), the project is economically and/or financially less attractive than the other two alternatives identified in the first step. This finding meets the established criteria and has been corroborated by VERSA through the review of evidence / 1/ 2/ 3/ 4/ 5/ 6 / and consultation of secondary information sources / 151/ 152/ 153/ and / 154/.
Sub-step 2b.	With the two indicators described in step 2b it is possible to consistently establish that the two indicators incorporate the time value of money in determining the net cash flows of the business or project, in order to be able to make correct comparisons between cash flows in different periods over time. (see Annex 3, / 1/ 2/ 3/ 4/ 5/ 6 /). Conclusion: the project has successfully demonstrated that the two indicators described in step 2b consistently incorporate the time value of money in determining the net cash flows of the business or project. This allows for accurate comparisons between cash flows in different periods over time. This

STEP	JUSTIFICATION
	point meets the established criteria and has been corroborated by VERSA through document review.
Sub-step 2c.	The financial analysis conducted on the three scenarios identified in step 1—Extensive Cattle Ranching, Agriculture, and Forest Crops for Timber Harvesting—revealed varying degrees of profitability. Extensive cattle ranching yielded an NPV of approximately USD 40,843 and an IRR of 13.3%, indicating strong growth potential in the region. The agricultural analysis, based on a typical soybean crop, showed an NPV of USD 65,540 and an IRR of 10.21%, highlighting agriculture as the primary economic activity. In contrast, the analysis of forest crops for timber harvesting demonstrated significantly lower viability, with an NPV of USD 22,747 and an IRR of 4.8%, making it feasible primarily due to carbon credit incentives. The project also aims to incorporate native species to enhance ecosystem services without harvesting. Conclusion: According to the implementation of the previous sub-steps (2a and 2b), VERSA's audit team was able to establish, through the documentary review and based on the evidence provided by the holder project, that DMSA's procedures are coherent and consistent with the requirements of the BCR 0001 methodology and the BCR Tool: Baseline and Additionality. (see Annex 3, /1/ 2/ 3/ 4/ 5/ 6 /151/152/153/ and /154/).
Sub-step 3.	The following points are related to specific studies and evidence based on the situation in Paraguay: **Documentary Review:** An analysis of the Situation of the Forestry Sector in Paraguay provides updated information on the legislation and policies impacting forestry, documenting the challenges and opportunities within the sector, 1/ 2/ 3/ 4/ 5/ 6/ 27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ 43/ 57/ 58/ 59/ 60/ 66/ 67/ 68/ 83/ 84/ 88/ 92/ 93/ 100/ 101/ 102/ 105/ 106/ 118/ 119/ and /150/,. **Analysis of Financial Incentives:** The study "Financing and Sustainability in Agriculture and Forestry in Paraguay" highlights the lack of specific financial incentives for forestry projects compared to the more robust support received by agriculture and livestock, /150/ 151/152/153/ and /154/. **Policy and Program Assessment:** Research such as "Public Policies for Forest Conservation in Paraguay" analyzes the institutional framework and the limitations in implementing policies that benefit forestry relative to other agricultural sectors, / 100/ 101/ 102/ 103/ 104/ 105/ 106/ 107/ 108/ 109/ 110/ 111/ 112/ 113/ 114/ 115/ 116/ 117/ 118 /119/151/152/153/ and /154/. **Identification of Technological Advances:** A report on "Technological Innovations in Paraguayan Agriculture" mentions advancements and the adoption of technologies in agriculture and livestock, noting the lack of focus on technologies applicable to forestry /113/ 146/147/148/152/ and /1537.

STEP	JUSTIFICATION
	Ecological Conditions: Environmental studies like the "Inventory of Natural Resources of Paraguay" identify the characteristics of soils and climates in different regions, highlighting the limitations for the development of forestry in areas with degraded soils, /114/115/148/ and /149/. **Cultural Analysis:** The research "Culture and Perception of Forestry in Rural Communities of Paraguay" addresses the cultural acceptance of forestry, underscoring its lack of cultural roots compared to livestock and agriculture, /153/ and /154/. **Social Assessment:** Sociological studies such as "Social Conflicts in the Rural Sector" analyze the social dynamics in rural communities in Paraguay, evidencing the absence of significant conflicts that could hinder forestry projects, /153/ and /154/. **Property Documentation:** Analyses of "Land Tenure in Paraguay" show a clear land ownership framework in areas where projects are implemented, facilitating the implementation of forestry activities /10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 25/44/ 45/ 46/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/ 77/ 83/ 84/ 91/ 92/ 93/ 96/ 97/ 98/ 99/ 118/ and 119/. **Market and Logistics Analysis:** Research on "Markets for Forest Products in Paraguay" provides data on market access and logistics, evidencing the barriers for forestry compared to agriculture, /153/ and /154/. **Review of Fire Management Plans:** Documents like "National Fire Management Strategy" develop plans and measures to mitigate the risk of fires in forest areas, highlighting the greater vulnerability of forestry, /62/. Conclusion: DMSA's procedures for analyzing barriers to the mitigation project align with VERSA's diverse information sources. The comprehensive analysis—including documentary review, financial incentive analysis, policy assessment, technological advancement review, ecological and cultural studies, social and property assessments, market and logistics analysis, and fire management plan review—supports the consistency and relevance of DMSA's evaluation of Paraguay's forestry context.

This additionality analysis was reviewed in a detailed and exhaustive manner, evaluating each step to verify that the sources provided by the promoter were authentic and in compliance with the requirements of both the Standard and the "BASELINE AND ADDITIONALITY" tool. During this review process, the validity of the information submitted was thoroughly checked to ensure that all supporting documentation was properly substantiated and in full compliance with the project requirements. In addition, each source provided by the Project Holders was checked for alignment with the requirements of the BCR0001 methodology, ensuring that the data provided was consistent and accurate.

Conclusion: Based on the comprehensive evidence provided, the additionality of the GHG project is appropriately justified by the project holder. The Project Proponent has presented a thorough analysis of baseline scenarios underpinned by historical data, demonstrating that the chosen criteria align with the BCR Tool: Baseline and Additionality methodology.

The systematic evaluation of potential baseline scenarios—including livestock ranching, agriculture, and forestry—has been corroborated by VERSA's audit team, which confirmed consistency with regional land use practices. Furthermore, the project's compliance with Paraguay's national and regional legislation ensures responsible natural resource management.

Financial analyses reveal the limited viability of forestry without the economic incentives from carbon credits, thereby reinforcing the additionality claim. The detailed review of various studies illustrates the challenges and circumstances specific to the forestry sector in Paraguay, encompassing cultural, social, and ecological factors.

Through rigorous validation of documentation and adherence to methodology requirements, it is clear that the project activities would not have occurred as proposed without the intervention of the GHG project. This reinforces the conclusion that the project's greenhouse gas emission reductions are not only legitimate and verifiable but also represent a significant step towards achieving real environmental benefits, thereby affirming the project's overall integrity and alignment with sustainability goals.

4.5.6 Conservative approach and uncertainty management

The project adhered to the guidelines of the BioCarbon Standard 2023 tool, MONITORING, REPORTING AND VERIFICATION (MRV) in version 1.0. This framework establishes a conservative approach to uncertainty management and quantification practices. To support this, the project utilized spreadsheets that included national references, quantitative uncertainty calculations, and cartographic information, all framed within a conservative methodology. The determination of uncertainty depended on the accuracy of the maps used for estimating emissions, as well as the reliability of field-reported data. The conservative approach involved employing careful values and procedures to prevent any overestimation of emission reductions.

As part of the assessment, the statistical relevance of the sampling conducted by the Project Proponent was carefully reviewed. This included an analysis of sample sizes, plot selection methodologies, and the representativeness of the field-collected data. The uncertainty calculations associated with the quantification

results were found to be within the acceptable levels set by the applicable standards. This conclusion was based on the verification of measurements, including the diameter at breast height (DBH) and tree height. The differences observed between the project's declared values and those verified in the field were not significant, remaining within the maximum margin of error permitted by the measuring instruments utilized.

A 100% review of the documents provided by the project proponent was conducted, along with interviews with stakeholders. The risk assessment indicated that the probability of finding material errors or significant breaches of criteria was less than 10%.

The consistency of the Project's GHG baseline with Paraguay's current commitments under the United Nations Framework Convention on Climate Change (UNFCCC) and/or the applied methodology was also reviewed. The values assessed for the emission reduction activity were confirmed as consistent with the document "Second Level of Forest Emission Reference (NREF) for Deforestation in the Republic of Paraguay - period 2012 - 2019".

Regarding the quantification of mitigation results compared to the validated baseline, in accordance with current national standards and/or the applied methodology, as well as the assessment of additional benefits and indicators related to the Sustainable Development Goals, the audit team concluded that the level of assurance for the GHG Project was not less than 95%. Therefore, no material discrepancies were found between the data supporting the quantification of GHG emission reduction results.

Quantification of Greenhouse Gas Emission Reductions

During the audit process, the parameters and values reported in the spreadsheets /80/ and /81/to identify greenhouse gas emissions in the baseline scenario were evaluated, and their compliance was validated considering the criteria defined by the methodology BCR0001 Quantification of GHG Removals. Afforestation, Reforestation and Revegetation Activities. Version 4.0 of February 9, 2024 /84/.

The project proponent, to quantify greenhouse gas emissions and removals in ARR activities as a landscape management tool, has incorporated fully justified and recognized criteria, in Table 13 are the reservoirs that the GHG Project contemplated, which are aligned with the provisions of section 9.1 of the BCR0001 V4.0 methodology.

Table 13. Sources and reservoirs of the GHG Project

Source or Reservoir	GHG	Included (yes or no)	Justification
Aerial biomass	CO_2	YES	The GHG Project proponent was able to justify in the PD that carbon stocks will increase in the form of aboveground Biomass due to project activities from tree growth, (represented in leaves, branches and trunk) compared to baseline values, in this case pasture for livestock.
Subterranean biomass			The GHG Project proponent was able to justify in the PD that carbon stocks will increase in the form of belowground biomass due to project activities by tree growth, (represented in leaves, branches and trunk) compared to baseline values, in this case pasture for livestock.
Dead wood and leaf litter		NO	The GHG Project proponent is aligned with sección 4.7 conservative attitude of ISO 14064-2: 2019 and BCR0001 methodology as dead wood as a carbon pool is not considered.
Woody biomass combustion		NO	The proponent of the GHG Project was able to demonstrate that it did not carry out woody combustion processes as an activity for soil preparation and for its project activities. In addition to the above, the BCR 0001 methodology does not contemplate it.

Source: VERSA, 2025

It was confirmed that the emission factors, activity data, GHG emission projection variables and other parameters used to calculate the CO_2 projections for eucalyptus and native species were consistent with those reported in Paraguay's 2019 national GHG inventory, which used IPCC values /102/. As described section 13 of the BCR0001 V4.0 methodology, the GHG Project implemented a conservative value of the 20% discount factor for quality and applicability of the GHG estimation model for IPCC density values and (R:S) factor for belowground biomass, as shown in Table 14.

Table 14. Parameters used to calculate CO2 projections

Data/parameter	Data value and source
Wood density (t/m)3	Eucalyptus grandis: 0,51 t/m3 IPCC, 2006[101] Chapter 4 Forest. Native species, Timbó (Enterolobium shomburgkii): 0,82 t/m3 IPCC, 2006[101] Chapter 4 Forest.
BEF – Biomass expansion factor	Eucalyptus spp. in tropical forests: 2 There are no official data for this native species, so, for conservative purposes, the lowest broadleaf value was selected: 1.2.
Carbon fraction	0.47 "Estimation of carbon stocks and carbon stock change of trees and shrubs in F/R CDM project activities" v. 04.2."
Root-to-shoot-ratio	Eucalypt plantation/forest: - 0,29; b<50 t.d.m/ha, IPCC year 2006 - 0,15; 50 - 150 t.d.m/ha, IPCC year 2006 - 0,10; b> - 150 t.d.m/ha, IPCC year 2006 - Native species: - 0.22 low range, IPCC year 2006

The equations and parameters used in the estimation of catches for native species were validated to be coherent and consistent with the guidelines established by the BCR 0001 Methodology and ISO 14064-2:2019. Ample and sufficient evidence was found to support the increase in average annual trunk volume (m3/ha-year), "Growth in height and diameter and mortality in plantations of native species of the Yungas in Valle Morado, Salta". The density of dry wood (t/m3), source: 2006 IPCC Table 3A.1.9-2 corresponding to Eucalyptus robusta (America), the BEF2 (dimensionless=total aerial biomass/trunk biomass), source: IPCC Table 3A.1.10. lowest value for broadleaves species in tropical regions, the R:S (dimensionless=root biomass/total aerial biomass), source: IPCC 3.A.1.8 and finally carbon as a fraction of dry organic matter, source: CDM AR-TOOL14.

During the documentary review stage and the field visit it was possible to validate that the different strata defined by the GHG Project Proponent have a heterogeneous biomass distribution in the project areas in relation to the types and combinations of species, density and planting distances. However, the

planting dates for the establishment of this vary, for this reason the project has 8 strata (see Table 15), which reduces the variability.

Table 15. GHG Project strata.

Strata	Sowing year	Area (ha)	Location
1	2018	13,43	Hernandarias
2	2019	32,14	Hernandarias
3	2019	17,62	Hernandarias y Tapytá
4	2019	52,71	Hernandarias y Tapytá
5	2020	3,02	Hernandarias
6	2022	17,53	Tapytá
7	2023	11,83	Hernandarias
8	2023	24,48	Hernandarias
TOTAL		**172,76**	

Source: adapted from DMSA, 2023

For the calculation of carbon stocks in trees, the mitigation project used estimation through the measurement of sampling plots. It is important to note that only 6 strata were included. The number of non-permanent plots was calculated using equation 23 from section 17.3.1.4 of the BCR0001 Version 4.0 methodology (see the detail of the calculation of sampling plots in section 15.1 of the RM), with a confidence level of less than 95% and a material discrepancy of less than 5%. The sampling intensity was, on average, 0.59%, totaling 20 circular plots of 400 m^2 (radius of 11.28 m) in 136.4 ha.

Table 16. Strata and Sampling Plots Composition.

Stratum	Year of Planting	Species	Area (ha)	Number of Sample Plots
1	2018	Eucalyptus	13.43	2
2	2019	Eucalyptus	32.14	4
3	2019	Eucalyptus	17.62	3
4	2019	Eucalyptus	52.71	8
5	2020	Eucalyptus	3.02	1
6	2022	Eucalyptus	17.53	2
Total				20
7	2023	Eucalyptus	11.83	2
8	2023	Eucalyptus	24,48	5
Total			136.45	27

Source: adapted from DMSA, 2023

Table 16. Ex ante projections of CO_2 removals

Year	Baseline scenario (tCO_2e)	GHG CO_2 Captures without the non-permanence discount (tCO_2e)	Leackages (tCO_2e)	GHG Ton CO_2 Captures with non-permanence discount (20%) (tCO_2e)
1	0	0	0	-
2	0	754	0	602
3	0	6.273	0	5.018
4	0	5.047	0	4.037
5	0	7.826	0	6.260

Year	Baseline scenario (tCO2e)	GHG CO2 Captures without the non-permanence discount (tCO2e)	Leackages (tCO2e)	GHG Ton CO2 Captures with non-permanence discount (20%) (tCO2e)
6	0	7.390	0	5.912
7	0	-3.081	0	-2.465
8	0	9.077	0	7.261
9	0	11.146	0	8.917
10	0	8.937	0	7.149
11	0	6.002	0	4.801
12	0	-38.893	0	-31.114
13	0	9.244	0	7.395
14	0	8.623	0	6.898
15	0	3.245	0	2.595
16	0	10.590	0	8.471
17	0	-23.311	0	-18.649
18	0	11.722	0	9.377
19	0	11.989	0	9.590
20	0	10.505	0	8.404
21	0	7.520	0	6.016
22	0	-39.895	0	-31.915
23	0	7.720	0	6.176
24	0	9.955	0	7.964

Year	Baseline scenario (tCO2e)	GHG CO2 Captures without the non-permanence discount (tCO2e)	Leackages (tCO2e)	GHG Ton CO2 Captures with non-permanence discount (20%) (tCO2e)
25	0	2.897	0	2.317
26	0	11.491	0	9.192
27	0	-13.860	0	-11.088
28	0	10.333	0	8.266
29	0	10.417	0	8.333
30	0	9.849	0	7.878
31	0	11.267	0	9.013
32	0	9.198	0	7.358
33	0	11.020	0	8.815
34	0	11.409	0	9.127
35	0	10.634	0	8.506
36	0	11.986	0	9.588
37	0	10.044	0	8.034
38	0	11.807	0	9.445
39	0	12.662	0	10.129
40	0	11.901	0	9.520
SubTOTAL without the non-permanence discount				191.438
Minus 20% of BCR's general reserve				-38.288
TOTAL with the non-permanence discount				153.133

Source: Cambium Earth, 2023

The Project included an additional discount to mitigate the "Reversion Risk" of 20% on the total GHG emission reductions quantified for each verified period, to cover a potential materialization of the identified risks. Overall, of the total 191,438 tCO2e generated in the project, the 20% to be allocated to the reserve accounts (10% to the BCR General Reserve account and 10% to the project reserve account) would be 38,288 tCO2e, leaving a total of 153,133 tCO2e.

Conclusion: The project successfully adhered to the BioCarbon Standard 2023's Monitoring, Reporting, and Verification (MRV) tool premises from version 1.0. By employing a conservative methodology for managing uncertainty, the project ensured reliable estimations of emission reductions while relying on validated data, rigorous statistical analysis, and comprehensive documentation. The project's GHG baseline was consistent with Paraguay's commitments under the UNFCCC, confirming the validity of its strategies against existing national standards.

The qualitative and quantitative analysis confirmed that the GHG Project effectively justified its inclusion of various carbon reservoirs, such as aerial and subterranean biomass, while adhering to methodological guidelines. The statistical significance of the sampling increased assurance levels around confidence and reduced discrepancies in quantified emissions. Across the various strata defined within the project, a detailed understanding of biomass distribution informed the calculations of carbon stock change.

By accounting for non-permanence risks through additional discounts and following the methodical process described, the project confidently recorded a total of 153,133 tCO2e in net emission reductions. Overall, the audit process demonstrated the project's strong adherence to the established standards, its robust methodology, and its overall contribution to sustainable development goals in alignment with forest area management and restoration.

4.5.7 Leakage and non- permanence

VERSA, through document reviews and interviews, confirmed that the GHG Project only considers leakage derived from the displacement of agricultural activities, specifically related to extensive cattle ranching /57/58/ and /59/. For this validation, the GHG Project Proponent demonstrated, through a multi-temporal coverage analysis /80/ and with documentation, the termination of leases for the project area to various third parties. Thus, it was possible to establish that five years prior to the start of the GHG project, the land was used for the development of extensive livestock systems, with a cover dominated by invasive pastures, according to the CORINE LANDCOVER methodology.

For this validation, according to the guidance provided by the AR-TOOL15 tool "Estimation of the increase in GHG emissions attributable to the displacement of pre-project agricultural activities in a CDM F/R project activity" v.02.0 /158/and /159/ detailed in the BCR 0001 methodology /84/, it is established that leakage emissions attributable to the displacement of grazing activities are counted as zero under the following condition: when the animals are moved to the "zero-grazing" system (i.e., they are slaughtered). Furthermore, according to this tool, no leakage is considered to occur after five years from the start of GHG project implementation, provided that the areas of project implementation are not increased. Based on the above, it is concluded that emissions due to the displacement of livestock activities are zero. The results of this review are consistent with the guidelines established by the criteria defined in section 2 of this document.

All cattle present before the project's start were slaughtered within one month following the conclusion of the contract. As documented in ANNEX 3 of the PD, two receipts for the sale of the cattle are included, confirming that leakage is zero. On the other hand, the mitigation measures identified by DMSA for medium and high risks, as well as their monitoring, have been developed following the BCR Risks and Permanence V 1.1 tool, in section 7.1 of the current document, complying with the requirements of BCR Standard v3.4, section 12.3.

4.6 Monitoring plan

4.6.1 Description of the monitoring plan

VERSA's audit team conducted a comprehensive evaluation of the monitoring plan proposed by the GHG Project. This analysis focused on validating the conformity of the activities and methods described in section 17, Monitoring of the PD/84/. The steps carried out are described in Table 17.

Table 17. Steps to evaluate the monitoring plan proposed by the GHG Project in the PD.

Description	RM Justification
Project areas by stratum: Eucalyptus coverage, measured in ha.	The procedure defined by the GHG Project Holder to follow up on the delimitation limits of the project areas was corroborated using satellite images and corroboration with GPS trails.
Forest Inventory: DBH is measured in cm; Total	During the field stage, the distribution of the sampling units (temporary plots) was

Description	RM Justification
Height is measured in m and phytosanitary status.	corroborated, which had an area of 400 m2 in which the following dasometric variables were measured in 100% of the individuals present in the plot: -DAP: The measurement was carried out with the help of Diametric Tape. The diameter was measured with a 1.3 m long rod that will be used to measure the diameter at breast height. -Height: It was carried out with the help of the Nikon Forestry II hypsometer calculated from the laser register.
Biomass	The spreadsheets verified the correct use of 100% of the allometric equations according to the values of the dasometric variables measured in the forest inventory.
Remotion's	The procedure for the use of allometric equations for the calculation of tons of carbon dioxide equivalent was verified in 100% of the Excel spreadsheets.

Following this evaluation, it was determined that the monitoring plan is in line with Paraguay's national circumstances, adopts good practices and follows the quality standards established by ISO 14064-2. As a result, it is considered that the monitoring plan meets the methodological and reference tool requirements.

In addition, it is confirmed that the monitoring plan proposed in the PD complies with the guidelines established by Methodology BCR0001 Quantification of GHG Removals. Afforestation, Reforestation and Revegetation Activities. Version 4.0 of February 9, 2024. The evaluation conducted by VERSA's audit team during the strategic planning phase and the on-site audit process concludes that the information related to the monitoring plans adequately covers the tracking of project activities and the presentation of GHG mitigation targets.

In accordance with the applicable validation requirements related to the monitoring plan the compliance assessment process was evaluated with the following sections:

a) data and information necessary to estimate GHG reductions or removals during the quantification period:

The PD describes that the monitoring for the estimation of emissions is carried out according to the verification periods stipulated by the project and under the guidelines of the BCR0001 methodology and ISO 14064-2:2019. In each verification period the activity data must be monitored. The emission factors to be considered correspond to those validated in section 5.5.6 of this document.

b) complementary data and information to determine the baseline scenario:

The project proponent was able to demonstrate with ample and sufficient evidence that the baseline corresponds to the development of extensive livestock systems, such as leases to third parties, termination of these and a multitemporal GIS analysis of satellite images. It showed that 5 years before the implementation of the project, the area of the GHG Project was covered by weededed pastures according to the CORIN LAND COVER methodology.

According to the above, VERSA's audit team can establish that the baseline scenario is zero.

c) specification of all potential emissions occurring outside the project boundary attributable to GHG project activities (leakage):

The project proponent managed to demonstrate with ample and sufficient evidence that the leakage derived from the displacement of agricultural activities, correspond to livestock. such as lease contracts to third parties, termination of these and a multitemporal GIS analysis of satellite images, where it was evidenced that 5 years before the implementation of the project the GHG Project area was covered by weededed pastures according to the CORIN LAND COVER methodology.

According to the above, VERSA's audit team can establish that the leakage associated with this project is zero.

d) procedures established for the management of GHG reductions or removals and related quality control for monitoring activities:

Section 17 of the PD presents the Quality Control and Quality Assurance Procedures for the GHG Project. It should be noted that the team responsible for the forest inventory has demonstrated that it is competent, as it has more than 3 years of experience and is constantly being updated with respect to tools such as:

Forcípulas, Tapes (metric and diametric), Vertex IV, Rod, Telescopic, Compass, GPS, Record Sheet, Stand Maps, Pen and/or Pencil, Permanent Marker, Spray Paint, Wooden Stakes, Nails, Hammer, Mallet, Veneer, Metal Number Engraver.

The mechanism defined for data processing consists of filling out the field data recorded in a physical spreadsheet into an electronic spreadsheet (Excel), to carry out dasometric and volumetric calculations.

e) information related to the assessment of the environmental and social impacts of project activities:

For the assessment of the environmental and social effects of project activities the GHG Project Proponent incorporated the tool "Avoiding Harm" and environmental and social safeguards. V 1. March 07, 2023", in which an analysis of associated socioeconomic impacts was made.

f) description of the methods defined for the periodic calculation of GHG reductions or removals and GHG leakage:

The GHG Project Proponent has a defined procedure for the periodic calculation of GHG reductions or removals, at this point it is clarified that GHG leakage, as mentioned above, has a value of zero.

For the GHG inventory, 100% of the temporary plots were validated during the field visit. For the calculation of the number of temporary sampling plots associated with each stratum, it was possible to establish that the GHG Project used equation 23 of section 17.3.1.4 of the BCR 001 methodology version 4.0. In this way, the distribution of the plots within a stratum was completely random, a code was assigned to associate it with the measurements recorded in the field, and its geoposition was recorded in the GIS database, thus ensuring that the sampling plots corresponding to each stratum and monitoring date can be located . The sampling intensity was 0.5%, the size of the sampling plots was 400 square meters, complying with the provisions of section 17.3.1.3 of the BCR 001 methodology version 4.0. It was corroborated that for the determination of the center of the sampling plot to be randomly located on the property, the ArcMap program was used to check the centers of the plots.

During the audit, it was noted that the center of the plot was marked with a stake, visible from approximately 10 to 15 meters, establishing the north direction as a reference. The trees were numbered in a clockwise direction, with clear criteria for ordering from the outside to the inside. Highly visible and durable paint was used to identify each tree consecutively.

In addition, detailed plot information was recorded in a spreadsheet, including tables, measurement dates and responsible parties. Each tree was recorded with its distance in meters and azimuth, taking the center of the plot as the point of origin.

It was observed that, when the trees reached the appropriate size for Diameter at Breast Height (DBH) measurement, a consistent method of marking at a height of 1.30 meters from the ground was applied, thus facilitating successive DBH measurements with a tape measure. This methodologically sound approach ensures accuracy and consistency in the tree plot data collection.

g) the assignment of roles and responsibilities for monitoring and reporting the relevant variables for the calculation of reductions or eliminations:

During the activities carried out by VERSA's audit team, it was found that the head of the Research and Development Area (R&D) is responsible for the field monitoring of tree growth. An external consultant carried out the GHG quantification and removal calculations, as well as the preparation of the PDD and monitoring report. The head of the R&D area is responsible for the measurements and the safekeeping of the information. The measurements are stored in both digital and physical format. In addition, it was verified that the Project Proponent has defined procedures for storing data for at least two years after each project verification period, in accordance with the guidelines established by the BCR0001 methodology "Quantification of GHG Removals" version 4.0.

h) procedures established for the management of GHG reductions or removals and related quality control for monitoring activities:

The project holder state in the monitoring plan that it will apply and comply with the best practices recommended in the methodology used, BCR0001 version 4.0.

The establishment of plots to count carbon will be temporary. At each verification, the same procedure will be randomly repeated, following the best practice recommendations of the BioCarbon Registry.

The project owner will select the sampling intensity, 0.5% will be used and a size of 400m will be determined according to section 17.3.1.3 of the BCR001 version 4.0 methodology to determine the number of plots validated with equation 23 of the BCR0001 version 4.0 methodology.

Measurements are stored in both digital and physical format. In addition, it was verified that the Project Proponent has defined procedures for storing data for at least two years after each project verification period, in accordance with the

guidelines established by the BCR0001 methodology "Quantification of GHG Removals" version 4.0.

4.6.2 Data and parameters determined at registration and not monitored during the quantification period, including default values and factors.

Basic Wood Density (Dj): The parameter Dj, which represents the basic wood density of tree species j, in this case, Eucalyptus spp., has a value of 0.51 t.d.m³. This figure has been verified against the parameters defined in Table 4.13 pertaining to Eucalyptus robusta in the Americas, according to the IPCC guidelines from 2006 for greenhouse gas inventories (Annex 3, / 106/). This ensures that the value used meets the requirements of the relevant methodologies for emission assessments, performing calculations both ex-ante and ex-post. Additionally, the BCR standard has been followed in the choice of this parameter, ensuring that it complies with the six principles defined in the BCR tool for Monitoring, Reporting and Verification (MRV) v 1.0, / 87/.

Biomass Expansion Factor (BEF 2,J): The BEF 2,J provides the necessary expansion factor to convert trunk biomass to aboveground biomass for Eucalyptus spp., with a value of 2 selected for conservative reasons. VERSA has contrasted this information with that in Table 3A.1.10 of the IPCC GPG LULUCF 2005 (see Annex 3, /163/). This parameter is essential for the project's emission calculations, both ex-ante and ex-post, complying with the criteria established by the applicable BCR methodologies.

Root/Shoot Ratio (Rj): The parameter Rj represents the ratio of root biomass to aboveground biomass for Eucalyptus spp. The values of 0.29, 0.15, and 0.1 are applied according to biomass categories and implemented using second-degree polynomial interpolation to avoid discontinuities in the growth model. VERSA corroborated the data source, which is consistent with the parameters cited in Table 3A.1.8 of the IPCC GPG LULUCF 2005 (see Annex 3, /163/). This approach complies with the applicable BCR methodologies, allowing for effective and accurate monitoring of biomass, with a clear focus on the precision and consistency of the data used in calculations both ex-ante and ex-post.

Carbon Fraction (CF): The carbon fraction of the biomass is established at 0.47 t C (t d.m.)^-1. VERSA has corroborated the data source, which is consistent with the parameters cited in Table 4.3 of the IPCC inventory from 2006 (see Annex 3, / 106/) and follows the recommendations of Tool 14 for estimating carbon in Clean Development Mechanism (CDM) projects (see Annex 3, / 90/).

4.6.3. *Data and parameters monitored*

Below is an assessment description of the data and parameters monitored by the GHG Project:

a) Value of monitored parameter in the period for the purpose of calculating emission reductions/removals. Whether the report includes multiple values, a table may be used and included in the verification report or include references to spreadsheet. For default value (such as an IPCC value), where it is ex-post confirmed, the most recent value shall be applied for the assessment:

The parameters that DMSA has defined for measurement are as follows:

Dj (basic wood density), which refers to the density of tree species and is derived from the 2006 IPCC Guidelines. Two specific values applied are 0.51 for Eucalyptus robusta and 0.64 for a native species mix. The BEF 2,j (biomass expansion factor) is also measured, which converts trunk biomass to aboveground biomass, with a value of 2.0 for eucalyptus species in tropical forests, according to the IPCC in 2005. Additionally, the Ri (root-shoot ratio) for species varies depending on their biomass and is calculated based on IPCC guidelines and CDM tools. The CF (carbon fraction) in biomass has a standard value of 0.47 t C/t d.m., as per IPCC standards. The parameter Ai represents the area of strata, obtained from field measurements, and the *V*i,j (stem volume with bark) is calculated using the PlaForNea software. Furthermore, *A*i (total surface area of sample plots) is also based on field measurements. The DBH (diameter at breast height), measured in cm, and H (tree height), measured in meters, are crucial for calculating project emissions. Additionally, the parameter T represents the time elapsed between carbon stock estimates, and survival of i,j,k calculates the survival rate per hectare for each species. Another important aspect is the identification of trees planted for each stratum, which is recorded annually. Finally, pH analyses of the soil are conducted to assess its quality and nutrient availability, following established protocols for field measurements.

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emissions. Additionally, the parameter T represents the time elapsed between carbon stock estimates, and survival of i,j,k calculates the survival rate per hectare for each species. Another important aspect is the identification of trees planted for each stratum, which is recorded annually. Finally, pH analyses of the soil are conducted to assess its quality and nutrient availability, following established protocols for field measurements.

The document review confirmed that the parameters of the DP / 1/ 2/ 3/ 4/ 5/ and / 6/, described in section 16.1 ("Data and parameters for quantifying emission reductions"), comply with the requirements of ISO 14064-2:2019 / 92/ and the BCR 0001 v4.0 methodology / 84/. The quantification is limited to CO_2 from aboveground and belowground biomass, excluding deadwood, litter, and woody biomass combustion, as the BCR 0001 v4.0 methodology does not include them, and the project includes activities to mitigate or compensate for them. These results are consistent with the values from the Paraguayan Forest Inventory (FREL, / 102/), which uses default IPCC values / 106/.

Conclusion: VERSA corroborated the information regarding the parameters defined by DMSA for calculating emission reductions and removals. The verified information includes aspects such as basic wood density (Dj), biomass expansion factor (BEF 2,j), root-shoot ratio (Ri), and carbon fraction in biomass (CF), all aligned with IPCC guidelines. Additionally, it was confirmed that the parameters mentioned in the procedure document (PD) comply with the requirements of ISO 14064-2:2019 and the BCR 0001 v4.0 methodology. The quantification of emissions is limited to CO_2 from terrestrial biomass and is based on accurate field measurements, integrating data from the Paraguayan Forest Inventory (FREL), which reinforces the validity of the collected information and its relevance to the project. This corroboration supports the validity of the procedures and calculations involved, ensuring the integrity of the emissions analysis.

b) the equipment used to monitor each parameter, including details on accuracy class, and calibration information (frequency, date of calibration and validity), if applicable as per monitoring plan:

The parameters that have described procedures in the PD for measurement are:

- Stratum Area (Ai), Total Surface Area of Sample Plots (A): These are measured using GPS and GIS, tools that offer an accuracy of between 5 and 10 meters. As a procedure, regular checks will be conducted against known reference points to ensure the reliability of the collected data. VERSA confirmed that the use of GPS and GIS for this parameter is consistent with the RFEL proposed for

Paraguay / 102/, where the use of technology for forest management is promoted.

- Stem Volume with Bark (V): The PlaForNea software, combined with field measurements, is utilized for this purpose. PlaForNea combines the collection of field data with mathematical models to provide accurate estimates of the stem volume with bark, supporting effective forest management.
- Diameter at Breast Height (DBH): This is measured using diameter tapes, and its accuracy is generally ±0.1 cm. VERSA confirmed that the use of diameter tapes is consistent with the RFEL proposed for Paraguay / 102.
- Tree Height (H): This is determined with hypsometers and clinometers, achieving a typical accuracy of ±1 cm, with regular checks carried out to ensure its accuracy. VERSA confirmed that the use of hypsometers and clinometers is consistent with the RFEL proposed for Paraguay / 102/.

Conclusion: the parameters outlined for forest inventory measurement demonstrate a commitment to utilizing precise and reliable methods that align with the RFEL proposed for Paraguay. The integration of GPS and GIS technologies for measuring stratum areas and total plot surfaces ensures accurate data collection, while the application of PlaForNea software facilitates effective estimation of stem volume with bark through robust field data analysis and mathematical modeling. Additionally, the use of diameter tapes and hypsometers/clinometers for measuring diameter at breast height and tree height, respectively, further contributes to the overall accuracy of the inventory process. These practices collectively enhance forest management efforts, supporting sustainable resource utilization and effective decision-making in forestry.

c) The measuring and recording method, including the explanation concerning how the parameters are measured/calculated, specifying the measurement and recording frequency;

The measurement of basic wood density (Dj) is conducted using the predetermined IPCC guidelines, with a continuous approach that adjusts as empirical measurements become available. For the biomass expansion factor (BEF2,J), a conservative value representing Eucalyptus spp. is selected and applied as necessary in the calculations during project assessments.

The root-to-shoot ratio (Ri) is smoothed using interpolation based on biomass intervals, employing a second-degree polynomial, with scheduled measurements taken before each verification to maintain consistency. The carbon fraction component (CF) is applied using a default value suggested by the IPCC, integrated into emissions calculations when needed.

To measure the area of the strata (Ai), GPS and GIS technologies are employed, with verifications conducted before each assessment. The trunk volume (Vj,p,i) is estimated using the PlaForNea software, combined with field measurements, and also requires prior verification before each study. The total surface area of the sample plots (A034,1) is determined using standard procedures that involve radius and tape measurements, applied before each verification.

The diameter at breast height (DBH) is measured directly with a graduated tape, and the height of the trees (H) is recorded using a hypsometer or clinometer, with both methods applied before each verification. The time period for carbon stock estimates (T) involves recording the elapsed time between measurements, conducted after each stock estimate.

The survival rate (Survival of i,j,k) is determined from field measurements, taken at designated intervals: three months after planting and then annually. For recording the trees planted per stratum, direct observation is conducted alongside comparative bibliographic reference once a year.

Soil quality is assessed through chemical sampling conducted in a laboratory, with measurement intervals set every five years. Similarly, dissolved oxygen and pH levels in streams are measured from water samples that are collected and analyzed in a lab, with this measurement also applied every five years.

Finally, for wildlife monitoring, camera traps and direct sightings are used to collect data, with camera checks every two years and periodic direct sightings. Regarding pest monitoring, yellow chromatic adhesive traps are employed, which are checked every 30 days to identify and capture present pests. These integrated methods provide valuable information about the development and impact of the project in the context of carbon capture and biodiversity.

Conclusion: the measurement and data recording methodology for quantifying GHG capture in this project aligns effectively with the guidelines established by Paraguay's FREL and the predetermined IPCC guidelines. By applying rigorous and standardized criteria, the integrity and reliability of the collected data are ensured.

Key parameters such as basic wood density, biomass expansion factor, and root-to-shoot ratio are consistent with the information available in the IPCC guidelines, allowing for precise and conservative estimates within the framework of sustainable forest management. Additionally, the frequency of measurements—ranging from continuous controls to evaluations every five years—ensures timely

and thorough monitoring of the ecosystem, as well as the effectiveness of project interventions.

d) Source of data: logbooks, daily records, surveys, sampling plots, inventories, etc:

Based on the procedures described by DMSA and the supporting evidence, it is confirmed that the company has an established procedure for the follow-up and review of all field data recording forms, with the head of R&D being responsible for this task. Data are stored in both physical and digital formats, although the paper format prevails over the electronic format to accurately reflect field measurements. The DMSA Administration area will be responsible for the safekeeping and security of the data files, making sure to keep them stored for at least 2 years after the last accreditation period of the project. In addition, an annual review of the data recording and archiving system will be carried out to ensure completeness and accuracy.

e) where relevant, the calculation method of the parameter:

The methodology for calculating the parameters is based on the criteria defined by the BCR 0001 v 4.0 methodology. Below are the calculation methods used for each relevant parameter and the evaluation of VERSA:

- Basic Density of Wood (Dj): IPCC guidelines will be utilized, applying the predetermined values for Eucalyptus spp. and native species. These will be recorded and adjusted as empirical measurements are obtained. It has been confirmed that Paraguay's FREL includes the use of IPCC guidelines as a reference for estimating the basic density of wood from various tree species, ensuring that standardized and internationally accepted methodologies for GHG assessments are followed.
- Biomass Expansion Factor (BEF2,J): A conservative value of 2 will be applied according to IPCC guidelines. This factor will be used in converting trunk biomass to above-ground biomass. The FREL establishes that conservative and evidence-based factors should be used for biomass estimates, and the value of 2 aligns with the IPCC recommendations for tree species in tropical environments, providing a strong basis for effectively and conservatively calculating GHG emissions.
- Stratum Area (Ai): It will be measured using GPS and GIS technology, calculating the total area from perimeter and topographic measurements. The FREL emphasizes the importance of using accurate and reliable methods for quantifying forest areas, which includes the use of modern technological tools. The use of GPS and GIS facilitates more precise measurements, reduces uncertainty, and allows for better management of spatial information related

to forest cover. These practices are in line with the UNFCCC recommendations, which encourage the use of advanced technology-based methodologies for estimating emissions and providing reliable data.

- Trunk Volume (Vj,p,i): The PlaForNea software will be used along with field measurements to estimate the volume of logs with bark. The PlaForNea software, in combination with field measurements, aligns with the RFEL of Paraguay approved by the UNFCCC.

  The RFEL stipulates that methods ensuring accuracy and reliability in measuring log volumes and carbon capture in forest ecosystems should be used. The use of specialized software like PlaForNea, which has proven effective in estimating the growth of relevant forest species in the region, is a recommended approach to ensure measurements are consistent with internationally accepted methodologies.

  Furthermore, IPCC guidelines reinforce the importance of having precise data on wood volume for carbon accounting and emissions assessment. Therefore, the indicated methodology not only meets the requirements of the FREL but is also supported by scientific literature and carbon accounting standards.
- Survival Rate (Survival of i,j,k): The survival rate will be calculated by counting the number of live trees per hectare, with measurements taken three months after planting and then annually. This procedure is key to monitoring the health and viability of trees in reforestation projects, as the survival rate is a critical indicator of the effectiveness of forest management practices and the potential for carbon capture in an area. Regular counts after planting allow project holders to identify early survival issues and implement corrective measures if necessary, which is essential for ensuring the long-term success of the project. Additionally, the annual monitoring of the survival rate not only provides data for calculating greenhouse gas emissions but also aids in assessing the overall development and dynamics of the plantation.
- Soil Quality (pH): A chemical analysis of the soil will be conducted at five-year intervals, with samples taken from identified fixed points. It is essential to monitor factors that affect soil health and its capacity to store carbon, recognizing that soil quality is fundamental to the sustainability of forest ecosystems. Measuring soil pH is crucial, as this parameter influences nutrient availability and the bioavailability of chemical compounds that affect soil fertility, which in turn impacts forest productivity and carbon estimates.
- Dissolved Oxygen and pH in Streams: Dissolved oxygen and pH will be measured through water sampling in the Aña Cuá stream, with samples analyzed in a laboratory every five years. Assessing water quality in forest ecosystems is important, as aquatic health directly impacts biodiversity and habitat quality. Monitoring parameters such as dissolved oxygen and pH helps evaluate the health of aquatic ecosystems and their ability to support wildlife,

which is essential for maintaining ecological balance and contributing to the sustainable management of resources. This practice aligns with IPCC recommendations regarding the ongoing assessment of natural environmental conditions.

- Wildlife Observation: Camera traps and direct observations will be used, with data analysis conducted every two years. Periodic evaluations are fundamental for detecting changes in biodiversity and species presence, which can indicate the overall health of the ecosystem. Additionally, wildlife monitoring is a key component of conservation management and the evaluation of ecological benefits from reforestation projects, thereby supporting the goals of mitigation projects.
- Pest Monitoring in Plantations: Chromatic adhesive traps will be implemented and checked every 30 days to detect the presence of pests. Regular pest monitoring is crucial for integrated pest management in plantations, ensuring that proactive measures are taken to protect the trees and promote their health and survival. This approach helps minimize the impact of pests on tree growth and the overall success of carbon capture projects. Furthermore, it relates to IPCC guidelines regarding the need to manage threats to biodiversity that could compromise the ability of ecosystems to store carbon.

Conclusion: During the review it was found that all procedures established by DMSA are aligned with the requirements and guidelines specified in the BCR 0001 methodology. This covers not only the way data is collected in the field and recorded in the spreadsheets, but also the calculation method used to determine GHG removals/reductions. In other words, it was ensured that the way in which the data analysis and processing is carried out fully conforms to the standards established by the methodology. This guarantees consistency and accuracy in obtaining the results, which is fundamental for the validity and reliability of the "Mixed planting of native and non-native species in Paraguay-I" project.

f) the QA/QC procedures applied:

Quality assurance and quality control procedures were implemented to ensure that net greenhouse gas (GHG) removals by sinks were measured and monitored in an accurate, credible, verifiable and transparent manner. The project complied with the guidelines set out in the IPCC Good Practice Guidance for Land Use, Land Use Change and Forestry (GPG). Quality Assurance and Quality Control Procedures:

- Quality Assurance (QA) and Quality Control (QC): A QA/QC plan designed to ensure data credibility was implemented. This plan outlines specific activities with a scheduled time frame from preparation to final report. The plan details specific QA/QC procedures and special QC review procedures,

serving as an internal document to organize, plan and implement such activities.

- Operating Procedures (OP): Specific procedures were established for each activity, including GIS analysis, field measurements, data entry, documentation and data storage. Training courses were organized for all relevant personnel on data collection and analysis procedures.
- Measurement and Monitoring: Steps were taken to control errors in sampling and data analysis by developing a plan to measure and monitor carbon stock changes within the context of the project.

These efforts ensure that inventory estimates and data inputs are of high quality, complying with IPCC recommended methodologies for AFOLU land use and forestry projects.

g) information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of emission reductions:

Table 18. Parameters and Sources.

Parameter	Source
Basic wood density of tree species j (Dj)	It was verified that it corresponds to the values reported in 2006 by the IPCC Greenhouse Gas Inventory Guidance Table 4.13 corresponding to Eucalyptus robusta (America)
Biomass expansion factor for the conversion of trunk biomass to aboveground biomass for tree species or groups of species j (BEF 2,J)	This information was corroborated from Table 3A.1.10 of the IPCC GPG LULUCF 2003.
Root-shoot ratio para especies j Eucalyptus spp. (Rj)	This information was corroborated from Table 3A.1.8 of the IPCC GPG LULUCF 2003.
Carbon fraction in tree biomass (CF)	It was verified that it corresponds to the values reported in 2006 by the IPCC, default value of 0.47 t C / t. d.m.
Area of stratum i (Ai)	Calculated according to the procedures defined by DMSA in the RM, chapter 15.2 Data and parameters monitored.

Parameter	Source
Stem volume with bark of species j in plot p stratum i ($Vtree_{j,p,i}$)	Calculated according to the procedures defined by DMSA in the RM, chapters 15.2 Data and parameters monitored and 16.2 Project emission/removals.
Total area of sample plots in stratum i ($A_{parcela\ 1}$)	Calculated in accordance with the procedures defined by DMSA in the RM, Chapters 15.2 Data and parameters monitored and Chapter 14.1 Impremention status of the Project sección 3.
Diameter at breast height (DBH)	During the verification activities of the plots carried out by VERSA's audit team, it was determined that the DBH is taken at 130m, with the help of a dasometric tape. It was corroborated that the personnel responsible for the measurements and storage of this data is competent and follows the guidelines established by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Tree height (H)	During the verification activities of the plots carried out by VERSA's audit team, it was determined that the tree height is taken with a Vertex dendrometer. It was corroborated that the personnel responsible for the measurements and storage of this data is competent and follows the guidelines established by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Survival rate per hectare established for stratum I, species j and forest system k.	Calculated according to the procedures defined by DMSA in the PD, chapter 16.1 Data and parameters monitored.
Chemical study of soil quality to identify nutrient availability (pH).	Calculated according to the procedures defined by DMSA in the PD, chapter 16.1 Data and parameters monitored.
Dissolved oxygen in water and pH	Calculated according to the procedures defined by DMSA in the PD, chapter 16.1 Data and parameters monitored.
Pests affecting plantations	Calculated according to the procedures defined by DMSA in the PD, chapter 16.1 Data and parameters monitored.

According to the above, the sources of information for the emission factors used by the GHG project proponent come from a recognized source, are appropriate for the sinks selected by the GHG project, and are current, since Paraguay does not have its own reference levels to date.

Conclusion: The project demonstrates a comprehensive approach to data collection, monitoring, and analysis. The reliance on established methodologies (IPCC, ISO 14064-2:2019, BCR 0001 v4.0) and the utilization of QA/QC procedures enhance the credibility and reliability of the GHG emission reduction quantification. The alignment with Paraguay's FREL further strengthens the validity of the approach. The use of PlaForNea software for volume calculations and GPS/GIS for area measurements provides additional assurance of accuracy. The regular monitoring of various parameters ensures a comprehensive understanding of the project's impact on carbon sequestration and the overall ecosystem.

4.6.3 Changes in the monitoring plan

No evidence was found to suggest that changes were made to the monitoring plan. All project activities have been carried out according to the original plan, maintaining the integrity of the established procedures.

4.6.3.1 Temporary deviations

Does not apply for the current monitoring period.

4.6.3.2 Permanent changes to the monitoring plan, BCR program methodologies in use, or other regulatory documents related to BCR program methodologies.

No evidence was found indicating any permanent changes to the monitoring plan, the BCR program methodologies in use, or other regulatory documents related to BCR program methodologies.

4.7 Compliance with Laws, Statutes and Other Regulatory Frameworks

VERSA has validated compliance with the legal requirements applicable to the GHG Project, given that the Paraguayan legal regulations were reviewed and read to arrive with a context of regulations before going to the field. This process included the identification of relevant standards, laws or resolutions and commitments assumed by Paraguay before the UNFCCC, as well as a thorough analysis of their context of application and compliance. The VERSA audit team, in its role as validation and verification body, relies on the transparency, consistency and traceability of the information provided by the project holder. In addition to the above, the project has measures in place to monitor possible continuously changes in the legislative aspects that may affect its GHG Project activities. This

ensures that the GHG project complies with current regulations and can effectively adapt to any legal changes that may arise.

The project demonstrates compliance with the current national legislation of Paraguay. In particular, the one mentioned below:

1. Law No. 422/73: This Law declares the use and rational management of the country's forests and forest lands, as well as the renewable natural resources included in the regime of this Law, to be in the public interest.

2. Regulatory Decree No. 11.681/75: This Decree approving the Regulations of Law No. 422, the Forestry Law, provides that the Ministry of Agriculture and Livestock is responsible for the State's forestry administration through the National Forest Service.

3. Law No. 536/95: The Law consists of 5 chapters and 30 articles. CONTENTS: General provisions (I); Incentives for forestry activity (II); Tax regime (III); Sanctions (IV); Special and final provisions.

4. Regulatory Decree No. 9.425/95: The Decree, which consists of 25 articles, regulates Law No. 536/95 on the promotion of afforestation and reforestation, and establishes the criteria for the classification of forest priority soils and management plans, as well as incentives for forestry activity.

5. Law No. 294/93: This Law, which consists of 15 articles, declares the Environmental Impact Assessment (EIA) mandatory and defines it as the scientific study that allows identifying, foreseeing and estimating environmental impacts (any modification of the environment caused by works or human activities), in any work or activity planned or in execution. Any evaluation shall be submitted by those responsible to the administrative authority together with the project or activity; and the amendments introduced by Law No. 345/94

6. Law No. 345/94: This Law amends Article 5 of Law No. 294, providing that all Environmental Impact Assessments and their reports shall be submitted by their person or persons in charge to the administrative authority together with the work project and its regulatory decree No. 453/13

7. Regulatory Decree No. 453/13. By virtue of this Decree, the scope of Article 2 of Decree No. 453 of 2013 is expanded, which lists the works and activities that require obtaining an environmental impact statement.

Note: The Project proponent has the document "Registro Legal Paraguay DMSA", which establishes and documents the methodology to identify, register, and update the Legislation subscribed by the company and that are applicable to its activities, products or services, such as well as monitor and evaluate compliance with applicable legal requirements. Following this, the project has a guiding document "Estándar Nacional Provisional de la República de Paraguay" which establishes the principles and indicators of "compliance with the laws." These two documents are part of the Management System stipulated by the project proponent, which demonstrates the continuous monitoring of current legal legislation and its updates.

Document Management System: The project holder has established procedures to monitor updates to applicable legal regulations at the national, departmental, and municipal levels. This procedure is outlined in section 4 of PD /84/. It consists of a formal quarterly review of the regulatory status, enabling the identification, review, adjustment, and updating of procedures to ensure compliance with the law prior to verification. The Legal and Regulatory Affairs Department of DMSA is responsible for reviewing and updating legal requirements and commitments. Each quarter, the department examines key legislations affecting the organization's activities, products, or services. If there are legislative changes, a report is prepared, and their significance is classified in a system categorizing them as green (no effect), yellow (slight effect), or red (significant effect).

For changes classified as yellow or red, a legal mitigation plan is developed by a specialized team that provides implementation guidelines. These changes are documented in the Paraguay DMSA Legal Registry to ensure it remains current. Additionally, an audit is conducted before project verification to assess compliance with legal requirements, carried out by SGS Societe Generale de Surveillance S.A. VERSA confirmed that in 2018, DMSA incorporated relevant laws and regulations pertaining to its Carbon Credit Project into the Legal Registry.

Conclusion: The Document Management System of the project includes clear and effective mechanisms that facilitate ongoing monitoring and timely updates of procedures before each verification. This proactive approach ensures that the organization remains compliant with current legal regulations and reinforces its commitment to meeting established requirements. Furthermore, this process aligns with the guidelines of the BCR 0001 Standard, version 4.0, as well as with other applicable criteria detailed in section 2 of this document. Ultimately, the procedures in place are clear and effective, ensuring responsible management in accordance with current legislation.

4.8 Carbon ownership and rights

Following a document review conducted during the field phase and based on evidence provided by the GHG Project Proponent, it can be affirmed that Desarrollos Madereros S.A. (DMSA) remains the sole owner of the two land parcels where the Mixed planting of native and non-native species in Paraguay-I project is being implemented. This project responds to removals caused by the implementation of Eucalyptus grandis forestry systems in the municipalities of Hernandarias and San Juan Nepomuceno, Caazapá Department, Paraguay. This assertion is supported by the documentation provided by the PD and RM holder, as shown in Table 19.

Table 19. List of properties with acquisition date and reference.

ZONE	DEED DATE	PROPERTY	CADASTRAL CODE	DISTRICT
H-2	23/7/1996	7271	7533	San Juan Nep.
H-3	4/2/1999	13138	18046	Hernandarias
H-29	21/10/1998	1338	2243	Hernandarias
H-45	9/11/1998	13864	3331	Hernandarias
H-45	26/5/2000	749	1382	Hernandarias
H-45	26/5/2000	749	1380	Hernandarias
H-45	26/5/2000	9355	15261	Hernandarias
H-45	26/5/2000	1951	2786	Hernandarias
H-45	26/5/2000	1950	2785	Hernandarias
H-45	26/5/2000	2723	4437	Hernandarias
H-45	26/5/2000	29703	30632	Hernandarias
H-45	26/5/2000	29704	30633	Hernandarias
H–45	26/5/2000	29702	30631	Hernandarias

ZONE	DEED DATE	PROPERTY	CADASTRAL CODE	DISTRICT
H – 45.1	26/5/2000	2614	4338	Hernandarias
H – 45.1	26/5/2000	2626	4357	Hernandarias
H-49	21/3/2000	K13/3624	2996	Minga Guazú

VERSA conducted a cross-check of relevant information regarding the regulation of private property in the National Constitution of Paraguay (see Anexx 3, /1/ 2/ 3/ 4/ 5/ 6/ 7/ 83/84/86/ /100/ 101/ 102/ 103/ 104/ 105/ /106/ 107/ 108/ 109/ 110/ 111/ /112/ 113/ 114/ 115/ 116/ and /117/), finding that it is primarily addressed in the following articles:

1. Article 17: Establishes the right to private property, recognizing it as a fundamental right and defining its inviolability. This ensures that private property is protected from any unjustified intrusion.
2. Article 18: Regulates expropriation, stating that it can only occur for reasons of public utility and with prior fair compensation. This article establishes the principles under which expropriation can take place, ensuring that owners are compensated fairly.

These articles guarantee the protection of private property in Paraguay and outline the principles of expropriation. For further insights on this topic or to obtain specific information about any particular article, additional questions are encouraged. Additionally, the following laws are considered relevant:

1. Law 2023/2002 on the Regularization of Land Tenure: This law aims to regularize land tenure, especially in rural areas, and seeks to provide legal security to those holders who lack formal property titles.
2. Law 60/90 on the Protection of Private Property: Establishes measures to protect private property and defines judicial procedures for property claims, ensuring a solid legal framework.
3. Community Lands Law (Law 1871/2002): This law regulates rights over land for communities, focusing on the protection of indigenous community lands, acknowledging their cultural and social significance.
4. Public Property Registry: Law 317/92 established the Property Registry, with the purpose of guaranteeing the publicity and legal security of rights over real estate, thus facilitating the management and defense of property.

This cross-check highlights the robustness of the legal framework in Paraguay regarding private property, offering both protection and formal procedures that safeguard the rights of owners and communities.

4.9 Risk management

It was confirmed that as part of the mechanism established in the GHG Project, to guarantee permanence, the GHG Project has a collective carbon pool equivalent to 20% of the total removal achieved in each verification event. This pool ensures compliance with the non-permanence criterion. Section 2 of the BCR Permanence Risk and Risk Management Tool V 1.0 presents three tables (Table 26, Table 27 and Table 28) detailing the environmental, financial and social risks identified by the project proponent. These risks were classified into three levels (high, medium and low) based on their potential impact on carbon benefits. High risk can reverse up to 10% of the carbon benefits accrued at each verification event. Medium risk affects between 5% and 10% of VCC units, while low risk affects less than 5% of VCCs.

Through the document review of the PD and cross-checking with secondary information sources, it was possible to validate that the mitigation project assessed the risks related to environmental, social, financial, and technical aspects. Additionally, activities and programs were generated to mitigate these risks and ensure the reduction of risks in general, including reversal risks, through coherent and adequate management, as described in Table 20 below.

Table 20. Sources of associated risks

Risk Source	Control	Justification
Environmental Risks		
Fires	Forest fires are a significant concern due to their impact on carbon emissions and climate change. Paraguay has seen a notable increase in fires, primarily due to drought and human activities. Rural communities use fire for land clearing but lack the resources to fight resulting fires. These fires destroy plantations, damage air and water quality, and threaten wildlife. DMSA has developed an index to evaluate and prevent fires, utilizing meteorological data and other variables. Agricultural burning and human negligence are the main	The Development Plan (PD), specifically section 7, classifies this risk as high, according to DMSA. DMSA has developed an integrated fire management system for the Tapyta and Hernandarias estates, outlined in a Fire Protection Plan /61/and /62/. This plan addresses wildfire detection, combat, and mitigation, and incorporates controlled fire techniques to prevent economic and environmental damage. Training in asset protection is provided to affected personnel Mitigation efforts included implementing updated fire

Risk Source	Control	Justification
	causes of these fires. DMSA is committed to mitigating these risks and has resources to address them, including replanting affected areas.	suppression procedures and providing training to DMSA personnel /62/ The effectiveness of this training and implementation was verified during a site visit and corroborated via interviews (section 3.2.3.2 of this document) **Conclusion:** Based on the interviews conducted and the visit to the facilities, it can be affirmed that DMSA has effective procedures and tools to identify and respond to a fire event. A significant portion of the staff interviewed, who have been with the company for over 10 years, reported that they receive continuous training to manage such situations, and they find the procedures to be clear. In conclusion, it is evident that DMSA employs an effective approach to fire management.
Winds	Occasionally, hurricane-force winds can reach hurricane speeds in the winter, primarily impacting tree structures, according to the Risk Atlas of Paraguay's National Emergency Secretariat. In the summer, warm and humid sirocco winds from the northeast dominate, and there is a low probability of tornadoes forming in extensive plains in the project area, particularly in the departments of Alto Paraná and Caazapá. Depending on the severity of the damage, mitigation measures such as resprouting or replanting are implemented in case of damage.	The GHG Project Proponent rates this risk as low. Through a review of information from official sources, the climatological yearbooks from 2017 to 2023 (see Annex 3, /139/140/141/142/143/ and /144/) indicate that the incidence of winds in the region where the project is located is high. As a mitigation measure, DMSA maintains a permanent availability of seedlings and conducts monitoring patrols to identify areas affected by winds, /67/. This is essential to ensure the sustainability of the project and to minimize the negative impacts that could arise from extreme weather events, such as windstorms.

Risk Source	Control	Justification
		This information was corroborated by VERSA through document review (see Annex 3, /61/67/71/72/73/), interviews with employees (see section 3.2.3.2 of this document), and the inspection of the nursery. During the site visit, it was established that the mitigation measure is viable, as the nurseries were observed to be operating at full capacity, suggesting a constant and adequate production of the plants needed for both planned and unplanned replanting. **Conclusion:** The GHG Project Proponent has assessed the risk associated with high winds in the project region as low. Supporting evidence from climatological yearbooks (2017-2023) confirms the prevalence of winds. To mitigate potential impacts from extreme weather events, the project employs effective measures, including the availability of seedlings and regular monitoring patrols. VERSA has verified this through document reviews, employee interviews, and site inspections, noting that the nurseries are functioning at full capacity.
Pests and diseases	The forest management units are located in natural habitats of cutter ants, an endemic pest that severely affects forest plantations. Forest management must include strict control of cutter ant (Atta spp. and Acromyrmex spp.) populations to prevent heavy defoliation from compromising tree growth and project viability. This control is necessary throughout the planting	The GHG Project Proponent rates this risk as high. The phytosanitary management focuses on cultural practices, and the use of agrochemicals includes baits and the rotation of active ingredients to avoid the development of tolerance. This use is targeted and restricted to toxicological categories III and IV, in accordance with FSC accreditation

Risk Source	Control	Justification
	cycle. There are other pests with a lower risk of significant impact, such as Thaumastocoris peregrinus, Glycaspis spp. and Leptocybe invasa, which are monitored but do not represent a major threat.	(Annex 3, /1/ 2/ 3/ 4/ 5/ 6/ 60/ 61/ 63/ 67/ 68/ 71/ 72/ and /73/). This information is also corroborated by the studies of McGowan, J. A. et al. (2019) and Benvenuti, S. et al. (2020) (see Annex 3, /146/ and /147/) as well as by the interviews conducted with DMSA staff, described in section 3.2.3.2 of this document. **Conclusion:** following the visit to the plots and the interviews, it can be concluded that the approach adopted by DMSA to manage pests is appropriate and aligned with best practices for sustainability and environmental management.
Floods	As described in Figure 51 of PD, according to the Atlas de Riesgos de Desastres de Paraguay, the non-existence of events in the historical records and given the location of the project plots with respect to the hydrographic network. Also taking into consideration that the soils are moderate to well drained and that DMSA contributes positively to the maintenance and protection of natural drainage and executes the relevant drainage works in forestry projects, there is no considerable risk of flooding in the project area.	The project considers the related impact to be low. This assessment has been corroborated by VERSA, which conducted an extensive review of official sources of climate information and soil studies. Additionally, interviews were conducted, as described in section 3.2.3.2 of this document, and direct observations were made in the plots during site visits. According to precipitation studies provided by the Information System of Paraguay (see Annex 3, /137/) and climatological yearbooks (see Annex 3, /138/, /139/, /140/, /141/, /142/, /143/, and /144/), it has been determined that the average precipitation in the region exceeds 1,800 mm/year. Furthermore, the cartographic units present in the study area correspond to a hilly terrain, and the soils in this zone exhibit structures where sands

Risk Source	Control	Justification
		predominate (see Annex 3, /150/151/155/). This soil characteristic facilitates water infiltration in the profile, which mitigates flooding. During the field visit, the health status of the plantation was confirmed to be optimal, with no evidence of phytosanitary diseases or pests associated with conditions of high-water tables. **Conclusion:** the project's impact on floods is assessed as low, supported by rigorous analysis and validation by VERSA through various research methodologies, including reviews of official climate data, soil studies, interviews, and site observations. The findings indicate that the region's average precipitation significantly exceeds 1,800 mm/year and that the hilly terrain and sandy soil composition promote efficient water infiltration, reducing the likelihood of flooding. Additionally, the plantation's health is deemed optimal, with no signs of phytosanitary issues or pest problems related to high water tables. Overall, these factors demonstrate that the project is designed to operate sustainably, effectively managing environmental resources while ensuring the well-being of the ecosystem.
Financial Risks		
Resources secured for project set-up	With over 20 years of forestry experience in the project region, DMSA serves as the sole promoter and financier. Currently, it manages a forest estate that exceeds 8,500 hectares and is in its third planting cycle as of 2018, utilizing funds from	The GHG Project Proponent rates these 3 risks as low. In this sense, the VERSA audit team during the field visit and the review of the evidence was able to validate that the evidence is ample and

Risk Source	Control	Justification
	both forestry and other activities for its investments. The company has an FSC-certified forest management plan, valid for 10 years, which is subject to periodic renewal. The project area of 172.76 hectares constitutes less than 20% of its annual operations, ensuring financial stability for effective planning and execution. Over the past decade, the economic results have consistently surpassed 30% of turnover, providing ample funds and minimizing financial risks for the project.	sufficient to support that the company DMSA has sufficient financial capacity to finance the activities proposed in the PD, /10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 25/44/ 45/ 46/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/ 77/ 83/ 84/ 91/ 92/ 93/ 96/ 97/ 98/ 99/ 118/ and 119/. The evidence provided by DMSA was able to demonstrate that the resources to finance the design, development and implementation of the GHG Project come from DMSA funds. It was possible to validate and verify that the GHG Project Proponent has more than 20 years of experience as a timber producer in the forestry sector during the field visit, which was corroborated through mapping and visits to the plantations during the field phase. **Conclusion:** the GHG Project Proponent has classified the related risks as low. The VERSA audit team confirmed this assessment during their field visit, finding sufficient evidence that DMSA has the financial capacity to fund the proposed activities in the Project Design (PD) using its own resources. Additionally, DMSA's extensive experience of over 20 years in the forestry sector was validated through plantation mapping and direct observations. These findings affirm DMSA's capability to successfully execute the GHG Project
Resources secured for project maintenance	DMSA, as the sole promoter and financier of the project, has more than 20 years of forestry experience in the project region and a forest estate of more than 8,500 hectares, currently in its third planting cycle for 2018. Its professional team includes agronomists and forestry engineers and technicians, supported by external advisors in various areas. Over the last decade, economic performance has been consistently above 30%, ensuring the solvency to sustain the project throughout the accreditation period. Given DMSA's scale and experience in larger forestry operations, and its technical and budgetary capacity, there is not considered to be a risk to the sustainability of the project.	
Financial capacity of the project holder	DMSA, as promoter and sole financier of the project, has more than 20 years of experience in forestry in the project region, with a forest estate of more than 8,500 hectares currently in the third planting cycle for 2018. Since 2007, it	

Risk Source	Control	Justification
	has guaranteed to the industry the constant delivery of more than 200,000 solid m3 of roundwood, generating around 2,000 jobs. With an economic performance of over 30% in the last decade and an equity of over 21,000 hectares, the company's financial capacity ensures the maintenance of the project during the entire accreditation period without financial risk.	
Social Risks		
Land disputes	DMSA owns the entire project lands, which are 100% titled and have been duly registered with the Dirección General de los Registros Públicos for more than 20 years. These lands are not subject to disputes by ethnic groups or local communities. In Paraguay, land is registrable property and any individual or legal entity that holds title to a property must register the title deeds in the public registry. To prove ownership, a certificate of "report of domain conditions" must be obtained from the General Directorate of Public Registries, which has no expiration date and provides information on the ownership and any affectation of the real estate. A Notary Public, who must have the title deed and complete the certificate following the established guidelines, performs this process.	The ranking of these 3 risks identified by the Proponent of this project is low. Its claims are based on the fact that it can demonstrate through public deeds and the "report on ownership conditions" that it is the legitimate owner of the two properties where the GHG Project is currently being developed and that these lands do not present any type of claim and/or conflict on the part of local ethnic and/or traditional communities, 10/ 11/ 12/ 13/ 14/ 15/ 16/ 17/ 18/ 19/ 20/ 21/ 22/ 23/ 24/ 25/44/ 45/ 46/ 47/ 48/ 49/ 50/ 51/ 52/ 53/ 54/ 55/ 77/ 83/ 84/ 91/ 92/ 93/ 96/ 97/ 98/ 99/ 118/ and 119/. The bibliographic references that support the political stability of the Republic of Paraguay are of recognized and reliable origin. Therefore, the fact that it has been determined that this is a risk with a low possibility of occurrence is supported by ample and sufficient evidence in the PD, /139/140/ 141/ 142/143/ and /144/.
Political Risks	Since Alfredo Stroessner's departure in 1989, Paraguay has maintained an uninterrupted democratic process, which has contributed to the country's political stability. The private sector plays a leading role in	

Risk Source	Control	Justification
	the economy, promoting economic and industrial development, supported by a structure that guarantees monetary stability, low inflation and low tax burden. Average annual GDP growth from 2006 to 2020 has been 3.8%, and rating agencies such as Moody's, Standard & Poor's and Fitch Ratings classify Paraguay as a stable country. Average annual inflation from 2006 to 2021 was 4.93%, and the fiscal system is designed to boost economic and industrial development with a low tax burden.	**Conclusion:** the assessment of the three identified risks by the project Proponent is categorized as low. This evaluation is substantiated by the Proponent's ability to present public deeds and a "report on ownership conditions," demonstrating legitimate ownership of the two properties where the GHG Project is being developed, along with the absence of any claims or conflicts from local ethnic or traditional communities. Furthermore, the bibliographic references confirming the political stability of the Republic of Paraguay are from reputable sources. Consequently, the determination of this risk as having a low possibility of occurrence is supported by ample and sufficient evidence within the Project Design (PD).
Opportunity cost	DMSA has more than 20 years in the forestry activity. This is due to the firm commitment and conviction it has for the realization of this project through plantations, generating an additional benefit to the environment and society. At the same time, by entering the carbon market, the forestry projects that are designed will be more profitable, which means that the risk of changing activities will be increasingly lower.	

Source: VERSA, 2025

The assessment of the risks associated with the GHG project, conducted by DMSA, reflects a strong compliance with the criteria of BioCarbon's SDSs tool (formerly known as the No Net Harm Environmental and Social Safeguards - NNH) in the identification and management of risks across various areas. Each risk category has been carefully analyzed, and effective controls and mitigations have been established, demonstrating DMSA's commitment to best practices in the forestry industry.

Regarding environmental risks, the identification of threats such as fires, winds, and pests has been prioritized. The implementation of a Fire Protection Plan, along

with systematic monitoring of climatic conditions and the health of the plantations, ensures that these threats are managed effectively. This proactive approach affirms compliance with the SDSs criteria related to environmental protection. The evaluation conducted by VERSA during their visit verified the effectiveness of these procedures, which not only minimizes the potential impact on natural resources but also contributes to the sustainability of the project, aligning with climate change mitigation goals.

From a financial risk perspective, DMSA's operational model highlights a clear identification of its capabilities and resources, affirming that the project meets the financial sustainability criteria outlined in the SDSs tool. With over 20 years of experience in the sector and solid financial management, the project is well capitalized and able to address unforeseen expenses without compromising its viability. VERSA confirmed during its audit that DMSA has the necessary resources to finance the activities proposed in the Project Design (PD), supporting the project's financial soundness.

In relation to social risks, DMSA has demonstrated that its properties are properly registered and that there are no conflicts with local communities, thereby minimizing potential disputes and affirming compliance with the SDSs criteria pertaining to social equity and community engagement. This management was confirmed by VERSA, which reviewed the relevant documents and verified the absence of claims, ensuring a peaceful and favorable operating environment.

Lastly, the political context of Paraguay, characterized by stability and economic growth, complements the identification of risks and supports compliance with the SDSs criteria that emphasize a conducive environment for investment and continuity of forestry activities. VERSA's assessment of the country's political stability reinforces confidence in the project's viability.

Overall, DMSA’s proactive measures related to environmental protection, financial sustainability, social equity, and political stability affirm that the GHG project meets the essential criteria set forth by BioCarbon’s SDSs tool.

4.10 Sustainable development safeguards (SDSs)

Through document review and corroboration of secondary information sources, the coherence of the activities and procedures proposed by the mitigation project for the implementation of the BCR Tool was validated:

a) Proposed processes for environmental assessment, where the potential effects of the mitigation project on biodiversity and ecosystems within the project boundaries must be analyzed.
b) Proposed activities for the assessment of socioeconomic impacts.
c) If adverse effects are generated in the impact identification process, validate the consistency of the proposed corrective actions and measures to prevent and, where appropriate, reduce the environmental and social effects arising from the development of the project's activities.

In section 9 of the Documentary Project (DP), tables 31 to 42 are presented, detailing the actions aimed at mitigating and preventing the impacts caused by the project. Additionally, a comprehensive description of the associated environmental, social, and economic impacts is provided, identifying the following significant impacts:

Impacts on Water Resources:

Risk: Reduction in the availability of surface and groundwater due to the evapotranspiration from the new plantations.

Mitigation: The project is considered small-scale and fragmented, where the evapotranspiration from the plantations is lower than the average precipitation, which exceeds 1,800 mm/year. This reduces the likelihood of water deficit (see Annex 3, /1/ 2/ 3/ 4/ 5/ 6/ 60/ 61/ 63/ 67/ 68/ 71/ 72/ and /73/). This information was contrasted with official sources, such as the Information System of Paraguay, regarding total precipitation at the Caazapá station (see Annex 3, /137/) and the climatological yearbooks (see Annex 3, /138/, /139/, /140/, /141/, /142/, /143/, and /144/). The publication by Liu et al. (2017) on evapotranspiration in eucalyptus plantations in subtropical China, referenced in Annex 3 (/145/), is also considered.

Conclusion: In conclusion, while there is a recognized risk of reduced availability of surface and groundwater due to evapotranspiration from the new plantations, the project's small-scale and fragmented nature significantly mitigates this risk. With evapotranspiration rates being lower than the average annual precipitation, which exceeds 1,800 mm, the likelihood of experiencing a water deficit is substantially decreased. This assertion is supported by data from official sources, including the Information System of Paraguay and climatological yearbooks, which validate the projected precipitation levels in the area. Additionally, the findings from Liu et al. (2017) regarding evapotranspiration in eucalyptus plantations further corroborate this position. Therefore, the project is expected to have minimal impacts on water resources, contributing to sustainable management practices.

Risk: Small runoff flows that could carry mineral sediments into watercourses.

Mitigation: Conducting water quality studies to monitor pH and dissolved oxygen levels in the water bodies adjacent to the project area (see Annex 3, /1/ 2/ 3/ 4/ 5/ 6/ 60/ 61/ 63/ 67/ 68/ 71/ 72/ and /73/). According to the study conducted by Méndez, J. D., et al. (2018), wind erosion is indeed a recurring issue. In line with the procedures defined by DMSA, efforts are made to maintain shrubs along the streets to mitigate such phenomena. Monitoring pH and dissolved oxygen levels in the adjacent water bodies is an effective measure to determine if this phenomenon is occurring and to take the necessary actions to address it (see Annex 3, /146/).

Conclusion: According to the analysis conducted by the VERSA audit team, it can be concluded that the establishment of the Eucalyptus sp. plantation does not pose a significant potential risk regarding the decrease in the availability of surface and groundwater. This finding is based on the fact that the evapotranspiration associated with these plantations is lower than the average rainfall reported by the consulted official sources.

Furthermore, the information gathered suggests that the region's climate, characterized by high levels of precipitation, contributes to maintaining a positive water balance. This implies that the amount of water that infiltrates and is stored in the soil remains adequate to support both the existing vegetation and the new eucalyptus plantation. Thus, the implementation of sustainable management practices and the strategic location of the plantations, away from significant water bodies, reinforce the conclusion that the impact on water resources will be minimal.

Therefore, it can be confidently stated that this project not only aligns with the principles of sustainability and resource conservation but also promotes economic development without compromising the quality and availability of water in the area.

Risk: Contamination of surface or groundwater due to activities associated with the project.

Mitigation: Use of manual tillage techniques for soil preparation, minimizing impact and facilitating water infiltration. Additionally, the properties of both estates are located far from significant bodies of water (Annex 3, /1/ 2/ 3/ 4/ 5/ 6/ 60/ 61/ 63/ 67/ 68/ 71/ 72/ and /73/). This is corroborated by the studies of McGowan, J. A. et al. (2019) and Benvenuti, S. et al. (2020) (see Annex 3, /146/ and /147/).

Conclusion: According to the verification analysis conducted by VERSA, it can be concluded that the use of manual tillage techniques for soil preparation, referred to as minimum tillage, significantly helps minimize impacts on water quality. This

practice is characterized by being a targeted activity, which means its implementation interferes with the natural environment in a limited and controlled manner.

Minimum tillage promotes the conservation of soil structure, allowing microorganisms and other beneficial organisms to thrive in their suitable habitat. This not only enhances soil health but also improves its ability to absorb and retain water. By facilitating water infiltration, the risk of surface runoff, which often carries contaminants and sediments into nearby water bodies, is reduced.

Impacts on Soils:

Risk: Soil disturbance during preparation, tree planting, and the use of agrochemicals.

Mitigation: Implementation of the "minimum tillage" technique, which reduces soil disturbance by tilling only strips 1 to 2 meters wide. Tillage is performed under appropriate moisture conditions to avoid soil compaction. The use of agrochemicals is part of an Integrated Pest Management (IPM) approach, where it is restricted to controlling populations of defoliators (Atta spp., Acromyrmex spp., Ectatomma ruidum, Solenopsis spp., Camponotus spp.). Its management focuses on cultural practices, and the use of agrochemicals is targeted and restricted in accordance with FSC accreditation (Annex 3, /1/ 2/ 3/ 4/ 5/ 6/ 60/ 61/ 63/ 67/ 68/ 71/ 72/ and /73/). This is corroborated by the studies of McGowan, J. A. et al. (2019) and Benvenuti, S. et al. (2020) (see Annex 3, /146/ and /147/) as well as the interviews conducted with DMSA staff, described in section 3.2.3.2 of this document.

Conclusion: In summary, the implementation of minimum tillage techniques and the integration of agrochemical use within an Integrated Pest Management (IPM) framework are effective strategies to mitigate the risks associated with soil disturbance during preparation and planting processes. By limiting soil disturbance and ensuring appropriate moisture conditions, these practices contribute to maintaining soil health and preventing compaction. Furthermore, the targeted use of agrochemicals for controlling specific defoliator populations (such as Atta spp., Acromyrmex spp., Ectatomma ruidum, Solenopsis spp., and Camponotus spp.) aligns with sustainable management practices and complies with FSC accreditation standards. The evidence from studies and interviews with DMSA personnel reinforces the effectiveness of these approaches in promoting environmental sustainability while supporting the successful establishment of eucalyptus plantations.

Impacts on Flora and Fauna:

Risk: Alterations in local habitats due to the transformation of degraded lands.

Mitigation: Progressive conversion of grassland areas into forest plantations that will eventually promote biodiversity and create habitats for native species. According to the evidence provided by DMSA (see Annex 3, /1/ 2/ 3/ 4/ 5/ 6/ 60/ 61/ 63/ 67/ 68/ 71/ 72/ and /73/), the gradual conversion of grassland areas into forest plantations is an effective strategy for promoting biodiversity and creating habitats for native species. This is achieved through several mechanisms:

Habitat Restoration: The transformation of grasslands into more complex ecosystems that include trees and shrubs increases species diversity, providing refuge for birds, mammals, insects, and microorganisms.

Soil Improvement: The roots of tree plants stabilize the soil and prevent erosion, while forests enrich the cycles of nutrients and water, favoring both plant and animal life.

Favorable Microclimates: Forest plantations moderate temperatures and increase humidity, creating microclimates that benefit specific species and enhance water infiltration and retention.

Sustainable Management Practices: The selection of native plant species ensures essential ecological relationships and fosters local fauna, while designing planting areas with vegetative corridors promotes connectivity between habitats. The above was corroborated by studies conducted by González, M. E., et al. (2018) and López (see Annex 3, /148/), J. A. and Silva, R. M. (2017) (see Annex 3, /149/), which demonstrate how Eucalyptus plantations can positively affect biodiversity and facilitate the emergence of native species in different ecological contexts. These studies highlight that by transforming degraded grassland areas into eucalyptus plantations, an environment is created that can support a greater diversity of flora and fauna.

Furthermore, it has been observed that these plantations can serve as refuges for local species, promoting ecological connectivity and mitigating the effects of habitat fragmentation.

Conclusion: The progressive conversion of degraded grasslands into forest plantations, particularly Eucalyptus spp., is an effective strategy for enhancing biodiversity and creating habitats for native species. Evidence from DMSA supports this approach, demonstrating that such transformations lead to habitat restoration, soil improvement, and the establishment of favorable microclimates that benefit diverse flora and fauna.

Studies by González, M. E., et al. (2018), J. A. and Silva, R. M. (2017) further confirm that eucalyptus plantations can positively impact biodiversity and support the emergence of native species. These plantations also serve as refuges for local species, promoting ecological connectivity and mitigating habitat fragmentation.

In conclusion, this strategic conversion not only aids in restoring degraded lands but also aligns with sustainable management practices that prioritize ecological health and resilience, contributing to a more biodiverse and sustainable landscape.

Impacts on Climate Change:

Table 34 of the DP (see Annex 3, /6/) provides a comprehensive overview of the identified impacts associated with the project. It is important to note that no negative impacts related to the analyzed variables have been observed. Below is a concise description of each variable.

The project is first noted for its absence of adverse effects on greenhouse gas emissions, with an estimated annual capture of 3.828 tCO_2, thereby contributing positively to the environment. Additionally, the planned activities are likely to enhance habitat suitability, promoting species distribution and connectivity through the planting of native trees that will provide refuge and food sources.

In terms of ecosystem services, the project is expected to lead to increases in pollination, water purification, and carbon sequestration, resulting from greater forest cover. The careful selection of native species also reduces the risk of introducing invasive species, which is crucial for the preservation of local biodiversity. The above was corroborated by studies conducted by González, M. E., et al. (2018) and López (see Annex 3, /148/), J. A. and Silva, R. M. (2017) (see Annex 3, /149/), which demonstrate how Eucalyptus plantations can positively affect biodiversity and facilitate the emergence of native species in different ecological contexts.

Furthermore, the analysis suggests a low risk of extreme weather events, such as droughts or floods, in the project area. To address potential adverse effects, a reforestation plan has been established. The strategic choice of native species, well-suited to the local climatic conditions, ensures that the phenological cycles of existing species remain unaffected. This information was contrasted with official sources, such as the Information System of Paraguay, regarding total precipitation at the Caazapá station (see Annex 3, /137/) and the climatological yearbooks (see Annex 3, /138/, /139/, /140/, /141/, /142/, /143/, and /144/).

Conclusion: According to the above, it can be concluded that the inclusion of multiple native species in reforestation efforts will contribute to genetic diversification within species populations. This strategy not only ensures greater resilience to environmental factors and climate changes but also fosters adaptation and stability of local ecosystems.

Genetic diversity is essential for the health of populations, as it increases their ability to withstand diseases, pests, and other stressors. By introducing and establishing a variety of native species, the project actively commits to avoiding

negative impacts that may arise from monoculture or the use of exotic species. This highlights a proactive approach to conservation, where the creation of an ecological balance is promoted, benefiting both plant species and the wildlife that depends on them.

Furthermore, the incorporation of native species can facilitate important ecological interactions, such as pollination and seed dispersal, and contribute to the restoration of essential ecosystem functions. These actions are key not only for the conservation of biodiversity but also for the provision of vital ecosystem services that benefit human communities, such as climate regulation, water purification, and food production.

Social Impacts

Risk: that the project generates false employment expectations

Mitigation: The implemented mitigation measures include the creation of approximately 500 direct jobs in forestry activities, prioritizing local labor to generate a positive social impact. Training is provided in the use of new technologies as well as in hygiene and safety measures, in addition to training workers in the operation of equipment and machinery to optimize production. All workers are formally registered, ensuring their rights and benefits in accordance with local laws and the commitment of the Service Providers. This information was corroborated with the interviews described in section 3.2.3.2 of this document, where opinions and direct experiences of those involved in the project were gathered.

Conclusion: The project, by generating approximately 500 direct jobs in forestry activities and prioritizing local labor, has the potential to significantly contribute to the socioeconomic well-being of the community. However, there is a risk of creating employment expectations that may not be fulfilled. To mitigate this risk, various measures have been implemented, including training in new technologies and hygiene and safety standards, as well as training workers in the use of machinery. These actions are designed to ensure that workers are well prepared and possess the necessary skills to optimize production.

Furthermore, the formal registration of all workers guarantees their rights and benefits, aligning with local laws and the commitment of the Service Providers. Information about these initiatives has been corroborated through interviews that gather the opinions and experiences of those involved in the project.

Risk: DMSA does not have social responsibility procedures.

Mitigation: The DMSA policy integrates neighboring communities into its forestry business, improving socioeconomic needs by offering job opportunities, especially

near the forestry management units (FMUs), through a Social Management Plan. This plan seeks to establish trust-based relationships with stakeholders related to forestry activities and promote the creation of social value.

The main stakeholders include workers, contractors, local and indigenous communities, suppliers, customers, authorities, and non-governmental organizations, among others. DMSA fosters relationships based on respect and transparent communication, promoting spaces for dialogue. This information was corroborated with the interviews described in section 3.2.3.2 of this document, where opinions and direct experiences of those involved in the project were gathered.

Conclusion: According to the document review and the interviews conducted by VERSA with stakeholders, it is evident that the Social Management Plan aims to improve socioeconomic needs through job creation, particularly near the forestry management units (FMUs), while also establishing trust-based relationships with relevant stakeholders.

DMSA involves workers, contractors, local and indigenous communities, suppliers, customers, authorities, and non-governmental organizations, fostering an environment of respect and open communication. This approach not only encourages dialogue and collaboration but also ensures that the opinions and experiences of those involved are taken into account throughout the process. In conclusion, while there are risks associated with social responsibility, DMSA's proactive actions can significantly contribute to sustainable development and the well-being of nearby communities

Impacts on Governance and Compliance:

According to Table 42, it was found that the potential risks associated with insufficient institutional capacity are not significant, as DMSA has more than 25 years of experience and is certified by FSC in forest management (see Annex 3, / 6/ 68/ 71/ 72/ 73/ 74/ 75/ and / 79/). Likewise, no risks related to deficiencies in governance were identified, as DMSA is the sole funder of the project and roles and responsibilities are clearly defined (see Annex 3, /6/).

No deficiencies in stakeholder participation were detected, as DMSA owns both the land of the project and the rights to the generated carbon. Additionally, the project complies with FSC standards and local regulations, which eliminates any gaps in environmental protection and ensures regulatory compliance.

DMSA's compliance structure ensures that there are no delays in obtaining the necessary permits, and its Legal and Regulatory Affairs department handles all legal aspects of the project. Furthermore, there is no political interference in decision-making processes, as the pressure to prioritize agricultural activities is

more relevant in the region than forestry activities. This information was corroborated with the interviews described in section 3.2.3.2 of this document, where opinions and direct experiences of those involved in the project were gathered and with the review of the evidence provided by DMSA (see Annex 3, / 6/ 68/ 71/ 72/ 73/ 74/ 75/ and / 79/).

Conclusion: With the review of the evidence provided by DMSA and the interviews, it was found that the potential risks associated with insufficient institutional capacity are not significant, as DMSA has more than 25 years of experience and is certified by FSC in forest management (see Annex 3, /100/ 101/ 102/ 103/ 104/ 105/ /106/ 107/ 108/ 109/ 110/ 111/ /112/ 113/ 114/ 115/ 116/ and /117/). Likewise, no risks related to deficiencies in governance were identified, as DMSA is the sole funder of the project and roles and responsibilities are clearly defined. No deficiencies in stakeholder participation were detected, as DMSA owns both the land of the project and the rights to the generated carbon. Additionally, the project complies with FSC standards and local regulations, which eliminates any gaps in environmental protection and ensures regulatory compliance.

DMSA's compliance structure ensures that there are no delays in obtaining the necessary permits, and its Legal and Regulatory Affairs department handles all legal aspects of the project. Furthermore, there is no political interference in decision-making processes, as the pressure to prioritize agricultural activities is more relevant in the region than forestry activities.

General Conclusion: The analysis conducted by VERSA demonstrates that the project is committed to environmental sustainability, social equity, and effective governance. It incorporates mitigation measures and solid environmental practices, complying with regulations that promote biodiversity conservation and the reduction of greenhouse gas emissions.

The development of an Environmental Management Plan and the assessment of impacts on land use, water, and ecosystems are notable aspects that reflect efficient resource management and a firm commitment to sustainability. Furthermore, the participation of local communities and indigenous people has been prioritized, respecting their rights and needs, thus generating socioeconomic benefits.

4.11 Stakeholder engagement and consultation

During the audit, the team conducted a thorough review of the evidence provided by the GHG Project proponent, as well as interviews with various individuals, groups and organizations that could be involved in or affected by project activities. These groups include national agencies, universities, health centers, primary and secondary education centers, and civil associations representing the forestry

sector, among others (see Table 22). The GHG Project presented evidence in the form of emails, meeting records and presentations. These findings were also supported by the interviews described in section 4.3 Interviews.

Table 22. Stakeholder´s Consultation

REPRESENTATIVE SECTOR
Hernandarias District Hospital
Neighbor of the Toryvete Community
Principal of School No. 3240 Sta. Rosa
Hernandarias Municipality Health and Hygiene
Hernandarias Municipality Environment
Finance Manager DMSA
DMSA Forestry Supervisor
INAFO/BGB Contractor
Head of Caazapá Regional Office
Caazapá Regional Office
Contractor Grupo Geral Servicios
Hernandarias 5th Police Station
Moisés Bertoni Foundation
Enramadita's Health Sub-Council
Directorate of Agricultural Extension (MAG)
H.D.S.J.N. Mesa Vamos
Cooperative Capiibary Ltda.
Municipal Board of S.J.N.
University Student
Municipality of San Juan Nepomuceno
Radio Kapiibary FM 104.5
Judge of Misdemeanors of the Municipality of San Juan Nepomuceno
Municipality of San Juan Nepomuceno
Mayor of the Municipality of San Juan Nepomuceno
Representative of the U.P.G. Agronomy Career
Desarrollos Madereros S.A.

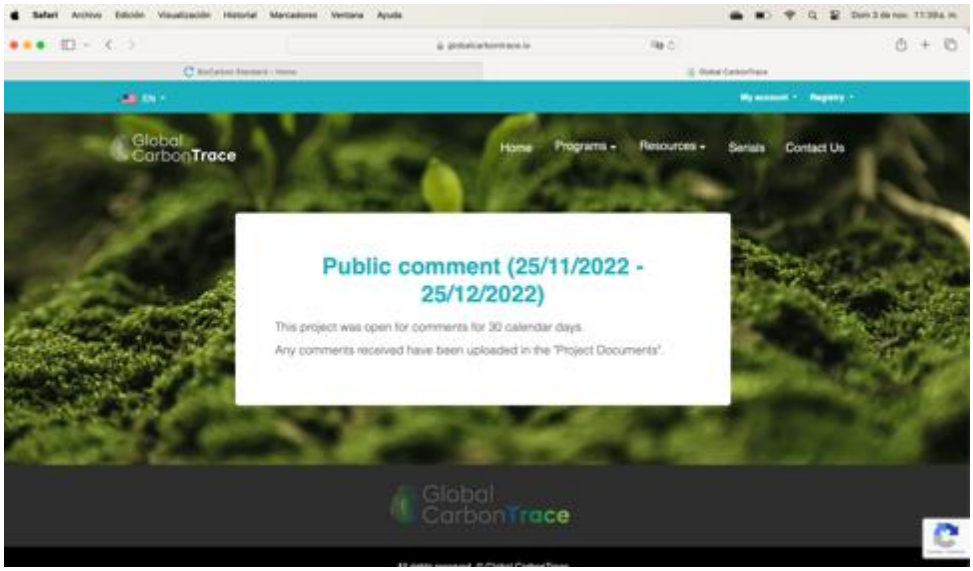
Source: DMSA, 2023. Note: Attendance lists with attendees' names are shared in the supplementary documentation folder 40.

Based on the above, it can be affirmed that the GHG Project Proponent has mechanisms and procedures that objectively disclose the purpose, scope, schedule,

impacts and activities of the project to all interested parties. In addition, it has been verified that it has a process in place to address and address complaints, suggestions and grievances, which reflects a commitment to transparency and attention to concerns.

4.12 Public consultation

In strict compliance with section 15.2 on Public Consultation, the consultation for comments was carried out on the BioCarbon Standard website. It was found that, during a period of 30 calendar days, which began on November 25, 2022, and ended on December 24, 2022, no evidence was found on the Global Carbon Trance page suggesting that any comments were received.



Therefore, it is possible to conclude that the project met the established procedures for the Public Consultation and that no comments were received during the designated period from 25 November 2022 to 25 December 2022 on the Global Carbon Trance page.

5 Verification findings

During the audit of the Mixed planting of native and non-native species in Paraguay-I project, VERSA's audit team identified certain aspects that the proponent of the GHG project solved in its entirety in 4 ROUNDS of response by the auditor and its description is as follows:

CAR: Corrective Action Request

The VERSA team identified 28 Corrective Action Requests (CARs), related to non-compliance with the requirements of the standards and the BioCarbon Standardprogram. The CARs identified are derived from:

- Material misstatement: material errors affecting the decision of the intended user of the GHG inventory or project (ISO 14064-3:2019).
- Situations that influenced the ability of the project or inventory to achieve actual, measurable and verifiable GHG emissions quantification, reduction and/or removal.
- Any situation of risk that GHG emissions, reductions and/or removals cannot be monitored and/or calculated.

The list of corrective action requirements identified by VERSA's audit team and their response by the Project Holder can be consulted in greater detail in Annex 2 of this document, respectively.

CL: Clarification Request

After performing this evaluation, four clarification requests (CLs) were identified, which were resolved in their entirety, due to the responses provided by the Project proponent. These were comprehensive and duly supported with evidence to address the CLs raised. The relevant adjustments were included in both the Project Document (PD), Monitoring Report (MR), evidence and relevant annexes. The list of clarification requests identified and their response by the Project Holder can be found in more detail in Annex 2.

FAR: Future Action Request

During the stage carried out by the audit team for this validation and retroactive verification process, a total of 28 corrective action requests (CAR), 4 requests for clarification (CL) and 0 requests for future action (FAR) were identified, all of which were satisfactorily closed.

5.1 Project and monitoring plan implementation

5.1.1 Project activity implementation

During the strategic planning, VERSA's audit team focused on verifying the project activities, evaluating the evidence provided by the project holder. In this monitoring period, a detailed assessment of the project implementation and operation status has been performed according to the validated project document and monitoring plan, as well as the applicable verification requirements. To assess the existence of dissimilarities between the project implementation and its

description, all activities carried out were thoroughly compared with those described in the original project. This analysis made it possible to identify and evaluate any deviations, concluding on the accuracy of the project implementation.

The information provided, including activity logs, progress reports, monitoring data and other relevant documents, was thoroughly reviewed. Crosschecking of this information included comparisons with independent sources and interviews with project staff. This methodology ensured that project actions were real, effective, measurable, verifiable, additional, transparent and ongoing.

It was possible to establish that the project activities started on December 1, 2018. Throughout the verification period, all planned activities were progressively carried out, including nursery seedling production, land preparation, Eucalyptus spp. planting, fertilization, weed and pest control, pruning and monitoring. The plantations visited by VERSA's audit team are in two Forest Management Units (FMUs) owned by DMSA:

- Hernandarias: 138.74 hectares (102.43 hectares planted at the time of monitoring).
- Tapytá: 34.02 hectares (all planted at the time of monitoring).

During the documentary review and field interviews, VERSA's audit team confirmed that the Chief of Operations supervised the silvicultural activities, ensuring the execution, control and approval of the work according to the Operational Procedure Manual of Desarrollos Madereros S.A. In addition, an exhaustive record was kept both in digital and physical format.

Based on the documentary review and field evidence, it was possible to establish that the activities were carried out continuously, meeting the annual planting goals. Monthly work orders were issued and closed on time, under the supervision of the nursery manager and the R&D Manager, ensuring the delivery of all the seedlings needed for the project. Soil preparation was carried out prior to planting, following work orders for the contractor company, which were verified and approved by the operating supervisor at the end of each lot, in accordance with the operating procedure. Planting, fertilization, weed and pest control activities were carried out according to work orders issued to the contractor, supervised on site by the operational supervisors, in strict compliance with the development plan. Weed control was carried out annually, before and after planting, on all planned hectares, and was supervised by the field operatives.

Pest control followed a program established in the PD, with verification of the effectiveness of the actions 10 days after each intervention. Pruning was carried out as planned and supervised by the head of DMSA's operational area. Community relations were managed by the head of FSC, following the social management plan and monitoring crop growth, verifying compliance with projections, which is described in detail of section 11 of the MTR.

The audit also confirmed the adequate definition of strata, the size of sampling plots and the monitoring of CO_2 removals, ensuring the accuracy of the data. In addition, the good condition and operation of the machinery and equipment used for monitoring tree growth and fire control was also confirmed.

In summary, the audit concluded that the project activities meet the established standards, demonstrating rigorous quality control and effective management, ensuring alignment with the original project objectives and requirements.

5.1.2 Monitoring plan implementation and monitoring report

During the verification period, the project reported a total reduction of 16,711 tCO2e, but with discounts after allocating 20% to reserve accounts. The methodology used for the development of the monitoring report is detailed in BCR0001 Quantification of GHG Removals. Afforestation, Reforestation and Revegetation Activities. Version 4.0 dated February 9, 2024. Additionally, the project has incorporated the tools provided by the standard to ensure quality in the quantification and management of emission reductions.

The criteria established for this verification are described in Chapter 2 of this document. The authoring process was carried out with a level of assurance of no less than 95%, and the material discrepancy of the data supporting the baseline and the estimate of GHG emission removals or reductions did not exceed 5%. The consistency of the baseline and mitigation results were assessed against the validated baseline, as stipulated in the methodology selected for the "Mixed planting of native and non-native species in Paraguay-I". It was verified how the project monitors compliance with the applicable legal regulations in Paraguay and the indicators related to its contribution to the sustainable development objectives.

5.1.2.1 Data and parameters

5.1.2.1.1 Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors

The following are the data and parameters determined at registration and were not monitored during the quantification period. This includes default values and factors.

Table 23. Data and parameters determined at registration and were not monitored during the quantification period

Parameter	Symbol	Value/Range	Source/ VERSA Cross-Check Justification	Compliance
Basic Wood Density	Dj	0.51 t.d.m³	IPCC 2006 guidelines (Table 4.13, Annex 3 / 106); BCR MRV v 1.0 (/ 87)	IPCC 2006 & BCR MRV v 1.0
Biomass Expansion Factor	BEF 2,J	2	IPCC GPG LULUCF 2005 (Table 3A.1.10, Annex 3 / 163)	BCR Methodologies
Root/Shoot Ratio	Rj	0.29, 0.15, 0.1	IPCC GPG LULUCF 2005 (Table 3A.1.8, Annex 3 / 163); Second-degree polynomial interpolation	BCR Methodologies
Carbon Fraction	CF	0.47 t C (t d.m.)^-1	IPCC 2006 inventory (Table 4.3, Annex 3 / 106); CDM Tool 14 (Annex 3 / 90)	IPCC 2006 & CDM Tool 14

Note: "t.d.m³" likely refers to tonnes per cubic meter. The Annex 3 references suggest additional detail can be found in a supporting document.

The sources of data and parameters, established during registration and not subject to monitoring during the quantification period, were verified against secondary information by the VERSA audit team. Table 23 provides further details. Consult section 4.6 of this document for additional information.

5.1.2.1.2 Data and parameters monitored

Below is an assessment description of the data and parameters monitored by the GHG Project:

1. Value of monitored parameter in the period for the purpose of calculating emission reductions/removals:

Through the literature review, it was determined that the parameters used in the MR described in section 15.2 "Data and parameters to quantify the reduction of emissions" to calculate the ex-post GHG reductions/removals for the first monitoring period are the same as those used to make the ex-ante projections in the PD described in section 3.7.4 "GHG emissions reduction/removal in the project scenario".

In addition to the above, the calculations made in the Excel sheets Ex-post-monitoring report BCR-PY-451-14-001 20240402-1, in the Total Emission Reduction sheet were 100% recalculated by the audit team. It was possible to corroborate that the procedures developed by the GHG Project Proponent were the same as those used to make the ex-ante projections in the PD described in section 3.7.4 "GHG emissions reduction/removal in the project scenario":

- The procedures developed in the RM are aligned with the requirements of ISO 14064-2: 2019 and the BCR 0001, v4.0 methodology.
- The emissions and removals that were included are comprehensive; the following reservoirs were not conservatively included:
    - Dead wood and litter and woody biomass combustion was not included because the BRC 0001 v4.0 methodology does not contemplate it and the project does not consider it as a project activity; on the contrary, it contemplates activities to mitigate and/or compensate for them.

It was verified that the source of the reported values corresponds to the Forest Inventory of Paraguay, which includes IPCC values by default. For this reason, the project "Mixed planting of native and non-native species in Paraguay-I" had to apply a 20% discount for quality and applicability, according to the guidelines of section 15 "Uncertainty management" of the BCR 0001 Methodology of February 2024 V 4.0.

2. the equipment used to monitor each parameter, including details on accuracy class, and calibration information:

The equipment used for these measurements includes a variety of specialized tools, such as forcípulas, measuring and diametric tapes, Vertex IV, compass, GPS, log sheets, stand maps, pens, permanent markers, spray paint, wooden stakes, nails, hammers, mallets, and metal number engravers. The project activities include the renewal of equipment prior to each verification, guaranteeing its optimal functioning and the accuracy of the measurements.

3. the measuring and recording method, including the explanation concerning how the parameters are measured/calculated, specifying the measurement and recording frequency:

During the field visit, it was possible to confirm that the tree measurement process is carried out accurately and following the methods established by DMSA for this purpose. The metallic tape is used for Diameter at Breast Height (DBH) and Vertex IV for total height. In addition to the above, the company has defined that at the end of the plot, the accuracy of the measurements is verified by a second measurement of 15-20% of the trees by another member of the team, thus ensuring the integrity of the data collected.

In addition, it has been verified that the field data is properly recorded in a designated spreadsheet and archived in Excel format in the company's operational unit, ensuring its accessibility and organization. These data are then transferred to an electronic spreadsheet to perform accurate and efficient dasometric and volumetric calculations.

It has been confirmed that the personnel in charge of these measurements are properly trained and have the necessary experience in the handling of the equipment and the procedures established by the company, which guarantees the quality and reliability of the data collected during the tree measurement process. In addition to the interviews conducted with the responsible personnel, the accuracy of the measurements was corroborated by taking the Diameter at Breast Height (DBH) and Height in 100% of the plots by the VERSA audit team, which found that the measurements recorded, coincided with those reported in the spreadsheets of each plot.

4. source of data: logbooks, daily records, surveys, sampling plots, inventories, etc:

Based on the procedures described by DMSA and the supporting evidence, it is confirmed that the company has an established procedure for the follow-up and review of all field data recording forms, with the head of R&D being responsible for this task. Data are stored in both physical and digital formats, although the

paper format prevails over the electronic format to accurately reflect field measurements. The DMSA Administration area will be responsible for the safekeeping and security of the data files, making sure to keep them stored for at least 2 years after the last accreditation period of the project. In addition, an annual review of the data recording and archiving system will be carried out to ensure completeness and accuracy.

5. where relevant, the calculation method of the parameter:

During the review it was found that all procedures established by DMSA are aligned with the requirements and guidelines specified in the BCR 0001 methodology. This covers not only the way data is collected in the field and recorded in the spreadsheets, but also the calculation method used to determine GHG removals/reductions. In other words, it was ensured that the way in which the data analysis and processing is carried out fully conforms to the standards established by the methodology. This guarantees consistency and accuracy in obtaining the results, which is fundamental for the validity and reliability of the "Mixed planting of native and non-native species in Paraguay-I" project.

6. the QA/QC procedures applied:

Quality assurance and quality control procedures were implemented to ensure that net greenhouse gas (GHG) removals by sinks were measured and monitored in an accurate, credible, verifiable and transparent manner. The project complied with the guidelines set out in the IPCC Good Practice Guidance for Land Use, Land Use Change and Forestry (GPG). Quality Assurance and Quality Control Procedures:

- Quality Assurance (QA) and Quality Control (QC): A QA/QC plan designed to ensure data credibility was implemented. This plan outlines specific activities with a scheduled time frame from preparation to final report. The plan details specific QA/QC procedures and special QC review procedures, serving as an internal document to organize, plan and implement such activities.
- Operating Procedures (OP): Specific procedures were established for each activity, including GIS analysis, field measurements, data entry, documentation and data storage. Training courses were organized for all relevant personnel on data collection and analysis procedures.
- Measurement and Monitoring: Steps were taken to control errors in sampling and data analysis by developing a plan to measure and monitor carbon stock changes within the context of the project.

These efforts ensure that inventory estimates and data inputs are of high quality, complying with IPCC recommended methodologies for AFOLU land use and forestry projects.

7. information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of emission reductions:

Table 21. Parameters and Sources.

Parameter	Source
Basic wood density of tree species j (Dj)	It was verified that it corresponds to the values reported in 2006 by the IPCC Greenhouse Gas Inventory Guidance Table 4.13 corresponding to Eucalyptus robusta (America)
Biomass expansion factor for the conversion of trunk biomass to aboveground biomass for tree species or groups of species j (BEF 2,J)	This information was corroborated from Table 3A.1.10 of the IPCC GPG LULUCF 2003.
Root-shoot ratio para especies j Eucalyptus spp. (Rj)	This information was corroborated from Table 3A.1.8 of the IPCC GPG LULUCF 2003.
Carbon fraction in tree biomass (CF)	It was verified that it corresponds to the values reported in 2006 by the IPCC, default value of 0.47 t C / t. d.m.
Area of stratum i (Ai)	Calculated according to the procedures defined by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Stem volume with bark of species j in plot p stratum i ($Vtree_{j,p,i}$)	Calculated according to the procedures defined by DMSA in the RM, chapters 15.2 Data and parameters monitored and 16.2 Project emission/removals.
Total area of sample plots in stratum i ($A_{parcela\ 1}$)	Calculated in accordance with the procedures defined by DMSA in the RM, Chapters 15.2 Data and parameters monitored and Chapter 14.1 Impremention status of the Project section 3.
Diameter at breast height (DBH)	During the verification activities of the plots carried out by VERSA's audit team, it was determined that the DBH is taken at 130m, with the help of a dasometric

Parameter	Source
	tape. It was corroborated that the personnel responsible for the measurements and storage of this data is competent and follows the guidelines established by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Tree height (H)	During the verification activities of the plots carried out by VERSA's audit team, it was determined that the tree height is taken with a Vertex dendrometer. It was corroborated that the personnel responsible for the measurements and storage of this data is competent and follows the guidelines established by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Survival rate per hectare established for stratum I, species j and forest system k.	Calculated according to the procedures defined by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Chemical study of soil quality to identify nutrient availability (pH).	Calculated according to the procedures defined by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Dissolved oxygen in water and pH	Calculated according to the procedures defined by DMSA in the RM, chapter 15.2 Data and parameters monitored.
Pests affecting plantations	Calculated according to the procedures defined by DMSA in the RM, chapter 15.2 Data and parameters monitored.

According to the above, the sources of information for the emission factors used by the GHG project proponent come from a recognized source, are appropriate for the sinks selected by the GHG project, and are current, since Paraguay does not have its own reference levels to date.

The other parameters related to GHG emissions/removals were verified during the on-site evidence gathering activities, and it was established that the project proponent applies its procedures as described in the PD (chapters 7 and 17).

5.1.2.2 Environmental and social effects of the project activities

In the Monitoring Report (MR), a detailed follow-up of the identified risks that could arise because of the project activities was carried out using the BCR No Net Harm Environmental and Social Safeguards version 1.0 tool:

- Verified Sustainable Management Practices: The project implemented low-impact planting techniques and sustainable forest management practices, endorsed by Forest Stewardship Council (FSC) certification. Verification confirms that the design, planting and maintenance of the forest were carried out in a manner that avoided negative impacts on biodiversity, local communities, water balance and scenic beauty. All activities were carried out in accordance with DMSA's Forest Management Plan and in compliance with Laws N° 422/7327 and N° 536/9528.
- Impact on Water Resources Verified: In Hernandarias, the impact on the Aña Cuá stream was monitored by pH and dissolved oxygen analysis. The verified results showed no signs of negative impact on the water. In Tapytá, there are no surface watercourses for comparable analyses.
- Verified Soil Impact: Land preparation, planting, fertilization, and weed control activities were verified as having a slight impact on the soil, mitigated by minimum tillage techniques. It was confirmed that the Responsible Agrochemical Management Plan and the Agrochemical Application Operating Procedure were strictly followed, complying with FSC guidelines. Soil studies conducted in 2023 reported high levels of organic matter.
- Impact on Flora, Fauna, and Landscape Verified: The positive impact of the project on flora, fauna and landscape was verified in comparison to the previous cattle ranching activity. The planting of trees has facilitated the nesting of birds and enhanced the presence of mammals.
- Compliance and Verified Certifications: The project has maintained FSC certification since 2006 and has passed all annual audits, including the most recent audit in 2022. In addition, compliance with the requirements of the Ministry of Environment and Sustainable Development (MADES) for the submission and approval of environmental impact studies, updated every two years, was verified, with the last update of the Environmental Management Plan in 2014.

The verification results highlight that the afforestation project has been managed in a sustainable manner, meeting rigorous environmental and social standards, and has demonstrated significant improvements in the natural environment and soil quality.

5.1.2.3 Procedures for the management of GHG reductions or removals and related quality control for monitoring activities

A robust and rigorous approach to quality management in relation to greenhouse gas (GHG) reduction activities was evident during the on-site inspection of DMSA's facilities and throughout the documentation review. The Project Holder successfully demonstrated the development and implementation of robust procedures aimed at ensuring quality control at all stages of the process.

These procedures encompass a variety of tools, including manuals, specific procedural guides, and standardized formats for data collection and analysis. The relevance and pertinence of these tools, which have been designed and adapted to meet the specific needs of the project and comply with the standards established by the BCR standard and the BCR0001 methodology, is particularly noteworthy.

It is important to note that the effective implementation of these quality procedures not only ensures the accuracy of the data collected but also contributes to the transparency and credibility of the GHG Project.

5.1.2.4 Description of the methods defined for the periodic calculation of GHG reductions or removals, and leakage

Monitoring and GHG Management Procedures

The project's monitoring system is based on stratified random sampling with temporary plots, following good practices recommended by the BCR0001 methodology version 4.0. This approach ensures that the data collected regarding biomass and greenhouse gas (GHG) removals are representative and reliable.

The monitoring and GHG management procedures implemented in the project demonstrate a robust and systematic approach to data collection. By utilizing stratified random sampling with temporary plots, as advocated by the BCR0001 methodology version 4.0, the project effectively ensures that the collected data on biomass and greenhouse gas removals are both representative and reliable. This adherence to established best practices not only enhances the credibility of the results but also supports accurate assessments of the project's impact on GHG reductions.

Plot Selection: Temporary plots were selected according to the equation specified in the methodology, ensuring a sampling intensity of 0.5% and a plot size of 400 m^2. This is fundamental to obtaining precise data on CO_2 capture.

The plot selection process employed in the project is a critical component that underscores the methodological rigor of the monitoring system. By adhering to the specified equation in the methodology, the project achieved a sampling intensity of 0.5% with each temporary plot measuring 400 m^2. This thoughtful approach is essential for obtaining accurate and precise data on CO_2 capture, ultimately enhancing the reliability of the project's findings related to greenhouse gas removals.

Stratification and Considered Variables: Six strata were defined based on specific characteristics such as species combinations and planting density. Furthermore, factors like topography and soil type were indirectly considered, adding a level of robustness to the study design.

The stratification process and the consideration of various variables play a pivotal role in strengthening the project's monitoring framework. By defining six strata based on key characteristics, including species combinations and planting density, the project effectively captures the ecological diversity present within the area.

Measurement Methods and Quality Control: Advanced measuring equipment was used, and quality control procedures were established to ensure the consistency of the data. Measurements of Diameter at Breast Height (DBH) and tree height were conducted by a qualified team that received regular training. All of this was performed under supervision to ensure there were no significant deviations in the recorded data.

The measurements carried out by VERSA confirm that the process is well-executed and aligned with quality standards. The use of advanced measuring equipment, combined with established quality control protocols, ensures that the data collected are consistent and accurate. Measurements of Diameter at Breast Height (DBH) and tree height were carried out by a qualified team that received ongoing training, further enhancing the competence and reliability of the data collection process.

Data Archival and Protection: Procedures were implemented for the backup and protection of information, ensuring the availability and security of data files. Annual reviews by the administrative area further strengthen this control.

The data archival and protection procedures implemented in the project confirm that the processes are consistent and coherent. By establishing robust protocols for the backup and protection of information, the project ensures the continuous availability and security of data files. This systematic approach not only safeguards critical information but also enhances the reliability of the monitoring system. Additionally, the annual reviews conducted by the administrative area further strengthen this control, ensuring that data management practices align with best practices and maintain the integrity of the project's operations.

Evaluation of Results: In the review of sampling, it was noted that there were no deviations greater than 0.5%, validating the methodology used. Additionally, the quality control system checks the consistency, correctness, and completeness of the data every two weeks.

The evaluation of results underscores the effectiveness and reliability of the monitoring methodology employed in the project. The review of sampling revealed that there were no deviations greater than 0.5%, which serves to validate the robustness of the methodology used. Furthermore, the implementation of a quality control system that checks for consistency, correctness, and completeness of the data every two weeks further instills confidence in the data collected.

Conclusion: The procedures implemented for the management of GHG reductions or removals in this project are appropriate and aligned with the monitoring plan

and verification requirements. The methodology followed not only complies with the BCR0001 guidelines but also incorporates robust quality controls that reinforce the credibility of the results obtained.

The conservative approach adopted, along with the rigorous training of personnel and attention to detail in data collection and analysis, ensures the effectiveness of the monitoring system. Thus, it is concluded that the procedures are consistent and well-structured, providing strong support for the integrity of the verification process and the project's carbon capture claim.

5.1.2.5 *Assignment of roles and responsibilities for monitoring and reporting the variables relevant to the calculation of reductions or removals*

The project proponent successfully demonstrated the existence of procedures to ensure and control the quality of the implementation of these during the implementation phase of the GHG Project. These procedures are applied in all phases of the project, considering applicable legal and technical requirements. This approach aims to comply with the following aspects:

- Ensure proper development and management of the project.
- Identify and control resources to carry out activities at all stages of the project.
- Implement manuals, procedures, guidelines and formats considered necessary for the project.
- Apply methodologies to quantify Greenhouse Gas Emission Reductions.

The Head of the Research and Development Area (R&D) led the field monitoring of tree growth, with a team composed of himself and five technical staff members (contractors), in addition to which he is responsible for the safekeeping of measurements and data. They will be stored in both digital and physical format for at least two years after the last accreditation period of the project, following the guidelines of the BCR0001 methodology. This team carried out tasks such as the establishment of temporary sampling plots, tree enumeration and measurement, georeferencing of sampling points and corroboration of strata size. An external consultant performed greenhouse gas (GHG) quantification and removal calculations. DMSA is structured with several key responsibilities:

- Director: Approve the Project Document (DP) for the mixed planting of native and non-native species in Paraguay, provide resources and ensure the continuity of forestry activity.
- Commercial and Forestry Operations Manager: Responsible for the marketing of assets and the comprehensive management of plantations, including their establishment, maintenance and protection.

- Research and Development (R+D): Responsible for the planning of management plans, plantation inventories, pest and disease control, and evaluation of new projects.
- FSC Manager: Ensure the care of the environment and the occupational health of workers, as well as promote sustainable management and relations with the community.
- Management: Seek the maximum benefit for the entity through the organization and control of human, economic and technological resources.
- Contractors: Comply with established procedures and standards, maintaining training in Integrated Management System (IMS) issues for their personnel.

This structure allows for effective and sustainable management of the forestry project. Based on the above, it can be established that the GHG project proponent has procedures that ensure the designation of a person responsible for each of the project's activities, thus guaranteeing adequate and controlled management at all stages of its implementation.

5.1.2.6 Procedures related whit the assessment of the project contribution whit the Sustainable Development Goals (SDGs)

It is confirmed that the MR of the Project "Mixed planting of native and non-native species in Paraguay-I" is aligned with the activities described in the PD. The information provided in the MR satisfactorily meets the criteria of accuracy, transparency, consistency and coherence.

The evaluation of the SDGs took place in the field, with the verification of the investment supports of each SDG. Additionally, corroboration interviews were made possible to corroborate that the money invested was for these demonstrations.

Regarding the monitoring of the Sustainable Development Goals (SDGs), it has been verified, through the review of the evidence presented by DMSA and during the field visit, that those responsible for the project "Mixed planting of native and non-native species in Paraguay-I" have demonstrated that, from the beginning of its implementation, it has effectively contributed to achieving the following Sustainable Development Goals. They demonstrated with the Tool to determine the contributions to the achievement of the SDGs, the definition of criteria, activities and relevant indicators:

Table 24. Monitoring of the Sustainable Development Goals (SDGs)

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
 End poverty in all its forms everywhere.	1. Fire prevention.	Fire prevention safeguards property, crops, and lives, thereby contributing to poverty reduction by averting economic losses and minimizing vulnerability to disasters and economic shocks. This activity contributes to the achievement of SDG Target 1.5, specifically the goal of building resilience among the poor and vulnerable and reducing their exposure to climate-related and other economic, social, and environmental shocks and disasters by 2030. This aligns with Global Indicator 1.a.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /129/).
	2. Road repair.	A robust road network significantly improves market access for agricultural producers and small businesses, enabling higher prices and increased revenue. Furthermore, it enhances access to essential services, including education and healthcare, while fostering labor mobility and expanding employment opportunities, thereby benefiting impoverished communities. This activity contributes to the achievement of SDG Target 1a., specifically the goal of ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
		implement programmes and policies to end poverty in all its dimensions. This aligns with Global Indicator 1.a.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /129/).
	3. Forestry plantations for income generation	Sustainable and inclusive implementation of this project, utilizing appropriate species and environmentally sound forest management, has the potential to generate income for local communities. This income can improve living standards, provide access to food, education, and healthcare, and contribute significantly to poverty reduction. This activity contributes to the achievement of SDG Target 1b. Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions. This aligns with Global Indicator 1.b.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /129/).
Conclusion: Three initiatives fire prevention, road repair, and income generating forestry offer a comprehensive approach to poverty reduction. These programs align with UN SDG targets 1.5, 1.a, and 1.b, respectively, and consistently utilize the BCR-SDG Tool (Annex 3, /78/, /129/).		

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
 End hunger, achieve food security and improved nutrition and promote sustainable agriculture	1. Programme Family and school gardens	Family and school garden programs significantly advance SDG 2 (Zero Hunger) by improving food security, promoting sustainable agriculture, enhancing nutrition, and empowering communities. The program's full impact requires further data on scale and specific practices employed. This activity contributes to SDG Target 2.a by investing in rural infrastructure, agricultural research and extension services, technology, and gene banks to enhance agricultural productivity in developing countries, especially least developed countries. It aligns with Global Indicator 2.b.1 (BCR-SDG Tool, Annex 3, /78/) and Target 2.4 by promoting sustainable food production systems and resilient agricultural practices that increase productivity, maintain ecosystems, strengthen climate change adaptation, and improve land and soil quality (UN Global Indicator 2.4.1, Annex 3, /130/).
Conclusion: Family and school garden programs demonstrably contribute to SDG 2 (Zero Hunger), improving food security and nutrition while promoting sustainable agriculture and community empowerment. Although further data is needed to fully quantify the impact, the program's alignment with SDG Target 2a and its use of the BCR-SDG Tool's indicator 2.b.1 (Annex 3, /78/) and its contribution to Target 2.4 (Annex 3, /130/) indicate a strong contribution towards building resilient and productive food systems		
	1. Healthcare support in Toryvete.	A healthcare support program in Toryvete contributes to SDG 3 by improving healthcare access and quality, reducing mortality rates, addressing specific health challenges, and promoting health education within the community.

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
Ensure healthy lives and promote well-being for all at all ages		This activity contributes to the achievement of SDG Target 3.9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. This aligns with Global Indicator 3.9.3 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /131/).
	2. Hygiene promotion programs.	Hygiene promotion programs contribute to SDG 3 by reducing infectious diseases, improving child health, enhancing overall well-being, reducing healthcare costs, and increasing productivity. This activity contributes to the achievement of SDG Target 3.c. Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States. This aligns with Global Indicator 3.c.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /131/).

Conclusion:

Both the healthcare support program in Toryvete and the hygiene promotion programs demonstrably contribute to SDG 3 (Good Health and Well-being). The healthcare program improves access, quality, and reduces mortality, aligning with broader SDG 3 targets. Hygiene programs reduce disease, improve child health, and boost overall well-being, also contributing to specific SDG 3 targets and indicators (3.9 and 3.c). However, a comprehensive impact assessment requires detailed data on program activities and outcomes for both initiatives. The alignment with Global Indicators 3.9.3 and 3.c.1 (BCR-SDG Tool, Annex 3, /78/) further strengthens the contribution to the overall SDG 3 goals.

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	1. Scholarships for women pursuing university studies	Scholarships for women pursuing university studies contribute to SDG 4 by increasing access to higher education, promoting gender equality, enhancing human capital development, creating positive ripple effects within families and communities, and improving social mobility. This activity contributes to the achievement of SDG Target 4.1. by 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. This aligns with Global Indicator 4.1.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /132/).
Conclusion: Although scholarships for women in university directly support higher education, they indirectly contribute to SDG Target 4.1 by promoting gender equality and fostering a more equitable society where all children have access to quality primary and secondary education. This aligns with Global Indicator 4.1.1 (BCR-SDG Tool, Annex 3, /78/) and UN guidelines (Annex 3, /132/), demonstrating their contribution to achieving relevant and effective learning outcomes for all.		
 Ensure availability and sustainable management of water and sanitation for all	1. Improved water access for communities	Improved water access contributes to SDG 6 by reducing waterborne diseases, increasing productivity, enhancing food security, improving sanitation, and empowering women and girls This activity contributes to the achievement of SDG Target 6.1. By 2030, achieve universal and equitable

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
		access to safe and affordable drinking water for all. This aligns with Global Indicator 6.1.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /133/).
Conclusion: Improved water access for communities directly contributes to SDG 6 (Clean Water and Sanitation), specifically Target 6.1, by improving health, increasing productivity and food security, enhancing sanitation, and empowering women and girls. The alignment with Global Indicator 6.1.1 (BCR-SDG Tool, Annex 3, /78/) confirms its contribution to achieving universal and equitable access to safe drinking water.		
 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	1. Research and development in forestry.	Research and development in forestry contributes to SDG 9 (Industry, Innovation, and Infrastructure) by fostering innovation in sustainable forestry practices, leading to improved technologies and processes for harvesting, processing, and utilizing forest products. This drives economic growth and creates jobs while promoting resilient infrastructure and sustainable industrialization within the forestry sector. This activity contributes to the achievement of SDG Target 9.5. enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending. This aligns with Global Indicator 9.5.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /134/).

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
Conclusion: Forestry research and development directly supports SDG Target 9.5 by fostering innovation, improving technologies, and increasing the number of R&D workers, aligning with Global Indicator 9.5.1 (BCR-SDG Tool, Annex 3, /78/) and UN guidelines (Annex 3, /134/). This drives sustainable industrialization and economic growth within the forestry sector.		
 Ensure sustainable consumption and production patterns	1.Use of biodegradable containers in seedling production	Using biodegradable containers in seedling production contributes to SDG 12 by reducing waste, promoting sustainable resource management, protecting the environment, supporting a circular economy, and reducing reliance on plastics. This activity contributes to the achievement of SDG Target 12.4. By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. This aligns with Global Indicator 12.a.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /135/).
Conclusion: Biodegradable seedling containers support SDG Target 12.4 and Global Indicator 12.a.1 (BCR-SDG Tool, Annex 3, /78/; UN guidelines, Annex 3, /135/) by promoting environmentally sound waste management and reducing plastic pollution.		

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
 Climate Action	1. Afforestation for carbon sequestration	Afforestation contributes to SDG 13 ("Climate Action") by capturing carbon dioxide (CO_2) from the atmosphere, which helps reduce greenhouse gas emissions. Additionally, it enhances biodiversity by restoring habitats and increasing the resilience of ecosystems to climate change. It also regulates local temperatures and mitigates extreme climate events while generating economic benefits by creating job opportunities and promoting sustainable development. Together, these actions are essential for combating climate change and fostering sustainability. This activity contributes to the achievement of SDG Target 13.2. Integrate climate change measures into national policies, strategies and planning. This aligns with Global Indicator 13.2.1. of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /136/).
Conclusion: In summary, afforestation is a key strategy for achieving SDG 13 ("Climate Action") as it captures CO_2, enhances biodiversity, regulates local temperatures, and generates economic benefits. This activity directly supports SDG Target 13.2, which aims to integrate climate change measures into national policies and planning (16711 tCO_2 for the first verification period), in alignment with Global Indicator 13.2.1. of the BCR-SDG Tool, as outlined by United Nations guidelines.		

SDG Goal	Project Activities	Fulfillment Assessment (Hypothetical - Assuming Complete Data Support)
 Life on Land	1. Biodiversity improvement on soil previously degraded by livestock farming	Afforestation contributes to SDG 15 ("Life on Land") by restoring and conserving biodiversity, improving ecosystem health, and preventing desertification. By creating new forests, it protects flora and fauna, promotes the sustainability of natural resources, and enhances soil and water quality. Additionally, it encourages sustainable land use practices, aligning with the goal of protecting, restoring, and promoting the sustainable use of terrestrial ecosystems. This activity contributes to the achievement of SDG Target 15.2. promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally. This aligns with Global Indicator 15.2.1. of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /137/).
Conclusion: In conclusion, afforestation is essential for achieving SDG 15 ("Life on Land") as it restores biodiversity, enhances ecosystem health, and promotes sustainable land use practices. This activity supports SDG Target 15.2, which focuses on sustainable forest management, halting deforestation, and increasing global afforestation and reforestation, in line with Global Indicator 15.2.1. of the BCR-SDG Tool, as per United Nations guidelines.		

Conclusion: In summary, this project plays a vital role in combating rural and forest fires, thereby safeguarding community resources and supporting poverty alleviation through improved market access and diversified agricultural practices. By promoting sustainable food production, enhancing healthcare services, closing

the gender gap in education, and ensuring access to clean water, the project effectively addresses several critical Sustainable Development Goals. Furthermore, its commitment to environmental sustainability through initiatives like carbon sequestration and waste reduction underscores its long-term positive impact on both the local community and the planet. Overall, these comprehensive efforts lay a strong foundation for resilience, equity, and sustainable development, with continued implementation planned for 2024 and beyond.

5.1.2.7 Procedures associated with the monitoring of co-benefits of the special category, as applicable

For the GHG Project "Mixed planting of native and non-native species in Paraguay-I", no evidence was found that would allow establishing a relationship with the application of some type of co-benefit of a special category. Therefore, this category is not relevant for the project.

5.2 Quantification of GHG emission reductions and removals

As previously mentioned of section 5.1 Project and monitoring plan implementation to carry out the verification activities VERSA's audit team had to perform several steps to assess the consistency of the quantification of greenhouse gas (GHG) emission reductions/removals in accordance with the applicable requirements of the methodology BCR0001 Quantification of GHG Removals. Afforestation, Reforestation and Revegetation Activities. Version 4.0 of February 9, 2024.

First, an exhaustive review of the implementation of the methodology in the MR for the quantification of GHG reductions/removals was carried out, ensuring that it was consistent with that described in the PD and that it complied with the criteria guidelines described in chapter 2 of this document. Subsequently, the consistency of the data used in the quantification process was verified, ensuring its accuracy and reliability. Recalculations were performed to ensure that the calculations performed were free of errors, that the results were consistent with the project objectives and the criteria established in the methodology, and that they were conservative.

5.2.1 Methodology deviations (if applicable)

According to the evidence presented by the person responsible for the PMCC, no methodological deviations were identified for this monitoring period.

5.2.2 *Mitigation results*

Table 25 shows the carbon pools used to account for carbon stocks in the GHG Project.

Table 25. Carbon Reservoirs.

Reservoir	Acronym	VVB Justification
Aerial biomass	BA	It was corroborated that the values reported for the first verification of these reservoirs in the GHG project are the same as those reported in the PD. The aboveground and belowground biomass values used in the GHG Project are consistent with those reported by the IPCC 2006.
Subterranean biomass	BS	

Table 26 shows the GHG emission sources used to account for the emissions evaluated in the MR, which are consistent with those proposed by the BCR 0001 methodology and the IPCC.

Table 26. GHG emission sources

Activity	Baseline scenario			Project Scenario			Leakages		
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
GHG removal	YES	NO	NO	YES	NO	NO	YES	NO	NO

Within the framework of the project, activities related to burning have been excluded, as they are not part of the established silvicultural management practices. In addition, it has been determined that the use of both synthetic and organic fertilizers is minimal. It is important to note that, according to the PD, no leakage from activities attributable to the project is anticipated due to the change in agricultural practices. Therefore, no leakage emissions are contemplated within the scope of the project.

The GHG Project successfully demonstrated that it has effective procedures and actions in place to manage environmental risks (fire, flood, pests and diseases, wind), financial risks (Risks associated with the resources secured for project establishment and Risks associated with the financial capacity of the project holder) and social risks (Land disputes, Political risks and Opportunity cost). In addition, it has mechanisms to carry out continuous monitoring activities during a quantification period of 40 years (01/12/2018 to 30/11/2058) to ensure its persistence.

The project proponent provided adequate, accurate and objective evidence to support the assertions of the MR and provided an analysis to classify the identified risks according to their criticality, probability of occurrence, impact and direct or indirect effect on the project. This analysis was key in the design of the activities that the GHG project developed in the PD and implemented in the MR with the objective of managing the identified risks effectively and efficiently.

After the document review process and on-site audit, it is considered that the information related to the activities carried out during the monitoring period for compliance with the Sustainable Development Goals (SDGs), complies with the general principles established by the United Nations. These were adopted by all Member States in September 2015 as part of the 2030 Agenda for Sustainable Development, in the global action plan to eradicate poverty, protect the planet and ensure the well-being of all people.

The project has demonstrated a strong focus on managing environmental, financial and social activities and risks, excluding practices such as burning and limiting the use of fertilizers, which contributes to a reduction in greenhouse gas (GHG) emissions. In addition, the forecast of not generating leakage attributable to the change in agricultural practices reinforces its effectiveness.

With effective procedures and a thorough risk analysis, the project has been prepared to address challenges throughout its 40-year life cycle, ensuring the persistence of environmental benefits. The document review and on-site audit confirm that the activities carried out are aligned with the principles of the Sustainable Development Goals (SDGs), highlighting the project's commitment to sustainability and global well-being. Together, these elements show a robust framework that not only seeks to mitigate climate change, but also to promote comprehensive sustainable development.

5.2.2.1 GHG baseline emissions

The Versa audit team verified that the baseline, documented in the DP and MR, corresponds to an extensive livestock system consistent with the historical land use (see Annex 3, /1/2/3/4/5/6/7/76/77/ and /82/). The assessment confirmed the conservation of the tree and shrub vegetation present in the project area, with no evidence of damage, felling, removal, or elimination as a consequence of competition with plantations or project activities during the quantification period.

In accordance with the IPCC Good Practice Guidance for Land Use, Land-Use Change and Forestry (2003) (see Annex 3, /106/) and considering the stability of land use (extensive livestock farming) for at least the last 15 years, with no changes

in tree or shrub cover, it was determined that the net GHG emissions from the baseline sink are zero. This conclusion was supported by the lease agreements for the properties associated with the project (see Annex 3, /57/58/ and /59/) and the sale of livestock prior to initiating contracts for the establishment of the Eucalyptus sp. Plantation (see Annex 3, /60/).

The DP and MR detail the implementation of methodology BCR0001 version 4.0 and the application of the BCR GUIDES on "REFERENCE AND ADDITIONALITY." Criterion "c" was used, determining the most probable land use at the project's start (December 1, 2018) based on historical use (pastureland for livestock). The validation, carried out in 2023, met the established deadlines.

Step	Description
Step Zero	Project Start Date: The project start date is established as December 1, 2018. Cross-Check documents: /7/27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42 43/ 83/ 84/ 91/ 92/ and 93/. The sources of information supporting the opinions expressed in section 3.3 "Identification and Description of the Baseline or Reference Scenario" of the PD (see Annex 3, /1/ 2/ 3/ 4/ 5/ and /6/) were provided to the audit team in scanned format (see Annex 3, /57/ 58/ and /59/), along with the planting initiation contract (see Annex 3, /27/) and the work orders (see Annex 3, /28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42/ and 43/). Additionally, these documents were presented in their original version to the audit team during the visit to the DMSA offices, as detailed in section 3.2.3.2 of this document.
Step 1	Identification of Land Use Alternatives: This involves identifying land use scenarios that could be the baseline scenario. Cross-Check documents: /7/27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42 43/ 83/ 84/ 91/ 92/ and 93/.
Substep 1a	Identification of Probable Land Use Alternatives: Three scenarios are analyzed: -Scenario 1: Continuation of the pre-project activity (Extensive Livestock Farming). -Scenario 2: Agriculture. -Scenario 3: Forest plantations for timber harvesting. It was confirmed that the bibliography used by the project to demonstrate the relevance of the identified scenarios comes from official sources (see Annex 3, /153/ and /154/). Therefore, this information is valid and consistent with what is evidenced in the PD.

	The VERSA audit team confirmed that the scenarios proposed by the GHG project proponent are consistent with the historical use of soils in the region (see Annex 3, /153/ and /154/). This was verified during the field visit through interviews with project neighbors, as described in section 3.2.3.2 of this document, and through the review of official secondary information sources, such as the national report on forest cover and land use changes from 2017 to 2020 (see Annex 3, /151/) and from 2020 to 2022 (see Annex 3, /152/).
Substep 1b	Consistency of land use alternatives with applicable laws and regulations: Verifies that all alternatives comply with national and regional legislation. This was verified during the field visit through interviews with project neighbors, as described in section 3.2.3.2 of this document, and through the review of official secondary information sources, such as the national report on forest cover and land use changes from 2017 to 2020 (see Annex 3, /151/), from 2020 to 2022 (see Annex 3, /152/) and national and regional legislation (see Annex 3, /96/97/98/ and /99/).

The thorough analysis of the baseline, based on historical data, standardized methodologies (including TOOL 14 v. 04.2), and the Paraguayan legal framework, confirms the absence of net GHG removals. This is due to the stability of extensive livestock farming in the project area for at least 15 years and the conservation of vegetation.

Following the documentary review conducted by the VERSA audit team, it can be concluded that the documentary evidence used to determine the baseline scenario is relevant and properly justified (see Annex 3, /7/27/ 28/ 29/ 30/ 31/ 32/ 33/ 34/ 35/ 36/ 37/ 38/ 39/ 40/ 41/ 42 43/ 83/ 84/ 91/ 92/93//153/ and /154/). This validation ensures that the scenarios considered in the project are based on solid and reliable information, contributing to the credibility of the analysis.

5.2.2.2 GHG project emissions

According to the conclusion of section 4.5.5 of this document, the mitigation project is deemed additional, having demonstrated compliance with the requirements of the BCR0001 V4.0 methodology and the BCR Tool: Baseline and Additionality V 1.3 (March 1, 2024). The audit team reached this conclusion after verifying the evidence provided by the project owner and conducting interviews, which confirmed that the historical analysis indicates land use prior to project implementation was consistent with livestock activities. /57/58/59/60/.

The baseline emissions defined in the Project Document (PD) assume a net zero removal of GHGs from sinks. This assumption is based on a scenario of unaltered livestock farming for a minimum of 15 years, without the removal of trees or shrubs, in accordance with the IPCC Good Practice Guidance for Land Use, Land-Use

Change, and Forestry (2003). This assumption remains valid for the current monitoring period.

Furthermore, the project proponent established 20 temporary sampling plots for strata 1 to 6 using equation 23 from section 17.3.1.4 of the BCR0001 Version 4.0 methodology, as detailed in section 15.1 of the Monitoring Report. These plots were carefully selected to accurately represent the characteristics of each stratum and to ensure a sufficient range of variability in the collected data.

Table 27. Strata and Sampling Plots Composition

Stratum	Year of Planting	Species	Area (ha)	Number of Sample Plots
1	2018	Eucalyptus	13.43	2
2	2019	Eucalyptus	32.14	4
3	2019	Eucalyptus	17.62	3
4	2019	Eucalyptus	52.71	8
5	2020	Eucalyptus	3.02	1
6	2022	Eucalyptus	17.53	2
Total			**136.45**	**20**

Source: DMSA, 2024

It was possible to verify that for each temporary plot, the tree density per hectare was calculated, and by measuring the Diameter at Breast Height (DBH) of each tree and its height, the Project Holder used the following allometric equation to calculate the volume by stratum, as shown in the following Table 28

$$V = DBH^2 * \frac{\pi}{4} * HT * FF$$

Where,

V = Volume in m3
DBH = Diameter at breast height in meters
π = 3,1416 (π/4 = 0,7854)
HT = Total height in meters
FF = Form factor = 0,4

Table 28. Volume of Trees Per Hectare Per Year of Planting and Density of Trees Per Hectare.

Stratum	Year of Planting	Area (ha)	Year of Monitoring	True Tree Density of Volume (m^3/ha)	Trees per ha
1	2018	13.43	2023	0.261	488
2	2019	32.14	2023	0.179	425
3	2019	17.62	2023	0.156	383
4	2019	52.71	2023	0.238	394
5	2020	3.02	2023	0.080	500
6	2022	17.53	2023	0.005	500

Source: DMSA, 2024

During the audit, the results of the calculations for the volume per hectare of individual trees were thoroughly verified. It was confirmed that the volume of each tree was accurately multiplied by the number of trees planted per hectare, utilising data collected from the temporary plots.

Furthermore, for the determination of total biomass and the CO_2 removed, the parameters outlined in section 15.2 of the RM were applied. It was validated that the volume of the stem with bark was multiplied by the basic wood density of Eucalyptus robusta, applying the most conservative value (0.51) according to table 3A.1.9-2 of the IPCC greenhouse gas (GHG) guidelines. Subsequently, this value was further multiplied by the biomass expansion factor (BEF2), using the lowest value applicable for a tropical forest.

All calculations and procedures underwent a comprehensive review, confirming that the results presented are both accurate and reliable, in compliance with the established standards for this type of analysis.

Additionally, it was verified that, to determine the amount of carbon in aboveground biomass, the total biomass volume was multiplied by the default carbon factor of 0.47, as recommended in Tool 14: Estimation of Carbon Stocks and Changes in Carbon Stocks of Trees and Shrubs in F/R Project Activities V 04.2. This methodology is crucial to ensure that the calculations accurately reflect the amount of carbon stored.

It is important to highlight that, for the genus Eucalyptus, a generic volumetric equation used in the National Inventory of Paraguay is implemented (see footnote 63). This equation incorporates variables such as the Diameter at Breast Height (DBH) and the shape factor according to the species. Since this is not an equation derived from another country, but rather one based on the diameter and shape of the tree trunk, it is emphasised that the factors employed, including wood density and the root-to-shoot index, are sourced from IPCC data. The application of the 20% discount factor is justified, as outlined in BCR0001 v4.0, table 3, where the item "IPCC density values and factor (R:S) for below-ground biomass" specifies a discount factor of 20%.

The audit also confirmed that the calculation of the amount of carbon in the soil was performed correctly, by multiplying the carbon dioxide value from the above-ground biomass by the root-to-shoot index outlined in table 3.A.1.8 of the IPCC guide on greenhouse gases (GHG). This procedure ensures that the relationship between above-ground and below-ground biomass is taken into account, thus providing a more accurate estimate of the total carbon accumulated in the ecosystem.

Moreover, it was validated that the amounts of sequestered carbon, both above and below ground, were correctly summed to obtain the total amount of carbon dioxide removed per hectare. The total carbon per hectare was multiplied by the carbon to CO_2 ratio index (44/12), facilitating the precise calculation of the amount of carbon dioxide removed per hectare. It was observed that these amounts were rounded down to the nearest whole number, in accordance with the requirement that VCC must be whole numbers.

Since VCC must indeed be whole numbers, the calculations were conservatively rounded down, resulting in the generation of 16,711 VCC. Of this amount, 20% will be allocated to the reserve accounts (10% to BCR's general account and 10% to the project's reserve account). Finally, the total number of transactional credits was confirmed to be 13,369 VCC.

The procedures and calculations executed were meticulously reviewed, affirming that the results presented are both accurate and compliant with the established verification standards. This rigorous audit provides an additional level of confidence in the reported data and ensures adherence to both national and international requirements for carbon accounting.

Table 29. CO_2 removals first verification period

Stratum	Calculated Removals Period 2018-2023* (tCO_2)	Model Discounting and GHG Estimation Factors (-20% according to Table 3 BCR0001)	Calculated Final Removals After Discounting Period 2018-2023* (tCO_2)
Stratum 1	3,455.00	-691.00	2,764.00
Stratum 2	4,947.00	-989.40	3,957.00
Stratum 3	2,133.00	-426.60	1,706.00
Stratum 4	9,983.00	-1,996.60	7,986.00
Stratum 5	275.00	-55.00	220.00
Stratum 6	98.00	-19.60	78.00
Total	**20,891.00**	**-4,178.20**	**16,711.00**

Source: DMSA, 2024

The audit carried out on the project's Monitoring Report has confirmed the validity of the values presented in the Project Design Document (PDD), by exhaustively examining 100% of the information and verifying the calculations of greenhouse gas (GHG) removals. Six strata were identified, aligned with those defined in the DP, and 20 temporary sampling plots were established for the evaluation of removals.

During the monitoring period, total removals of 20,891.00 tCO_2e were quantified. After applying the discounts for non-permanence and uncertainty, 13,369 tCO_2e were reported and verified clearly. These results reflect the effectiveness of the project in carbon sequestration, supporting its significant contribution to climate change mitigation and ensuring the integrity of monitoring and removal calculation practices.

Provide an assessment of the calculations for the GHG project emissions during the monitoring (verification) period, as well as the total estimated project emissions and the estimated annual average for the whole quantification period.

5.2.2.3 GHG leakage

Provide an assessment of the calculations for the GHG leakage during the monitoring (verification) period, as well as the total estimated GHG leakage and the estimated annual average for the whole quantification period.

Provide an overall conclusion regarding the correct application of the methodology and any referenced tools to calculate baseline emissions, project emissions, leakage and GHG emission reductions/removals.

5.3 Sustainable development safeguards (SDSs)

The mitigation project's implementation of the BCR Tool Sustainable Development Safeguards (SDSs) was verified, with substantial evidence supporting the project's contribution to SDS achievement. As outlined in sections 3.2.3 and 3.2.3.2, document execution and interviews confirmed that project activities significantly impact the SDS (see Annex 3, /79/). Notable progress was observed in enhancing the well-being of nearby communities by harmonizing social, economic, and environmental benefits with sustainable development principles.

To comply with the BCR standard, the following activities were evaluated:

1. An environmental assessment, analyzing the potential effects on biodiversity and ecosystems within the project's boundaries.
2. Assessment of the significant socio-economic impacts of project activities within the project's boundaries.
3. If adverse effects are generated, corrective actions and measures are defined to prevent and, where appropriate, reduce the environmental and social effects arising from the development of the project's activities.

In section 8 of the RM, Table 28 are presented, detailing the actions aimed at mitigating and preventing the impacts caused by the project. Additionally, a comprehensive description of the associated environmental, social, and economic impacts is provided, identifying the following significant impacts:

Environmental Aspect: Water Resources

Detail: Water pollution, including contamination of rivers, lakes, oceans, or aquifers as a result of project-related activities such as emissions, spills, or waste disposal.

Implemented Measure 1: as part of the monitoring and control actions for water quality, two analyses were conducted in which pH and dissolved oxygen levels were measured at different points, both at the inlet and outlet of the stream. The verification carried out by VERSA confirmed the water analysis results, showing no signs of negative impact on water quality. Furthermore, the analyzed parameters fall within the established limits, not exceeding the maximum allowable threshold.

These positive results reinforce the effectiveness of the measures implemented to protect the water resource and ensure that activities in the area are not causing

harm to the aquatic ecosystem. Continuous monitoring and follow-up are essential to maintaining the health of the stream and ensuring a sustainable environment for the species that depend on this resource.

Table 30. Water Analysis Result Parameters.

Analysis	Results	OVV Evaluation
Point 1: ARROYO ANHAKUA, Collection Date:: 25/08/2023	Dissolved Oxygen: 8,30 mg/L	This value is positive, as dissolved oxygen levels above 5 mg/L typically indicate good water quality and a favorable environment for aquatic life. Aquatic organisms, such as fish and microorganisms, require dissolved oxygen to survive.
	p H: 7,49 U pH	This value is within the neutral range (7 is neutral), which is also favorable, as a pH between 6.5 and 8.5 is generally considered suitable for aquatic life. A pH of 7.49 indicates that the water is relatively balanced and does not exhibit extreme acidic or alkaline conditions.
Punto 2: ARROYO ANHAKUA, fecha de colecta: 25/08/2023	Dissolved Oxygen: 8,30 mg/L	This value is also positive, suggesting good water quality that supports aquatic life.
	p H: 7,49 U pH	Similarly to Point 1, this pH confirms that the water is adequately balanced and suitable for aquatic organisms

Conclusion: according to the conducted water analyses, it can be established that strict compliance with the Responsible Agrochemical Management Plan, the Agrochemical Application Program, the PGA, and FSC guidelines has positive effects on water quality. The results indicate that the management measures for the plantation, in accordance with the analyses, are not generating negative effects on water bodies.

The verification conducted by VERSA reinforces this statement. Their analysis concludes that the use of manual tillage techniques for soil preparation, known as "minimum tillage," significantly helps minimize impacts on water quality. This practice is designed to interfere with the natural environment in a limited and controlled manner, promoting the conservation of soil structure. This allows microorganisms and other beneficial organisms to thrive in their suitable habitat, which not only improves soil health but also increases its ability to absorb and retain water.

Moreover, by facilitating water infiltration, the risk of surface runoff, which often carries contaminants and sediments into nearby water bodies, is reduced.

The results of the water sample are positive, showing an adequate level of dissolved oxygen and a pH within the ideal range. This suggests that the water quality is good and that the aquatic environment has favorable conditions for life. However, it is essential to continue with regular monitoring to ensure that no changes may affect these conditions in the future. In summary, the combination of good agricultural management practices and constant monitoring will contribute to environmental health and the sustainability of water resources.

Environmental Aspect: Soils

Detail: Contaminating soils and aquifers with pollutants, chemicals, or hazardous materials.

Activities: To begin with, soil preparation was carried out between 2019 and 2022 utilizing machinery such as tractors and harrows. This activity resulted in a slight disturbance to the soil, prompting the decision to apply the minimum tillage technique. This method involved tilling only strips 1 to 2 meters wide, significantly reducing the amount of soil that is disturbed and thereby minimizing environmental impact. Furthermore, careful consideration was given to moisture conditions on tillage days to prevent additional soil compaction.

In addition to preparation, tree planting was also performed in 2019 and 2022. This process was conducted manually, utilizing shovels to dig holes and transporting the plants with vehicles weighing less than 2,000 kg. By adopting a manual approach, the activity contributed to low soil disturbance due to the more controlled and specific nature of the intervention.

The text also references activities related to weed control and fertilization that took place during the monitoring period. Although these activities are not described in detail, it is noted that they involved the use of agrochemicals, which were applied in strict accordance with the Responsible Agrochemical Management Plan and FSC guidelines.

Finally, as a measure to assess soil quality, a soil quality study was conducted at the end of the monitoring period in 2023. This study evaluated the physicochemical status of the soil by examining parameters such as pH, nutrient availability, and organic matter content.

According to five soil analyses conducted by DMSA in Tapytá, VERSA identified two primary issues: high aluminum saturation and low pH. The aluminum saturation, extremely high at 87.01%, indicates highly acidic conditions that

severely limit plant growth due to aluminum toxicity and the difficulty plants have absorbing nutrients under these circumstances. Low pH values (4.60 in water, 4.70 in SMP, 4.10 in $CaCl_2$) confirm this acidity, which is the primary cause of the high aluminum saturation.

Regarding nutrient levels, moderate levels of calcium and magnesium were observed; however, their bioavailability is likely reduced by the low pH. Potassium levels are low, which could negatively impact plant development. Phosphorus levels are moderate to high, but like calcium and magnesium, its availability may be compromised by the acidic pH. Other nutrients, such as iron, manganese, copper, and zinc, show moderate levels, but their uptake could also be affected by the acidity. Despite these issues, the organic matter content (9.17%) is reasonably good, a positive factor that could contribute to soil health once the pH is corrected.

This soil analysis from Hernandarias reveals a soil condition that differs significantly from the previous analysis. While certain challenges remain, the extreme acidity and high aluminum saturation observed earlier are absent in this sample. The pH levels, while slightly acidic (5.70 in H_2O, 6.40 in SMP, 4.70 in $CaCl_2$), are less severe, though optimization for nutrient availability is still recommended. Aluminum saturation is considerably lower at 1.60%, posing no significant concern.

Nutrient levels show a reasonable balance of calcium and magnesium, although their plant availability may be slightly reduced due to the slightly acidic pH. However, potassium levels are low, potentially hindering plant growth. Further investigation is needed to ascertain whether this low level is due to limited availability or an actual deficiency. Phosphorus levels are adequate, and other nutrients like iron, manganese, copper, and zinc are present in moderate amounts, indicating no apparent deficiencies.

Organic matter content is low at 1.79%, highlighting the need for improvement to enhance soil health, water retention, and nutrient availability. Finally, the soil texture is classified as sandy loam (82.55% sand, 5.30% silt, 12.15% clay), a texture characteristic of rapid drainage and low water retention capacity.

Conclusion: the analysis of the project holder's compliance with activities aimed at soil resource conservation reflects an effective commitment to the practice of minimum tillage techniques and manual reforestation methods, which have significantly reduced soil disturbance. These strategies have been key in minimizing environmental impact during the period from 2019 to 2022.

Environmental Aspect: Flora and Fauna

No evidence was found to suggest the existence of activities that would allow quantifying increases in flora and fauna for this monitoring period. However, it is

expected that the implementation of the project will generate significant positive effects. The conversion of an area previously used for cattle ranching into a reforestation project has led to the planting of eucalyptus trees, which has already begun to benefit both the local flora and fauna compared to the previous situation.

According to interviews conducted by VERSA and visits to the plots, it was identified that the planting of these trees has favored the nesting of birds and increased the presence of mammals, thus contributing to a positive impact on the ecosystem. It is anticipated that in the next phase of the project, set to begin in 2024, initiatives will be expanded to include native species that will not be harvested.

According to the Monitoring Plan contained in the Project Document (PD), surveys of flora and fauna will be conducted in alignment with the Sustainable Development Goal 15 (Life of terrestrial ecosystems). This will allow for the validation of the expected positive impacts on birds, insects, reptiles, and mammals, as well as on the landscape and surrounding environment.

Conclusion: although no quantitative evidence of increases in flora and fauna has been observed during this monitoring period, the reforestation activities and the planting of eucalyptus trees have begun to show significant benefits for the local ecosystem. The identification of an increase in bird nesting and mammal presence suggests a positive impact, which is expected to be amplified with the introduction of native species in future stages of the project.

Environmental Aspect: Socioeconomic Aspects

DMSA has carried out various activities during the reporting period. Among them, consultations and presentations held prior to the project's validation stand out, with the intention of promoting community participation. For future activities, additional consultations are planned with a gender perspective, aiming to increase female participation in these spaces.

Regarding safety, DMSA has adhered to its Operational Procedure 14 for accidents and incidents throughout the entire monitoring period, and it is important to note that no accidents or incidents have been reported within the project area. To ensure the health of the communities, water sample analyses were conducted to ensure that there are no contaminants that could affect the local population.

Training has also been a crucial part of the activities carried out. Several training courses were provided, focusing on both operational topics, such as machinery handling and proper herbicide use, as well as transversal issues, such as biodiversity and first aid. This reflects DMSA's commitment to the professional development of its employees.

Additionally, all DMSA workers are properly registered with the Social Security Institute (IPS), and the company has an updated list that includes personal information about employees and the training they have received. In terms of social responsibility, DMSA has fulfilled its donations program by providing fuel monthly to police stations and contributing to volunteer fire departments.

During the period, DMSA received and fulfilled 100% of a total of 207 requests from different communities, benefiting ten communities in various areas such as educational centers, health centers, and neighborhood organizations. Finally, the company strives to maintain trusting relationships with all its stakeholders, including workers, local communities, authorities, and non-governmental organizations, promoting transparent communication and establishing spaces for dialogue to foster mutual understanding.

This information was corroborated by the VERSA audit team through interviews, highlighting the transparency and rigor in the evaluation process of DMSA's activities. The complete details of this verification and its results can be found in section 3.2.3.2 of this document, providing a solid foundation for trust in the company's management and its impact on the surrounding communities.

Conclusion: the analysis by the VERSA audit team highlights DMSA's commitment to transparency, safety, and social responsibility during the reporting period. The activities, which include community consultations, adherence to safety protocols, and employee training, reflect a comprehensive approach to improving community well-being.

The audits confirmed that DMSA met the requirements of its operational procedures, with no reported accidents or incidents, demonstrating its dedication to maintaining a safe work environment. Additionally, assistance to police stations and volunteer fire departments illustrates its role as a proactive partner in the community.

The fulfillment of 100% of requests from various communities underscores its responsiveness to local needs. These achievements, validated by an independent evaluation, provide a strong foundation of trust in DMSA’s management and its positive impact on surrounding communities.

Conclusion: The evaluation conducted by the VERSA audit team indicates that DMSA has effectively fulfilled its activities related to the Sustainable Development Safeguards (SDS). Water and soil quality tests demonstrate the effectiveness of environmental management measures, particularly through the “minimum tillage” technique, which has reduced soil disturbance and promoted ecosystem health. These results suggest that the project's activities do not cause net harm to communities and the environment.

General Conclusion: To support this conclusion, several steps were taken to evaluate the use of the BCR Tool and the SDS. First, a comprehensive assessment of the potential environmental and socioeconomic effects of the project's activities within its boundaries was conducted. This included water and soil quality analyses, as well as an examination of the agrochemical management practices implemented. Additionally, interviews were held with local communities to gather their feedback and ensure that their concerns were adequately addressed.

Although no direct quantitative evidence of increases in flora and fauna was found, reforestation with eucalyptus has begun to benefit local biodiversity. The implementation of corrective measures in case of adverse effects, coupled with continuous monitoring of environmental conditions, reinforces the assertion that project activities do not generate significant negative impacts.

DMSA has also demonstrated a strong socioeconomic commitment by fulfilling all community requests and maintaining a record free of safety incidents. Its focus on transparency and social responsibility is reflected in community consultations and employee training, which evidences a proactive effort to foster trust and support within the local community.

In conclusion, the combination of good management practices, ongoing monitoring, and commitment to local communities supports the assertion that the project's activities lead to net benefits without causing significant harm to communities and the environment

5.4 Sustainable Development Goals (SDGs)

It was verified that the GHG Project appropriately implemented the BioCarbon Standard's SDG Tool to identify the Sustainable Development Goals (SDGs) / 78/. This analysis was conducted through an objective evaluation of the information provided by DIMSA and the evidence gathered during the interview process carried out with the community members of Hernadarias and Tapyta, as evidenced in section 4.3 "Interviews" of this document. All this was compared against the criteria described in the BioCarbon Standard's SDG Tool and the targets and indicators defined by the United Nations to measure and evaluate compliance over time. The process included the following steps:

1. Identification of Targets and Indicators: The analysis began by identifying the specific SDG targets that the project aimed to address, along with the indicators mentioned in the PD (section 10. Sustainable Development Goals SDGs) and the RM (section 4. Contribution to the Sustainable Development

Goals SDGs) for each program. This provided a framework for evaluating the project's alignment with the BioCarbon Standard's SDG Tool and the UN's objectives, as well as for designing the questions to be asked by the audit team to those involved during the field stage.

2. Analysis of Project Activities: The activities described in each program were examined in detail to determine their contribution to the previously identified targets and indicators. Special attention was paid to the descriptions of the activities, the timelines, and the monitoring mechanisms. This activity was complemented by an analysis of the responses provided during the interviews with the stakeholders.
3. Consideration of Data Limitations: All deviations identified regarding compliance with the evaluated criteria were communicated to the client in the VERSA findings format, FOR 101. These were successfully addressed by the client after four rounds of review.
4. Formulation of the Evaluation: Based on the preceding points, an evaluation of the fulfillment of each SDG was conducted, considering both the implemented activities and the limitations of the available data. This resulted in a "full compliance" evaluation, acknowledging that the project proponent successfully aligned its activities and procedures with the SDGs.

Table 31. Compliance analysis of the ODS mitigation project.

SDG Goal	Project Activities	Fulfillment Assessment
 End poverty in all its forms everywhere.	1. Fire prevention.	Action 1: Adoption and implementation of fire risk reduction strategies through road and street maintenance. The DMSA has implemented fire risk reduction strategies through road and street maintenance from 2018 to 2023, notably in Tapytá and Hernandarias. This includes the construction of a network of fire roads and firebreaks around communities, serving as preventive barriers against forest and rural fires and facilitating firefighting efforts. Firebreaks are maintained regularly through harrowing and weed control to ensure they remain clear of vegetation, with a minimum width of 5 meters as per regulations. Main roads measure 10 to 12 meters wide, while secondary roads are 6 to 8 meters wide,

SDG Goal	Project Activities	Fulfillment Assessment
		allowing access for firefighting equipment. Annual monitoring has been conducted during this period to assess and maintain the roads and firebreaks, ensuring they are kept in optimal condition for effective fire management. Action 2: Availability of an early fire detection system, firefighting equipment and tools, trained brigades, and a system of property protection guards. DMSA has faced fire outbreaks, notably in September 2020, near the Tapytá field, impacting the Tapytá Nature Reserve and its property. Quick actions by park rangers and DMSA officials helped contain the fire, preventing significant damage to nearby homes and crops. Each year, smoke columns are observed from surrounding communities during the burning season. In 2021, a fire started by local community members prompted DMSA to deploy a hydrant truck to control the situation and prevent further spread. DMSA utilizes an early fire detection system with observation towers and maintains water reservoirs and firefighting equipment, including fire engines and quick-attack units. To protect properties, DMSA established a guard system during weekends and critical fire periods, with brigade members patrolling perimeters for early fire detection. The brigade is organized hierarchically, and all members receive training and personal protective equipment (PPE) through an annual fire prevention and firefighting plan. Action 3: Frequent communication with neighboring community representatives, training and talks to officials. DMSA actively communicates with neighboring communities around its fields, ensuring they are informed about planned

SDG Goal	Project Activities	Fulfillment Assessment
		burns to prevent impacts on agriculture. The communities include Ciervo Cua, Enramadita, and Toro Blanco near Tapytá, and Toryvete, Independiente, and Acaraymi near Hernandarias. Agreements with community leaders facilitate advance notifications to DMSA regarding fire use for cultural practices, enhancing collaboration during emergencies. DMSA conducts educational talks in local schools to promote fire safety, including a puppet show on fire prevention in Tapytá in 2022, with more events planned for Hernandarias in 2023. Training sessions for brigade members also include community representatives to improve preparedness and coordination for fire incidents. Monitoring results from Program 1, which focuses on preventing and combatting rural and forest fires, show a 20% increase in resource allocation due to previous poor road conditions. The overall program rating is "MB" (Very Good). The three actions described above were corroborated through a document review of the evidence provided by DMSA, specifically the RM, as well as through interviews conducted with the stakeholders involved. During the field visit, the audit team had the opportunity to verify the information presented through these interviews, which provided complementary data supporting the claims regarding the implementation of fire risk reduction strategies. The details and findings from these interviews are described in section 3.2.3.2, where the perceptions and experiences of the participants regarding the adopted measures are analyzed. This analysis demonstrates that DMSA has established a robust and collaborative approach to fire risk management, involving both neighboring communities and its

SDG Goal	Project Activities	Fulfillment Assessment
		technical teams. The corroboration from various sources of evidence, such as documents and interviews, not only validates the actions taken but also reflects a commitment to transparency and effectiveness in policy implementation. This suggests that DMSA is not only focused on fulfilling its responsibilities but also seeks to foster a relationship of trust and cooperation with the affected communities, which is crucial for the success of its environmental and fire management initiatives. This activity contributes to the achievement of SDG Target 1.5. This aligns with Global Indicator 1.a.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /129/).
	2. Road repair.	Between 2018 and 2023, significant infrastructure improvements were made in the Hernandarias district, benefiting the rural community of Toryvete and the indigenous communities of Acaraymi and Independiente. In 2018 and 2019, a total of 15.1 kilometers of roads and four bridges were repaired. From 2021 to 2023, a 7-kilometer stretch was further improved, alongside sewage system construction. Additionally, from 2022 to 2023, a 10-kilometer country road was enhanced to provide better access between Desarrollos Madereros S.A. and rural colonies in San Juan Nepomuceno. A rating system was established for monitoring program compliance. While Action 1's planned meetings could not be conducted due to Covid-19 restrictions, Action 2 saw annual road maintenance as planned, with bridge maintenance occurring only in 2019 and 2021. Action 3 is set to begin in 2023. The overall program evaluation received a "Very Good" (MB) rating, reflecting effective resource allocation and significant

SDG Goal	Project Activities	Fulfillment Assessment
		community impact despite the pandemic-related challenges The infrastructure improvement actions carried out in the Hernandarias district between 2018 and 2023 have proven effective in benefiting local communities, including Toryvete and the indigenous communities of Acaraymi and Independiente. The review of reports and the collection of data through interviews provided a clear insight into the implementation of these works and the fulfillment of the established objectives. This verification process corroborated that, despite the challenges posed by the Covid-19 pandemic, an adequate maintenance program was maintained, and significant investments were made in infrastructure. The compliance with the activities, reflected in the "Very Good" (MB) rating, highlights the commitment to the region's development and the improvement of the quality of life for its residents. This activity contributes to the achievement of SDG Target 1a. This aligns with Global Indicator 1.a.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /129/).
	3. Forestry plantations for income generation	The program aims to enhance community collaboration for reforestation, contributing to income generation, improved food production, and food autonomy. Eucalypt seedlings have been planted to create a future source of income through wood sales, and the initiative will help alleviate firewood shortages, crucial for cooking. With a budget of USD 3,500, the program's compliance indicators include the number of community meetings held (rated as B due to Covid-19 restrictions) and the delivery of seeds and inputs for vegetable gardens (rated MB). A total of 113 families in Hernandarias

SDG Goal	Project Activities	Fulfillment Assessment
		benefited from significant investments between 2018 and 2022, receiving essential agricultural supplies and technical assistance. In 2022, communities such as Comunidad Campesina de Toryvete and Basic School N° 1631 San Isidro Labrador de Enramadita Tava'i received support, helping to promote sustainable development and improve local conditions. The verification of information was carried out by VERSA through document review and interviews, as described in section 3.2.3.2 of this document. This corroboration process ensures the transparency and effectiveness of the program, confirming that the communities have received the necessary support to foster their food autonomy and improve their economic situation. The reforestation program has shown significant progress in community collaboration to enhance food production and generate income through activities such as the planting of eucalyptus trees. Through these initiatives, the foundations for sustainable development and better utilization of natural resources in the region are being established. This activity contributes to the achievement of SDG Target 1b. This aligns with Global Indicator 1.b.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /129/).
Conclusion: Desarrollos Madereros S.A. (DMSA) implemented comprehensive fire risk reduction and community development programs between 2018 and 2023, achieving significant success in both areas. Their fire prevention strategy involved constructing and meticulously maintaining firebreaks and roads, exceeding minimum width requirements to ensure easy access for firefighting equipment. This proactive approach, coupled with an effective early detection system encompassing observation towers, water reservoirs, and a well-trained brigade including community members, resulted in efficient responses to multiple fire		

SDG Goal	Project Activities	Fulfillment Assessment
incidents. Strong communication and collaboration with surrounding communities, including educational initiatives, further enhanced the program's effectiveness. The program received a "Very Good" (MB) rating, reflecting its impact despite pandemic-related challenges. Simultaneously, DMSA executed a robust community development program focusing on reforestation and agricultural support. The planting of eucalyptus trees aimed at generating future income and addressing firewood shortages, while the provision of seeds and technical assistance improved food production and security for 113 families in Hernandarias. Specific communities, including Comunidad Campesina de Toryvete and Basic School N° 1631 San Isidro Labrador de Enramadita Tava'i, received targeted support, leading to improvements in local living conditions and economic opportunities. This program also received a high rating for its seed and input delivery. The evaluation methodology employed a mixed-methods approach, combining document review and interviews with stakeholders to ensure transparency and a thorough understanding of the programs' impact. This comprehensive approach validated the effectiveness of DMSA's actions in both fire risk mitigation and community development, highlighting the critical role of community engagement and collaborative initiatives in achieving sustainable and impactful results. The overall success of these programs showcases DMSA's commitment to responsible environmental stewardship and sustainable community development.. These programs align with UN SDG targets 1.5, 1.a, and 1.b, respectively, and consistently utilize the BCR-SDG Tool (Annex 3, /78/, /129/).		
 End hunger, achieve food security and improved nutrition and promote sustainable agriculture	1. Programme Family and school gardens	During the analysis period from 2018 to 2023, a total investment of USD 18,384 was made, benefiting 113 families from neighboring communities in Hernandarias. Each year, various initiatives were implemented to improve the agricultural self-sufficiency of these families through the provision of inputs and technical assistance. In 2018, families received self-consumption seed kits that included peanuts, corn, and beans, as well as vegetables, herbicides, fertilizers, and corresponding technical assistance. In 2019, support was extended to specific communities such as the Comunidad Campesina de Toryvete and others in Tapytá, maintaining the focus on seed kits and providing technical supervision. The year 2020 continued with the same support scheme, although restrictions were faced due to the COVID-19 pandemic.

SDG Goal	Project Activities	Fulfillment Assessment
		Despite the challenges, in 2021 communities once again received seed kits, herbicides, and technical assistance. In 2022, in addition to the established input deliveries, cassava seeds were added, expanding the cultivation opportunities for the families. Throughout this period, continuous supervision and technical assistance remained an integral part of the program. To evaluate the effectiveness of these actions, a rating system was implemented to measure the number of meetings held and the establishment of family gardens. The planned meetings for 2020 and 2021 were not carried out due to pandemic-related restrictions. Overall, despite the interruptions, the total rating of the program was assessed as Very Good (MB), indicating a successful compliance with established objectives, supported by effective resource allocation and a continuous focus on agricultural development. This activity contributes to SDG Target 2.a , 2.b.1 (BCR-SDG Tool, Annex 3, /78/) and Target 2.4 (UN Global Indicator 2.4.1, Annex 3, /130/).

Conclusion:

VERSA conducted a thorough verification of the information by reviewing the evidence provided by DMSA and conducting interviews as outlined in section 3.2.3.2. This comprehensive approach allowed for a detailed assessment of the agricultural initiatives implemented in Hernandarias from 2018 to 2023. The corroboration of the evidence ensured that the findings were both accurate and reliable.

This process enables VERSA to conclude that the investment made in the agricultural initiatives in Hernandarias demonstrates a significant commitment to enhancing the self-sufficiency and livelihoods of local families. The continuous provision of seed kits, agricultural inputs, and technical assistance has effectively empowered these communities, fostering resilience even amid the challenges posed by the COVID-19 pandemic. Furthermore, the program's assessment, rated as Very Good (MB), reflects the positive impact achieved through the strategic allocation of resources and a consistent focus on supporting local agriculture.

Although further data is needed to fully quantify the impact, the program's alignment with SDG Target 2a and its use of the BCR-SDG Tool's indicator 2.b.1 (Annex 3, /78/) along with

SDG Goal	Project Activities	Fulfillment Assessment
its contribution to Target 2.4 (Annex 3, /130/) indicate a strong contribution towards building resilient and productive food systems		
 Ensure healthy lives and promote well-being for all at all ages	1. Healthcare support in Toryvete.	Between 2020 and 2022, a total of $2,800 USD was spent on deliveries supporting the Toryvete Community Family Health Unit (USF). This expenditure covered contributions towards nursing staff and the donation of essential medicines lacking at the USF. This information is corroborated by evidence provided by DMSA and interviews detailed in section 3.2.3.2 This activity contributes to the achievement of SDG TargetS 3.9. and 3.9.3 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /131/).
	2. Hygiene promotion programs.	DMSA, in partnership with the Mundo Sano Foundation (FMS), implemented two key community health programs in Tapytá and Hernandarias from 2018: "Prevention in Action," educating on mosquito-borne diseases (chikungunya, dengue, zika, yellow fever) and personal hygiene; and "Handwashing," promoting hand hygiene best practices, particularly crucial during the COVID-19 pandemic. Both programs utilized in-person and virtual methods to reach 476 individuals annually (pre-pandemic). While in-person meetings were limited in 2020-2021 due to COVID-19 restrictions, virtual alternatives ensured continued program engagement. The programs' success is evidenced by community members actively sharing the learned information within their schools and communities. Detailed program information is available within the FMS Social Management Plan. VERSA confirms the accuracy of DMSA's reported activities through a review of the evidence supplied by DMSA and the interviews documented in section 3.2.3.2 of this document. The implemented programs effectively addressed prevalent health

SDG Goal	Project Activities	Fulfillment Assessment
		concerns and adapted to the challenges presented by the pandemic, resulting in positive community engagement and demonstrable impact on public health. The success of these initiatives highlights the effectiveness of collaborative partnerships and the importance of flexible, adaptable community health strategies. This activity contributes to the achievement of SDG Targets 3.c. and 3.c.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /131/).
Conclusion: The combined efforts of DMSA and FMS significantly contribute to achieving SDG 3 (Good Health and Well-being). The provision of essential resources to the USF directly improves access to healthcare and addresses immediate health needs within the Toryvete community (see evidence in section 3.2.3.2 and alignment with SDG Targets 3.9 and 3.9.3; Annex 3, /78/, /131/). Concurrently, the community health education programs proactively prevent disease and improve health literacy, creating a lasting positive impact (alignment with SDG Targets 3.c and 3.c.1; Annex 3, /78/, /131/). While the alignment with specific SDG indicators is clear, a more comprehensive impact assessment incorporating quantitative data on program outcomes would further strengthen the evaluation of the overall success and effectiveness of these valuable initiatives. Further research focusing on measurable outcomes would enhance the understanding of their long-term contributions to SDG 3.		
 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	1. Scholarships for women pursuing university studies	DMSA's scholarship program is an educational initiative that began in 2020 with the aim of promoting education in local communities and reducing the gender gap. It offers five annual scholarships for university studies, prioritizing women but open to all genders. Despite the challenges presented by the Covid-19 pandemic in 2020 and 2021, the program has made significant progress. In 2022, the first group of scholarship recipients graduated with technical degrees in environmental sciences, and some are continuing their higher education.

SDG Goal	Project Activities	Fulfillment Assessment
		DMSA has implemented a monitoring and evaluation system for the program. Action 1, related to community meetings, was rated as "Good," while Action 2, the implementation of the scholarship program, received a "Very Good" rating. Overall, the program has been evaluated as "Very Good" based on its successful implementation and the positive results obtained to date, reaffirming DMSA's commitment to education and community development. VERSA's verification of these activities through document review and on-site interviews adds an important layer of credibility and transparency to the program's reported successes. This third-party verification validates the information provided by DMSA and strengthens the reliability of the program's achievements. DMSA's scholarship program has demonstrated significant success in promoting education and reducing the gender gap in local communities. Despite the challenges posed by the Covid-19 pandemic, the program has shown resilience and adaptability, successfully graduating its first cohort of students in 2022 with technical degrees in environmental sciences. The implementation of a structured monitoring and evaluation system, with specific actions rated as "Good" and "Very Good," indicates a strong commitment to program effectiveness and continuous improvement. The overall "Very Good" rating reflects the program's successful execution and positive outcomes. This activity contributes to the achievement of SDG Target 4.1. This aligns with Global

SDG Goal	Project Activities	Fulfillment Assessment
		Indicator 4.1.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /132/).
Conclusion: DMSA's scholarship program has demonstrated significant success in promoting education and reducing the gender gap in local communities. The program's resilience and adaptability during the Covid-19 pandemic, resulting in the successful graduation of its first cohort in 2022, is particularly noteworthy. The implementation of a structured monitoring and evaluation system, with positive ratings for community meetings and program implementation, reflects DMSA's commitment to effectiveness and continuous improvement. VERSA's third-party verification through document review and on-site interviews adds credibility and transparency to the reported successes. While the scholarships primarily target university-level education for women, they indirectly contribute to SDG Target 4.1 by promoting gender equality and fostering a more equitable society. This aligns with Global Indicator 4.1.1 of the BCR-SDG Tool (see Annex 3, /78/) and United Nations guidelines (see Annex 3, /132/), supporting the broader goal of achieving relevant and effective learning outcomes for all children at primary and secondary levels. The program's success in graduating students with technical degrees in environmental sciences, with some pursuing higher education, demonstrates its potential for long-term impact on community development and education. Overall, DMSA's scholarship initiative stands as a well-implemented and impactful program, effectively contributing to inclusive and equitable quality education while promoting lifelong learning opportunities for all.		
 Ensure availability and sustainable management of water and sanitation for all	1. Improved water access for communities	DMSA donated materials to improve access to drinking water in the communities of San Marcos, Ciervo Cuá, and Genarito. The donations included: - 130 meters of 1.5" diameter PVC pipe for the San Marcos artesian well - A 10,000-liter PVC water tank for San Marcos and another for Ciervo Cuá - A 4.8 hp water pump for Ciervo Cuá - 150 meters of 1.5" diameter PVC pipe for the Ciervo Cuá artesian well

SDG Goal	Project Activities	Fulfillment Assessment
		- 600 meters of pipe for the Ciervo Cuá water network - 2,000 meters of 2" diameter PVC pipe with a capacity of 10 kg/inch of pressure for the Calle 20 Acaray de Minga Guazú community These donations benefited over 120 families in the communities near the DMSA company. DMSA has demonstrated a commitment to improving access to drinking water in communities near its operations. The donations of materials and collaboration with the communities of San Marcos, Ciervo Cuá, and Genarito have benefited over 120 families, improving their quality of life and contributing to the reduction of poverty and inequality. VERSA corroborated the information provided by DMSA through a thorough review of the evidence submitted, including documents and records of the donations and projects undertaken. Additionally, the interviews described in Section 3.2.3.2 provided deeper insight into the positive impact of DMSA's actions on the beneficiary communities. In summary, the evidence suggests that DMSA has fulfilled its commitment to improving access to drinking water in communities near its operations, and that its efforts have had a significantly positive impact on the lives of the people benefited. This activity contributes to the achievement of SDG Target 6.1. This aligns with Global Indicator 6.1.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /133/).
Conclusion: DMSA has demonstrated a commitment to improving access to drinking water in communities near its operations. The donations of materials and collaboration with the		

SDG Goal	Project Activities	Fulfillment Assessment
communities of San Marcos, Ciervo Cuá, and Genarito have benefited over 120 families, improving their quality of life and contributing to the reduction of poverty and inequality. VERSA corroborated the information provided by DMSA through a thorough review of the evidence submitted, including documents and records of the donations and projects undertaken. Additionally, the interviews described in section 3.2.3.2 provided deeper insight into the positive impact of DMSA's actions on the beneficiary communities. In summary, the evidence suggests that DMSA has fulfilled its commitment to improving access to drinking water in communities near its operations, and that its efforts have had a significantly positive impact on the lives of the people benefited. Moreover, the improved water access for communities directly contributes to the achievement of Sustainable Development Goal 6 (Clean Water and Sanitation), specifically Target 6.1, by improving health, increasing productivity and food security, enhancing sanitation, and empowering women and girls. The alignment with Global Indicator 6.1.1 (BCR-SDG Tool, Annex 3, /78/) confirms its contribution to achieving universal and equitable access to safe drinking water.		
 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	1. Research and development in forestry.	DMSA has invested over 20 years in research to improve forestry production, developing genetic materials that optimize growth and CO_2 capture, and tolerate diseases, pests and adverse climatic conditions. This activity contributes to the achievement of SDG Target 9.5. This aligns with Global Indicator 9.5.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /134/).
Conclusion: In conclusion, DMSA has demonstrated a long-term commitment to research and development of sustainable technologies for forestry production. The investment of over 20 years in research has enabled the development of genetic materials that optimize growth and CO_2 capture, and tolerate diseases, pests, and adverse climatic conditions. VERSA corroborates this information through a review of the literature and interviews conducted and described in section 3.2.3.2 of this document. Our analysis reveals that DMSA has adopted a comprehensive and sustainable approach to forestry production, which focuses not only on maximizing productivity but also on protecting the environment and promoting sustainable development.		

SDG Goal	Project Activities	Fulfillment Assessment
The evidence gathered suggests that DMSA has made significant advancements in improving the productivity and sustainability of forestry production, which has positive implications for mitigating climate change and conserving natural resources. Forestry research and development directly supports SDG Target 9.5 by fostering innovation, improving technologies, and increasing the number of R&D workers, aligning with Global Indicator 9.5.1 (BCR-SDG Tool, Annex 3, /78/) and UN guidelines (Annex 3, /134/). This drives sustainable industrialization and economic growth within the forestry sector.		
 Ensure sustainable consumption and production patterns	1.Use of biodegradable containers in seedling production	DMSA has a strong commitment to the environment. Therefore, in the current project, seedlings with biodegradable containers were used, instead of the plastic containers commonly used in the region. This reduced plastic waste production, fossil fuel consumption, and the management of plastic containers. Between 2018-2023, DMSA used biodegradable tubes, representing 13,660 kg of biodegradable paper, and avoided the use of 83,170 kg of plastic. The allocation to this project was calculated based on the proration rule. This activity contributes to the achievement of SDG Target 12.4. This aligns with Global Indicator 12.a.1 of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /135/).
Conclusion: DMSA has demonstrated a strong commitment to environmental protection through the adoption of sustainable practices in its operations. The use of biodegradable containers instead of plastics is a clear example of this commitment, which has allowed for a significant reduction in plastic waste production and fossil fuel consumption. VERSÁ corroborates this information through a review of the evidence provided by DMSA and the interviews described in section 3.2.3.2. VERSÁ's analysis confirms that DMSA has adopted a comprehensive and sustainable approach to minimizing its environmental impact, which has positive implications for environmental conservation and the promotion of sustainable development.		

SDG Goal	Project Activities	Fulfillment Assessment
 Climate Action	1. Afforestation for carbon sequestration	DMSA contributes to mitigating the effects of climate change by capturing CO_2 through the afforestation of eucalyptus and native species, and reducing disaster risk. The following actions were carried out: - Land preparation and eucalyptus planting - Fire and property protection The planting plan was fulfilled, and fire and property protection measures were implemented. The program's result is Very Good. VERSA verified this information through a review of the evidence provided by DMSA and the interviews described in section 3.2.3.2, confirming the effective implementation of the program and its contribution to climate change mitigation. This activity contributes to the achievement of SDG Target 13.2. This aligns with Global Indicator 13.2.1. of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /136/).

Conclusion:

In conclusion, DMSA has demonstrated a significant commitment to mitigating climate change through the afforestation of eucalyptus and native species. The effective implementation of the forestation and fire protection program has contributed to CO_2 capture and disaster risk reduction.

VERSÁ corroborates this information through a review of the evidence provided by DMSA and the interviews described in section 3.2.3.2. VERSÁ's analysis confirms that DMSA has adopted a comprehensive and effective approach to mitigating climate change, and that its efforts have had a positive impact on environmental protection.

In summary, afforestation is a key strategy for achieving Sustainable Development Goal 13 ("Climate Action"), as it captures CO_2, enhances biodiversity, regulates local temperatures, and generates economic benefits. This activity directly supports Target 13.2, which aims to

SDG Goal	Project Activities	Fulfillment Assessment
integrate climate change measures into national policies and planning (16,711 tCO2 for the first verification period), in line with Global Indicator 13.2.1 of the BCR-SDG Tool, as outlined by United Nations guidelines.		
 Life on Land	1. Biodiversity improvement on soil previously degraded by livestock farming	During the analysis period, all planned eucalyptus plantations were successfully carried out to date, covering 79% of the project area. Although significant progress has been made, the actual contribution to biodiversity will begin to be quantified and accounted for in 2024, with the upcoming planting of native species. VERSA corroborated this information through a review of documentary evidence and interviews described in section 3.2.3.2 of this document, confirming the accuracy and progress of the project's reforestation efforts. This activity contributes to the achievement of SDG Target 15.2. This aligns with Global Indicator 15.2.1. of the BCR-SDG Tool (see Annex 3, /78/), as per United Nations guidelines (see Annex 3, /137/).
Conclusion: The reforestation and native species planting efforts in DMSA's project have proven to be an effective strategy for promoting biodiversity and ecosystem health. The successful implementation of the eucalyptus plantations and the planned planting of native species in 2024, corroborated by VERSÁ through documentary review and interviews described in section 3.2.3.2 of this document, confirms DMSA's commitment to environmental protection and sustainable development. This initiative aligns with Sustainable Development Goal 15 ("Life on Land"), which aims to protect, restore, and promote the sustainable use of terrestrial ecosystems. Reforestation and native species planting directly support Target 15.2, which focuses on sustainable forest management, halting deforestation, and increasing global reforestation and afforestation efforts, in line with Global Indicator 15.2.1 of the BCR-SDG Tool, as per United Nations guidelines.		

Source: VERSA, 2025

General conclusion: To demonstrate the project's contribution to the Sustainable Development Goals (SDGs), DMSA will implement the following monitoring procedures:

1. Tracking of Key Performance Indicators (KPIs)_: Regular monitoring of KPIs related to the SDGs, such as poverty reduction, promotion of sustainable agriculture, improvement of access to clean water, among others.
2. Impact Assessment_: Regular assessment of the project's impact on the community and the environment, through data collection and conducting surveys and interviews.
3. Biodiversity Monitoring_: Regular monitoring of biodiversity in the project area, through flora and fauna studies.
4. Annual Reporting_: Annual reporting on the project's progress and its contribution to the SDGs.

Based on the previous description, it can be concluded that the project's activities, implemented using the BioCarbon Standard's SDG Tool, effectively demonstrate their significant contributions through indicators, generating positive impacts, particularly in strengthening forest governance and promoting sustainable production systems in neighboring communities. Throughout the monitoring period, no negative environmental or social impacts were identified.

5.5 *Climate change adaptation*

During the audit process it was possible to establish that the forestry project in question has a direct impact on climate change mitigation by capturing atmospheric CO2 and improving the resilience of previously degraded areas to the effects of global warming. The presence of forest cover also benefits responsible soil management, reducing erosion and regulating the hydrological cycle.

In addition, through the activities and procedures described throughout the PD and RM, the project is able to demonstrate that it contributes to the sustainable development of the region and the country in several ways:

Table 32. Analysis of Climate Change Adaptation Measures.

Procedure	Objective	Analysis of Logic and Objective Fulfillment
Development and planting of hybrid eucalyptus species (E. grandis and E. urophylla)	Improve the adaptation of forest plantations to climate change, ensuring greater survival and growth, even under	Logical and coherent. Genetic selection and the development of hybrids resistant to extreme climatic conditions (drought, frost) maximize carbon capture in the long term. Success depends on the

Procedure	Objective	Analysis of Logic and Objective Fulfillment
	adverse climatic conditions.	effectiveness of R&D programs and the correct species selection.
Research and Development (R&D) Program	Improve the characteristics of planted species to maximize their growth and resistance to climatic conditions. Identify and select superior individuals.	Logical and essential. Scientific research is fundamental for long-term success. The evaluation of parameters such as volume, trunk shape, frost resistance, etc., ensures the selection of individuals with greater potential for adaptation and growth. Success depends on the quality of the research and the correct implementation of the results.
Selection of superior individuals in commercial plantations	Identify and select trees with superior characteristics for reproduction and propagation of individuals with greater growth and resistance capacity.	Logical and efficient. Selecting outstanding individuals from existing populations accelerates the genetic improvement process, without depending exclusively on R&D programs. Effectiveness depends on sample size and the rigor of selection criteria.
Controlled crossbreeding program	Generate new genetic variability for the selection of superior individuals and the continuous improvement of species.	Logical and complementary to the selection program. Controlled crossbreeding allows combining favorable characteristics of different individuals, accelerating the genetic improvement process. Its success depends on the understanding of inheritance mechanisms and the correct application of crossbreeding techniques.
Sustainable soil management (erosion reduction and	Improve soil health and its capacity to	Logical and crucial for the long-term success of the project. Soil health is fundamental for tree growth and carbon capture. Effectiveness

Procedure	Objective	Analysis of Logic and Objective Fulfillment
hydrological cycle regulation)	capture and store carbon.	depends on the implementation of adequate management practices.
Drainage system for flood control	Mitigate the risks of flood damage in forest plantations.	Logical and necessary in flood-prone areas. Protects investment and ensures the survival of plantations. Effectiveness depends on the proper design and maintenance of the drainage system.

Source: VERSA, 2025

The VERSA audit team analyzed DMSA's proposed climate change mitigation measures using a four-step process: 1) identifying specific procedures from the Project Document (section 6: "Climate Change Adaptation"); 2) defining each procedure's objective within the project's climate change mitigation context; 3) critically analyzing each procedure's internal logic, effectiveness, and potential success factors; and 4) reviewing and identifying deviations from the criteria outlined in section 2 of this document, documenting these findings using the VERSA FOR 101, V4.0 findings format. These deviations were successfully resolved after the audit team ensured the clarity, consistency, and accuracy of the information. The process relied heavily on synthesis, critical analysis, and an understanding of climate change mitigation principles.

Based on the above, it can be concluded that this forestry project contributes to climate change mitigation by capturing atmospheric CO_2 and increasing the resilience of previously degraded areas to the impacts of global warming. Forest cover in the project area also improves responsible soil management, reducing erosion and regulating the hydrological cycle. Furthermore, the project promotes sustainable development in the region through biodiversity conservation in collaboration with the Moisés Bertoni Foundation, the development of forestry capabilities on eroded soils, and the maintenance of the health and vitality of forest ecosystems.

The project focuses on conserving water and soil resources, maintaining the forests' contribution to the global carbon cycle, and implementing a drainage system to prevent flooding. The project adapts to climate change by developing and planting more resilient hybrid species. The Research and Development (R&D)

area of Desarrollos Madereros SA is essential for generating technology for silvicultural management and establishing forest plantations. Ongoing genetic testing aims to improve tree growth and adaptability to extreme weather conditions. Advances in R&D are incorporated into the forestry management plan to maximize growth and timber quality. The project's plantations are derived from this genetic improvement program, utilizing third-generation families of Eucalyptus grandis and Eucalyptus urophylla.

Conclusion: The project demonstrates its adaptation in accordance with section 11.8, "Adaptation to Climate Change," of the BCR Standard, fulfilling the principle of "(d) actions directly related to climate change adaptation measures, such as: use and management of temperature-resistant seeds, water management through rainwater harvesting and/or recycling, drainage and irrigation, planting around watercourses to prevent erosion, soil management with practices that reduce compaction, and techniques to reduce fertilizer use.

5.6 Co-benefits (if applicable)

VERSA's audit team did not find evidence to determine that the GHG Project has contemplated processes or procedures related to the BioCarbon Standard Co-benefits categories. Therefore, this section does not apply.

5.7 REDD+ safeguards (if applicable)

Not applicable.

5.8 Double counting avoidance

In section 16. Double Counting Avoidance of the PD, the process that the Project holder has defined to ensure that it avoids double counting is described. To ensure compliance with these measures, the GHG Project Holder identifies the possible overlaps that could arise with:

1. A ton of CO_2 is counted more than once to demonstrate compliance with the same GHG mitigation target. In this sense, VERSA's audit team corroborated that the GHG Project was not enrolled in other programs or standards available in the market.
2. One ton of CO_2 is counted to demonstrate compliance with more than one GHG mitigation target. The proponent of the GHG Project was able to demonstrate that it has defined procedures to ensure compliance with the mitigation objective defined by it in the PD and the MR, which is the establishment of a forest of native species at the end of a 40-year period. This will be achieved through transitional mixed forest plantations with

species of the genus Eucalyptus spp that will be managed by thinning and complete cutting, interspersing native species without management in an area of 172.76 hectares where it was demonstrated that the historical land use prior to the implementation of the GHG Project was pasture for livestock.

3. One ton of CO_2 is used more than once to obtain remuneration, benefits or incentives. Forest plantations are not contemplated as environmental compensation measures in Paraguay, as stipulated by law. In addition, VERSA's audit team confirmed this information through interviews with officials from INFONA and the Secretariat of the Environment.
4. A ton of CO_2 is verified, certified or credited by assigning more than one series to a single mitigation result. In this sense, it is possible to affirm that the project areas do not present overlaps, and the project complies and is consistent with the criteria established in section 2 of this document.

The project implements periodic monitoring to prevent double counting of carbon sequestration, following the BCR Tool Avoiding Double Counting V2.0. It verifies that none of the potential causes of double counting have occurred. Specifically, the project has no geographic overlap with other carbon initiatives, as DMSA exclusively owns the land, ensuring that no CO_2 is counted multiple times to meet the same GHG mitigation target.

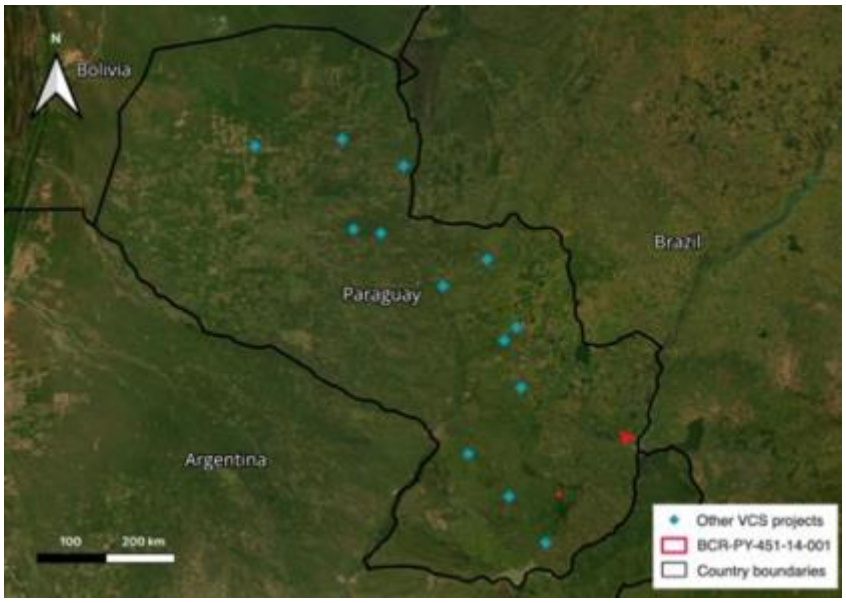
During the monitoring period, the project had not generated Verified Carbon Credits (VCCs), which means there were no end users claiming to have utilized carbon sequestration from this project for their mitigation efforts. This effectively mitigates the risk of one ton of CO_2 being counted for more than one GHG mitigation target or being used multiple times for remuneration, benefits, or incentives.

Furthermore, since no VCCs backed by the project's carbon sequestration have been placed on the market, the risk of double counting through multiple verifications or certifications has not materialized. This comprehensive monitoring process ensures the integrity and credibility of the carbon sequestration claims associated with the project.

The project is not registered in any other GHG (Greenhouse Gas) program, nor has it been previously rejected by another similar program. The project land has only one owner, which is the developer DMSA, which means that any overlap with other AFOLU projects would be illegal, as it would not have the consent of DMSA. Furthermore, the developer of a hypothetical project would not be able to prove ownership of the land according to the standards and the VVB. The government of Paraguay has promoted the creation of an official registry for this type of projects, although said registry does not yet exist. Therefore, to verify that there is no

overlap with other AFOLU projects, a study has been carried out on the existence and location of other GHG elimination projects, such as those of the ARR and REDD+ type, throughout the country.

Regarding the evaluation and detailing how it has been confirmed that the project areas are not included within other project boundaries. The proponent of the project presented a representation of the projects in Paraguay, as evidenced below:



Source: DMSA, 2024

The VERSA audit team carried out a cartographic analysis that ensured the validity of this evaluation, since it reviewed the shapes and satellite images of the projects present in VERRA to avoid possible overlaps, which resulted in the fact that there are no projects near the BCR-PY-451-14-001 project area.

Note: It is important to note that the proponent of the project made the BCR tool "Avoiding double counting of emission reductions/removals". Version 2.0 in both the PDD and MR in the corresponding sections of Double Counting Avoidance.

6 *Internal quality control*

During the audit process, it was validated and verified that the PD, the RM and related evidence in Annex 3 submitted by the GHG Project proponent was coherently and consistently planned and implemented to carry out periodic monitoring of the main components necessary to ensure effective control over the variables associated with the GHG Projects. It was also verified that the information related to the data for carbon estimates was aligned with the

principles and accepted practices for the management of Paraguay's forest inventory and the requirements of the BioCarbon Stadandard.

During the verification, any changes in risks and material discrepancy thresholds that may have occurred were assessed. In addition, it was analyzed whether the high-level analysis procedures applied were still representative and appropriate. It was determined whether the evidence gathered was sufficient and appropriate to generate a conclusion, 4 rounds of responses to findings were conducted, where it was thoroughly reviewed to ensure that there were no material errors or discrepancies that could affect the validity of the results obtained.

The PD and MR according to the evidence provided by the GHG Project proponent complies with the requirements of the Standard BCR V3.2 September 2023 document and BCR0001 Quantification of GHG Removals. Afforestation, Reforestation and Revegetation Activities. Version 4.0 February 9, 2024. Therefore, in this joint validation and verification the VERSA audit team confirms that the GHG Project is aligned with the criteria defined in point 2 of this document.

The VERSA team addressed all the aspects mentioned in this document for the evaluation of the validation and joint verification processes. The assessment was carried out in accordance with the audit plan (FOR 109 Audit Plan) and the criteria defined for this purpose, thus ensuring the integrity and accuracy of the process. The scope of the MR implementation was thoroughly reviewed, including the areas and measurement equipment used. In addition, the operational characteristics described in the PD were compared with the limitations and assumptions established in the criteria, ensuring their adequacy and effectiveness.

The monitoring plan and methodology used were analyzed in detail, considering the requirements established in the validation and verification criteria. In addition, the procedures described in the PD were considered and compared with those described and implemented in the MR, thus the GHG Project managed to demonstrate that for the first verification period (1/12/2018 to 31/5/2023) they did not present significant changes.

According to the above mentioned, it is possible to conclude that the activities proposed in the PD are coherent and consistent with the audit criteria (described in section 2 of this document, the scope described in sections 1.1 of the PD and 1. Of the MR and the objectives of the GHG Project and that in the RM during its first monitoring period (December 1, 2018 to May 31, 2023) did not evidence significant changes with respect to the monitoring plan and in the baseline scenario section 3.3 proposed in the PD.

7 Validation and verification opinion

The audit team performed the validation and joint independent verification of the project "Mixed planting of native and non-native species in Paraguay-I" with registration number BCR-PY-451-14-001 in accordance with the following documents and regulations:

- ISO 14064-2:2019.
- ISO 14064-3:2019.
- BCR 0001 Quantification of GHG Removals V4.0, February 2024.
- Clean Development Mechanism AR-ACM0003.
- Standard BCR V3.4, June 2024.
- BCR Tool Sustainable Development Safeguards SDSs Tool, v1.1 July 2024.
- BCR Tool: Sustainable Development Goals V 1.0 June 13, 2023.
- BCR Tool: Permanence and Risk Management V1.1 March 19, 2024.
- BCR Tool: Monitoring, reporting and Verification V1.0 February 13, 2023.
- BCR Tool: Baseline and Additionality V1.3 March 1, 2024.
- BCR Tool: Avoid Double Counting V2.0, February 7, 2024.
- Tool 14 Carbon stock estimation and carbon stock change of trees and shrub in F/R CDM project activities V04.2.
- BioCarbon StandardRequirements.

It has been verified that all activities established in the validation and joint verification process have been successfully executed. In addition, it is confirmed that the Greenhouse Gas (GHG) Emissions related statement is free of substantial and material discrepancies, ensuring a confidence level of 95% as stipulated in the BCR Standard V3.3.1 of March 2024.

The project has been designed with a 40-year projection (01 December 2018 to 30 November 2058), aligning precisely with the requirements set forth in BCR Standard V3.3.1, particularly in its section 10.5. It has been validated that the project "Mixed planting of native and non-native species in Paraguay-I", included an additional discount to mitigate the "Reversion risk" of 20% on the total GHG emission reductions quantified for each verified period, in order to cover a potential materialization of the identified risks. Overall, out of the total of 78,719 tCO2e generated in the project, the 20% to be allocated to the reserve accounts (10% to the BCR General Reserve account and 10% to the project reserve account) would be 15,745 tCO2e, leaving a total of 62,974 tCO2e, as detailed in Table 13 of this document.

In addition to the above, it was also determined that removals for the project scenario (ex post) totaled 20,891.00 tCO2e during the monitoring period. Considering the 20% non-permanence assurance and the 20% uncertainty

discounts, the net removals to be reported and verified in this second monitoring amount to 16,711.00 tCO2e, as can be seen in detail in Table 20.

VERSA's lead auditor recommends a positive validation and verification opinion. The validation process was developed as follows: i) strategic planning, monitoring plan, and ex ante and ex post estimation of GHG reductions; ii) on-site audit and stakeholder interviews; iii) resolution of outstanding issues and issuance of the final validation report and opinion. During the validation process, corrective and clarifying actions were proposed, all of which have been successfully closed, as explained in section 12.1 of this report.

The review of the Project Description documentation and additional documents related to ex ante estimation and monitoring methodologies, along with background research, follow-up interviews and review of stakeholder comments, has provided the audit team with sufficient evidence to validate compliance with the established criteria.

8 Validation statement

Versa Expertos en Certificación S.A.S. been commissioned by Desarrollos Madereros SA to validate the Mixed planting of native and non native species in Paraguay-I GHG emissions reduction project. The declared Mixed planting of native and non-native species in Paraguay-I project involves the activities developed in Hermandarias, Paraguay. The Mixed planting of native and non-native species in Paraguay-I project has been developed in accordance with the guidelines of international standards ISO 14064-2:2019, ISO 14064-3:2019 and the specific requirements of the BioCarbon Standard.

Versa Expertos en Certificación S.A.S. conducted a review of all the supporting documentation used by by DesarrollosMadereros SA for the elaboration of the Mixed planting of native and non-native species in Paraguay-I project and made a field visit together with by Desarrollos Madereros SA, where through interviews and review of primary information sources, it confirmed the organizational and reporting limits, activity data, emission factors and global warming potentials used; as well as the methodological assumptions and exclusions made.

Versa Expertos en Certificación S.A.S. established the objectives, scope and validation criteria in the commercial proposal and legal agreement VERSA-P-0150 and in the approved audit plan for the validation of the Mixed planting of native and non-native species in Paraguay-I. The objectives, scope and validation criteria are described below:

Objective:

The Validation process consists of the evaluation by Versa Expertos en Certificación S.A.S of the project design document and/or monitoring reports in accordance with the guidelines of the ISO 14064-2:2019 standard, the guidelines of the selected GHG program, the methodologies used and the legislation of the country where the project is developed.

1. Evaluate with a 95% level of assurance that the project design document and/or monitoring reports prepared by Versa Expertos en Certificación S.A.S comply with the guidelines of the ISO 14064-2:2019, as well as the regulations of the selected GHG program, the methodologies used, and the legislation of the country where the project is developed.
2. Validate that the activities, methods, and procedures, including monitoring procedures, have been implemented in accordance with the project's PD.
3. Confirm that the material discrepancy underlying the baseline and the estimation of reported GHG removals for the monitoring period does not exceed 5%.
4. Validate and verify the project activities, the Project Design Document (PDD), the monitoring plan, the GHG sources, sinks and/or deposits, the GHG emissions reduction quantification period, the baseline scenario, the requirements, the legal management processes and information, as well as the guidelines and methodological documents for the Biocarbon Standard.

Scope:

Validate and verify the REDD+ project activities in Mixed Plantation of Native and Allochthonous Species in Paraguay-I, covering its Project Design Document (PDD), the monitoring plan, the associated GHG sources, sinks and/or reservoirs, the period of quantification of the reduction of GHG emissions, and its baseline scenario. The processes for managing legal requirements and the project's information documents are also included, in accordance with the guidelines and methodologies of the Biocarbon Standard.

The scope considers the validation of coherence with applicable national and international regulations, and the verification of compliance with key indicators. The audit will include both documentary review and field visits for the direct evaluation of compliance.

Sectoral scope:

Afforestation and reforestation.

Criteria:

- ISO14064-2:2019

- ISO14064-3:2019
- BCR0001 Quantification of GHG Removals V4.0, February 2024
- Standard BCR V3.4, June 2024
- BCR Tool Sustainable Development Safeguards SDSs Tool, v1.1 July, 2024
- BCR Tool: Sustainable Development Goals V 1.0 June 13, 2023
- BCR Tool: Permanence and Risk Management V1.1 March 19, 2024.
- BCR Tool: Monitoring, reporting and VerificationV1.0 February 13, 2023
- BCR Tool: Baseline and Additionality V1.3 March 1, 2024
- BCR Tool: Avoid Double Counting V2.0, February 7, 2024
- Tool14 Carbon stock estimation and carbon stockchangeof treesand shrub in F/R CDM project activities V04.2
- BioCarbon Standard Requirements

Versa Expertos en Certificación S.A.S. confirms that the data and information supporting the GHG statement are projected in nature. The 95% assurance level in the audit signifies that the auditor has a high degree of confidence in the accuracy of the findings and that the results accurately reflect the status of the project; however, there remains a 5% risk of potential inaccuracies or undetected errors. The verification activities are structured to deliver a high level of assurance, albeit not absolute.

Versa Expertos en Certificación S.A.S. identified that, according to the review of the evidence provided by Desarrollos Madereros SA and during the field visit, from the beginning of the initiative the Mixed planting of native and non-native species in Paraguay-I project has generated contributions to the Sustainable Development Goals (SDGs 1, 2, 3, 4, 6, 9, 12,13 and 15 defined by the project) applicable for the components (Quantification of GHG Emission Reductions) according to the relevant criteria and indicators.

Versa Expertos en Certificación S.A.S. based on the results of the activities developed, it declares for all intended users that the Mixed planting of native and non-native species in Paraguay-I project of Desarrollos Madereros SA in 2023 complies with the principles established by ISO 14064-2:2019, ISO 14064-3:2019 and the BioCarbon Standard are within the level of material assurance and importance and is free from material errors. This statement is addressed to BioCarbonStandard and other interested parties and is issued.

Versa Expertos en Certificación S.A.S. No evidence was found that the project applied to co-benefits

VALIDATION STATEMENT	
Project's name	Mixed plantation of native and foreign species in Paraguay-I
Project proponent	Desarrollos Madereros SA
Project proponent contactinformation	Pablo Aquino, Forest Engineer Email: paquino@pomeramaderas.com Address: Itaipu Superhighway, Km 13 North, Hernandarias. Tel.: +59 5 631 23623 / +59 631 21985
Project owner	Desarrollos Madereros SA
Project Owner ContactInformation	Pablo Aquino, Forest Engineer Email: paquino@pomeramaderas.com Address: Itaipu Superhighway, Km 13 North, Hernandarias. Tel.: +59 5 631 23623 / +59 631 21985
Project participants	Desarrollos Madereros SA
Version PDD	6.2 – 2024/11/14
Project Type	Agriculture, Forestry and Other Land Uses (AFOLU)
Grouped project	No
Applied methodology	BCR0001 "Quantifying the Reduction of GHG Emissions" version 4.0 of BioCarbon Standard
Project location (City, Country)	Municipality of Hernandarias, Department of Paraná, Paraguay. San Juan Nepomuceno Municipality Caazapá Department, Paraguay.
Start date	December 1, 2018

GHG reductions quantificationperiod	40 years: December 1, 2018 to November 30, 2058
Estimated total and average annual amount of GHG emissions reduction	Total emissions reduction: 153.133 tCO_2 Annual average: 3.828 tCO_2 /year
Sustainable Development Goals	SDG 1: End poverty SDG 2: Zero hunger SDG 3 Health and well-being SDG 4 Quality education SDG 6 Clean water and sanitation SDG 9: Industry, Innovation and infrastructure SDG 12 Responsible Production and Consumption SDG 13: Climate Action SDG 15: Life on terrestrial ecosystems
Special category, related to co-benefits	N/A

Report No.: GEI-P-146

Date of issue: January 30th, 2025

Level of assurance: 95%

Legal Agreement No.: VERSA-P-150

Material discrepancy: 5%

9 *Verification statement*

Versa Expertos en Certificación S.A.S. been commissioned by Desarrollos Madereros SA to verify the Mixed planting of native and non-native species in Paraguay-I GHG emissions reduction project. The declared Mixed planting of native and non-native species in Paraguay-I project involves the activities developed in Hernandarias, Paraguay. The Mixed planting of native and non-native species in Paraguay-I project has been developed in accordance with the guidelines of international standards ISO 14064-2:2019, ISO 14064-3:2019 and the specific requirements of the GEI BioCarbon Standard.

Versa Expertos en Certificación S.A.S. conducted a review of all the supporting documentation used by Desarrollos Madereros SA for the elaboration of the Mixed planting of native and non-native species in Paraguay-I project and made a field

visit together with Desarrollos Madereros SA where through interviews and review of primary information sources, it confirmed the organizational and reporting limits, activity data, emission factors and global warming potentials used; as well as the methodological assumptions and exclusions made.

Versa Expertos en Certificación S.A.S. established the objectives, scope and verification criteria in the commercial proposal and legal agreement VERSA-P-0150 and in the approved audit plan for the verification of the Mixed planting of native and non-native species in Paraguay-I. The objectives, scope and verification criteria are described below:

Objective:

1. Evaluate with a 95% level of assurance that the project design document and/or monitoring reports prepared by Versa Expertos en Certificación S.A.S comply with the guidelines of the ISO 14064-2:2019, as well as the regulations of the selected GHG program, the methodologies used, and the legislation of the country where the project is developed.
2. Verify that the activities, methods, and procedures, including monitoring procedures, have been implemented in accordance with the project's PD.
3. Confirm that the material discrepancy underlying the baseline and the estimation of reported GHG removals for the monitoring period does not exceed 5%.
4. Validate and verify the project activities, the Project Design Document (PDD), the monitoring plan, the GHG sources, sinks and/or deposits, the GHG emissions reduction quantification period, the baseline scenario, the requirements, the legal management processes and information, as well as the guidelines and methodological documents for the Biocarbon Standard.

Scope

Validate and verify the project activities, PDD, monitoring plan, GHG sources, sinks and/or deposits, GHG emissions reduction quantification period, baseline scenario, requirements, management processes legal and information, guidelines and methodological documents for Biocarbon Standard. Sectoral scope: Forestation and reforestation.

Criteria

- ISO 14064-2:2019
- ISO 14064-3:2019
- BCR0001 Quantification of GHG Emission Reductions V4.0, February 2024
- Standard BCR V3.4, June 2024
- BCR Tool Sustainable Development Safeguards SDSs Tool, v1.1 July, 2024

- BCR Tool: Sustainable Development Goals V 1.0 June 13, 2023
- BCR Tool: Permanence and Risk Management V1.1 March 19, 2024.
- BCR Tool: Monitoring, reporting and Verification V1.0 February 13, 2023
- BCR Tool: Baseline and Additionality V1.3 March 1, 2024
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- Tool 14 Carbon stock estimation and carbon stock change of trees and shrub in F/R CDM project activities V04.2
- BioCarbon Standard Requirements.

Versa Expertos en Certificación S.A.S. confirms that the data and information supporting the GHG statement are historical in nature. The 95% assurance level in the audit signifies that the auditor has a high degree of confidence in the accuracy of the findings and that the results accurately reflect the status of the project; however, there remains a 5% risk of potential inaccuracies or undetected errors. The verification activities are structured to deliver a high level of assurance, albeit not absolute.

Versa Expertos en Certificación S.A.S. identified that, according to the review of the evidence provided by Desarrollos Madereros SA and during the field visit, from the beginning of the initiative the PROYECTO Mixed planting of native and non-native species in Paraguay-I project has generated contributions to the Sustainable Development Goals (SDGs 1, 2, 3, 4, 6, 9, 12,13 and 15 defined by the project) applicable for the components (Quantification of GHG Emission Reductions) according to the relevant criteria and indicators.

Versa Expertos en Certificación S.A.S. based on the results of the activities developed, declares for all intended users that the Mixed planting of native and non-native species in Paraguay-I project of Desarrollos Madereros SA in 2024, complies with the principles established by ISO 14064-2:2019, ISO 14064-3:2019 and the GHG Biocarbon Standard, are within the level of material assurance and importance and is free from material errors. This statement is issued and addressed to BioCarbon Standard and other interested parties.

Versa Expertos en Certificación S.A.S. No evidence was found that the project applied to co-benefits

VERTIFICATION STATEMENT	
Project's name	Mixed plantation of native and foreign species in Paraguay-I

Project proponent	Desarrollos Madereros SA
Project proponent contact information	Pablo Aquino, Forest Engineer Email: paquino@pomeramaderas.com Address: Itaipu Superhighway, Km 13 North, Hernandarias. Tel.: +59 5 631 23623 / +59 631 21985
Project owner	Desarrollos Madereros SA
Project Owner Contact Information	Pablo Aquino, Forest Engineer Email: paquino@pomeramaderas.com Address: Itaipu Superhighway, Km 13 North, Hernandarias. Tel.: +59 5 631 23623 / +59 631 21985
Project participants	Desarrollos Madereros SA
Version RM	6.2 - 2024/11/14
Project Type	Agriculture, Forestry and Other Land Uses (AFOLU)
Grouped project	NA
Applied methodology	BCR0001 "Quantifying the Reduction of GHG Emissions" version 4.0 of BioCarbon Standard
Project location (City, Country)	Municipality of Hernandarias, Department of Paraná, Paraguay. San Juan Nepomuceno Municipality Caazapá Department, Paraguay.

GHG reductions quantification period	4,5 years: December 1, 2018 to May 31, 2023
Estimated total and average annual amount of GHG emissions reduction	Total emissions reduction: 15.917tCO2 (Monitoring Report)
Sustainable Development Goals	SDG 1: End poverty SDG 2: Zero hunger SDG 3 Health and well-being SDG 4 Quality education SDG 6 Clean water and sanitation SDG 9: Industry, Innovation and infrastructure SDG 12 Responsible Production and Consumption SDG 13: Climate Action SDG 15: Life on terrestrial ecosystems
Special category, related to co-benefits	N/A

Report No.: GEI-P-146

Level of assurance: 95%

Legal Agreement No.: VERSA-P-0150

Material discrepancy: 5%

Date of issue: January 30th, 2025

10 Facts discovered after verification/validation

If the client or the respective GHG program discovers additional facts after the issuance of the validation and verification opinion by VERSA EXPERTOS EN CERTIFICACION SAS, the following measures should be taken:

1. The audit team leader will be notified of any new information presented in the previously assigned validation/verification.
2. The audit team leader will review the newly discovered facts to determine if these facts were adequately disclosed in the documentation provided by the project/inventory or in the validation and verification opinion, and if a review and/or adjustment to the applicable records is required.
3. Communicate the new information to the client.
4. Communicate the new information to stakeholders (Programs, standards and/or regulatory bodies, as applicable).

This review may result in a partial or complete repetition of the validation and verification audit, including site visits if deemed appropriate. In such cases, the client will be duly notified of the conditions under which these activities are intended to be carried out and the personnel involved.

If the nature of the additional facts revealed could affect the objectivity of the initial audit team, a change of technical personnel will be considered.

In line with the requirements and/or guidelines of the respective GHG program, an updated validation and verification report and opinion will be prepared. This revised report or opinion will specifically address the reasons for the update.

Annex 1. Competence of team members and technical reviewers

In the following Table 1, the audit team selected by VERSA for the validation process of the Mixed plantation of native and foreign species in Paraguay-I is listed:

Full Name(s)	Role	Activities to Develop
Diana Rauchwerger	Lead Auditor	The lead auditor has predestined activities which are: -Document review -Creation of the audit plan -Carry out the field audit according to regulations -Make findings corresponding to the audit - Delivery of verification report -Field visit
Cesar Marín	Technical Expert	The technical expert has predestined activities which are: -Document review -Carry out the field audit according to regulations -Make findings corresponding to the audit

		-Field visit
Lucas Rivera	Technical Reviewer	The technical reviewer has predestined activities which are: - Carry out the review of the final documents. - Issue technical review document.
Camilo Montaña	Issuer of the V/V opinion	Accreditation in: ISO/IEC STANDARD 17029;2019 - ISO 14064-1 - ISO14064-2 - ISO 14064-3 ISO/IEC STANDARD 17065;2012

Diana Rauchwerger:

Is an Agricultural Engineer specialized in environmental and local development, with studies in Biodiversity Conservation and Use. She has over 7 years of experience in the formulation, evaluation, and oversight of environmental projects. She has been part of teams responsible for designing and implementing sustainable strategies in sectors such as OIL&GAS, mining, electricity, and infrastructure.

Currently, she works as a contractor at the Ministry of Environment and Local Development, specifically in the Climate Change Mitigation group. Additionally, she serves as a lead auditor and technical expert for various entities involved in the carbon credit market, climate change, validation and verification of greenhouse gas (GHG) projects, and accreditation processes for validator/verifier bodies (VVB) in GHG offset initiatives.

Cesar Marín:

Biologist – botanist, National University of Colombia, with 25 years of professional experience in fieldwork, characterization of vegetation cover in Amazonian, Andean, and páramo ecosystems. Twelve years of experience in designing methodologies for biodiversity characterization and project coordination. Demonstrates good coordination skills and effective interaction in interdisciplinary and interinstitutional teams. Expertise in vegetation characterization, ethnobotany, economic botany, ecological restoration, landscape management tools, ecological analyses, and biodiversity monitoring. Most recent experience includes the development of methodologies for carbon estimation in páramo ecosystems and high-mountain wetlands.

Lucas Rivera:

Consultant with more than thirteen years of international experience in REDD+, ARR, transportation, waste and energy for its formulation, validation, verification and issuance of carbon credits. With Master's training in Environmental Management, Master's Degree in Financial Administration and Forestry Engineering. Carbon Footprint and GHG Auditor.

Camilo Andres Montaña Salamanca:

Mechanical engineer and Project Holder with over 12 years of experience in conformity assessment and monitoring of technical regulations. Former head of the technical regulations group at the Superintendence of Industry and Commerce. He has completed the courses for lead formulators for the validation and verification of greenhouse gas (GEI) mitigation projects provided by Asocarbono-Asocec. Currently serving as the General Director of Versa Expertos en Certificación SAS.

BCR Antibribery policy:

The Conformity Assessment Body (CBA) must ensure the absence of conflicts of interest that may affect its validation and verification services, always acting objectively and independently. In addition, it is obliged to maintain the confidentiality of BCR's information, prohibiting its disclosure and reproduction without a justified need. Failure to comply with this obligation may result in the settlement being terminated and claims for damages.

The OEC must also comply with the BCR Code of Ethics and anti-corruption regulations, avoiding any relationship with entities linked to money laundering or terrorist financing, ensuring that all its transactions are legitimate. To manage conflicts of interest, VERSA uses the FOR-108 format (allocation and non-conflict of interest) and develops a risk matrix to assess bribery situations, thus ensuring proper and transparent management.

Annex 2. Clarification requests, corrective action requests and forward action requests

Finding N°:	1	Finding type:	CAR	x	CL	
Description:	The GHG project is not aligned with: - Sección 9 Methodological Documents, BCR Standard. - Sección 6.1 General Requirements, ISO 14064-3:2019 - Sección 1.1 Scope, Project Document Template BCR - 1.3 Sectoral Scope and Project Type of the Monitoring Report Template					
Objective evidence	The owner of the initiative must comply with the guidelines of the seccioness 9. BCR V3.0 Standard and Sección 1.1 Scope, Project Document Template V2.0, therefore, it must include within the Project Document Template BCR V2.0 and in the Monitoring Report (MR) all the applicability criteria previously defined with the VVB VERSA. The criteria must consider: a. A method to determine the scope and limits of the commitment; b. The GHGs and SRFs to be accounted for; c. Applicable local laws governing carbon markets and GHG initiatives. d. Quantification methods; e. Disclosure requirements. 1. The version of the documents used for the development of the mitigation project must be consistent across all documents. 2. The criteria must be relevant, complete, reliable, understandable and available to the intended user.					
Plan of action:	ROUND 1 Completed all s*ections* noted in the finding in section 1.1 Scope of the PDD and in section 1.2 Sectoral scope and project type of the monitoring report. ROUND 2 The wording was improved and points that were unclear were clarified. It can be found in section 3.1.1 Conditions of applicability.					
VVB Evaluation:	ROUND 1 In the PDD it is necessary to list the applicability conditions of the BCR 0001 methodology, sección 5. ROUND 2 The applicability conditions are met, finding satisfactorily resolved.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	2	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with:					

	- Sección 2 Version, Standard BCR 0001.
Objective evidence	1. The project owner must use the most updated versions of the BCR standard and the documentation that is related to it. In this case, the audit team was presented with the BCR Project Design Document in its Version 1.0, which does not correspond to the most recent version published by the standard, version 2.0. 2. The versions of the documents cited must be consistent with the most recent versions of the Project Document Template V2.0 Standard.
Plan of action:	ROUND 1 They were reviewed and adjusted to the most updated versions of the standard, as well as its methodologies and tools. ROUND 2 The template was adjusted to version 2.1 and standard 3.2 (the latest version) was used. ROUND 3 The following have been used: - BCR Standard Version 3.2 of 23/09/2023 - BCR0001 Methodology Version 4.0 of 9/02/2024 - BCR Guidelines. Baseline and Additionality. Version 1.2 - Project Description Template Version 2.2 - Monitoring Report Template Version 1.1 Regarding the degree of freedom in the adjustment to the format of the templates, we consulted BCR and obtained the following response: "El formato del documento de GEI es a elección del desarrollador. La plantilla, es una guía del orden y capítulos a desarrollar y el texto en gris, es una explicación que debe desarrollador de proyecto describir o sustentar técnicamente en cada una de las secciones. Importante ser escrito en inglés y con orden y estética, pero el criterio de formato, fuente o alineado, es a su consideración, así como el de las tablas." REVISED ROUND 3: Explicit mention of BCR Tool: Monitoring, reporting and Verification V1.0 (February, 2023) is included en: - Project Description: item 1.1. Scope in the BCR Standard; point 17. Monitoring Plan - Monitoring Report: item 1. General description of the project; item 2. Title, reference and version of the baseline and monitoring methodology applied to the project. In addition, explicit mention of the CDM AR-TOOL15 tool is included in point 3.6 Leakage and non-permanence of the PD (page 145).: "According to the Methodology AR-ACM0003 and Tool 15 'Estimation of incremental GHG emissions attributable to displacement of pre-project agricultural activities in the F/R CDM project activity' v02.0, leakage emissions due to displacement of agricultural activities should only be considered if this leads to an increase in GHG emissions relative to the GHG emissions attributable to the activity as it exists within the project boundary. In the proposed project the extensive cattle ranching taking place on the selected parcels was not owned by Desarrollos Madereros S.A. but belonged to a neighbor in the area who had been granted access to these lands."
VVB Evaluation:	ROUND 1

	The PDD must be adapted to the latest version 3.1 as the transition period for version 3.0 expires on October 25, 2023. The PDD was updated to version 2.0, however, it does not correspond to the latest version. ROUND 2 The project proponent must complete the template information according to the instructions related to the rules and requirements set forth in the BioCarbon StandardStandard. ROUND 3 No evidence was found on how the GHG project implemented BCR TOOL Moritoring, Reporting and Verification (MRV) version 1.0. ROUND 4. Finding satisfactorily resolved no further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

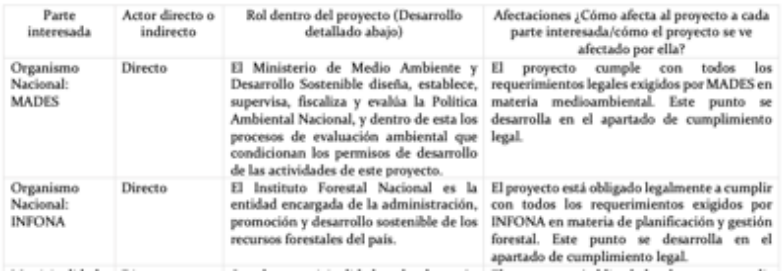
Finding N°:	3	Finding type:	CAR		CL	X
Description:	The GHG project is not aligned with: - ISO 14064-3:22019 sección 5.1.6 Scope. - 1.1 Scope of the BCR Standard, Project Document Template BCR, Similarly, clearly describe and justify how the project is eligible under the scope of the BCR Standard.					
Objective evidence	The Scope shall be adjusted to the defined objectives of the GHG mitigation project, to the needs and expectations of the intended user. And not to the scope of the standard. At a minimum the scope should include: (a) Spatial and temporal boundaries; b) Physical infrastructure, activities, technologies and processes; c) GHG FSR d) GHG types e) Periods					
Plan of action:	In compliance with ISO 14064-3:2019 these considerations were included in sections 1.1 Scope 3.1.1 Conditions of applicability of the PD, and in sections 1.2 Sectoral scope and 1.3 Conditions of applicability of the monitoring report.					
VVB Evaluation:	A broad scope was included in the PDD and is aligned with the requirements of the criteria. No additional actions are required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding Nº:	4	Finding type:	CAR		CL	X
Description:	The GHG project is not aligned with: - Sección 2.2 Objectives, Project Document Template					
Objective evidence	It is not clear how the project objectives are aligned with meeting the intended user's objectives, targets, criteria and international commitments related to climate change, such as the Kyoto Protocol or the Paris Agreement.					
Plan of action:	Project objectives were clarified It was included in section 2.2 Objectives of the PDD and in section 1.5 of the monitoring report.					

VVB Evaluation:	The objectives stated in the PDD and RM are consistent with the intended user and aligned with the validation and verification criteria.					
Conclusion:	Close finding	X	Mantain finding		FAR	

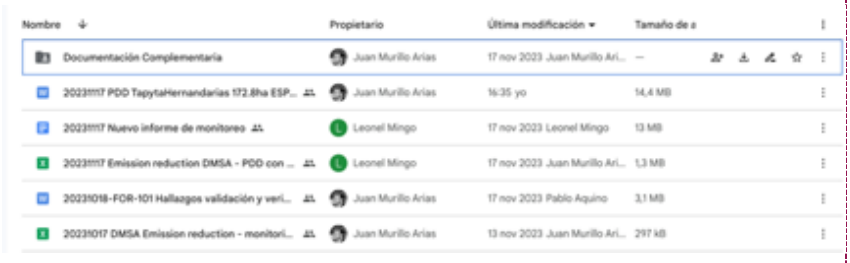
Finding N°:	5	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - ISO 14064-2:2019 sección 6.2 Project description					
Objective evidence	1. The GHG mitigation project proponent must include the chronological plan or actual dates and justification for the following: a) Project start date. b) GHG baseline period. c) Project completion date. d) Frequency of monitoring and reporting, as well as the project period, including relevant project milestones at each stage of the GHG project cycle, as applicable. 2. The GHG mitigation project proponent shall include the level of assurance of the GHG mitigation project.					
Plan of action:	In compliance with ISO 14064-2:2019, everything identified in the finding in section 2.1 of the PDD was clarified.					
VVB Evaluation:	The chronological plan and assurance level were included in version 2.0 of the PDD. No additional activities are required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

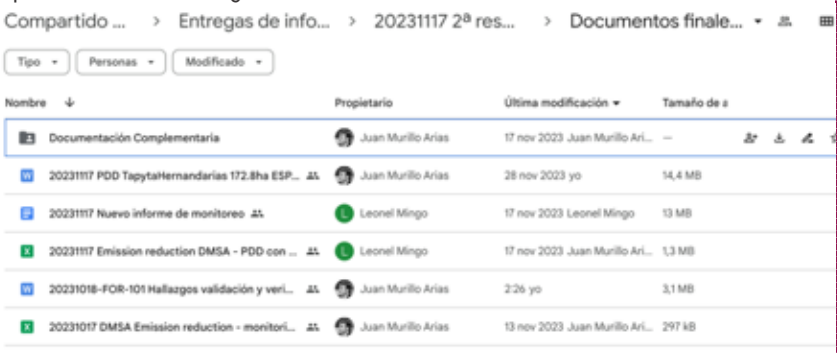
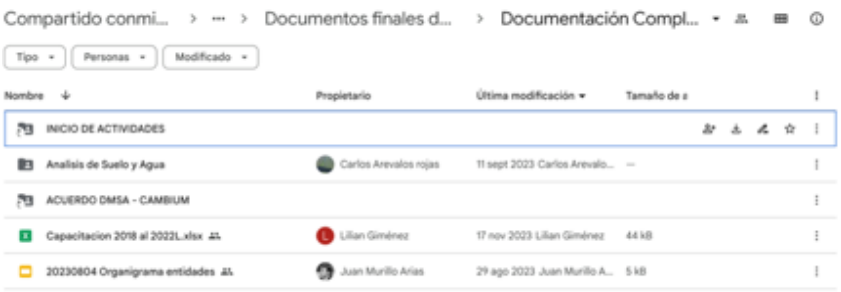
Finding N°:	6	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Section 6.2 Project Description h) ISO 14064-02:2019 - Sección 1.5 Other participants in the project. BCR Protocol.					
Objective evidence	1. The GHG mitigation project proponent must identify all direct and indirect stakeholders involved in the project (stakeholder analysis) such as local authorities present related to forestry activities, companies or populations that are part of the project's co-benefit plan, partners and developers, among others. 2. The project owner must define the roles and responsibilities of the project participants and other direct and indirect stakeholders involved in the GHG project.					
Plan of action:	ROUND 1 Direct stakeholders were included in section 5. Ownership and carbon rights of the DD and indirect stakeholders were included in section 10. ROUND 2					

	ROUND 3 In the PD, section 10 Consultation with interested parties (stakeholders) includes Table 32 - Stakeholder analysis: stakeholders identified (pages 221 and 222) in which stakeholders are identified. It is determined whether they are direct or indirect stakeholders - according to the criteria set out in the same section - their role in the project, and how they are affected by or influence the project:  In addition, the role played by each of these stakeholders is described in the texts below the table.
VVB Evaluation:	ROUND 1 The numbers cited do not correspond to those found in the table of contents and the PDD. The other parties directly and indirectly involved in the project, such as government entities and beneficiaries, are not related to the company's programs. ROUND 2 1. There is no proposed plan of action. 2. The roles played by each of the other participants in the project are not clear. In this regard, the proponent should describe how the other participants relate to the project. ROUND 3 The project proponent presented sufficient ample evidence of the different stakeholders involved with the GHG project. Finding satisfactorily resolved, no further action required.

Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	7	Finding type:	CAR	x	CL	
Description:	The GHG project is not aligned with: - Sección 5.3 Agreements related to carbon rights, Project Document Templates BCR					
Objective evidence	No evidence was found in the PD of justification demonstrating that the project is not being developed on territories of ethnic groups and/or local traditional communities. The holder must request a certificate from the competent authority to determine if there are ethnic communities, other GHG projects, nature reserve areas or forest compensation areas.					
Plan of action:	ROUND 1 An additional folder will be shared with all domain certificates. This in turn was addressed in section 5.4 Agreements related to PD carbon rights. ROUND 2					

	The evidence to be made public was clarified. It can be seen in section 5.4 Land tenure and table 42 with all the dates of acquisition of the farms that make up the project area was included in the same section. ROUND 3 The PD addresses these issues in the following points: • Land ownership: in sección 5.4 Land tenure (projects in the AFOLU sector) in table 25-List of estancias with their date of acquisition and reference (page 186), the set of properties is shown with farm and land registry information. In addition, all property deeds and ownership certificates are provided. They are included in the Confidential Supplementary Documentation -and not in PD, which will end up being a public document- because they are documents in which personal names appear, in order to preserve the privacy of those mentioned. Specifically, they can be seen in Folder 02-TITLES AND CONDITIONS OF DOMAIN. In addition, in the DD, Annex 1-Titularity of the parcels (page 295), it is shown with an example how to interpret the key data in the domain conditions • Indigenous communities: Section 5.4 Land tenure (projects in the AFOLU sector) in Figures 56 and 57 (pages 188 and 189) shows the absence of indigenous communities within the project area according to official information from the National Institute of Statistics of Paraguay. • Other GHG projects: Section 16 Double counting avoidance lists ARR and REDD+ type GHG projects in the main platforms (pages 261 and 262); Figure 64 in this same section shows the lack of geographic overlap with our project. • Nature reserve areas: in sección 2.5 Additional information about the GHG Project, under the sub-section Flora and Fauna (pages 56 to 57), Figures 16 and 17 show the protected areas in the project environment, showing the lack of geographic overlap between these protection zones and the project.
VVB Evaluation:	ROUND 1 The project holder included land title supports. No additional actions are required. However, it is not clear because the evidence remains partially published. ROUND 2 1. The documentation provided by the holder did not find evidence related to the domain certificates.  

	The owner of the initiative must provide evidence that guarantees that the project is not implemented on the territories of ethnic groups and/or local traditional communities. 2. The holder shall evidence compliance with the requirements associated with the prevention of double counting, taking into account the regulations that prohibit the registration, emission and removal of greenhouse gas (GHG) mitigation results. 3. No evidence was found related to the application of the BCR tool "Avoid Double Counting (ADC)", which establishes the principles and requirements of the BCR Program to prevent double counting of emission reductions or removals.   ROUND 3 Finding satisfactorily resolved, no further action required.
Conclusion:	Close finding | X | Mantain finding | | FAR |

Finding N°:	8	Finding type:	CAR		CL	X	
Description:	The GHG project is not aligned with: - Sección 2.3 Project activities, Project Document Template BCR						
Objective evidence	Description of the project activities described in the PD is not clear, and they do not correspond to the project activities evidenced during the corroboration visit.						
Plan of action:	The project processes, types of technologies used for data collection (manual) and calibration processes, products and services should be described.						
VVB Evaluation:	All project activities were described in section 2.3 of the PD. Regarding technology, the Description of these was adjusted in the monitoring section of the PD and all technologies were included in section 13 of the PD and in section 2.3 Project activities of the PD. This in turn was included in section 4 of the monitoring report.						
Conclusion:	Close finding	X	Mantain finding		FAR		

Finding N°:	9	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección4.5 Accuracy ISO 14064-2:2019 - Item 4.6 Transparency ISO 14064-2:2019					
Objective evidence	The cartography presented in the PD must include the type of product (orthoimage, digital terrain model or cartographic database), scale, origin, datum, north and conventions among others.					
Plan of action:	ROUND 1 The requirements were met. The mapping can be seen in section 3.1.1 of the PD. ROUND 2 The reference of the secondary source images was correctly cited. This can be seen in section 2.5 additional information on the GHG project. Regarding the areas that continue to be shown as matted pasture, it was clarified that these plots have not yet been planted and therefore continue to be shown as such. This can be seen in Figures 16, 17, 18 and 19 in section 3.1.1. ROUND 3 In the map indicated in Figure 32 the land cover classification is correct, in sección 3.1.1 Applicability conditions of the methodology, subsection A) page 86, it is clarified: "In the previous image it can be seen that there are lots that are currently listed as 3.1.5 Forest plantation due to the fact that they were planted in 2019 and 2020. The reason why there are lots listed as 2.3.3 Wooded Pasture in the year 2023 is because these are going to be planted in the second half of 2023 and therefore will not be considered for the CO2 absorption calculations in the first stage of quantification." In addition, in Figures 23, 32, 33, 34 and 35, which show the results of the Corine Land Cover (CLC) analysis in the project area for the year 2023, it is clarified in the legend whether the lots were or were not planted on the date of the CLC analysis. The plots whose cover is classified as weedy pasture are not forested at that date.					

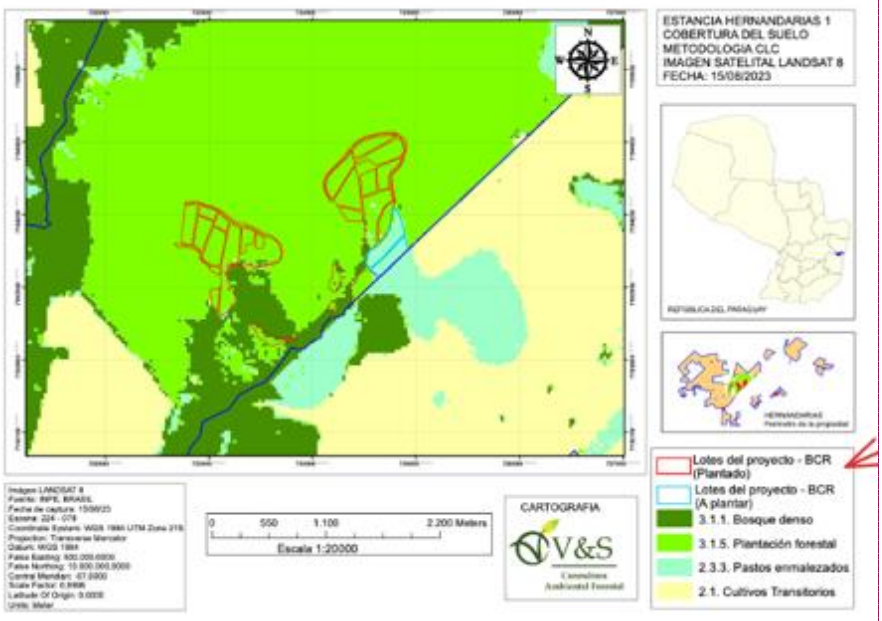
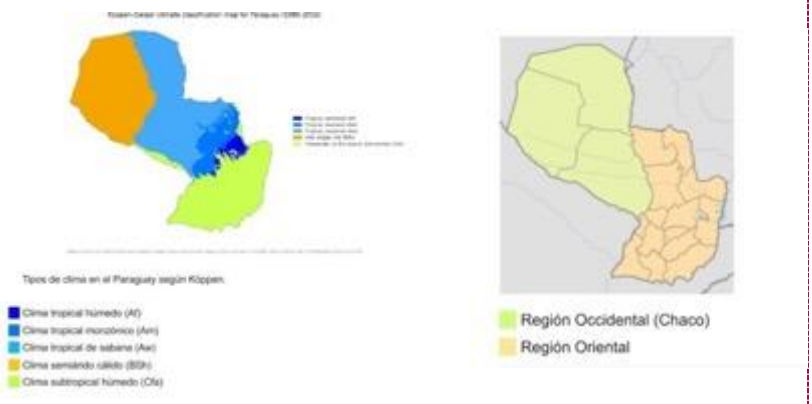
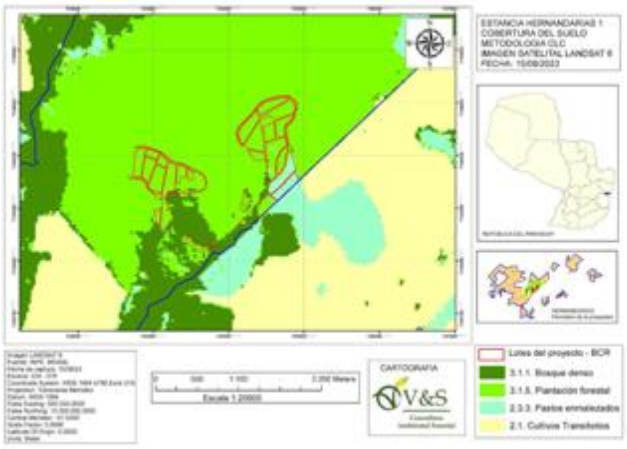
	
VVB Evaluation:	ROUND 1 In the PDD the cartography persists without information of origin, source, scale, datum, north and conventions among others. As per in sección 2.5.  The secondary information referenced must be properly cited according to the standards and criteria defined for this purpose. In Figures 16 and 17 the areas marked in red are still reported as weeded pasture, not as forest plantation. ROUND 2 It is not clear in the document the management given by the owner to the recently intervened pasture areas. In some maps they are presented as grasslands..

	Figura 15: Hernandarias 1 año 2023 - fecha de realización del PDD  ROUND 3 Finding satisfactorily resolved, no further action required.

Conclusion:	Close finding	X	Mantain finding		FAR		

Finding N°:	10	Finding type:	CAR	X	CL		
Description:	The GHG project is not aligned with: - Sección 2.5 Additional GHG project information. BCR Project Design Document - Sección 6.2 Project Description d) ISO 14064-2:2019						
Objective evidence	This item should include a general description of the environmental conditions (soils, climate, cover, etc.) prior to the implementation of the plantation.						
Plan of action:	These items were included in section 2.5 Additional information of the PD.						
VVB Evaluation:	A Description of the pre-project environmental conditions was included. No additional adjustments are required						
Conclusion:	Close finding	X	Mantain finding		FAR		

Finding N°:	11	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección. 3.1.1 Conditions of Applicability. Project Design Document. - Section 5. Conditions of applicability. BCR Protocol					
Objective evidence	The project holder must explain and justify how the project meets the applicability conditions defined by the BCR Standard.					
Plan of action:	ROUND 1					

	Details of the applicability conditions are included in section 3.1.1 Applicability conditions of the PD methodology. ROUND 2 The fulfillment of the applicability conditions was properly explained and justified. This is below the table requested by the template in section 3.1.1. ROUND 3 In PD sección 3.1.1 Applicability conditions of the methodology a summary of compliance with the applicability conditions is included in table 11, which is developed below that table (pages 63 to 103). Specifically, for example I (pages 100 to 103) indicated in the round 2 assessment, the following is corrected: "Although the project will generate soil disturbance initially due to soil preparation, planting and logging activities (detailed in Section 2.3), the project is being carried out on soils degraded by cattle ranching so the net impact of the project will be positive for the soil in the long term." This assertion is supported by data contrasted in the scientific literature as follows: "On the other hand, tree planting implies positive values for the increase of soil organic carbon - COS. According to Ojeda J., et al (2022) [1] reported a stock of COS for native forests of 65 ton C/ha and for eucalyptus plantations 47 ton C/ha, located in the Atlantic Forest Ecoregion of Alto Paraná, these values did not present significant differences between them. Besides, authors report for pastures with isolated trees, dedicated to livestock, a stock of COS around 29.6 t C/ha (Diaz M., et al, 2020) [2] and 39.69 t C/ha (Diaz M., et al, 2019) [3] in the central Paraguayan Chaco.."
VVB Evaluation:	ROUND 1 It is not clear in the PDD how the GHG mitigation project explains[1] and justifies[2] compliance with the standard's applicability criteria. ROUND 2

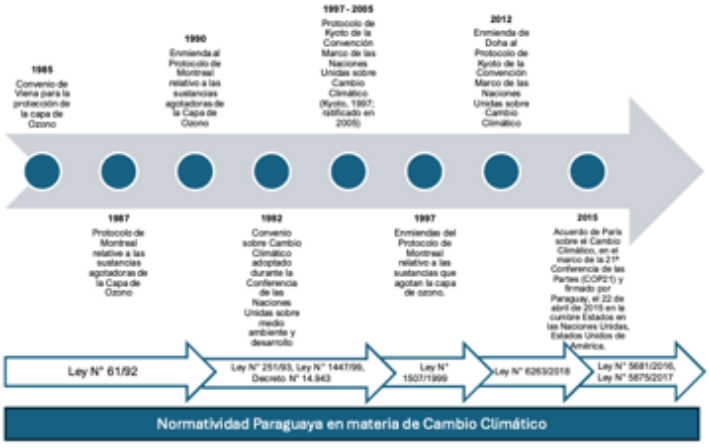
[1] The explanation generally includes: a) how the approaches were used or how the decisions were feared; b) why these approaches were chosen or decisions were made. (Colombian Technical Standard NTC-ISO 14064-2, 2019).

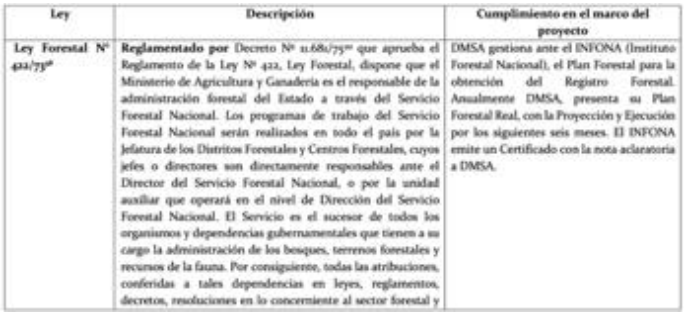
[2] The justification has other criteria: c) explain why alternative approaches were not chosen; d) provide supporting data or analysis (Colombian Technical Standard NTC-ISO 14064-2, 2019).

	It is not clear at all how the project explains and justifies compliance with the applicability criteria of the standard. **G) Las perturbaciones del suelo, debidas a las actividades del proyecto, si las hay, se realizan de acuerdo con prácticas adecuadas de conservación del suelo y no se repiten en menos de 20 años.** Las actividades del proyecto no generarán perturbación del suelo. Por el contrario, la plantación de árboles mejorará la calidad de los suelos. A su vez este proyecto contará con el certificado FSC, lo que implica que el diseño, plantación y mantenimiento del bosque se realizan a través de un programa de manejo forestal sostenible que permite la comercialización de madera, evitando impactos negativos sobre la biodiversidad, las comunidades locales, el balance hídrico de las cuencas y la belleza escénica del paisaje. ROUND 3 Finding satisfactorily resolved, no further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

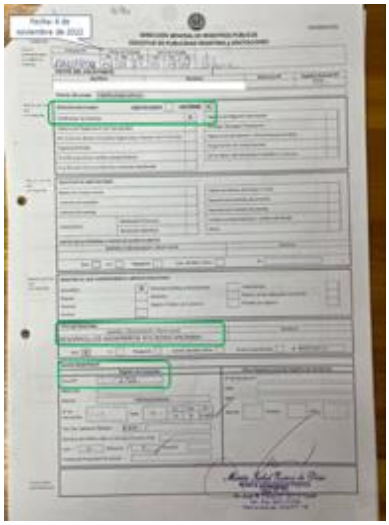
Finding N°:	12	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 6.6 Selection of GHG FSRs for monitoring or estimating GHG emissions and removals.					
Objective evidence	The project proponent should select or establish GHG FSR selection criteria and procedures for monitoring or periodic estimation. In addition, it must justify the rationale for not including any GHG FSRs for both project activities (PDD) and monitoring activities (MR).					
Plan of action:	ROUND 1 Performed as identified in the finding in section 3.2.2 Carbon pools and GHG sources of the PD, and in section 1.6 of the monitoring report. ROUND 2 It was duly clarified that the project did not and will not perform any woody biomass combustion. This can be found on sheet 93 in section 3.2.2.					
VVB Evaluation:	ROUND 1 Carbon pools, sources and sinks were included, however, the following text is confusing: Cumpliendo con la sección 8.2 de la metodología BCR 0001, las emisiones de CO2 debidas a la combustión de biomasa leñosa no son cuantificables como cambios de las reservas de carbono. Por otro lado se realizará combustión de biomasa leñosa para la preparación del sitio como parte de la preparación del suelo deberán cuantificarse las emisiones de CH4 y N2O. En el actual proyecto no se realizó quema de biomasa para la preparación del suelo por lo tanto no van a ser consideradas. It is not clear why N2O and CH4 emissions will not be taken into account if woody biomass combustion will be used for soil preparation.					

	ROUND 2 Finding satisfactorily resolved, no additional actions are required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	13	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 4 Compliance with Applicable Laws, Template for Project Document, P-0. - Sección 10.7 Compliance with Applicable Laws, P-0. Project Document Template					
Objective evidence	The project proponent must demonstrate compliance with legislation related to GHG mitigation activities. 1. PD: In this section it is important to include an analysis of how the project complies with or relates to local regulations. 2. RM: This section should describe the activities or processes for periodic monitoring of compliance with local regulations.					
Plan of action:	ROUND 1 All applicable legislation was discussed in section 4 Compliance with Applicable Legislation of the PD. A detailed analysis of all laws that impact or may impact the project and how DMSA complies with all applicable legislation was included. ROUND 2 This is found in section 4.1 and section 4.2 of the Compliance with Applicable Legislation. ROUND 3 Firstly, in the PD sección 4 Compliance with applicable legislation (pages 171 to 182) a diagram is included in Figure 55 that summarizes the international commitments assumed by Paraguay in relation to the fight against climate change, and their transposition into the national legal framework.  					

	In addition, within the same section (pages 176 to 181), Table 23 lists the main forestry, environmental and carbon market regulations in Paraguay and indicates how this project complies with them. Example:  **Ley** / **Descripción** / **Cumplimiento en el marco del proyecto** **Ley Forestal N° 422/73[a]** / **Reglamentado por** Decreto N° 11.681/75[a] que aprueba el Reglamento de la Ley N° 422, Ley Forestal, dispone que el Ministerio de Agricultura y Ganadería es el responsable de la administración forestal del Estado a través del Servicio Forestal Nacional. Los programas de trabajo del Servicio Forestal Nacional serán realizados en todo el país por la Jefatura de los Distritos Forestales y Centros Forestales, cuyos jefes o directores son directamente responsables ante el Director del Servicio Forestal Nacional, o por la unidad auxiliar que operará en el nivel de Dirección del Servicio Forestal Nacional. El Servicio es el sucesor de todos los organismos y dependencias gubernamentales que tienen a su cargo la administración de los bosques, terrenos forestales y recursos de la fauna. Por consiguiente, todas las atribuciones, conferidas a tales dependencias en leyes, reglamentos, decretos, resoluciones en lo concerniente al sector forestal y / DMSA gestiona ante el INFONA (Instituto Forestal Nacional), el Plan Forestal para la obtención del Registro Forestal. Anualmente DMSA, presenta su Plan Forestal Real, con la Proyección y Ejecución por los siguientes seis meses. El INFONA emite un Certificado con la nota aclaratoria a DMSA.
VVB Evaluation:	ROUND 1 A broad description of the applicable legal regulations was found, however the licensee should include an analysis of how the GHG project activities comply with the applicable legislation. ROUND 2 The finding persists, as there is no analysis of how the GHG project activities comply with applicable legislation in the document. ROUND 3 Finding satisfactorily resolved no further action required.
Conclusion:	Close finding: X — Mantain finding: — FAR:

Finding N°:	14	Finding type:	CAR		CL	x
Description:	The GHG project is not aligned with: - Sección 12.1 Land tenure. BCR Protocol.					
Objective evidence	It is important that within this sección a context is given to explain and justify how the titleholder proves that he/she is the sole owner and lord of the land, within the context related to local legislation on land tenure rights or private property.					
Plan of action:	ROUND 1 This was addressed in section 5 Ownership and Carbon Rights of the DD. In turn, an additional folder with supporting documentation will be shared. ROUND 2 The wording was improved and details of the purchase of the farms that make up the project area were included in Table 42. This can be seen in section 5.4 Land Tenure. ROUND 3 The PD addresses these issues in the following points:					

	- In sección 5.4 Land tenure (projects in the AFOLU sector) in table 25-List of estancias with their acquisition date and reference (page 186), the set of properties with farm and padrón information is shown. - In addition, all property deeds and ownership certificates are provided. They are included in the Confidential Supplementary Documentation -and not in PD, which will end up being a public document- because they are documents in which personal names appear, in order to preserve the privacy of those mentioned. Specifically, they can be seen in Folder 02-TITLES AND CONDITIONS OF DOMAIN. - In addition, in the PD, Annex 1-Titularity of the plots (page 295), it is shown with an example how to interpret the key data in the domain conditions provided.  Finally, in the RM (page 80) the information provided as Confidential Complementary Documentation, Folder 02-TITLES AND CONDITIONS OF OWNERSHIP is again emphasized. In future monitoring reports the ownership conditions will be updated to demonstrate that the land tenure situation has not changed from one period to another.
VVB Evaluation:	ROUND 1 1. A comprehensive explanation of land tenure was included in the PDD, however, the text is confusing. The wording is unclear and the evidence in the binder with supporting documents is not related. 2. The following point is not clear in the monitoring report:

El principal responsable de este proyecto en Desarrollos Madereros SA es el Director de esta empresa:

ROUND 2

The initiative holder must comply with the stipulations of section 5.4 of the BioCarbon Template V 2.1 document.

5.4 Land tenure (Projects in the AFOLU sector)

Demonstrate in detail that the project participants own the land or land parcels on which the GHG project activities take place, at least during the period of quantification of GHG emission reductions or removals.

In the analysis of section 5.4 of the PDD, it is evident that the company Desarrollos Madereros is the owner of the project lands. However, no evidence was identified in this section to concretely support this statement. It is essential to have solid documentary evidence to support the declared ownership, in order to strengthen the integrity and credibility of the information contained in the evaluated document.

Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	15	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Section 6.4 GHG Baseline Determination, BCR Protocol. - Item 13 stratification, BCR 0001 Methodology.					
Objective evidence	The project proponent must select, establish, describe, apply criteria and procedures to identify the different strata that make up the forest plantation and their adequate representation in the Monitoring Report.					
Plan of action:	ROUND 1 These were included in section 13 Monitoring Plan of the PD and also in section 4.1.4 of the monitoring report. ROUND 2					

	The monitoring report was made from scratch. Description of the procedure defined by the project owner to establish the strata was not included in the monitoring report. ROUND 3 The monitoring report (MR) has been thoroughly corrected to eliminate design and future planning aspects that should be included exclusively in the project description (PD). In this new version, the content of the MR describes in the past the execution and follow-up actions developed in the monitoring period, which covered from December 1, 2018 to May 31, 2023.
VVB Evaluation:	ROUND 1 It is not clear why the monitoring report contains a description of the procedure defined by the project owner to establish the strata. ROUND 2 The finding persists. At this point, it is important to clarify that the project owner must incorporate in the Monitoring Report a detailed Description of the actions carried out during a defined period. In this case, the Monitoring Period covers from December 1, 2018 to May 31, 2023. Therefore, it is necessary to highlight that the aforementioned activities have already been completed, as they are actions that occurred in the past. In this sección, the specific Description of the actions carried out during said period is required. ROUND 3 Finding satisfactorily resolved, no additional actions required.

Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	16	Finding type:	CAR	X	CL	

Description:	The GHG project is not aligned with: - Principle Transparency and Accuracy, ISO 14064-2:2019. - Sección 11.2 Baseline or reference scenario, BCR Protocol. - 11.1 Baseline scenario, BCR001 methodology..
Objective evidence	No related evidence was found on how the project holder identifies the baseline scenario to demonstrate that the project is additional. According to the UNFCCC, in order to determine the baseline scenario of an AFOLU project, project holders must choose one of the scenarios described below, justifying their choice: a) Existing or historical changes, as appropriate, in carbon stocks within the project boundary. b) Changes in carbon stocks within the project boundary by land use that represents an attractive course of action considering barriers to investment. c) Changes in carbon stocks, within the project boundary, identifying the most likely land use at the start of the project.
Plan of action:	ROUND 1 Clarifications were made in section 3.3 Establishment and Description of the baseline scenario of the PD. ROUND 2

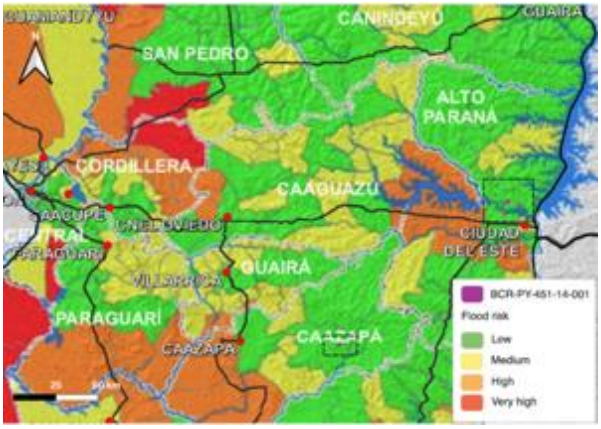
	The section that was repeated was corrected and the wording was improved. This can be seen in section 3.3 Establishment and Description of the baseline scenario. Regarding the work order contracts, they were included in Section 3.3 Establishment and Description of the baseline scenario in Figures 21, 22, 23 and 24. ROUND 3 PD sección 3.3, Sub step 1a Identification of probable land use alternatives in the project areas (pages 110 to 120) identifies the three most realistic and credible land use scenarios in the absence of project activities. Withregard to the historical land use based on the Corine Land Cover analysis and the knowledge of DMSA that has been operating in this environment for more than 20 years, after having reasonably ruled out other possible unrealistic uses according to the geographical and socio-economic context of the environment. References are also provided to support the assertions made. "In this regard, the following three scenarios are going to be analyzed: ● Scenario 1: continuation with the activity prior to the proposed project, extensive livestock farming. ● Scenario 2: agriculture ● Scenario 3: forest crops for timber harvesting. The three economic activities are options that could be developed by the proponent on the selected plots. As required by the methodology, the determination of the most likely land use within the project boundaries at the time of project initiation depends on the prevailing land use in the region, land use trends, and land use barriers. These 3 scenarios meet the requirements of the methodology. [3]. Other uses are ruled out in advance due to their low probability; we offer a couple of examples in this regard: - Urban land development: since the plots of land to be developed are located in rural areas and are not adjacent to consolidated urban centers, this alternative is ruled out. - Development of renewable energy projects: Paraguay is self-sufficient in electricity generation from a source that is already renewable in origin, hydroelectric energy, thanks to the large projects developed in past decades. In addition, the historical land use inferred from the Corine Land Cover analysis in the years 2013, 2018 and 2023 (see Figure 21 to Figure 35) show that the main land covers in the project environment in both estancias are limited to primary sector activities, agriculture, livestock and forestry. This information is consistent with DMSA's knowledge of the main activities in the surrounding area, where it has been operating for more than 20 years."
VVB Evaluation:	ROUND 1 The procedure for determining the line is not clear. Information is repeated, the introductory section is the same as step 1. It is not clear because the contract information is partly public in the annexes and is not included in the text describing the sección.

3 https://www.ine.gov.py/Publicaciones/Biblioteca/Atlas%20Censal%20del%20Paraguay/9%20Atlas%20Caazapa%20censo.pdf

	ROUND 2 1.There are items in the step by step where the statements are not supported by evidence. **Selección de escenario de la línea base: Uso histórico de la tierra** El uso histórico de la tierra es pasturas para ganadería. Esta actividad se desarrolló en estas parcelas desde el año 2005 (los contratos con los terceros que realizaron esta tarea están disponibles a pedido). 3. It is not clear why alternative scenarios were not considered. The incumbent should provide a rationale for the selection or not of possible scenarios. ROUND 3 Finding satisfactorily resolved. No further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	17	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 11. Identification of the baseline scenario, Methodology BCR 0001					
Objective evidence	1. The process developed by the GHG initiative on how it identifies the baseline scenario to demonstrate that the project is additional is not consistent. At this point it is important to include all the numbers of the steps set out in the methodology and to relate the barriers that directly affect the plantation, such as flooding and fires identified in the field. 2. The barriers described in the document do not correspond to those identified in the field.					
Plan of action:	ROUND 1 Both points were clarified and corrected in section 3.3 Establishment and Description of the baseline scenario of the DD. ROUND 2 All references on all analyzed barriers were included. This is found in section 3.4, step 3 barrier analysis. ROUND 3 In sección 3.3 Establishment and Description of the PD baseline scenario, new evidence is provided for the valuation of barriers, as for example in the case of fires, for which an analysis has been carried out on the typology of land cover in the burned areas in a significant time period (2015-2020).					

Another example is the analysis of the flood barrier, for which cartographic references based on official sources have been incorporated:

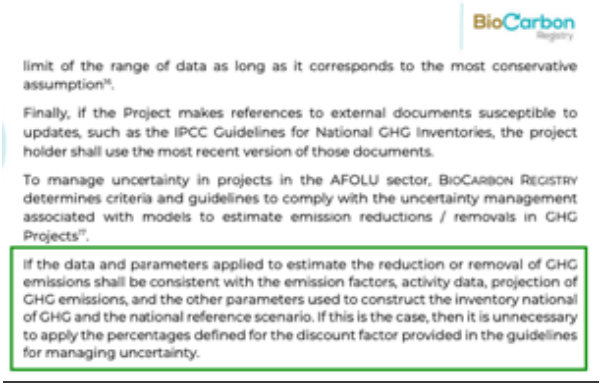


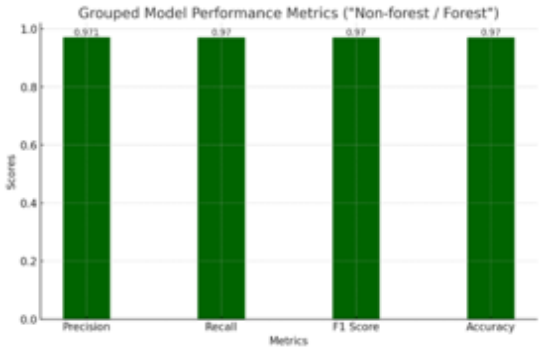
In addition, in Table 17 Degree of impact of the identified barriers to the project alternatives, the following five degrees of impact are assigned to each of the three alternative activities: very low, low, medium, high, high, very high:

Barrera	Escenario 1: Continuación del uso de la tierra anterior al proyecto - ganadería	Escenario 2: Agricultura	Escenario 3: Forestación sin incentivos de los créditos de carbono
Barreras de inversión	Muy baja	Baja	Alta
Barreras institucionales	Baja	Baja	Alta
Barreras Tecnológicas	Muy baja	Muy baja	Muy baja

VVB Evaluation:	ROUND 1 The assertions of the barrier analysis must be supported by ample and sufficient evidence. ROUND 2 The response to this item is linked to finding 16. In the case of modifications to the scenarios, it will be necessary to update the barrier analysis. Although the procedure suggested by the methodology is followed, the text does not clarify precisely the prioritization process carried out.

	ROUND 3 Finding satisfactorily resolved. No further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	18	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 3.5. Uncertainty management. BCR 0001 methodology.					
Objective evidence	The uncertainty management process described in the PDD is not consistent with what was evidenced during the field visit. A description of the processes developed by the GHG mitigation initiative to reduce uncertainty should be included.					
Plan of action:	ROUND 1 Adjustments were made to section 7 "Risk Management" of the PD. ROUND 2 A detailed analysis of the uncertainty and the procedure that DMSA follows to ensure that the margin of error is below 5% was performed in detail. This can be found in section 3.5 Uncertainty Management. ROUND 3 The BCR Version 3.2 standard states in section 11.1 Conservative approach and uncertainty management (page 14) that if the parameters applied in the CO2 absorption calculations coincide with those used by the country in the preparation of its national inventories - as is the case of this project. Then it is not necessary to calculate and apply the discount percentages due to the uncertainty that would otherwise need to be calculated and applied.  limit of the range of data as long as it corresponds to the most conservative assumption[16]. Finally, if the Project makes references to external documents susceptible to updates, such as the IPCC Guidelines for National GHG Inventories, the project holder shall use the most recent version of those documents. To manage uncertainty in projects in the AFOLU sector, BIOCARBON REGISTRY determines criteria and guidelines to comply with the uncertainty management associated with models to estimate emission reductions / removals in GHG Projects[17]. If the data and parameters applied to estimate the reduction or removal of GHG emissions shall be consistent with the emission factors, activity data, projection of GHG emissions, and the other parameters used to construct the inventory national of GHG and the national reference scenario. If this is the case, then it is unnecessary to apply the percentages defined for the discount factor provided in the guidelines for managing uncertainty. Regardless of this, the PD specifies the levels of confidence in the measurement and calculation instruments that are key to the project: • - Sección 3.1.1 Applicability conditions of the methodology, point A) referred to the justification of the absence of forest cover in the past 5 years, for the supervised image classification model used as part of the Corine Land Cover methodology. Its confusion matrix is provided (Figures 18 and 19, pages 71 and 72) and the parameters of precision, sensitivity (recall), F1 and accuracy (Figure 20, page 73), demonstrating a margin of error of less than 5% in the automatic assignment of each of the cover types.					



- Sección 3. Uncertainty management details the accuracy of the measuring instruments used to measure various dimensions that influence the results of the verification of the correct execution of the project and its monitoring.

  Los equipos que se van a utilizar son:

  - Cinta metálica diamétrica: Sistema de medida métrica, precisión de la medición es de +/-0.5% indicado por el fabricante; diseñada para la medición de los diámetro de los árboles , obteniendo un DAP lo más exacto posible. Permite tomar las medidas en centímetros en forma longitudinal y circunferencialmente y/o en diámetro en centímetros. Se va a utilizar para la medición de Diámetro Altura de Pecho
  - Vertex 4: es un isométrico digital que tiene un rango de precisión a 90 metros de +/- 4cm que se utilizará para la medición de la altura y la distancia de los árboles.
  - GPS de alta precisión: se utilizan los puntos de muestreo pre creados mediante el software ArcGIS (v 10.5). A su vez sirve para delimitar el área del proyecto y los estratos. Este instrumento cuenta con una precisión de +/- 3,65 m.
  - Cintas métricas: se utilizan para medir distancias para la instalación de las parcelas de muestreo, cuentan con una precisión de 1 cm.

REVISED ROUND 3:

In the PD

- 3.5 Uncertainty management, it is stated: “Considering all of the above, we are in the case described in row 10 of table 3 of the BCR0001 V4.0 methodology, and therefore it is appropriate to apply the above mentioned discount factor of 20%. However, if new sources of knowledge are developed, such as scientific articles on the species used with local data, and their data are applied in the next monitoring, this discount factor value may be reduced."

- point 3.7.4 GHG emissions reduction/removal in the project scenario states “Overall, out of the total 78,719 VCC generated in the project, 20% to be allocated to the reserve accounts (10% to the BCR General Reserve account and 10% to the project reserve account) would be 15,745 VCC in total. According to the provisions of point 13.1.1 of the BCR Standard, half of these retained Verified Carbon Credits - those corresponding to the project reserve account - may be released and placed in the market at successive verifications if the risks have not materialized, and the GHG project continues under the BCR Standard and active in the BioCarbon Standardsystem of registry."

VVB Evaluation:	ROUND 1

	Uncertainty management does not correspond to the definition of ISO 14064-02:2016. "3.2.8 uncertainty. A parameter associated with the result of quantification that characterizes the dispersion of values that could reasonably be attributed to the quantified quantity. NOTE 1 to the input. Uncertainty information generally specifies quantitative estimates of the likely dispersion of values, and a qualitative description of the likely causes of the dispersion". The project holder should submit a detailed uncertainty analysis. ROUND 2 It is clarified that this finding is linked to the uncertainty or doubt present in the measurements, calculations, values used and methodological approaches. In this context, it is imperative that the project ensures that the level of uncertainty or doubt is kept below 10% in the implementation of the initiatives. This is done in order to increase confidence in the results, ensuring that they are reliable, comparable, consistent and reproducible. ROUND 3 1. According to the guidelines established in the framework of the BCR 0001 methodology in sección 15, "Uncertainty Management", when selecting the data for estimating greenhouse gas (GHG) removals, discounts must be applied according to the quality and origin of the estimation data, whether they come from Table 3 or from sections 6.1 or 6.2 of the Clean Development Mechanism (CDM) methodology tool. At this point, it is important to mention that the data and parameters for the calculation of GHG emissions reduction and/or removal reported in the Project Design Document (PdD) in sección 3.7.4, "Reduction/removal of GHG emissions in the project scenario", were obtained from: - Wood density: IPCC, 2006. - Biomass expansion factor: IPCC, 2006. - Carbon fraction: "Estimation of carbon stocks and carbon stock change of trees and shrubs in F/R CDM project activities" v. 04.2. - Ratio of roots to aboveground biomass: IPCC, 2006. It is not clear because in equation (3), the uncertainty discount factor is: $u_c =$ incertidumbre en C_{ARB} (cumpliendo con la metodología BCR0001 V4.0 sección 15 no corresponde aplicar factor de descuento por incertidumbre al actual proyecto. Ver detalles en la sección 3.5 del presente documento) In accordance with BCR 0001 methodology, the following clarification is made: Ahora bien, si los datos y parámetros empleados para el cálculo de la reducción y/o remoción de emisiones de GEI son consistentes con los factores de emisión, datos de actividad, variables de proyección de las emisiones de GEI y los demás parámetros empleados para la construcción del inventario nacional de GEI, no será necesaria la aplicación de los porcentajes definidos para el factor de descuento. Under this scenario it is not possible to demonstrate that the calculations are conservative to ensure that emission reductions or increases in removals from the project are not overestimated. 2. Total removals are not reflected in the PdD and RM, these emission reductions correspond to the Net emissions reductions, the totals are those that reflect the 20% discount corresponding to the risk of non-permanence.

	<table><tr><td>Estimated total and average annual GHG emission reduction amount</td><td>Total, reducción de emisiones: 98.430 tCO_2 [1] Promedio anual: 3.281 tCO_2/año</td></tr></table> ROUND 4. Finding satisfactorily resolved, no further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	19	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 3.5. Uncertainty management. - Sección. 9.1 Mapping information requirements for eligibility analysis.					
Objective evidence	1. The GHG project holder must demonstrate that it follows the guidelines established by the country's land cover survey update methodologies applicable to it in the country in which the project is developed (CORINE LAND COVER). 2. The holder must describe the procedures used for processing the information and delimitation of the eligible areas of the project.					
Plan of action:	All mapping included in the PD complies with the Corine Land Cover methodology. This can be observed in section 3.1.1 Conditions of applicability of the methodology.					
VVB Evaluation:	Finding satisfactorily resolved. No additional actions are required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	20	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: Section 3.7.3 GHG emission reductions in the baseline scenario. Section 6.7 Quantification of GHG emissions and/or removals. Methodology BCR0001 15. Removals by sinks. Methodology BCR0001					
Objective evidence	1. The procedures defined by the project to determine the GHG emission reductions in the baseline are not described in this section. 2. The order of the spreadsheets for the quantification of GHG removals in the baseline scenario is not clear. 3. The explanation given in the PD is not consistent with the results of the Excel spreadsheets provided by the project holder and with the identified FSRs. 4. No related evidence was found in the analysis to explain and justify the discount factor for reversion risk.					
Plan of action:	The baseline GHG emission reductions are included in section 3.7.2 PD stratification, the Excel was corrected and the discount factor for reversal risk was included in both the PD and Excel.					
VVB Evaluation:	Finding satisfactorily resolved. No further action required					

Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	21	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 3.7.4 GHG emission reductions in the project scenario. - Sección 6.7 Quantification of GHG emissions and/or removals. Methodology BCR0001 - Sección 15 Removal by sinks. Methodology BCR0001					
Objective evidence	1. The procedures defined by the project to determine the GHG emission reductions of the project are not described in this section. 2. The order of the spreadsheets for the quantification of GHG removals in the project scenario is not clear. 3. The explanation given in the PD is not consistent with the results of the Excel spreadsheets provided by the project holder and with the identified FSRs. 4. No related evidence was found in the analysis to explain and justify the reversion risk discount factor (20%).					
Plan of action:	Everything identified in this finding was included in section 3.7.3 GHG emission reductions in the baseline scenario and 3.7.4 GHG emission reductions in the project scenario, and the discount factor was included in both the PD and the monitoring report and in the supplementary Excels.					
VVB Evaluation:	Finding satisfactorily resolved. No further action required					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	22	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 21. Monitoring Plan, BCR Standard					
Objective evidence	Within the monitoring report it is not clear how the initiative developed the following sections: - The emissions that could occur in the leakage area. - The impacts of the implementation of project activities on the environment and communities. - The assignment of roles and responsibilities for monitoring and reporting of relevant variables for the calculation of GHG emission reductions or removals.					
Plan of action:	ROUND 1 The assignment of roles and responsibilities for the calculation of GHG emission reductions was included in section 13 Monitoring of the PD and in section 4 monitoring report.					

The 2 previous sections were included in the monitoring report (they were already duly detailed in the PD).

ROUND 2

1. the explanation of leakage can be found in section 16.3 specification of all potential emissions occurring outside the project boundary, attributable to Project GHG activities (leakage);

2. Impacts of activities on the environment can be found in Section 8 Environmental Aspects. The impact on communities can be found in section 9 Socioeconomic aspects.

The assignment of roles and responsibilities for monitoring and reporting relevant variables for the calculation of GHG emission reductions or removals can be found in section 15.1.7 Assignment of roles and responsibilities for monitoring and reporting relevant variables for the calculation of reductions or removals.

ROUND 3

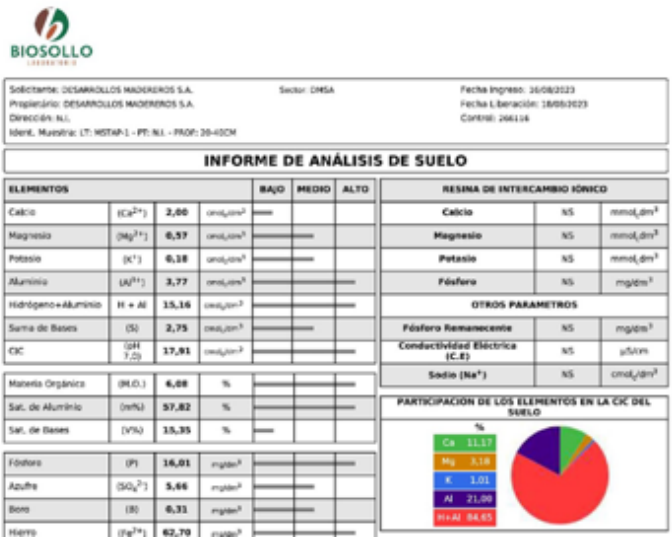
In sección 8 Environmental Aspects (pages 82 to 93 of the RM) the impacts of the project associated with environmental aspects during the 2018-2023 monitoring period have been identified. Supporting the statements in scientific literature and in the result of analyses carried out in the field (soil and water analysis), describing them in detail and exposing how control and mitigation measures have been applied in each case. For example:

> La actividad de preparación de suelo se realizó entre los años 2019 y 2022. Esta actividad generó una leve perturbación del suelo debido a que se utilizaron maquinarias como tractor y rastra[34]. Como medida de mitigación para reducir el impacto se utilizó la técnica de labranza mínima. Esto implica que la preparación del suelo se realizó en fajas: se preparó solamente una faja de 1 a 2 m de ancho a lo largo de las líneas de plantación de los árboles. Este sistema es uno de los que menor alteración del suelo genera debido a que reduce fuertemente la porción de tierra que se labra[35] . A su vez se seleccionaron minuciosamente los días donde se realizaron la tarea de labranza mínima seleccionado las condiciones de humedad adecuado para evitar una mayor compactación del suelo[36].
>
> La plantación de árboles se realizó igualmente en los años 2019 y 2022. Como medida de mitigación se realizó de manera manual, de modo que la alteración sobre el suelo de esta actividad fue baja[37]. Se utilizaron palas para cavar los hoyos. Para el transporte de las plantas se utilizó un vehículo liviano (inferior a los 2.000 kg) hasta los límites del estrato y dentro del mismo el transporte se realizó con recipientes de manera manual. El operario realizó un hoyo con la pala solamente en el lugar donde se plantó el árbol, se insertó la planta y luego se tapó con la tierra que provino del mismo hoyo.

[34] https://www.scielo.sa.cr/pdf/tem/v31n1/0379-3982-tem-31-01-167.pdf
[35] http://revistas.uach.cl/pdf/bosque/v16n2/art01.pdf
[36] https://www.jircas.go.jp/sites/default/files/publication/manual_guideline/manual_guideline-_-_44.pdf
[37] https://journals.lib.unb.ca/index.php/IJFE/article/view/30002/1882525236

The results of the analyses carried out, the coordinates and the geospatial information compatible with GIS software were included in folder 09.- SOIL AND WATER ANALYSIS in the complementary documentation.

Figura 30. Resultados de análisis suelo en Hernandarias



BIOSOLLO

Solicitante: DESARROLLOS MADEREROS S.A. Sector: DMSA
Propietario: DESARROLLOS MADEREROS S.A.
Dirección: N.I.
Ident. Muestra: LT: HSTAP-1 - PT: N.I. - PROF: 20-40CM

Fecha Ingreso: 16/08/2023
Fecha Liberación: 18/08/2023
Control: 266114

INFORME DE ANÁLISIS DE SUELO

ELEMENTOS				BAJO	MEDIO	ALTO
Calcio	(Ca^{2+})	2,00	$cmol_c/cm^3$			
Magnesio	(Mg^{2+})	0,57	$cmol_c/cm^3$			
Potasio	(K^+)	0,18	$cmol_c/cm^3$			
Aluminio	(Al^{3+})	3,77	$cmol_c/cm^3$			
Hidrógeno+Aluminio	H + Al	15,16	$cmol_c/cm^3$			
Suma de Bases	(S)	2,75	$cmol_c/cm^3$			
CIC	(pH 7,0)	17,91	$cmol_c/cm^3$			
Materia Orgánica	(M.O.)	6,08	%			
Sat. de Aluminio	(m%)	57,82	%			
Sat. de Bases	(V%)	15,35	%			
Fósforo	(P)	16,01	mg/dm^3			
Azufre	(SO_4^{2-})	5,66	mg/dm^3			
Boro	(B)	0,31	mg/dm^3			
Hierro	(Fe^{2+})	62,70	mg/dm^3			

RESINA DE INTERCAMBIO IÓNICO		
Calcio	NS	$mmol_c/dm^3$
Magnesio	NS	$mmol_c/dm^3$
Potasio	NS	$mmol_c/dm^3$
Fósforo	NS	mg/dm^3
OTROS PARAMETROS		
Fósforo Remanecente	NS	mg/dm^3
Conductividad Eléctrica (C.E)	NS	µS/cm
Sodio (Na^+)	NS	$cmol_c/dm^3$

PARTICIPACION DE LOS ELEMENTOS EN LA CIC DEL SUELO

Finally, Table 29, shown at the end of this section, includes a summary of the different impacts identified during the 2018-2023 monitoring period, their magnitude, sign, temporality and whether they are direct or indirect, including control and/or mitigation measures if applicable.

Aspecto ambiental	Detalle	Actividad del proyecto	Magnitud	Signo	Directo/ Indirecto	Temporalidad	Medidas de control	Medidas de mitigación
Recursos hídricos	Calidad del agua subterránea	Preparación del terreno	Baja	+	Indirecto	Temporal	Análisis de suelo sobre puntos de control	
	Calidad del agua superficial	Uso de agroquímicos	Baja	-	Indirecto	Temporal	Análisis de agua a la entrada y salida del arroyo Alta Cuá	Cumplimiento estricto del Plan de Manejo responsable de Agroquímicos, Programa Operativo de Aplicación de Agroquímicos, PGA y directrices FSC.
Suelo	Calidad del suelo		Baja	-	Directo	Temporal		Seguimiento estricto y cumplimiento del Plan de Manejo responsable de Agroquímicos, Programa Operativo de Aplicación de Agroquímicos, PGA y directrices FSC.
	Alteración de horizontes	Preparación del terreno	Baja	-	Directo	Temporal	Análisis de suelo sobre puntos de control	Empleo de técnicas de labranza mínima y selección de periodo de actuación favorable en función de climatología

VVB Evaluation:	ROUND 1 The monitoring report still does not have clear and defined actions with respect to this finding. ROUND 2 1. The finding was satisfactorily resolved; no further action is required. 2. The results of the environmental assessment are unclear. It is necessary to support this analysis with reliable and updated references (evidence). In the case of the use of agrochemicals, which could have negative impacts, it is necessary for the owner to explain the actions and corrective measures that will be implemented to manage and minimize the impacts derived from the development of the greenhouse gas (GHG) reduction project activities. Impacto al Suelo: El grado de afectación del proyecto al suelo, es de grado bajo. El tipo de tareas utilizadas para la preparación del sitio no produce grandes cambios en este sentido y de hacerlo, sólo puede producir impactos negativos sobre la estructura de la capa superficial, en la línea de plantación donde se realiza esta actividad. Durante el desarrollo de los árboles el impacto puede ser beneficioso a través del aporte de las raíces, las que, a su vez, producen compactación como consecuencia del crecimiento radial.

	ROUND 3: Finding satisfactorily resolved, no further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	23	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 16.3.1.2 Size of the plots or sampling units. Methodology BCR0001.					
Objective evidence	1. No information related to equation 23 Sample size of the BCR methodology was found in the Monitoring Report. 2. The number of strata and plots recorded in the Monitoring Report does not reflect those evidenced by the audit team during the field visit. According to the above, the carbon stock changes in the selected reservoirs and the GHG emissions of the project are not consistent with the proposed BCR 0001 v3.0 methodology.					
Plan of action:	ROUND 1 Equation 23 was used to define the number of sampling plots. It was included in the monitoring report in section 4.1.4 and section 13 of the PD. ROUND 2 Included in detail how equation 23 was used and details the number of temporary plots that arose from the application of this equation. Data and information for estimating GHG reductions or removals during the quantification period can be found in section 15.1.1 of the monitoring report.					
VVB Evaluation:	ROUND 1 The actions defined by the project are not clear. ROUND 2 Finding satisfactorily resolved; no additional actions required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	24	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 13 Risk management, BCR Protocol					
Objective evidence	1. The risks identified in the PD do not coincide with those identified by the audit team during the field visit phase. 2. The procedures described in the PD do not coincide with the procedures that the plantation currently has in place to mitigate them.					
Plan of action:	The project risks, and how to mitigate them, were completed. Included in section 7 Risk Management of the PD.					

VVB Evaluation:	Finding satisfactorily resolved. No further action required.						
Conclusion:	Close finding	X	Mantain finding		FAR		

Finding N°:	25	Finding type:	CAR	X	CL		
Description:	The GHG project is not aligned with: - Sección 13.1 Risk Management, BCR Standard V3.0						
Objective evidence	The risk of reversion described in the PD fails to demonstrate how the project defines specific actions to ensure that this risk is maintained over time.						
Plan of action:	ROUND 1 Reversal risk has been clarified in section 7.4 Reversal risk of the PD. ROUND 2 ROUND 3 In sección 7.1 Reversal Risk a table is included for each family of risks, including the mitigation measures for each of them: Table 29 Environmental risk mitigation measures, Table 30 Financial risk mitigation measures, Table 31 Social risk mitigation measures.						

Riesgo	Calificación del Riesgo	Medidas de Mitigación
Incendios	Alto	El **Plan de Protección Contra Incendios** del proyecto diseñado por DMSA, contiene el Plan de manejo integrado del fuego, estableciendo medidas para detectar, combatir y mitigar los efectos de incendios forestales y usar el fuego como herramienta con el fin de evitar o minimizar impactos económicos y ambientales, manteniendo entrenados al Recurso Humano afectado en la Protección Patrimonial, está dirigido a ambas estancias Tapyta y Hernandarias. Para revisar el plan en detalle favor dirigirse al documento "Plan de Protección Contra Incendios" en la carpeta Documentación Complementaria[10]. El monitoreo de los incendios se explica detalladamente en la sección 17 de plan de monitoreo.
Vientos	Bajo	A pesar de que la calificación de este riesgo es baja para el proyecto, el proyecto ha tomado ciertas medidas de mitigación a fin de evitar pérdidas por los vientos desde la planeación del establecimiento de plantaciones, estas ubican en la cercanía de barreras naturales. De presentarse este tipo de riesgo y de dañar alguna de las superficies del proyecto DMSA cuenta con la solvencia y la decisión de volver a replantar todo lo que se vea afectado.

REVISED ROUND 3:

In the Project Description document one can see:

-Item 1.1 Scope in the BCR Standard.

"The project will be validated and verified for the first time in May 2023, 4.5 years after the start of the project, where it is estimated to be able to certify captures of 16,711 tCO2, from which 20% will be deducted to be allocated to reserve accounts to cover possible reversal risks as indicated in the BCR Standard."

-Section 3.7.4 GHG emissions reduction/removal in the project scenario

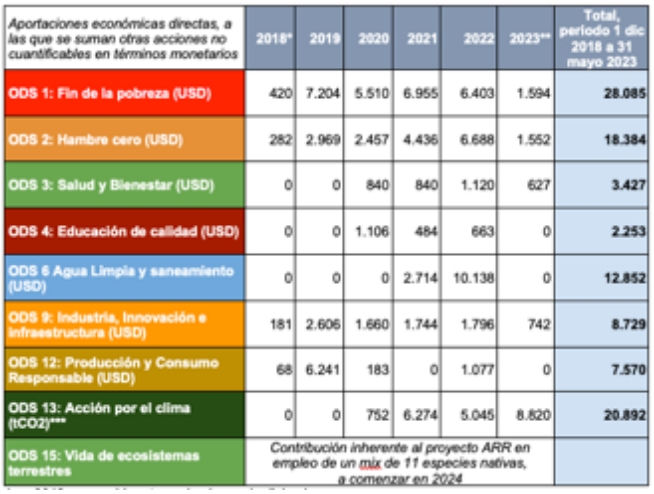
"It is important to highlight the BCR Standard v 3.2 in section 13.1 'Reversal risk' establishes that projects in the AFOLU sector. Once GHG removals are registered, a reserve of 20% of the total GHG emissions reductions quantified for each verified period will be automatically discounted and maintained, in order to cover a potential materialization of the identified risks."
In the Monitoring Report document you can see:
-Item 1.5 Summary Description of the Implementation Status of the Project.
"In accordance with the BCR V3.2 Standard in section 13.1 Reversal Risk, once the GHG removals of an AFOLU project are registered, a 20% reserve of the total quantified GHG emission reductions for each verified period shall be automatically deducted and maintained. Therefore, the amount of CCV Carbon Certificates of the project -after

	discounting the aforementioned 20% to cover the potential materialization of the identified risks- will be 16,711 tCO2".
VVB Evaluation:	ROUND 1 This finding is related to the monitoring report. The project owner should identify the risks of reversion in the defined monitoring period. ROUND 2 The monitoring report provides a comprehensive description of the fire risk, as well as how the company has clear actions to mitigate it. However, no clear guidelines were found on how the project defines actions to mitigate the other risks identified. ROUND 3 The resolution of this finding is related to the response to finding 18. ROUND 4. Finding satisfactorily resolved no additional actions are required.
Conclusion:	Close finding: X — Mantain finding: — FAR: —

Finding N°:	26	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 6.9 Data quality management ISO 14064-02:2019 - Sección 16.5 Quality control and quality assurance procedures. Methodology BCR 0001 - Sección 16.5.1 Verification of field data. BCR Protocol.					
Objective evidence	1. The GHG project holder must design a management and quality assurance system that ensures good management, quality, reliability of information, data field verification, information-processing review, data recording and archiving system. 2. The GHG mitigation project holder shall establish a protocol for the measurement of growth plots according to the criteria defined by ISO 14064-2:2019 and BCR 0001 methodology. 					
Plan of action:	This finding was clarified in section 13 of the PD monitoring plan and in section 4 of the monitoring report.					
VVB Evaluation:	Finding satisfactorily resolved. No further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	27	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 14 Grouped projects. BCR Protocol.					
Objective evidence	No related evidence was found on how the project owner explains and justifies the conditions applicable to clustered projects described in the BCR protocol.					
Plan of action:	It is clarified in section 12 of the PD that the project is not going to be a clustered project.					
VVB Evaluation:	Finding satisfactorily resolved. No further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	28	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 6.10 GHG project monitoring. Methodology BCR 0001.					
Objective evidence	The procedures defined by the project proponent to maintain a monitoring plan for the selected SDGs are not clear, they should include: 1. Indicator or list of parameters to be measured and monitored; 2. Types of data and information to be reported, including units of measurement, equipment calibration if necessary; 3. origin of the data; 4. Monitoring methodologies, including estimation, modeling; 5. Frequency of monitoring, considering the needs of the intended user; 6. controls including internal checking of data for input elements, transformation and output elements, and procedures for corrective actions. 7. Management systems. 8. Timeline.					
Plan of action:	ROUND 1 All of this was clarified in section 13 of the PD monitoring plan. ROUND 2 All evidence related to the activities developed by the GHG project during the monitoring period was included. This is found in section 4 Contribution to Sustainable Development Goals (SGD) of the monitoring report. ROUND 3 Section 11 of the PD identifies the SDGs on which the project has a positive impact, and the structure in programs and actions of this project, including the schedule of activities with annual resolution. Regarding the activities carried out in the current monitoring period (1/12/2018-31/05/2023) these are reflected in sección 4 of the RM. Some KPIs are qualitative, and others however can be translated into monetary units. Whenever possible, the latter has been chosen.					

	In relation to the attribution of actions and budget to the actions of this project, there are indeed specific programs of this project, but also cross-cutting programs that respond to the needs of communities, and that involve a high expenditure by DMSA. In this type of situation, where the amount spent is shared by all DMSA projects, a proration is made to assign a value to this project proportional to the weight of the project area with respect to the total managed by DMSA forestry. The detail of ODS, programs and actions, as well as the budget attributable to this project is shown in the spreadsheet "Ex-post-monitoring report BCR-PY-451-14-001", in the "Prorated ODS" tab.  Finally, in row 65 of the Excel table and in Table 14 on page 45 of the RM, the jobs created by the project and occupied by residents of the surrounding area (FTE) are shown.

Aportaciones económicas directas, a las que se suman otras acciones no cuantificables en términos monetarios	2018*	2019	2020	2021	2022	2023**	Total, período 1 dic 2018 a 31 mayo 2023
ODS 1: Fin de la pobreza (USD)	420	7.204	5.510	6.955	6.403	1.594	**28.085**
ODS 2: Hambre cero (USD)	282	2.969	2.457	4.436	6.688	1.552	**18.384**
ODS 3: Salud y Bienestar (USD)	0	0	840	840	1.120	627	**3.427**
ODS 4: Educación de calidad (USD)	0	0	1.106	484	663	0	**2.253**
ODS 6 Agua Limpia y saneamiento (USD)	0	0	0	2.714	10.138	0	**12.852**
ODS 9: Industria, innovación e infraestructura (USD)	181	2.606	1.660	1.744	1.796	742	**8.729**
ODS 12: Producción y Consumo Responsable (USD)	68	6.241	183	0	1.077	0	**7.570**
ODS 13: Acción por el clima (tCO2)***	0	0	752	6.274	5.045	8.820	**20.892**
ODS 15: Vida de ecosistemas terrestres	*Contribución inherente al proyecto ARR en empleo de un mix de 11 especies nativas, a comenzar en 2024*						

VVB Evaluation:	ROUND 1 No evidence was found related to the activities developed by the GHG project during the monitoring period. ROUND 2 It is not possible to differentiate the contribution to SDGs of the project in particular, from the contribution of the company DMSA. How many jobs does the project generate? What specific project activities have been carried out? How many communities has this particular project benefited? ROUND 3 Finding satisfactorily resolved, no further action required.						
Conclusion:	Close finding	X	Mantain finding		FAR		

Finding N°:	29	Finding type:	CAR	X	CL		
Description:	The GHG project is not aligned with:						

	- Sección 6.10 GHG Project Follow-up
Objective evidence	The PD did not show how the project owner will follow up on the following activities: 1. Project boundaries 2. Project activities 3. Crop and biomass growth management. 4. Field stratification and sampling design. 5. Current applicable legislation 6. Reversion risks. 7. Biodiversity sampling (Fauna and Flora). 8. Land tenure and carbon rights. 9. Methodology deviation 10. Field data review 11. Quality control and quality assurance 12. Data recording and archiving system
Plan of action:	ROUND 1 This was completed in all the corresponding sections of the PD. ROUND 2 Included in detail how all sections identified in this finding were developed. This is found in section 1.1 Scope of the DD. ROUND 3 In the PD, section 17 Monitoring plan (pages 262 to 294), all the requirements established in the Template GHG Project V2.2 (most current version used in the submission) are answered. n addition, table 48 within the same sección summarizes the monitoring plan for each of the aspects listed by the PD template version 2.2: (a) Monitoring of project boundaries. (b) Monitoring of the execution of project activities (c) Monitoring the quantification of the quantification of the project's emission reductions/removals (d) Quality control and quality assurance procedures (e) Verification of field data (f) Review of data processing (g) Data logging and archiving system

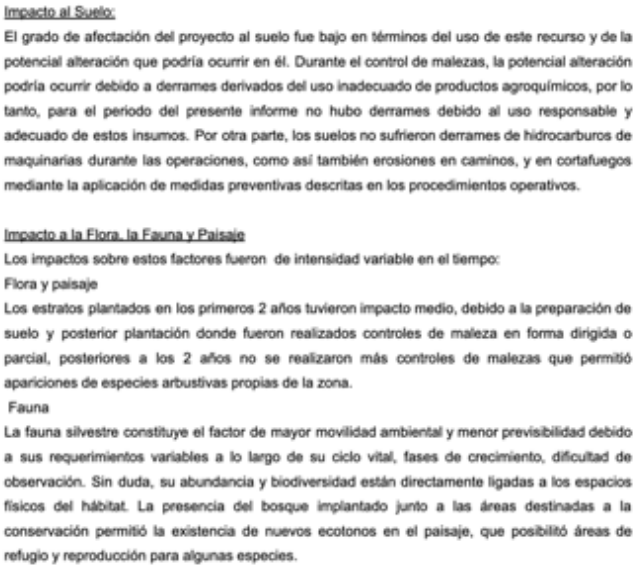
	<table><tr><th>Aspecto a monitorizar</th><th>Plan de monitoreo</th></tr><tr><td>(a) Supervisión de los límites del proyecto</td><td>Se recorrerán los límites del proyecto empleando GPS para verificar su integridad y continuidad a lo largo del tiempo. Se realizará al menos 1 vez durante el periodo de monitoreo hacia el final del mismo. Además, se verificará que la composición de los estratos es coherente con los criterios establecidos en este PD y recogidos también a continuación en el subapartado Estratos: Descripción de los criterios de la composición de los estratos</td></tr><tr><td>(b) Seguimiento de la ejecución de las actividades del proyecto</td><td>Se establecerá la unidad de medida para cada una de las actividades del proyecto y se comprobará el grado de cumplimiento del objetivo anual establecido. Las actividades a realizar seguimiento serán: - Número de plantines producidos</td></tr></table>
VVB Evaluation:	ROUND 1 No evidence was found related to the activities developed by the GHG project during the monitoring period. ROUND 2

	The project fails to explain all the requirements listed in sección 17 Monitoring plan of the Template GHG Project V2.1.  17 Evitar el doble conteo La herramienta BCR "Evitar el doble cómputo de las reducciones/absorciones de emisiones". Versión 1.0, en su sección 7 define al doble cómputo como contabilización de un resultado de mitigación de GEI en toneladas de Co2 en los siguientes escenarios: a) una tonelada de CO2 se cuenta más de una vez para demostrar el cumplimiento del mismo objetivo de mitigación de GEI b) se cuenta una tonelada de CO2 para demostrar el cumplimiento de más de un objetivo de mitigación de GEI c) una tonelada de CO2 se utiliza más de una vez para obtener remuneraciones, beneficios o incentivos BCR-PY-451-14-001 Página 308 de 351 Versión 3- 17 de noviembre de 2023 Documento de Diseño de Proyecto Plantación mixta de especies nativas y foráneas en Paraguay-I BioCarbon Registry d) se verifica, certifica o acredita una tonelada de CO2 asignando más de una serie a un único resultado de mitigación El presente proyecto no realiza, ni va a realizar ninguna de las opciones que definen el doble cómputo. A su vez no se registró ni se piensa registrar este proyecto bajo ningún otro programa de GHG, Por lo tanto no va a ocurrir doble contabilidad con las remociones de CO2 del proyecto. ROUND 3 Finding satisfactorily resolved.

Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	30	Finding type:	CAR	X	CL	
Description:	The GHG project is not aligned with: - Sección 6.10 GHG project monitoring					
Objective evidence	The monitoring report did not show how the project owner followed up on the following project activities for verification: 1. monitoring of project boundaries 2. Monitoring of the implementation of the project activities. 3. Monitoring of crop management and biomass growth 4. 4. Stratification 5. Size of plots or sampling units. 6. Sample size 7. Calculation of the number of plots 8. Location of plots in the field 9. Frequency of monitoring. 10. Measurement and estimation of changes in carbon content. 11. Monitoring quantification of removals.					

	12. Verification of field data 13. Review of data processing 14. Recording and archiving of quality control and quality assurance data.
Plan of action:	ROUND 1 Although the above requirements have been incorporated, they are not adequately justified and, in many cases, lack evidence to support the statements in the document. Impacto al Suelo: El grado de afectación del proyecto al suelo fue bajo en términos del uso de este recurso y de la potencial alteración que podría ocurrir en él. Durante el control de malezas, la potencial alteración podría ocurrir debido a derrames derivados del uso inadecuado de productos agroquímicos, por lo tanto, para el periodo del presente informe no hubo derrames debido al uso responsable y adecuado de estos insumos. Por otra parte, los suelos no sufrieron derrames de hidrocarburos de maquinarias durante las operaciones, como así también erosiones en caminos, y en cortafuegos mediante la aplicación de medidas preventivas descritas en los procedimientos operativos. Impacto a la Flora, la Fauna y Paisaje Los impactos sobre estos factores fueron de intensidad variable en el tiempo: Flora y paisaje Los estratos plantados en los primeros 2 años tuvieron impacto medio, debido a la preparación de suelo y posterior plantación donde fueron realizados controles de maleza en forma dirigida o parcial, posteriores a los 2 años no se realizaron más controles de malezas que permitió apariciones de especies arbustivas propias de la zona. Fauna La fauna silvestre constituye el factor de mayor movilidad ambiental y menor previsibilidad debido a sus requerimientos variables a lo largo de su ciclo vital, fases de crecimiento, dificultad de observación. Sin duda, su abundancia y biodiversidad están directamente ligadas a los espacios físicos del hábitat. La presencia del bosque implantado junto a las áreas destinadas a la conservación permitió la existencia de nuevos ecotonos en el paisaje, que posibilitó áreas de refugio y reproducción para algunas especies. ROUND 2 A detailed description of how all the sections identified in this finding were monitored was included. This can be found of section 1.5 Summary Description of the Implementation Status of the Project of the monitoring report. ROUND 3 Both the Description (section 6.10 GHG Project Monitoring) and the Objective evidence (sections 1 to 14) are outdated according to the new BCR_Monitoring-Report-Format V1.1 template. However, we indicate below where in the MR the response to each of the sections identified is provided: (a) Monitoring of project boundaries ☐ page 118 of the RM (b) Monitoring of the implementation of project activities ☐ pages 119 to 121 of the RM (c) Monitoring of quantification of emission reduction/removal quantification proyecto☐ pages 121-124 of the GM (d) Monitoring and assurance procedures calidad☐ pages 125-126 of the RM (e) Verification of field data ☐ page 124 of the FR (f) Review of information processing ☐ page 124 of the RM (g) Registration and filing system datos☐ page 125 of the RM Finally, the image indicated in the VVB Evaluation -related to the impacts of the project- corresponds in reality to the PD, to an aspect already addressed in finding 22.

VVB Evaluation:	ROUND 1 Although the above requirements have been incorporated, they are not adequately justified and, in many cases, lack evidence to support the statements in the document.  Impacto al Suelo: El grado de afectación del proyecto al suelo fue bajo en términos del uso de este recurso y de la potencial alteración que podría ocurrir en él. Durante el control de malezas, la potencial alteración podría ocurrir debido a derrames derivados del uso inadecuado de productos agroquímicos, por lo tanto, para el periodo del presente informe no hubo derrames debido al uso responsable y adecuado de estos insumos. Por otra parte, los suelos no sufrieron derrames de hidrocarburos de maquinarias durante las operaciones, como así también erosiones en caminos, y en cortafuegos mediante la aplicación de medidas preventivas descritas en los procedimientos operativos. Impacto a la Flora, la Fauna y Paisaje Los impactos sobre estos factores fueron de intensidad variable en el tiempo: Flora y paisaje Los estratos plantados en los primeros 2 años tuvieron impacto medio, debido a la preparación de suelo y posterior plantación donde fueron realizados controles de maleza en forma dirigida o parcial, posteriores a los 2 años no se realizaron más controles de malezas que permitió apariciones de especies arbustivas propias de la zona. Fauna La fauna silvestre constituye el factor de mayor movilidad ambiental y menor previsibilidad debido a sus requerimientos variables a lo largo de su ciclo vital, fases de crecimiento, dificultad de observación. Sin duda, su abundancia y biodiversidad están directamente ligadas a los espacios físicos del hábitat. La presencia del bosque implantado junto a las áreas destinadas a la conservación permitió la existencia de nuevos ecotonos en el paisaje, que posibilitó áreas de refugio y reproducción para algunas especies. RONDA 2 Hallazgo satisfactoriamente resuelto, no se requieren acciones adicionales.						
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	31	Finding type:	CAR	x	CL	
Description:	The GHG project is not aligned with: - Sección 6.10 GHG project monitoring. Methodology BCR 0001					
Objective evidence	ROUND 1 In the monitoring report it was not found how the holder gives compliance to sección 6.10 of ISO 14064-2:2019. a) purpose of monitoring; b) list of parameters to be measured and monitored; c) types of data and information to be reported, including units of measurement; d) origin of the data; e) monitoring methodologies, including estimation, modeling, measurement, calculation approaches and uncertainty; frequency of monitoring, considering the needs of the intended users; monitoring roles and responsibilities, including procedures for authorizing, approving and documenting changes to the recorded data; h) controls including internal checking of data for input, transformation and output elements, and procedures for corrective actions; GHG information management systems,					

	including the location and retention of stored data and data management including a procedure for transferring data between different forms of systems or documentation. In addition to the above, the following statement is not clear: "Two types of monitoring are going to be performed, an internal one that is going to be carried out every year in the month of July and another with a Validating or Verifying Body (VVB) whose monitoring period will be every 5 years." At this point it is clarified that the monitoring is NOT carried out with a VVB. It is done prior to the periodic verification performed by the VVB.					
Plan of action:	All items identified in this finding were included in section 15.2.1 Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors and in section Data and parameters monitored. 15.2.2					
VVB Evaluation:	The parameters were included in the MR. No additional actions are required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Finding N°:	32	Finding type:	CAR	X	CL	
Description:	Sección 11. BCR Standar v 3.1					
Objective evidence	P. 137 Refers to ex ante estimation. In the Excel calculation table, it is not clear because it is assumed that there is no mortality of planted trees, which is neither real nor conservative. It is necessary to use real mortality percentage information obtained from plantations of the same species in the area.					
Plan of action:	A mortality rate was calculated and included. This can be found in the PD spreadsheet in the last tab called "Calculation of Mortality Rate".					
VVB Evaluation:	Finding satisfactorily resolved, no further action required.					
Conclusion:	Close finding	X	Mantain finding		FAR	

Annex 3. Documentation review

As an essential part of the validation and verification activities of the Greenhouse Gas (GHG) Project, a thorough review of 100% of the documents and evidence provided by the Project Holder was carried out, as well as additional documents, including official ones, to carry out the cross-verification. This thorough review ensured the accuracy and completeness of the data submitted in relation to greenhouse gas emissions and mitigation measures taken, as outlined below:

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/ 1/	PD version 1.1	Desarrollos Madereros SA	Desarrollos Madereros SA	Desarrollos Madereros SA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
		Cambium Earth SL	Cambium Earth SL	Cambium Earth SL
/ 2/	PD version 2.1	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL
/ 3/	PD version 3.1	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL
/ 4/	PD version 4.1	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL
/ 5/	PD version 5.1	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL
/ 6/	PD version 6.2	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL	Desarrollos Madereros SA Cambium Earth SL
/ 7/	Monitoring Report Template MIXED PLANTING OF NATIVE AND NON-NATIVE SPECIES IN PARAGUAY-I version 1.1	Desarrollos Madereros SA Trademark: Pomera Maderas	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 8/	EX – Ante carbon capture estimations BCR-PY-451-14-001 20240402	Desarrollos Madereros SA Trademark: Pomera Maderas	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 9/	EX – post monitoring report BCR-PY-451-14-001 20240402	Desarrollos Madereros SA Trademark:	Desarrollos Madereros SA	Desarrollos Madereros SA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
		Pomera Maderas		
/ 10/	Deed 171-25-06-96 Incorporation of a company	Rodolfo Ricciardi Jara Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 11/	Deed 252-03-10-96 Incorporation of a company	Rodolfo Ricciardi Jara Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 12/	Deed 23 22-04-04 Signature corporate section	Rosana María Fracchia Sosa Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 13/	Deed 92 22-10-04 Transformation of society	Martha B. Narvaja Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 14/	Deed 93 22-10-04 Transformation of society	Martha B. Narvaja Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 15/	Deed 32 16-06-06 Scriptures	Gladys Esquivel de Cocco Notary	Madereros SA	Desarrollos Madereros SA
/ 16/	Deed 129 09-10-07 Scriptures	Gladys Esquivel de Cocco Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 17/	Deed 28 22-04-08 Transcript of the minutes of the extraordinary meeting	Gilda Krisch de Velázquez Notary	Company: Desarrollos Madereros SA	Company: Desarrollos Madereros SA
/ 18/	Deed 413 13-12-08 Transcript of the minutes of the extraordinary meeting	Luis Alberto Peroni Luis Enrique Peroni Silvana Peroni Notaries	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 19/	Deed 81 31-12-12 Transcript of the minutes of the extraordinary meeting	José Ramírez Otaño Notary	Desarrollos Madereros SA	Desarrollos Madereros SA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/ 20/	Deed 77 19-05-14 Transcript of the minutes of the extraordinary meeting	José Ramírez Otaño Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 21/	Deed 55 12-02-15 Transcript of the minutes of the extraordinary meeting	José Ramírez Otaño Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 22/	Scripture 77 Transcript of the minutes of the extraordinary meeting	José Ramírez Otaño Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 23/	Deed 76 29-08-16 Transcript of the minutes of the extraordinary meeting	José Ramírez Otaño Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 24/	RUC – Single Taxpayer Registry	Undersecretary of State for Taxation	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 25/	Minutes of the Ordinary Meeting DMSA13	DMSA	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 26/	Certificate of Assembly Communication	DMSA	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 27/	Start of activities-INAFO Contract 20180101	DMSA	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 28/	Service Provision Contract	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 29/	Work Order 705	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 30/	Work Order 703	DMSA and Agroforestry	Desarrollos Madereros SA	Desarrollos Madereros SA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
		Innovation S.R. L		
/ 31/	Work Order 749	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 32/	Work Order 693	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 33/	Work Order 694	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 34/	Work Order 696	DMSA and Agroforestry Innovation S.R. L	Company: Desarrollos Madereros SA	Desarrollos Madereros SA
/ 35/	Work Order 697	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 36/	Work Order 695	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 37/	Work Order 700	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 38/	Work Order 701	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 39/	Work Order 702	DMSA and Agroforestry	Desarrollos Madereros SA	Desarrollos Madereros SA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
		Innovation S.R. L		
/ 40/	Work Order 722	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 41/	Work Order 681	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 42/	Work Order 679	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 42/	Work Order 1.051	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 43/	Work Order 1.052	DMSA and Agroforestry Innovation S.R. L	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 44/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 45/	Deed of sale and transfer of property Finca 13138	Gilda Krisch de Velázquez Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 46/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 47/	Deed of sale and transfer of property Finca 1338	Gilda Krisch de Velázquez Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 48/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA

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/ 49/	Deed of sale and transfer of property Finca 13864	Gilda Krisch de Velázquez Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 50/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 51/	Deed of sale and transfer of property Fincas 749, 9355, 1951, 1950, 2723, 29703, 29704 and 29702	Gilda Krisch de Velázquez Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 52/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 53/	Deed of sale and transfer of property registration K13/3624	Gilda Krisch de Velázquez Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 54/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 55/	Deed of sale and transfer of property Finca 35	Gilda Krisch de Velázquez Notary	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 56/	Domain Condition	DMSA and María Isabel Zarza	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 57/	Grazing contract	DMSA and the company Astería Intil S.A.	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 58/	Grazing contract	DMSA and Héctor Peralta Vidal.	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 59/	Grazing contract	DMSA and Porfirio Ramón.	Desarrollos Madereros SA	Desarrollos Madereros SA

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/ 60/	Livestock guides certificate of sale of cattle for slaughter	National Service for Animal Quality and Health	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 61/	Invoices-Investments in CSR, road and fire protection	DMSA Invoices & Vendors/Contractors	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 62/	Fire Protection Plan Version 5	DMSA-POMERA	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 63/	Operating Procedure 05-DMSA Cutter Ant Control Version 6	Engineers: Fr. Leguizamón and D. Acosta	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 64/	Responsible Agrochemical Management Program Version 8	DMSA-POMERA	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 65/	Commercial agreement without carbon credit representation	Cambium Earth S.L and Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 66/	Plantation Staff Training from 2018 to 2022	Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 67/	Operating Procedure PO-07 DMSA Planting. Version 7.	Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 68/	Operating Procedure PO-08 DMSA Pruning from the first to the seventh level. Version 10	Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 69/	Water analysis report 25/08/2023	Desarrollos Madereros S.A	Company: Desarrollos Madereros SA	Company: Desarrollos Madereros SA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/ 70/	Soil analysis report 12/08/2023	Desarrollos Madereros S.A	Company: Desarrollos Madereros SA	Company: Desarrollos Madereros SA
/ 71/	Environmental Management Plan Submitted to the Ministry of Environment December 26, 2014	Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 72/	Environmental Management Plan Submitted to the Ministry of Environment July 27, 2015	Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 73/	ENVIRONMENTAL AUDIT COMPLIANCE WITH THE ENVIRONMENTAL MANAGEMENT PLAN, year 2022	AUDITOR: ING. CHRISTIAN SCHREIBER	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 74/	Results of the Public Presentation of the DMSA Carbon Project	Desarrollos Madereros S.A	Desarrollos Madereros SA	Desarrollos Madereros SA
/ 75/	Public Presentation of the DMSA Carbon Project	Desarrollos Madereros S.A	Company: Desarrollos Madereros SA	Company: Desarrollos Madereros SA
/ 76/	Lots Tapyta-Hernandarias.kml	Desarrollos Madereros S.A	Company: Desarrollos Madereros SA	Company: Desarrollos Madereros SA
/ 77/	Resolution SNC 200 Establishing Technical Rules for the Graphic Incorporation and Registration of Georeferenced Location	Ministry of Finance – National Cadastre Section	Ministry of Finance of Paraguay	Ministry of Finance of Paraguay

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
	Plans of Property Titles. August 31, 2020			
/ 78/	BCR_SDG-Tool BCRPY451-14-001 period 2018-2023.xlsx	Desarrollos Madereros S.A	Desarrollos Madereros S.A	Desarrollos Madereros S.A
/ 79/	Sustainable Development Safeguards ES.docx	Desarrollos Madereros S.A	Desarrollos Madereros S.A	Desarrollos Madereros S.A
/ 80/	Ex – ante carbon capture estimations BCRPY451-14-001 period 2018-2023.xlsx	Desarrollos Madereros S.A	Desarrollos Madereros S.A	Desarrollos Madereros S.A
/ 81/	Ex – post carbon capture estimations BCRPY451-14-001 period 2018-2023.xlsx	Desarrollos Madereros S.A	Desarrollos Madereros S.A	Desarrollos Madereros S.A
/ 82/	Landsat 8 images.zip	Desarrollos Madereros S.A	Desarrollos Madereros S.A	Desarrollos Madereros S.A
Additional Documents				
/ 83/	BCR Standard Empowering sustainability, Redefining Standards, V3.4 June 28, 2024.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR_Estandar.pdf	VERSA
/ 84/	BCR0001 Quantification of GHG Removals AFFORESTATION, REFORESTATION AND REVEGETATION V4.0, February 2024.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR0001_Documento-metodologico-ARR.pdf	VERSA
/ 85/	BCR Tool: Sustainable Development Goals V 1.0 July 13, 2023.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/upload	VERSA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
			s/BCR_SDG-tool.pdf	
/ 86/	BCR Tool: Permanence and Risk Management V1.1 March 19, 2024.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR_risk-and-permanence.pdf	VERSA
/ 87/	BCR Tool: Monitoring, reporting and Verification V1.0 February 13, 2023.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR_Monitoring-reporting-and-verification.pdf	VERSA
/ 88/	BCR Tool: Baseline and Additionality V 1.3 March 1, 2024.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR_additionality.pdf	VERSA
/ 89/	BCR Tool: Avoiding Double Counting V2.0 February 7, 2024.	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR_avoiding-double-counting.pdf	VERSA
/ 90/	Tool 14 Carbon stock estimation and carbon stock change of trees and shrubs in F/R CDM Project Activities V 04.2.	CDM	https://cdm.unfccc.int/methodologies/ARmethodologies/tools/ar-am-tool-14-v4.2.pdf	VERSA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/ 91/	Validation and Verification Manual Greenhouse gas projects, version 2.4 march 23, 2024	BioCarbon Standard	https://biocarbonstandard.com/wp-content/uploads/BCR_validation-and-verification-manual.pdf	VERSA
/ 92/	ISO 14064-2:2019	ISO Technical Committee TC 207.	International Organization for Standardization	VERSA
/ 93/	ISO 14064-3:2019	ISO Technical Committee TC 207.	International Organization for Standardization	VERSA
/ 94/	ISO IEC 17029:2019	ISO/IEC Joint Technical Committee 1.	International Organization for Standardization	VERSA
/ 95/	ISO 14065:2020	ISO Technical Committee TC 207.	International Organization for Standardization	VERSA
/ 96/	National Constitution of Paraguay	Constituent Assembly of Paraguay	Constituent Assembly of Paraguay	VERSA
/ 97/	Civil Code of Paraguay	National Congress of Paraguay.	National Congress of Paraguay.	VERSA
/ 98/	Law 422/73	National Congress of Paraguay.	National Congress of Paraguay.	VERSA
/ 99/	Law 1871/2002	National Congress of Paraguay.	National Congress of Paraguay.	VERSA

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/ 100/	National Forest Strategy for Sustainable Growth (ENBCS) https://redd.unfccc.int/media/estrategia_nacional_bosques_para_el_crecimiento_sostenible.pdf	Ministry of Environment and Sustainable Development of Paraguay, August 2018.	Ministry of Environment and Sustainable Development of Paraguay	Ministry of Environment and Sustainable Development of Paraguay
/ 101/	National Climate Change Strategy. Asunción, Paraguay 2015	Ministry of the Environment National Office of Climate Change, 2015	Ministry of the Environment National Office of Climate Change	Ministry of the Environment National Office of Climate Change
/ 102/	Second Reference Level of Forest Emissions (FREL) from Deforestation in the Republic of Paraguay – period 2012 - 2019, for payment for REDD+ results under the UNFCCC.	Ministry of Environment and Sustainable Development (MADES) Ministry of the Environment National Office of Climate Change	Ministry of the Environment National Office of Climate Change	Ministry of the Environment National Office of Climate Change
/ 103/	Guide to Developing Climate Change Adaptation Plans for Local Governments, September 2018	Ministry of Environment and Sustainable Development (MADES)	Ministry of Environment and Sustainable Development (MADES)	Ministry of Environment and Sustainable Development (MADES)
/ 104/	Proposal: national climate change plan of the Republic of Paraguay	Ministry of Environment and Sustainable Development (MADES)	Ministry of Environment and Sustainable Development (MADES)	Ministry of Environment and Sustainable Development (MADES)
/ 105/	PARAGUAY NATIONAL CLIMATE CHANGE POLICY	Ministry of Environment and Sustainable	Ministry of Environment and Sustainable	Ministry of Environment and Sustainable

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
		Development (MADES)	Development (MADES)	Development (MADES)
/ 106/	IPCC Guidelines 2003, 2006, 2019 for National Greenhouse Gas Inventories. Volume 4. Agriculture, forestry and other land uses.	IPCC	IPCC	IPCC
/ 107/	Law 11.681/75 /Forestry	Chamber of Deputies Legislative Palace	Chamber of Senators/ General Secretariat	Library and Central Archive of the National Congress
/ 108/	Law 294/ Environmental Impact Assessment	National Congress	National Congress	Library and Central Archive of the National Congress
/ 109/	Law 7190/ on carbon credits	National Congress	National Congress	Library and Central Archive of the National Congress
/ 110/	Law for the Promotion of Afforestation and Reforestation No. 536/95114.	National Congress	National Congress	Library and Central Archive of the National Congress
/ 111/	Guidelines for national greenhouse gas inventories	IPCC	IPCC	IPCC
/ 112/	The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention.	United Nations Framework Convention on Climate Change.	United Nations Framework Convention on Climate Change.	United Nations Framework Convention on Climate Change.
/ 113/	Transforming our world: the 2030 Agenda	United Nations.	United Nations.	United Nations.

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	for Sustainable Development			
/ 114/	National System of Protected Wild Areas of Paraguay SINASIP	SEAM Ministry of Environment Paraguay	SEAM Ministry of Environment Paraguay	SEAM Ministry of Environment Paraguay
/ 115/	Reserves and Biodiversity	Government of Paraguay	Government of Paraguay	Yacyreta Binational Entity
/ 116/	Forest measurements	Avery, T. E., & Burkhart, H. E	Avery, T. E., & Burkhart, H. E	McGraw-Hill.
/ 117/	Forest inventory and analysis national core field guide	USDA	USDA	USDA
/ 118/	General Directorate of the National Cadaster Service. Consultation on Rural Accounts https://www.catastro.gov.py/servicio-linea/#!/consulta-publica/cuentas-corrientes	Ministry of Economy and Finance Government of Paraguay	Ministry of Economy and Finance Government of Paraguay	Government of Paraguay
/ 119/	General Directorate of the National Cadaster Service. Consultation on cadastral map. https://www.catastro.gov.py/visor/?snc=geo	Ministry of Economy and Finance Government of Paraguay	Ministry of Economy and Finance Government of Paraguay	Government of Paraguay
/ 120/	ColCX, registered initiatives. https://colcx.com/SistemaRegistro/	ColCX	ColCX	ColCX
/ 121/	Puro Earth, Puro Registry for durable carbon removal credits. https://registry.puro.earth/carbon-	Puro Earth	Puro Earth,	Puro Earth

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
	sequestration/retirements			
/ 122/	Global Carbon Council, GCC PROJECTS PORTAL https://projects.globalcarboncouncil.com/?_gl=1*pn87oi*_ga*NDA1MjkwNTg5LjE3MzY2MjEoOTI.*_ga_HPLRFCW41o*MTczNjYyMTQ5Mi4xLjEuMTczNjYyMTUwMi4wLjAuMA	GCC	GCC	GCC
/ 123/	CERCARBONO, EcoRegistry https://www.ecoregistry.io/projects-list/cercarbono-co2	EcoRegistry	EcoRegistry	EcoRegistry
/ 124/	CDM, https://cdm.unfccc.int/Projects/projsearch.html	CDM	CDM	CDM
/ 125/	Plan Vivo	Plan Vivo	Plan Vivo	Plan Vivo
/ 126/	Climate Action Reserve	Climate Action Reserve	Climate Action Reserve	Climate Action Reserve
/ 127/	VERRA	VERRA	VERRA	VERRA
/128/	Soils of Paraguay. https://www.geologiadelparaguay.com.py/mapasdesuelos.htm and https://www.ine.gov.py/microdatos/cartografia-digital-2012.php			
/ 129/	Goal 1 https://sdgs.un.org/goals/goal1#targets_and_indicators	United Nations	United Nations	United Nations

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/130/	Goal 2 https://sdgs.un.org/goals/goal2#targets_and_indicators	United Nations	United Nations	United Nations
/131/	Goal 3 https://sdgs.un.org/goals/goal3#targets_and_indicators	United Nations	United Nations	United Nations
/132/	Goal 4 https://sdgs.un.org/goals/goal4#targets_and_indicators	United Nations	United Nations	United Nations
/133/	Goal 6 https://sdgs.un.org/goals/goal6#targets_and_indicators	United Nations	United Nations	United Nations
/134/	Goal 9 https://sdgs.un.org/goals/goal9#targets_and_indicators	United Nations	United Nations	United Nations
/135/	Goal 12 https://sdgs.un.org/goals/goal12#targets_and_indicators	United Nations	United Nations	United Nations
/136/	Goal 13 https://sdgs.un.org/goals/goal13#targets_and_indicators	United Nations	United Nations	United Nations
/137/	Goal 15 https://sdgs.un.org/goals/goal15#targets_and_indicators	United Nations	United Nations	United Nations
/138/	Sistema de Información de Agua Paraguay	SIA	SIA	SIA

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	https://siaparaguay.ine.gov.py/indicadors/detalle/82			
/139/	Anuario Climatológico 2018 https://www.meteorologia.gov.py/wp-content/uploads/2021/05/Anuario-2018.pdf	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil
/140/	Anuario Climatológico 2019 https://www.meteorologia.gov.py/publish/anuario-2019/	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil
/141/	Anuario Climatológico 2020 https://www.meteorologia.gov.py/wp-content/uploads/2022/09/Anuario-2020.pdf	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil
/142/	Anuario Climatológico 2021 https://www.meteorologia.gov.py/wp-content/uploads/2022/09/Anuario-2021_final_-1.pdf	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil
/143/	Anuario Climatológico 2022 https://www.meteorologia.gov.py/wp-content/uploads/2023/	Dirección de Meteorología e Hidrología Dirección Nacional de	Dirección de Meteorología e Hidrología Dirección Nacional de	Dirección de Meteorología e Hidrología Dirección Nacional de

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
	05/Anuario_climatologico_2022.pdf	Aeronáutica Civil	Aeronáutica Civil	Aeronáutica Civil
/144/	Anuario Climatológico 2023 https://www.meteorologia.gov.py/wp-content/uploads/2024/06/anuario_climatologico_2023_DSC.pdf	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil	Dirección de Meteorología e Hidrología Dirección Nacional de Aeronáutica Civil
/145/	Estimations of evapotranspiration in an age sequence of Eucalyptus plantations in subtropical China. 2017 https://pmc.ncbi.nlm.nih.gov/articles/PMC5388327/	Wenfei Liu, Jianping Wu, Houbao Fan, Honglang Duan, Qiang Li, Yinghong Yuan, Hao Zhang	Plos One	Plos One
/146/	Effects of Minimum Tillage on Soil Health and Water Quality.	McGowan, J. A., & Jones, L. J. (2019)	Soil and Tillage Research	Soil and Tillage Research
/147/	Minimizing Water Contamination Through Reduced Tillage Practices: A Study in Italy.	Benvenuti, S., & Bovini, A. (2020).	Environmental Monitoring and Assessment	Environmental Monitoring and Assessment
/148/	The role of Eucalyptus plantations in promoting biodiversity in degraded landscapes: A case study in Argentina.	González, M. E., & Romero, J. (2018).	Journal of Environmental Management, 206, 286-294.	ELSEVIER

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
/149/	Eucalyptus plantations and their influence on soil biota: Implications for land restoration in southern Brazil	López, J. A., & Bäumler, R. (2019).	Forest Ecology and Management, 450, 117482.	Forest Ecology and Management, 450, 117482.
/150/	Reporte nacional de cobertura forestal y cambios en los usos de la tierra 2017 a 2020. https://nube.infona.gov.py/index.php/s/BPdE3ijGWRnQ2aA?path=%2F2.%202017-2020%20-%20Reporte%20de%20Nuestros%20Bosques#pdfviewer	Instituto Forestal Nacional (INFONA). 2022.	Instituto Forestal Nacional (INFONA). 2022.	Instituto Forestal Nacional (INFONA). 2022.
/151/	Reporte Nacional de Cobertura forestal y cambios de uso de la tierra 2020-2022. https://nube.infona.gov.py/index.php/s/BPdE3ijGWRnQ2aA?path=%2F1.%202020-2022%20-%20Reporte%20de%20Nuestros%20Bosques#pdfviewer	Instituto Forestal Nacional (INFONA). 2023.	Instituto Forestal Nacional (INFONA). 2023.	Instituto Forestal Nacional (INFONA). 2023.
/152/	Atlas Alto Paraná censo https://www.ine.gov.py/Publicaciones/Biblioteca/Atlas%20Censal%20del%20Paraguay/13%20Atlas%20Alto%20Parana%20censo.pdf	DGEEC	DGEEC	DGEEC
/153/	Atlas Caazapa censo. https://www.ine.gov.py/Publicaciones/Bibliote	DGEEC	DGEEC	DGEEC

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
	ca/Atlas%20Censal%20del%20Paraguay/9%20Atlas%20Caazapa%20censo.pdf			
/154/	Análisis económico y financiero de cuatro fincas modales de la agricultura mecanizada de Paraguay https://www.conacyt.gov.py/sites/default/files/upload_editores/u454/analisis_economico_y_financiero.pdf	Víctor Enciso Estela Cabello Wilma Benítez Moran Julio Salas-Mayeregger. (2019)	Consejo Nacional de Ciencia y Tecnología - CONACYT	Consejo Nacional de Ciencia y Tecnología - CONACYT
/155/	Suelos del Paraguay https://www.geologiadelparaguay.com.py/Suelos.htm	Universidad Nacional de Asunción	Universidad Nacional de Asunción	Universidad Nacional de Asunción
/156/	RAMSAR PARAGUAY https://www.ramsar.org/es/country-profile/paraguay	RAMSAR	RAMSAR	RAMSAR
/157/	Comunidades indígenas georeferenciadas region oriental.pdf https://gestordocumental.indi.gov.py/share/s/ZMRJiCIIQ8efpSgQsqLJKQ	Geoportal del Instituto Nacional de Estadística de Paraguay	Geoportal del Instituto Nacional de Estadística de Paraguay	Geoportal del Instituto Nacional de Estadística de Paraguay
/158/	AR-TOOL15 "Estimation of the increase in GHG emissions attributable to displacement of pre-project agricultural	CDM	CDM	CDM

ID	Document Title / Version	Author	Organization	Document provider (if applicable)
	activities in a CDM F/R project activity" v.02.0			
/159/	Regulatory Decree No. 9.425/95	National Congress	National Congress	Library and Central Archive of the National Congress
/160/	Law No. 294/93	National Congress	National Congress	Library and Central Archive of the National Congress
/161/	Law No. 345/94:	National Congress	National Congress	Library and Central Archive of the National Congress
/162/	Regulatory Decree No. 453/13.	National Congress	National Congress	Library and Central Archive of the National Congress
/163/	Good Pactice Guidance for Land-Use Change and Forestry https://www.ipcc.ch/site/assets/uploads/2018/03/GPG_LULUCF_FULLEN.pdf	IPCC	IPCC	IPCC

Annex 4. Abbreviations

Abbreviations	Full Texts
AFOLU	Agriculture, Forestry, and Other Land Use
C	Carbon
DMSA	Desarrollos Madereros S.A. (Timber Developments S.A.)
FSR	Sources, Sinks, and Reservoirs
GEI	Greenhouse Gases
NDC	Nationally Determined Contributions
NREF	Forest Emissions Reference Level
ODS	Sustainable Development Goals
RM	Monitoring Report
t	Ton
t/ha	Tons per hectare
tCO2e	Tons of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
V/V	Validation and Verification

Annex 5. Audit Plan

VERSA EXPERTOS EN CERTIFICACIÓN S.A.S

Plan auditoria validación y verificación GEI

Programa GEI y/o metodología	ColCX		Cercarbono		Biocarbon Registry	X
	ISO 14064-1:2018		GHG Protocol		<<Otro>>	

Proyecto/Inventario	Plantación mixta de especies nativas y foráneas en Paraguay-I							
Ubicación	Tapyta, Paraguay: (26°12'34"S, 55°45'57"W) Hernadarias, Paraguay (25°21'4"S, 54°46'6"W)							
Alcance sectorial	Agricultura, Silvicultura y Otros Usos del Suelo (AFOLU)							
Tipo servicio	Validación		Verificación		Validación + Verificación Retroactiva	X	Verificación post registro	
Persona contacto	Pablo Aquino							
Email	paquino@pomeramaderas.com							

Equipo auditor	Auditor Líder	x	Diana Rauchwerger
	Auditor acompañante	x	Cesar Marín

Metodología GEI utilizada para proyecto	Nombre	BioCarbon Standard		
	Versión	3.4	Sector y Área Técnica	AFOLU
	Nombre	BCR0001 "Cuantificación de la Reducción de Emisiones de GEI"		
	Versión	4.0	Sector y Área Técnica	AFOLU-REDD+

Criterios de auditoría	ISO 14064-2:2019. ISO 14064-3:2019. BCR Standard Empowering Sustainability, Redefining Standards, V3.4 June 28, 2024. BCR0001 Quantification of GHG Removals V4.0, February 2024. BCR Tool: Sustainable Development Goals V1.0 July 13, 2023. BCR Tool: Permanence and Risk Management V1.1 March 19, 2024.

	▪ BCR Tool: Monitoring, Reporting and Verification V1.0 February 13, 2023. ▪ BCR Tool: Baseline and Additionality V1.3 March 1, 2024. ▪ BCR Tool: Avoiding Double Counting V2.0 February 7, 2024. ▪ Tool 14: Carbon Stock Estimation and Carbon Stock Change of Trees and Shrubs in F/R CDM Project Activities V04.2. ▪ Manual de Validación y Verificación. Proyectos GHG. Versión 2.4, 23 de marzo de 2024. ▪ BioCarbon Standard Requirements.

Nivel de aseguramiento	**Importancia relativa**	**Acuerdo previo**
Razonable	0.5 % del total tCO_2e	☐
	1% del total tCO_2e	☐
	2% del total tCO_2e	☐
	5% del total tCO_2e	☒
Limitado	5% - 10% total tCO_2e	☐

Evaluación de riesgo

Riesgo de control identificado		
Alto	Es probable que el sistema de control no prevenga, detecte o corrija el error material y que este riesgo tenga una alta probabilidad de materializarse durante la validación y/o la verificación.	☒
Medio	El equipo auditor no tiene suficiente confianza en que el sistema de control interno del proyecto prevenga, detecte o corrija un error material con alguna probabilidad de materialización durante la auditoría.	☐
Bajo	El sistema de control está bien estructurado, documentado, implementado y mantenido, generando suficiente confianza sobre su capacidad de prevenir, evitar o corregir posibles errores materiales.	☐

Riesgo de detección establecido para el proyecto	**Evaluación riesgo control**		
	Bajo	**Medio**	**Alto**

Evaluación riesgo inherente	**Bajo**	Muy bajo	☐	Bajo	☐	Medio	☐
	Medio	Bajo	☐	Medio	☐	Alto	☒
	Alto	Medio	☐	Alto	☐	Muy alto	☐

RIESGOS INHERENTES	NIVEL DE RIESGO	IMPACTO	EVALUACIÓN DE RIESGO	GESTIÓN DE RIESGOS
El inventario forestal presentado no se alinea con las mediciones de campo reales debido a deficiencias en la capacitación o a la aplicación incorrecta de las metodologías de recolección de datos, lo que se refleja en los datos de crecimiento reportados.	ALTO	ALTO	MEDIO	Se realizarán mediciones del diámetro a la altura del pecho, las coordenadas de las parcelas, el área de la parcela, las densidades de plantación y la altura de cada uno de los árboles presentes en la parcela. Dado que los propietarios de las plantaciones no realizan directamente los servicios de medición y monitoreo de las parcelas, sino que los subcontratan, se realizará una entrevista con la empresa contratada. Durante este proceso, se verificará la calibración del personal involucrado en la realización de las

RIESGOS INHERENTES	NIVEL DE RIESGO	IMPACTO	EVALUACIÓN DE RIESGO	GESTIÓN DE RIESGOS
				mediciones, garantizando así la calidad y precisión de los datos recolectados, así como la competencia y el procedimiento para la sustitución del personal.
Error humano en la cuantificación de emisiones. Inprecisión: Doble conteo, transferencia manual significativa de datos clave y uso inapropiado de factores de emisión.	ALTO	ALTO	ALTO	Se contrastará el 100% de los datos indicados en la hoja de cálculo con la información disponible en la fuente de datos y en la información proporcionada por el proyecto de GEI.
La documentación de los factores que influyen en el crecimiento y desarrollo de las plantaciones es insuficiente o inexistente (como plagas, incendios, enfermedades u otros). Esta falta puede tener un impacto significativo en las estimaciones de captura proporcionadas.	ALTO	ALTO	ALTO	Se avanzará con una evaluación de posibles plagas y enfermedades durante la visita de campo. Se revisará el plan de manejo del cultivo de la plantación.

RIESGOS INHERENTES	NIVEL DE RIESGO	IMPACTO	EVALUACIÓN DE RIESGO	GESTIÓN DE RIESGOS
Falta de cobertura completa de datos. Exclusión de fuentes significativas, límites incorrectamente definidos, efectos de fuga.	ALTO	ALTO	ALTO	Se asegura que todos los datos del período de validación y verificación se consideraron dentro de los límites definidos del proyecto.
Error humano en la cuantificación de emisiones.	BAJO	ALTO	MEDIO	Se llevará a cabo una verificación del 100% de las hojas de cálculo.
Riesgo inherente: Dependencia de una plataforma tecnológica diseñada para la captura de datos, que puede provocar omisiones y errores en la transferencia de datos brutos o sin procesar a la hoja de cálculo de reducción o eliminación de emisiones EXCEL.	ALTO	ALTO	ALTO	El proponente del proyecto proporciona los procedimientos y actividades que tiene implementadas para cuantificar los datos, capturarlos y almacenarlos. El auditor verifica el cumplimiento de los diversos procedimientos mediante entrevistas con el desarrollador del proyecto. El proponente del proyecto debe demostrar cómo se lleva a cabo la transferencia de datos y cómo se verifica. El auditor debe incluir en el

RIESGOS INHERENTES	NIVEL DE RIESGO	IMPACTO	EVALUACIÓN DE RIESGO	GESTIÓN DE RIESGOS
				plan de auditoría una sección para entrevistas con el personal responsable del registro y verificación de los datos de acuerdo con sus procedimientos.
Riesgo de detección: Retrasos en la calibración de los equipos de medición o monitoreo relacionados con la cuantificación de las remociones o reducciones de GEI.	ALTO	ALTO	MEDIO	El proponente del proyecto debe establecer un procedimiento mediante el cual se realice una comprobación del registro de la frecuencia de calibración de los equipos de medición para asegurar su precisión y exactitud. Información adicional sobre el número de parcelas.
Información insuficiente para demostrar la posesión de los derechos de uso de la tierra en la que se realiza la actividad forestal.	ALTO	ALTO	ALTO	El proponente del proyecto no proporciona la evidencia que lo acredite como titular de los derechos de uso de la tierra.

Plan de Muestreo[4]				
Parámetros	Enfoque Muestreo [5]	Tipo Muestreo[6]	Población[7]	Tamaño muestra[8]
Observación	No estadístico	6 estratos	La plantación está dividida en 6 estratos	Parcelas temporales en total 17, divididas en 6 estratos.
Indagación	No estadístico	Entrevistas	Personal relacionado con el proyecto: trabajadores encargados de la plantación y entidades ambientales relacionadas con el proyecto.	Entrevista con el 100% del personal responsable del manejo de plantación y con algunos operarios.
Confirmación	No estadístico	Revisión documental	Confirmación del cumplimiento de los criterios de validación mediante la	100% de la documentación entregada por el responsable del proyecto

4 Referirse al PRO-108 Validación y Verificación apartado "Muestreo".
5 Enfoque de Muestreo: Estadístico (E) o No Estadístico (NE)
6 **Aleatorio (A)**: Selección aleatoria de muestras requiere de una herramienta que asegure una selección verdaderamente aleatoria, independiente del juicio o preferencias del muestreador. Esto es importante para asegurar que todos los elementos en la población tengan una oportunidad igual de ser muestreados.
Sistemático (S): Toma de muestras de manera aleatoria, a partir de un punto y después aplicando una regla sistemática para la selección de las siguientes muestras (cada 10, después del primero, etc.)
Basado en Riesgo (BR): Muestreo aleatorio basado en una selección no-estadística de elementos (azar).
7 Número total de individuos existentes para el parámetro
8 Número de individuos (del total) a ser revisados para el parámetro. Deberá ser igual o mayor que la raíz cuadrada del total del número de individuos.

			revisión del 100% de los registros y de la evidencia aportada por el responsable del proyecto.	
Recálculo	Estadístico	Revisión de procedimientos y recalculo.	Revisión del 100% de las fórmulas para la estimación de los FSR por gas y recalculo para confirmar que las estimaciones son correctas.	100% de las hojas de cálculo y de los índices y/o secciónes del PDD y RM.
Corroboración	No estadístico	Revisión documental	Confirmación del cumplimiento de los criterios de validación mediante la revisión del 100% de los registros y de la evidencia aportada por el responsable del proyecto	100% de la documentación entregada por el responsable del proyecto

Plan de Muestreo[9]				
Parámetros	Enfoque Muestreo [10]	Tipo Muestreo[11]	Población[12]	Tamaño muestra[13]
Observación	No estadístico	6 estratos	La plantación está dividida en 6 estratos	Parcelas temporales en total 17, divididas en 6 estratos.
Indagación	No estadístico	Entrevistas	Personal relacionado con el proyecto: trabajadores encargados de la plantación y entidades ambientales relacionadas con el proyecto.	Entrevista con el 100% del personal responsable del manejo de plantación y con algunos operarios.
Confirmación	No estadístico	Revisión documental	Confirmación del cumplimiento de los criterios de validación	100% de la documentación entregada por el responsable del proyecto

9 Referirse al PRO-108 Validación y Verificación apartado "Muestreo".
[10] Enfoque de Muestreo: Estadístico (E) o No Estadístico (NE)
[11] **Aleatorio (A)**: Selección aleatoria de muestras requiere de una herramienta que asegure una selección verdaderamente aleatoria, independiente del juicio o preferencias del muestreador. Esto es importante para asegurar que todos los elementos en la población tengan una oportunidad igual de ser muestreados.
Sistemático (S): Toma de muestras de manera aleatoria, a partir de un punto y después aplicando una regla sistemática para la selección de las siguientes muestras (cada 10, después del primero, etc.)
Basado en Riesgo (BR): Muestreo aleatorio basado en una selección no-estadística de elementos (azar).
[12] Número total de individuos existentes para el parámetro
[13] Número de individuos (del total) a ser revisados para el parámetro. Deberá ser igual o mayor que la raíz cuadrada del total del número de individuos.

			mediante la revisión del 100% de los registros y de la evidencia aportada por el responsable del proyecto.	
Recálculo	Estadístico	Revisión de procedimientos y recalculo.	Revisión del 100% de las fórmulas para la estimación de los FSR por gas y recalculo para confirmar que las estimaciones son correctas.	100% de las hojas de cálculo y de los índices y/o secciónes del PDD y RM.
Corroboración	No estadístico	Revisión documental	Confirmación del cumplimiento de los criterios de validación mediante la revisión del 100% de los registros y de la evidencia aportada por el responsable del proyecto	100% de la documentación entregada por el responsable del proyecto
Fechas auditoría	17/07/2023 - 20/07/2023			

Día	Hora	Auditor	Actividad[14]
07/07/2023		Diana Rauchwerger Cesar Marín	Análisis de riesgo y plan de evidencia
10/07/2023		Diana Rauchwerger Cesar Marín	Plan de auditoría
11/07/2023		Diana Rauchwerger Cesar Marín	Socialización con el cliente del plan de auditoría.
17/07/2023	7:00-7:30	Diana Rauchwerger	Reunión de apertura y presentación del equipo auditor.
17/07/2023	7:30-12:30	Desarrollos Madereros S.A.	Presentación del proyecto Plantación mixta de especies nativas y foráneas en Paraguay-I descripción del proyecto: manejo de la plantación, áreas elegibles del proyecto, línea Base y adicionalidad, estratificación, manejo de la incertidumbre remoción por sumideros, fugas, plan de monitoreo y procedimientos de control de la calidad y aseguramiento de la calidad.
17/07/2023	12:30-4:00	Desarrollos Madereros S.A.	Entrevistas: 1. 100% del personal responsable del manejo de la plantación, por ejemplo: ing. agrónomo y/o forestal, técnicos de campo y operarios. 2. Otros interesados: entidades nacionales y/o regionales ambientales presentes en el área de estudio. 3. Propietarios y socios de la plantación.
18/07/2023	7:00AM-4:00PM	Diana Rauchwerger Cesar Marín	Visita a campo a los 3 estratos ubicados en el área de Tapytá.

14 Considerar actividades propuestas en el procedimiento de evaluación del riesgo

			"Levantamiento de parcelas temporales" y visita a las parcelas fijas.
19/07/2023	7:00AM-4:00PM	Diana Rauchwerger Cesar Marín	Visita a campo a los 4 estratos ubicados en el área de Hernandarias. "Levantamiento de parcelas temporales" y visita a las parcelas fijas.
20/07/2023	7:00AM-4:00PM	Diana Rauchwerger Cesar Marín	Visita a campo a los 4 estratos ubicados en el área de Hernandarias. "Levantamiento de parcelas temporales" y visita a las parcelas fijas.
20/07/2023	6:00AM-8:00PM	Diana Rauchwerger Cesar Marín	Reunión de cierre de la visita a campo.
24/07/2023	5:00AM-6:00PM	Diana Rauchwerger Cesar Marín	Entrega y socialización de hallazgos ronda 1.
14/08/2023		Desarrollos Madereros S.A.	Entrega de la respuesta a los hallazgos de la ronda 1 al equipo auditor.
Por definir		Diana Rauchwerger Cesar Marín	Entrega y socialización de hallazgos ronda 2.
Por definir		Desarrollos Madereros S.A.	Entrega de la respuesta a los hallazgos de la ronda 2 al equipo auditor.
Por definir		Diana Rauchwerger Cesar Marín	Entrega y socialización de hallazgos ronda 3.
Por definir		Desarrollos Madereros S.A.	Entrega de la respuesta a los hallazgos de la ronda 3 al equipo auditor.
Por definir		Diana Rauchwerger Cesar Marín	Entrega y socialización de hallazgos ronda 4.
Por definir		Desarrollos Madereros S.A.	Entrega de la respuesta a los hallazgos de la ronda 4 al equipo auditor.

Por definir		Lucas Rivera	Revisión Técnica
Por definir		Diana Rauchwerger Cesar Marín	Resolución de hallazgos de la revisión técnica
Por definir		Equipo VERSA	Entrega de la opinión del proceso de validación y verificación conjunta.

Anexo 1: documentos requeridos para validación (disponibles durante auditoría)

Nº	Consideración temprana y aprobaciones	
1	Aprobaciones para la operación	X
2	Notificación al programa de GEI y/o RENARE	
3	Acuerdo de compra de reducción de emisiones	X
4	Calendario de implementación del proyecto	X
5	Licencias y permisos	X

Nº	Diseño técnico y tecnología	
1	Diseño del borrador de proyecto	X
2	Listado de los equipos usados en las actividades del proyecto	X
3	Especificación de los equipos principales	X
4	Documento que justifique la vida útil operacional del proyecto	X
5	Cronograma del proyecto	X

Nº	Análisis financiero / Barreras de inversión	
1	Contrato de compra de energía	
2	Desglose del costo de los equipos	x
3	Desglose de la inversión total y % capital/deuda	X
4	Contratos de préstamos bancarios	
5	Tasa de depreciación permitida por el gobierno en el país anfitrión	
6	Evidencia de tasas aplicadas de impuestos	
7	Cotización del proveedor de los equipos por operación y mantenimiento	
8	Fuente de gobierno usada en las tasas de cambio para dólares y euros,	
9	Promedio histórico de las tarifas para plantas eléctricas en el país anfitrión	

Nº	Operación del proyecto	
1	Organigrama de las actividades del proyecto	X
2	Diagrama de conexión a la red con ubicación de los puntos de medición	
3	Procedimientos de aseguramiento y control de calidad	X

4	Manual de operación y bitácoras	X
5	Procedimientos de operación y mantenimiento	X
6	Procedimientos de calibración	X

Nº	Reducción de emisiones	
1	Hoja de cálculo de reducción de emisiones	X
2	Documentos soporte de los cálculos presentados	X

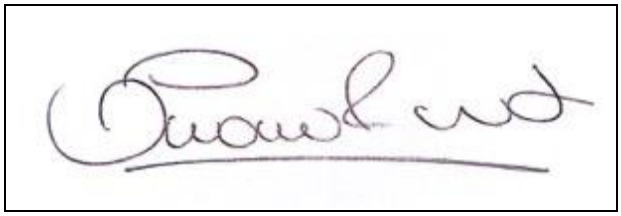
Anexo 2: documentos requeridos para verificación (disponibles durante auditoría)

Nº	Parámetros a monitorear	
1	Bitácoras de operación y mantenimiento	X
2	Lecturas de generación y consumo de energía (Datos Primarios)	
3	Certificados de calibración	X
4	Procedimientos de calibración, operación y mantenimiento	X

Nº	Reducción de emisiones /Cálculo Emisiones GEI	
1	Hoja de calculo	X
2	Documentos soporte de los cálculos presentados	X

Notas adicionales

- Durante la validación y verificación, son posibles desviaciones al plan original. Favor notificar cuando considere necesario extender el tiempo del servicio.
- Las hojas de vida de los miembros del equipo de validación y verificación están disponibles a solicitud del cliente. En caso de objeciones sobre el equipo, notificar a **Versa Expertos en Certificación S.A.S.** antes de la visita en sitio.
- Si se requiere equipo de protección personal o de personal especializado en alguna de las áreas que serán visitadas, agradeceremos nos sea informado antes de la visita en sitio.
- Para la presentación del plan de validación y verificación, revisión documental y entrevistas, el cliente deberá proporcionar el espacio y un entorno adecuado para tal fin.
- Los objetivos y el alcance del servicio de validación y verificación están descritos en la propuesta de validación y verificación emitida para el proyecto y/o inventario de GEI.



Bogotá, 10/07/2023
Diana Rauchwerger Londoño

NOTE: This format shall be completed following the instructions included. However, it is important to highlight that these instructions are complementary to the BCR STANDARD, and the BioCarbon Validation & Verification Manual, in which more information on each section can be found.