

VERIFICATION REPORT FOR THE LUMIN/EUCAPINE URUGUAY FOREST PLANTATIONS ON DEGRADED GRASSLANDS UNDER EXTENSIVE GRAZING PROJECT



Document Prepared By Francis Eaton and Doug Baldwin

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Contact	2000 Powell Street, Suite 600, Emeryville, CA 94608, USA http://www.scsglobalservices.com Email: cpollet-young@scsglobalservices.com Telephone: +1 (510) 452-8000
Approved By	Christie Pollet-Young

**Work Carried
Out By**

Francis Eaton – Lead Auditor
Doug Baldwin – Auditor
Juan Marcos Olivera Richero – Technical Expert
Scott Eaton – Technical Reviewer

Summary

This report describes the verification audit of the “Lumin/Eucapine Uruguay Forest Plantations on degraded grasslands under extensive grazing” project (“the project”), (Project ID: 960) an afforestation project located in the Central-Eastern Region of Uruguay that was conducted by SCS Global Services (SCS), for the monitoring period 08 April 2013 to 31 December 2020. The purposes of the verification audit were to conduct an independent assessment of the project’s compliance with the VCS and CCB requirements. The verification audit was performed through a combination of document review, interviews with relevant personnel and on-site inspections. A total of 7 findings were issued during the verification process. The project complies with all the verification criteria, and the assessment team has no restrictions or uncertainties with respect to the compliance of the project with the verification criteria.

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1 INTRODUCTION

1.1 Objective

The objectives of the verification engagement were set out as follows.

1.1.1 Verification Objectives Under the Verified Carbon Standard

In accordance with Section 5.1.1 of the VCS Standard (see Section 1.2.2 below for full reference), SCS carried out an ex-post independent assessment of the GHG emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS rules. In accordance with Section 2.1.2 of the VCS Validation & Verification Manual, V3.2, the objectives of the verification engagement were to evaluate the monitoring report and assess the following:

- The extent to which methods and procedures, including monitoring procedures, have been implemented in accordance with the validated project description. This includes ensuring conformance with the monitoring plan.
- The extent to which GHG emission reductions and removals reported in the monitoring report are materially accurate.

The other objective of the verification engagement was to assess the non-permanence risk analysis.

1.1.2 Validation Objective Under the Climate, Community & Biodiversity Standards

N/A

1.2 Scope and Criteria

In accordance with Section 4.3.4 of ISO 14064-3:2019, the scope was defined as follows:

- The project and, where relevant, its baseline scenarios
- The physical infrastructure, activities, technologies and processes of the project
- The GHG sources, sinks and/or reservoirs that are applicable to the project
- The types of GHGs that are applicable to the project
- The crediting period, as discussed in Section 3.2.11 of this report

1.2.1 Scope

In accordance with Section 4.3.4 of ISO 14064-3:2019, the scope was defined as follows:

- The project and, where relevant, its baseline scenarios
- The physical infrastructure, activities, technologies and processes of the project
- The GHG sources, sinks and/or reservoirs that are applicable to the project

- The types of GHGs that are applicable to the project
- The monitoring period

1.2.2 Criteria Under the Verified Carbon Standard

In accordance with Section 5.3.1 of the VCS Standard (see below for full reference), the criteria for validation was the VCS Version 3.3, including the following documents:

- VCS Program Guide, v4.0
- VCS Standard, v4.1
- VCS Non-Permanence Risk Tool v4.0
- VCS CCB Monitoring & Implementation Report Template, v3.4
- The VCS-approved CDM methodology AR-ACM0001 “Afforestation and reforestation of degraded land” (version 05.2.0), as applied to the project

1.2.3 Criteria Under the Climate, Community & Biodiversity Standards

In accordance with Section 1.1 of the CCB Program Rules (see below for full reference) the criteria for verification was established as follows:

The most recent validated project description using the same edition of the Climate, Community & Biodiversity Standards (in this case, the Third edition) that was used for that validation

All CCB Version 3 program documents other than the third edition of the Climate, Community & Biodiversity Standards, including the following:

- CCB Program Rules, v3.1
- CCB Program Definitions, v3.0
- VCS CCB Monitoring & Implementation Report Template, v3.4

1.3 Level of Assurance

1.3.1 Level of Assurance Under the Verified Carbon Standard

In accordance with Section 5.3.1 of the VCS Standard, the level of assurance, insofar as it describes work performed under the Verified Carbon Standard, of this report is reasonable.

1.3.2 Level of Assurance Under the Climate, Community & Biodiversity Standards

The concept of “level of assurance” was not relevant to work performed under the Climate, Community & Biodiversity Standards.

1.4 Summary Description of the Project

This is an afforestation project located in the Central-Eastern Region of Uruguay. Project activities consist of the establishment of forest on degraded grasslands, with the additional goals of increasing employment, rural development, biodiversity preservation, and improvement of soil quality. Overall, the project objectives are carbon sequestration, wood production, and land restoration through plantation forest in areas historically used for extensive grazing.

2 VERIFICATION PROCESS

2.1 Audit Team Composition

Area of required expertise	Individual(s) on audit team containing required expertise	Summary of relevant qualifications
Proficiency in a relevant local or regional language for the project location	Juan Richero	Mr. Richero is a Native Spanish Speaker.
Relevant agriculture, forestry and/or other land use experience in the project country or region	Juan Richero, Francis Eaton	These individuals are familiar with common agricultural practices and corresponding deforestation pressures in the project country.
Relevant social and cultural expertise	Juan Richero, Francis Eaton	Familiar with established social norms in rural Uruguay
Relevant ecological and biodiversity expertise	Francis Eaton, Doug Baldwin	Familiar with ecology and biodiversity best practices and measurements

2.2 Method and Criteria

The verification was performed through a combination of document review and interviews with relevant personnel, as discussed in Sections 2.3 through 2.5 of this report. As discussed in Section 2.6, findings were issued to ensure conformance to all requirements. The audit team created a sampling plan following a proprietary sampling plan workbook developed by SCS. Per Section 4.4.3 of ISO 14064-3:2019, the audit team identified possible risks of errors, omissions and misrepresentations with respect to the verification criteria. For each identified risk, the audit team assessed the likelihood of the material discrepancy occurring, the likelihood of the material discrepancy not being prevented or detected by the controls of the project and the likelihood of the material discrepancy not being detected by the audit team. Sampling and data testing activities were planned to address any risk where the likelihood of a material discrepancy not being detected by the audit team was judged to be unacceptably high. The audit team then created a verification plan that took the sampling plan into account.

2.3 Document Review

The Monitoring Report (MR, version 10 dated 19 September 2023) and Project Description (version 10, dated 19 September 2023; "PD") were carefully reviewed for conformance to the verification criteria. The following additional documentation, provided by project personnel in support of the aforementioned documents, was also reviewed by the audit team:

File Name	Document	Ref
V10_MR Lumin_Weyerhaeuser_20230919.docx	Monitoring Report	/1/
V10_PD Lumin_Weyerhaeuser_20230919.docx	CCB Project Description	/2/
Localidades.shp.kmz	KMZ Geographic Information File	/3/
PIKE_Verificada_Clases_20201231.kmz	KMZ Geographic Information File	/4/
Rodales_Weyerhaeuser-Eucapine_N960-_Project_Area.shp	Geographic Information File	/5/
V10_Carbon Stock Weyerhaeuser as of DIC 2020_20230919.xlsx	Calculation workbook	/6/
V10_2020 Ex ANTE Stock de Carbono Weyerhaeuser y VCU_20230919.xls	Calculation workbook	/7/
THESIS MASTERS pdf	Masters Thesis	/8/
Capitulo VI - Alternativas regionales para la producción forestal integral.pdf	Forestry document	/9/
Base de datos con consumo de Agroquímicos 2019.xlsx	Agrochemical database	/10/
Manual de Operaciones-General.pdf	Lumin operations manual	/11/
Memoria anual RSE-LUMIN 2020.pdf	Lumin company annual report	/12/
PEFC audit report-2013.pdf	Forest management plan	/13/
PLAN DE MANEJO Y MONITOREO AAVC- GALLO-DOROTEO 2.pdf	Management and monitoring plan for Gallo-Doroteo	/14/
PLAN DE MANEJO Y MONITOREO AAVC- PASO REAL 2.pdf	Management and monitoring plan for Paso Real	/15/
PLAN DE MANEJO Y MONITOREO AAVC-MACACHIN 2.pdf	Management and monitoring plan for Macachin	/16/
Plan de prevención de actividades ilegales.pdf	Illegal activities prevention plan	/17/
Politica de relacionamiento externo.pdf	External relations policy	/18/
Procedimiento de monitoreo y control de EEI.pdf	Invasive species monitoring and control plan	/19/
Proceso de relacionamiento externo.pdf	External relationship process	/20/
Registro evaluacion cursos Forestal 2020.xlsx	Database of employee training	/21/
UYMVD-20130662-GRUPO LUMIN-MA2020-AD 36-A NM 2.pdf	Forest management certification report	/22/
Email dated 1 Feb 2023, subject 'VERRA Internal Review'	Attestation from previous landowner	/23/
Lumin- VCS Project Area 2012 and 2020- 2022016- Sattelite Imaginery.pdf	Satellite imagery prior to planting for new areas	/24/
20 documents	DINAMA communication about new areas	/25/
CLA_2972_ElRemanso_DIN_ComunicaProy_SegundoComunicado_1roVencioPlazoPlantacion.docx	Environmental Impact Assessment	/26/
V10_Financial Viability and Opportunity cost- Lumin_20230919.xlsx	Updated financial analysis following area changes	/27/
V10_Areas_2023_Estratos LUMIN_20230921.xlsx	Summary of project area changes	/28/
Folder 'Detailed study of project areas'	Updated spatial data indicating new project area	/29/
Comparisson between volume monitored data and model estimations for LTA.xlsx	Analysis of ex ante volume projections versus ex post	/30/

2.4 Interviews

The process used in interviewing project personnel was a process wherein the audit team elicited information from project personnel regarding (1) the work products provided to the audit team in support of the PD (2) actions undertaken to ensure conformance with various requirements and (3) implementation status of the project activity.

The following personnel associated with the project proponent, implementing partner, and community members were interviewed.

Individual	Affiliation	Role	Date(s) interviewed
Alvaro Perez del Castillo	Carbosur	Forest Engineer-Director	Throughout audit
Agustin Inthamoussu	Consultant	Senior Carbon Consultant	Throughout audit
Isabel Loza Balbuena	Lumin	CEO	Throughout audit
Joaquin Castro-Baroffio	Lumin	Project Manager	Throughout audit

Interviews performed with individuals other than project personnel are as follows:

Agency / Organization / Stakeholder group	Name	Location / Site
Beekeeper	Maria Edy Garay Duarte	Cerro largo
Forestry Consultant	Ana Brito	Tacuarembó
Forestry Contractor	Rodrigo Bravo	Cerro Largo
Forestry Contractor	Verde Claro S.A.	Cerro Largo
National Police Detachment	-	Melo, Cerro largo
National Fire Department	Schubert Perez	Vergara, Treinta y Tres
Municipal Government (Town Hall)	Macarena Da Rosa	Tupambae, Cerro Largo
Lumin Employee	Heber Rivero	Cerro Largo
Lumin Employee	Luis Sena	Rivera
National Government (Environmental Ministry)	Luis Vescia	Centurión, Cerro Largo
Beekeeper	Jorge luis Rodales Nuñez	Cerro Largo
Municipal Government (Town Hall)	Juan Nery Dos Santos	Centurión, Cerro Largo
NGO (COVE12)	Elena Sosa	Cañas, Cerro Largo
National Government (General Forestry Directorate)	Patricia Escudero	General Forestry Directorate
Cattle rancher	Mari Acuña Hauman	Cerro Largo
Cattle rancher	Ramon Recalde	Cerro Largo
University (Science School)	Alexandra Cravino	National
NGO (COENDU)	Mauricio Alvarez	Melo, Cerro Largo
Municipal Government (Heritage Commission)	Gerardo Gonzalez	Treinta y Tres

Municipal Government (Town Hall)	Gaston Nahuar	Fraile Muerto, Cerro Largo
Municipal Government (Town Hall)	Victor Noda	Cañas, Cerro Largo
Public School N° 66	Ethel Molina	Cerro de las cuentas, Cerro Largo
Public School N° 66	Carla Acuña	Cerro de las cuentas, Cerro Largo
Lumin Employee	Nicolás	Tacuarembó
Lumin Employee	-	Tacuarembó
Lumin Employee	Joaquín Castro	Rivera
Lumin Employee	Isabel Loza Balbuena	National
Forestry Consultant	Alvaro Pérez del Castillo	National

2.5 Site Inspections

The objectives of the on-site inspections performed were to:

- Perform a risk-based review of the project area and project activities to ensure that the project conforms to the verification criteria and objectives; and

Confirm the validity of information presented in the MR.

In fulfilment of the above objectives, the audit team performed an on-site inspection of the project area on the dates 17 June 2021 through 20 June 2021. The main activities undertaken by the audit team were as follows:

- Interviewed project personnel to gather information regarding the project activities.
- Interviewed residents of several communities involved in the project activities to confirm the claims of the project proponents with respect to the extent of community engagement and to confirm other information provided in the PD and MR.
- Carried out on-site inspections of the project's biodiversity monitoring methodologies and inspections of native forests.

2.6 Resolution of Findings

Any potential or actual discrepancies identified during the assessment process were resolved through the issuance of findings. The types of findings typically issued by SCS during this type of verification engagement are characterized as follows:

Non-Conformity Report (NCR): An NCR signified a discrepancy with respect to a specific requirement. This type of finding could only be closed upon receipt by SCS of evidence indicating that the identified discrepancy had been corrected. Resolution of all open NCRs was a prerequisite for issuance of a verification statement.

New Information Request (NIR): An NIR signified a need for supplementary information in order to determine whether a material discrepancy existed with respect to a specific requirement. Receipt of an NIR did not necessarily indicate that the project was not in compliance with a specific requirement. However, resolution of all open NIRs was a prerequisite for issuance of a verification statement.

Observation (OBS): An OBS indicates an area where immaterial discrepancies exist between the observations, data testing results or professional judgment of the audit team and the information reported or utilized (or the methods used to acquire such information) within the GHG assertion. A root cause analysis and corrective action plan are not required, but highly recommended. Observations are considered by the audit team to be closed upon issuance, and a response to this type of finding is not necessary.

As part of the verification process, 3 NCRs, 4 NIRs, and no OBS were issued, for a total of 7 findings. All findings issued by the audit team during the validation process have been closed. In accordance with Section 5.3.7 of the VCS Standard, all findings issued during the verification process, and the inputs for their closure, are described in Appendix X of this report.

2.6.1 Forward Action Requests

This section is not applicable, as no forward action requests have been issued.

2.7 Eligibility for Validation Activities

This section is not applicable, as SCS holds accreditation for validation for the relevant sectoral scope (scope 14; AFOLU).

3 VALIDATION FINDINGS

Please see the accompanying CCB Validation Report for discussion of Validation Findings.

3.1 Participation under Other GHG Programs

This section is not applicable, as the project is only seeking registration under Verra.

3.2 Methodology Deviations

The audit team confirmed there were no methodology deviations during the monitoring period.

3.3 Project Description Deviations (*Rules 3.5.7 – 3.5.10*)

Different values for basic wood density and carbon fraction have been applied than what are described in the PD. The carbon fraction used in this monitoring period is more conservative than what was applied for the PD, and the basic wood densities were taken from the IPCC and are more conservative than those listed in the PD.

Between the VCS validation and verification process done in 2012 and this process, some changes occurred in the LUMIN/EUCAPINE project total area. The final project area changed from a total of 18,191 hectares to a total of 17,315 hectares, which is a net decrease of 876 hectares. Three reason for

this change was that effective planting areas were revised and re-calculated based upon new, high-resolution satellite imagery.

The audit team conducted the following to verify the mapping adjustments across the project area:

- The audit team evaluated the project's new shapefiles and confirmed they were projected in a relevant local projection system and that the areas had been calculated correctly.
- Reviewed an updated cash flow analysis (Ref /27/) provided by the project to assess the internal rate of return (IRR) when accounting for new areas in the calculations. The project area changes made by the project (summarized in Ref /28/) were checked by assessing the project's updated spatial data in GIS (Ref /29/), and the project's calculation workbooks (Refs /6-7/) were cross-checked with the new area information.
- Reviewed the Leakage section 3.2.3 of the MR, which has been updated with the latest project area changes.

3.4 Minor Changes to Project Description (*Rules 3.5.6*)

One change that occurred was the renaming of the project. Initially it was "Weyerhaeuser SA" and, since September 2017, because Weyerhaeuser sold the assets, the company name changed to Eucapine SRL and locally known as "Lumin".

3.5 Grouped Project (*G1.13 – G1.15, G4.1*)

This section is not applicable, as this is a single project.

4 VERIFICATION FINDINGS

4.1 Public Comments (*Rules 4.6*)

After a search on the project website (<https://www.lumin.com/institucional/sostenibilidad/lang/en>) and Verra's website for this project (<https://registry.terra.org/app/projectDetail/VCS/960>), no public comments were available to summarize.

4.2 Summary of Project Benefits

Section 1 of the monitoring report provides complete information about the project's benefits, as well as reference links to other sections of the monitoring report that describe these benefits in more detail. Achievements for the current monitoring period and for the project lifetime are detailed within their specific data categories columns. Data are sufficiently supported with evidence and records (see section 2.3 above) which were verified during the on-site visit as well as the desk review conducted. In the opinion of the verifier team, the project benefits are credible based on the supporting documents provided by the project proponents and evidence gathered and received during the on-site visit.

4.3 General

4.3.1 Implementation Status (G1.9)

The verifier team checked the monitoring plans contained in the latest versions of the VCS and CCBA Project Descriptions and compared them with the latest version of the proponents' implementation report to verify whether there was any difference that would cause an increase in estimates of the GHG emission reductions or any other notable changes to the perceived community and biodiversity benefits associated with the project. The verifier team confirmed that the implementation of project activities was done in accordance with those stated monitoring plans, with the exception of minor project description deviations. The actual monitoring system put in place utilizes all of the components of that described in the PD, with biodiversity monitoring reports and community monitoring documentation clearly included in the project monitoring system.

As described below the audit team reviewed publicly available information from other GHG emissions trading programs to confirm that the project is not included in another GHG scheme. The audit team also confirmed through this process that the project hasn't received or sought any other type of environmental credit or GHG program certification. In addition to the biodiversity and community benefit activities described, the project also contributes to sustainable development through their compliance with Forest Stewardship Council certification.

In summary the audit team has a reasonable level of assurance the project has been implemented as described in the project description.

As described in sections 3.2 and 3.3 below, there were no methodology deviations, and two project deviations, respectively. SCS confirmed through the review of project documentation that the litter and dead wood pools were not monitored, and instead the tool "Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities" was applied. This application was appropriate given the conservative default factors used. SCS also confirmed that the updated wood density factors and carbon fraction were conservative and appropriate.

The verifier team also confirmed that the monitoring of project implementation has been carried out in accordance with the monitoring plan contained in the registered PD.

4.3.2 Risks to the Community and Biodiversity Benefits (G1.10)

In section 2.2.6 of the monitoring report, the proponents have listed all of the potential natural and human-induced risks to the expected project benefits, along with a description of all of the enacted project activities and steps taken during the reporting period to mitigate such risks.

The verifier team ensured all of the risks originally identified by the project proponents in the project design were considered here once more, as well as others that may have been identified during project implementation. Through site visit observations, interviews conducted with project personnel and surrounding communities, and document assessment, the audit team confirmed the natural and human-induced risks to the expected project benefits are consistent with the claims in the MR.

4.3.3 Community and Biodiversity Benefit Permanence (G1.11)

The MR appropriately describes the increase in jobs and associated development in the region (increased small family business, increase in exports, reduction in rural poverty, incorporation of improved technologies for enhanced productivity) in regard to the expectation that that these benefits impact the permanence of the project. The monitoring activities detailed in the PD and implemented as described in the MR to analyze changes in community and biodiversity benefits are consistent with supporting documentation, and these activities help ensure the sustainability of the project.

4.3.4 Stakeholder Access to Information (G3.1- G3.3)

The audit team reviewed of Section 2.3.1 of the MR which contains information regarding steps made to communicate and publicize the PD, MR, and other project documentation, the project verification process, and the CCB public comment period. The audit team conducted interviews with community members and heard first-hand of stakeholder engagement practices. In summary, the project materials are available in project communities, the audit team concludes that the requirements for dissemination of information will be met.

4.3.5 Stakeholder Consultation (G3.4 – G3.5)

The audit team took the following steps to verify the project's methods for conducting effective consultation to fulfill the requirements of G3.4.

The audit team confirmed that the detailed description of the stakeholder consultation process included in the PD and MR has been implemented as described.

While onsite, the audit team interviewed project personnel involved in community outreach who confirmed that the consultation process was implemented as described in the PD.

Moreover, the audit team reviewed meeting minutes, photographic evidence and sign in sheets confirming the level of outreach that was performed by the project personnel.

In summary, given the evidence collected, the audit team concludes that the project's method(s) for conducting effective stakeholder consultations, as described in the PD, fully satisfy the requirements of G3.4.

4.3.6 Stakeholder Participation in Decision-making and Implementation (G3.6)

The audit team concludes the following regarding the measures needed (and taken, if appropriate) by the project proponent to enable effective participation in culturally appropriate and gender sensitive manner with all communities.

- As is the case in the community consultation section above, the audit team confirmed that the project design process has been implemented in a collaborative manner ensuring that all potentially affected stakeholders are included throughout the project design process.
- While onsite, the audit team interviewed community members across the project zone and confirmed that meetings were held in Spanish.

- The audit team confirmed that meetings were held during the day and at times when other work did not interfere with full community participation.
- The audit team confirmed through interviews that invitations were extended to community leaders, leaders of community forests, and commune leaders within a respectful timeframe and in such a manner that each stakeholder could respond.

4.3.7 Anti-discrimination (G3.7)

The audit team concludes the following regarding the measures needed and designed to ensure that all entities involved in project design and implementation are not involved in, or complicit in, any form of discrimination or sexual harassment.

- The audit team confirmed that MR's detailed description of measures designed to ensure that all entities involved in project design and implementation are not involved in any form of discrimination or sexual harassment has been implemented as described in the PD.
- While onsite, the audit team interviewed project personnel involved in community outreach who attested that entities involved in project design were not involved or complicit in discrimination or sexual harassment.
- The audit team confirmed that the project established a grievance system that was written up in a formal Plan for Conflict Resolution

4.3.8 Stakeholder Feedback and Grievance Redress Procedure (G3.8)

The audit team concludes the following regarding the project's feedback and grievance redress procedure.

- The audit team agrees that the project's formalized process is consistent with the intent of the CCB Standards

The audit team took the following steps to verify that the procedure meets the requirements of G3.8.

- The audit team reviewed the submitted formal Plan for Conflict Resolution /16/ and agreed that it outlines a procedure for receiving, hearing, responding to and attempting to resolve grievances within a reasonable time period.
- While on site, the audit team interviewed government officials and members of local communities. It was confirmed that the grievance process described in the PD is consistent with their understanding, and the MR affirms this appropriately.

In summary, the audit team concludes that the feedback and grievance redress procedure described in the MR have been implemented appropriately and fully satisfies the requirements of G3.8.

4.3.9 Worker Relations (G3.9 – G3.12)

The audit team concludes the following regarding the measures needed and designed to provide orientation and training for those employed through project activities and relevant people from the communities.

The audit team concludes that employee orientation, training and capacity building for those employed through project activities meet the intent of the CCB Standard Indicator G3.9.

The audit team took the following steps to verify that the orientation and training meet the requirements of G3.9.

The audit team confirmed that the MR's detailed description of employee orientation has been implemented as described in the PD, with training and capacity building measures that are either occurring or planned related to project activities.

While onsite, the audit team interviewed community members who had also been hired as forestry workers who confirmed that training, orientation and capacity building is occurring, for instance for local community members training as rangers to monitor community forests for illegal activities.

Community Employment Opportunities (G3.10)

The audit team concludes the following regarding how the project provides equal employment to people from the community.

The audit team concludes that the project provides equal employment in line with the intent of the CCB Standard indicator G3.10

The audit team took the following steps to verify the project's practices.

The audit team confirmed that the MR's detailed description of the project's equal opportunity has been implemented appropriately. This includes policy regarding how future project positions will be openly advertised through the project's office within the project area, and how positions will be open to all groups including ethnic minority, women, and different socio-economic groups, if the job requirements are met.

Relevant Laws and Regulations Related to Worker's Rights (G3.11)

The audit team concludes the following regarding the project's adherence to all relevant laws and regulations covering worker's rights and the measures needed and designed to inform workers about their rights.

- The audit team confirmed that the MR contains a detailed description of worker rights laws and regulations in Uruguay, and that these laws and regulations have been respected.
- In addition, the audit team performed a web-based review of employee rights in Uruguay and confirmed that no laws or regulations have been omitted from the PD.
- The audit team conducted interviews with project personnel and confirmed that the project's worker's laws meet or exceed all applicable laws and/or regulations covering worker rights.
- The audit team reviewed the project's Annual Training Plan, which contains information about relevant laws and regulations related to worker's rights.

Occupational Safety Assessment (G3.12)

The audit team concludes the following regarding the project's occupational safety assessment and the measures needed and designed to minimize risk.

- The audit team confirmed that the MR describes appropriate ways that the project ensures worker's health and safety protections, including an outline of risks and how to mitigate them.
- The audit team reviewed the project's Annual Training Plan, and confirmed that it informs workers of risks and explains how to minimize such risks. The Policy is comprehensive and details project staff safety procedures for different types of fieldwork and indoor work, and how to report incidents of worker injuries
- The audit team conducted interviews with project personnel and confirmed that the project's worker's laws meet or exceed applicable laws and/or regulations covering worker rights

4.3.10 Management Capacity (G4.2 – G4.3)

The audit team concludes the following regarding the key technical skills required to implement the project successfully, including community engagement, biodiversity assessment and carbon measurement and monitoring skills:

- The audit team reviewed the MR and confirmed through interviews that the project personnel has the required technical skills needed to implement the project successfully, including which entities will provide which technical skills.
- The audit team confirmed the assertions of the MR through interviews with project personnel including the project proponent and the project developer.
- The audit team confirmed that the key technical skills covered included those needed for community engagement, biodiversity assessment, carbon measurement, and monitoring skills. The individuals hired to conduct the biodiversity assessments in particular are the most qualified and experienced in Uruguay.

The audit team concludes the following regarding the management team's expertise and prior experience implementing land management and carbon projects at the scale of this project:

- Through prior validation and verification engagements, audit team can confirm that the project proponent currently holds or previously held the role of project proponent with respect to the other afforestation projects in Uruguay.
- Through past work with Carbosur, audit team can confirm that this entity has extensive experience in development and maintenance of afforestation projects at a scale similar to this project.

4.3.11 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

This section is not applicable, as no information has been withheld as "commercially sensitive."

4.3.12 Rights Protection and Free, Prior and Informed Consent (G5.1-G5.5)

The audit team took the following steps to verify that all property rights are recognized, respected, and supported.

- The audit team carefully reviewed the MR and confirmed that it contains detailed descriptions of statutory and customary rights as relates to land, territory and resources in the project. Interviews with local officials helped the audit team confirm the MR's assertion that property rights of any neighboring landowners had been recognized and respected.
- In addition, the audit team reviewed the landownership to confirm that appropriate rights are granted to the landowner.
- The audit team conducted interviews with community members across the project zone to confirm that customary and statutory rights were not infringed upon by the project.

In summary, given these actions, the audit team concludes that all property rights have been recognized, respected and supported in the in the implementation of the project, as consistent with the PD.

Steps taken to verify that...	
The planned project activities, as described in the PD, will not encroach uninvited on private property, community property, or government property	
• The audit team conducted interviews with stakeholders and confirmed that the planned project activities within the project area will not encroach uninvited on private or community property. The project area is privately-owned, and the project proponent is a private entity; the audit team confirmed that communities do not have rights to the land.	
Consent of those whose property rights are affected by the project has been obtained through a transparent, agreed process, and this consent has the following attributes:	
'Free', meaning no coercion, intimidation, manipulation, threat and bribery	
• Through interviews with stakeholders, in group and individual settings, as well as through review of the process implemented by the project personnel and confirmed through the review of meeting minutes, the audit team confirmed that communities were consulted, without coercion, intimidation, manipulation, threat and bribery.	
'Prior', meaning sufficiently in advance of any authorization or commencement of activities and respecting the time requirements of their decision-making processes	
• Through the same processes as described in the above bullet, confirmation was attained that notice was provided sufficiently 'prior' to any authorization of activities	
'Informed', meaning that information is provided that covers (at least) the following aspects:	
a. the nature, size, pace, reversibility and scope of any proposed project or activity;	• Through the same processes as listed above; and through observing the amount of material (e.g. posters, fliers) available regarding the project's purpose and scope in project communities

b. the reason/s or purpose of the project and/or activity;	Through the same processes as listed above; and through observing the amount of material (e.g. posters, fliers) available regarding the project's purpose and scope in project communities
c. the duration of the above;	Through the same processes as listed above; the audit team viewed maps made available in project communities by project personnel
d. the locality of areas that will be affected;	Through the same processes as listed above, as were confirmed during onsite interviews
e. a preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks and fair and equitable benefit sharing in a context that respects the precautionary principle;	Through the same processes as listed above; in addition, the audit team conducted interviews with the communities and confirmed that he was well known and respected in the project communities
f. personnel likely to be involved in the execution of the proposed project (including Indigenous Peoples, private sector staff, research institutions, government employees, and others); and	Through the same processes as listed above
g. procedures that the project may entail	Through the same processes as listed above
The option of withholding consent is available, and the parties have reasonably understood it	
Through the processes listed above, namely multiple interviews with stakeholders, many of whom are workers who work within the project area, the audit team was able to confirm this.	
Collective rights holders have been able to participate through their own freely chosen representatives and customary or other institutions following a transparent process for obtaining their Free, Prior and Informed Consent that they have defined	
Through the processes listed above, namely multiple interviews with stakeholders and workers who work in the project area, the audit team was able to confirm this.	
Appropriate restitution or compensation has been allocated to any parties whose lands have been or will be affected by the project.	
Through the processes listed above, the audit team was able to confirm that the project area land is owned by a private entity and parties were not relocated by the project.	

Property Rights Protection (G5.3)

The audit team took the following steps to verify that that project activities do not lead to involuntary removal or relocation of property rights holders from their lands or territories, and do not force rights holders to relocate activities important to their culture or livelihood.

- While on site, the audit team conducted interviews with local communities and project personnel and confirmed that project activities do not lead to involuntary removal or relocation of property rights holders from their lands or territories.
- Interviews confirmed that project activities do not force rights holders to relocate activities important to their culture or livelihood.

Illegal Activity Identification (G5.4)

The audit team concludes the following regarding any illegal activities that could affect the project's impacts and the measures needed and designed to reduce these activities so that project benefits are not derived from illegal activities.

- Audit team confirmed, through on-site observations and interviews, that the assumptions about the lack of illegal activities are accurately described in Section 2.5.4 of the MR
- Audit team agrees that the measures stated in Section 5.22 of the PD and implemented as described in the MR help to reduce such activities and that, in any case, there is no risk of project benefits being derived from illegal activities

Ongoing Disputes (G5.5)

The audit team concludes the following regarding any ongoing or unresolved conflicts or disputes over rights to lands, territories and resources.

- No ongoing disputes or unresolved conflicts are occurring over rights to lands, territories and resources.

The audit team concludes the following regarding any disputes that were resolved during the last twenty years where such records exist, or at least during the last ten years.

- No disputes or conflicts were occurring over the last twenty years, and therefore none were resolved during that timeframe.

The audit team took the following steps to verify that no activity is undertaken by the project that could prejudice the outcome of an unresolved dispute relevant to the project over lands, territories and resources in the project zone.

- The audit team reviewed MR section which attests to no ongoing disputes occurring relevant to the project over lands, territories and resources in the project zone.
- While on site, the audit team conducted interviews with members of project communities, in both group and one-on-one settings, and confirmed the project personnel's assertions of no disputes over lands, territories and resources in the project zone.
- The audit team conducted interviews with multiple project personnel working within the project communities and in the project zone and confirmed the project personnel's assertions of no disputes over lands, territories and resources in the project zone.

Should disputes over project lands, territories or resources occur, the project has effective measures in place. Per Section 3.3.9 of this report, the project's conflict resolution plan provides

an effective protocol for bringing forth and addressing concerns, including issues of rights to lands, territories and resources.

4.3.13 Legal Status (G5.6)

The audit team concludes the following regarding all national and local laws and regulations in the host country that are relevant to the project activities.

- The lists in Sections 2.5.7 are comprehensive and include all such laws

The audit team took the following steps to verify that the project is complying with said laws and regulations.

- Review of relevant laws including those listed in Section 2.5.7 of the PD
- Interviews with project personnel regarding compliance and enforcement
- Audit team experience working in-country and with many of the same laws and regulations

The audit team concludes that the project is in compliance with the relevant laws and regulations.

4.4 Climate

4.4.1 Accuracy of GHG Emission Reduction and Removal Calculations

The GHG Emission Reductions or Removals have been quantified correctly in accordance with the project description and the applied methodology.

For all instances in which values were transcribed between datasets (e.g., transcription from the project description to reporting workbooks, or between reporting workbooks), the audit team carefully traced values to ensure the absence of manual transposition errors.

An identification of the data and parameters used to calculate the GHG Emission Reductions or Removals and a description of the steps taken to assess each of them, follows:

	Steps taken by audit team to assess...		
Data/Parameter	accuracy of GHG Emission Reductions or Removals	whether methods/formulae set out in project description have been followed	appropriateness of default values
A_i	The verification team performed onsite activities in which .pdf maps were uploaded to hand held devices in which project area boundaries were confirmed on the ground. In addition,	The project area has increased, but the client provided specific breakdowns of ha replanting and harvesting. Specific methods are not required by the methodology; however,	N/A

	Steps taken by audit team to assess...		
Data/Parameter	accuracy of GHG Emission Reductions or Removals	whether methods/formulae set out in project description have been followed	appropriateness of default values
	the verification team recalculated the total project area for the eligible cohorts and determined there was a net under-statement in property area, based upon spatial data provided by the client. This indicates that i) the client provided spatial property data that had not been updated by time of verification, but ii) the overall discrepancies are conservative. The net discrepancies add up to 1,358 ha under-statement by the client.	the process follows the methods described in the project description	
A_{p,i}	During the site visit, the verification team observed the set up and re-measurement of plots by project personnel. In addition, the verification team re-measured a subset of inventory plots using the plot radius value reported in the PD and produced results consistent with those of the project proponents	No changes to the plot sizes have occurred since the previous verification. Specific methods are not required by the methodology; however, the process follows the methods described in the project description	N/A
BEFi	During the review, the audit team verified that biomass expansion factors were being correctly applied to estimate tree-level biomass,	A relationship between BEF and stand-age using the range of acceptable values indicated by the IPCC was established by the project. This	The default range of BEF provided by the IPCC was followed.

	Steps taken by audit team to assess...		
Data/Parameter	accuracy of GHG Emission Reductions or Removals	whether methods/formulae set out in project description have been followed	appropriateness of default values
	which in turn gets aggregated into stratum-level biomass and carbon estimates.	mathematical relationship was supported by research specific to each species and is more conservative than a simple linear interpolation from low to high BEF.	
Dj	During the review, the audit team compared basic wood densities the project applied during this monitoring period to those in the PD. They were found to be updated for each species, but were more conservative.	Basic wood densities were applied to each species in the same manner as they were in the PD, and they were updated for this monitoring period.	The default values are appropriate and were sourced from IPCC.
DBH _i	During the site visit, the verification team observed the set up and re-measurement of plots by project personnel. In addition, the verification team re-measured a subset of inventory plots using the methods reported in the PD and produced results consistent with those of the project proponents	The audit team reviewed and re-calculated this parameter using the methods and formulae set out in the project description and the methodology and confirmed that they were being followed.	N/A
H _i	During the site visit, the verification team observed the set up and re-measurement of plots by project personnel. In addition, the verification team re-measured a subset	The audit team reviewed and re-calculated this parameter using the methods and formulae set out in the project description and the methodology and	N/A

	Steps taken by audit team to assess...		
Data/Parameter	accuracy of GHG Emission Reductions or Removals	whether methods/formulae set out in project description have been followed	appropriateness of default values
	of inventory plots using the methods reported in the PD and produced results consistent with those of the project proponents	confirmed that they were being followed	
T	During the site visit, the verification team observed the set up and re-measurement of plots by project personnel. In addition, the verification team re-measured a subset of inventory plots using the methods reported in the PD and confirmed the year data reported to be consistent with observations on the ground	N/A	N/A
w_i	The audit team reviewed the calculations for relative stratum weights, as well as recalculated the weights independently and confirmed the reporting to be accurate	The audit team reviewed and re-calculated this parameter using the methods and formulae set out in the project description and the methodology and confirmed that they were being followed	N/A
S_i	The audit team reviewed the calculations for standard deviations, as well as recalculated the deviations independently and confirmed the	The audit team reviewed and re-calculated this parameter using the methods and formulae set out in the project description and the methodology and	N/A

	Steps taken by audit team to assess...		
Data/Parameter	accuracy of GHG Emission Reductions or Removals	whether methods/formulae set out in project description have been followed	appropriateness of default values
	reporting to be accurate	confirmed that they were being followed	

In summary, the audit team reviewed the QA/QC procedures for data management and determined that they were being followed. Overall, the workbooks are user friendly and are consistent with values from previous reporting periods. In addition, data is cell referenced as it is moved from tab to tab of the workbook, further limiting errors. The audit team has a reasonable level of assurance that the GHG emission reductions and removals have been quantified correctly in accordance with the project description and applied methodology.

4.4.2 Quality of Evidence to Determine GHG Emission Reductions and Removals

The evidence used to determine the GHG reductions and removals was of sufficient quantity and appropriate quality. An identification of the categories of evidence used to determine the GHG Emission Reductions or Removals, and a description of the steps taken to assess the sufficiency of quantity, and appropriateness of quality, of each category of evidence, follows:

	Steps taken by audit team to assess...		
Category	reliability, source, nature of evidence	information flow from data generation and aggregation, to recording, calculation and final transposition into the monitoring report	appropriateness of implemented calibration frequency of monitoring equipment
Reporting workbooks	The main workbook originated from Project Personnel and was determined, after thorough testing, to be of high quality and highly reliable; quantity of workbooks provided to audit team was sufficient	In all cases, audit team traced data contained in the monitoring report from the emission reduction workbook back to their respective sources, which is recorded in /6/	N/A
Field Protocols	The field protocols were reviewed by the audit team, who	The audit team reviewed the field protocols and	N/A

	confirmed that they were designed using best practices and are capable of capturing changes in carbon stock in conformance with the methodology	confirmed that the QA/QC procedures provide checks and balances to ensure high quality data collection /39/	
GIS Data	All stratification information in workbooks and other demographic data was provided to the audit team, who confirmed that the data contained all the necessary information to recreate the processes employed by the project and found the calculations consistent with values stated in the project description, monitoring report and applied calculations.	The audit team re-calculated the total project area from individual stratum-level areas reported in the workbooks, as well as the area of each land class in the project area. In addition, the audit team collected GPS data at each plot point visited to ensure consistency with strata level reporting in the monitoring report.	N/A

In summary, it is the opinion of the audit team that sufficient and appropriate quality of evidence exist to determine the GHG emission reductions or removals.

4.4.3 Non-Permanence Risk Analysis

The reported value of the overall risk rating for the monitoring period, as determined based on the risk analysis documented in the NPRR, was that of 2%.

The audit team's conclusions regarding the risk analysis are two-fold. The audit team concludes that:

- The assignment of risk scores to risk factors that did not change from the previous risk analysis remains appropriate and in conformance to the AFOLU Non-Permanence Risk Tool, to the extent that such assignment was appropriate and in conformance to the AFOLU Non-Permanence Risk Tool at the time of the prior risk analysis.
- The assignment of risk scores to risk factors that did change from the previous risk analysis is appropriate and in conformance to the AFOLU Non-Permanence Risk Tool

A detailed review of the audit team's conclusions may be found below.

4.4.3.1 Internal Risk - Project Management

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	The description of more than 25% of the stocks on which GHG credits have previously been issued are nonnative, or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located, is justified. They provide history of the successful cultivation of the Eucalypt species in Uruguay and a comparison of climatic conditions.	The data provided on the similar growing conditions between Uruguay and those of the site of origin of the Eucalyptus species in Australia is of high quality.	0, Risk rating is appropriate
(b)	N/A	N/A	Risk rating is appropriate
(c)	The project personnel have been active in the forestry industry in Uruguay for quite some time, and the developer has been among the first to develop projects in the region similar to this. Work history for the primary staff involved with the project is all relevant to the project activities.	Work history documentation is extensive, and interviews with individuals demonstrated competency in the skills necessary for project management.	Risk rating is appropriate
(d)	The management team is based within Uruguay and within 5 hours of the project site. This is the case for all personnel, and is valid.	On-site inspections and interviews allowed the audit team to confirm that the project management headquarters in Montevideo, the furthest anyone works from the project area, are within 5 hours from the project area by car.	0, Risk rating is appropriate
(e)	Carbosur has a lengthy history of development of carbon projects, and mitigation language applies: "Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting".	There is extensive documentation of Carbosur's teams' experience with AFOLU project design and implementation, carbon accounting, and reporting on the VCS website.	-2, Risk rating is appropriate
(f)	The project has incorporated an adaptive management plan	The monitoring plans describe appropriate adaptive measurements	-2, Risk rating is appropriate

4.4.3.2 Internal Risk – Financial Viability

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	N/A	N/A	Risk rating is appropriate
(b)	N/A	N/A	Risk rating is appropriate
(c)	N/A	N/A	Risk rating is appropriate
(d)	Project cash flow breakeven point is less than 4 years from the current risk assessment.	Project documentation of project costs and revenues show a breakeven point of less than 4 years. This risk assessment is based on project cost information from previous years.	Risk rating is appropriate
(e)	N/A	N/A	Risk rating is appropriate
(f)	N/A	N/A	Risk rating is appropriate
(g)	N/A	N/A	Risk rating is appropriate
(h)	The verifier team determined through review of financial information that the project has secured more than 80% of funding needed to cover the total cash out before the project reaches breakeven	The financial documentation /56/ is thorough and appropriate in temporal scope.	Risk rating is appropriate
(i)	N/A	N/A	Risk rating is appropriate

4.4.3.3 Internal Risk – Opportunity Cost

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	N/A	N/A	Risk rating is appropriate
(b)	N/A	N/A	Risk rating is appropriate
(c)	N/A	N/A	Risk rating is appropriate
(d)	N/A	N/A	Risk rating is appropriate
(e)	N/A	N/A	Risk rating is appropriate

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(f)	- The verifier team determined that the NPV from project activities is indeed expected to be at least 50% more profitable than the most profitable alternative land use activity. - The most profitable alternative land use activity, extensive cattle ranching, has demonstrably low returns per unit area compared with the project activity	The worksheet provided on expected IRRs for cattle ranching compared with forestry is detailed, and there is sufficient supporting economic information on the region.	Risk rating is appropriate
(g)	N/A	N/A	Risk rating is appropriate
(h)		N/A	Risk rating is appropriate
(i)		N/A	Risk rating is appropriate

4.4.3.4 Internal Risk – Project Longevity

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	There has been no change in project longevity risk since the previous verification. They continue to show commitment to the project activities through FSC certification, as well.	Project personnel have shown evidence that ownership can be maintained for the entire project longevity. They have provided detailed management plans for the extent of the project to the government, and the audit team found them to be very detailed.	Risk rating is appropriate

4.4.3.5 *External Risk – Land Tenure and Resource Access/Impacts*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	The verification team reviewed the ownership documentation provided by project personnel and interviewed individuals near the project area and confirmed that no changes have occurred with respect to ownership since project commencement.	The audit team considers the title documentation to be of high quality.	0, Risk rating is appropriate
(b)		N/A	Risk rating is appropriate
(c)		N/A	Risk rating is appropriate
(d)		N/A	Risk rating is appropriate
(e)	N/A	N/A	Risk rating is appropriate
(f)		N/A	Risk rating is appropriate
(g)	N/A	N/A	Risk rating is appropriate

4.4.3.6 *External Risk – Community Engagement*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	The audit team performed site visits and interviewed local community members and confirmed that there are no communities directly reliant on the project area.	The audit team considers the on-site interviews to be of the highest quality.	Risk rating is appropriate
(b)	N/A	N/A	Risk rating is appropriate
(c)	The audit team visited employees of the project and other community members during the site visit and confirmed that the project generates net positive impacts on the social and economic well-being of the local communities who derive livelihoods from the project area	The audit team considers the on-site interviews to be of the highest quality.	Risk rating is appropriate

4.4.3.7 External Risk – Political Risk

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
(a)	N/A	N/A	Risk rating is appropriate
(b)	N/A	N/A	Risk rating is appropriate
(c)	N/A	N/A	Risk rating is appropriate
(d)	The verification team reviewed the political risk reported by project personnel and confirmed that the value provided is consistent with the according to the World Bank Institute Worldwide Governance Indicators	The audit team considers the world bank indicator website to be of the highest quality	Risk rating is appropriate
(e)	N/A	N/A	Risk rating is appropriate
(f)	The audit team reviewed the REDD Readiness website and confirmed the participation of the project country	The audit team considers the REDD Readiness website to be of the highest quality.	Risk rating is appropriate

4.4.3.8 Natural Risk

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
Fire			
L	As the natural risk categories are assessed at a time period of 100 years, the audit team has no concern that the risk scores would change between assessments. In addition, the audit team reviewed the previous risk scores to ensure no changes since the previous assessment.	The audit team considers previously verified VCS documentation to be of high quality.	Risk rating is appropriate
S			
M			
Pest and Disease Outbreaks			
L	Same as above	Same as above	Risk rating is appropriate
S			
M			
Extreme Weather			

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of risk rating
L	Same as above	Same as above	Risk rating is appropriate
S			
M			
Geological Risk			
L	Same as above	Same as above	Risk rating is appropriate
S			
M			

4.4.4 Dissemination of Monitoring Plan and Results (CL4.2)

The audit team affirmed that the project documentation had been made available on both the VCS/CCB website for public comments. Results of monitoring will be made publicly available during each verification event.

4.4.5 Optional Gold Level: Climate Change Adaptation Measures (GL1.3)

N/A.

4.4.6 Optional Gold Level: Climate Change Adaptation Benefits (GL1.4)

N/A.

4.5 Community

4.5.1 Community Impacts (CM2.1)

The audit team confirmed through reviews of employee information that the project has resulted in many job opportunities for community members. This increased employment and improved job quality is expected to reduce rural poverty, as described in a study of forestry economic impacts in Uruguay. These jobs will incorporate application of new technologies in forestry and contribute to the sale of value added forestry products with the investment in new forestry infrastructure. In addition to these employment benefits, the audit team has also reviewed documentation of the project's donations to local organizations as a result of the project, including material goods and informational presentations.

4.5.2 Negative Community Impact Mitigation (CM2.2)

Section 4.1.2 of the MR provides a complete description of how possible negative impacts shall be mitigated. The audit team agrees that the possible negative effects have been considered and that these are consistent with what was observed during the site visit. Finally, the audit team agrees that the project communication systems and integrated management systems are sufficient for mitigating any potential negative impacts from the project.

4.5.3 Net Positive Community Well-being (CM2.3)

The project proponent summarizes the positive community effects in section 4.1.3 of the MR appropriately, and notes as well that the forestry jobs generated by the project are expected to be less affected by natural disasters such as drought and floods than extensive grazing jobs. These employment opportunities are also expected to include additional technical training, and improve job quality overall. Given these benefits and the limited negative community impact which the project has claimed to have mitigated, the audit team can conclude their assessment of net positive community well-being is sound.

4.5.4 Protection of High Conservation Values (CM2.4)

The audit team reviewed documentation of “site of high conservation value” prepared by social advisors to the project proponent who conducted interviews with local stakeholders. The areas identified as sites of historical significance can be appropriately considered critical to traditional cultural identity of communities, however they are not expected to be affected by project activities.

4.5.5 Other Stakeholder Impacts (CM3.2-CM3.3)

As described in the study provided on the economic impact of forestry activities in Uruguay, it is reasonable to expect that increased employment and job quality in the project area can help improve socioeconomic conditions in the area more generally, and allow for more decentralized economic development. The audit team agrees this is reasonable as the primary expected impact on other stakeholders.

4.5.6 Community Monitoring Plan (CM4.1, CM4.2, GL2.2, GL2.3, GL2.5)

The audit team reviewed the Social Monitoring and Management Plan, as described in the PD and confirmed that it employs the Theory of Change and the Social Impact Assessments, as suggested by the CCB Standards. The MR describes in section 4.3.1 how the plan was implemented, and project personnel provided supporting documentation that these monitoring activities had taken place as described. The audit team confirmed that the plan has selected variables that are directly linked to the project’s community development objectives and impacts, and that the appropriate sampling methods, frequencies, and reporting methods are used. While on site, the audit team interviewed local community members who confirmed that the community variables were produced as a result of the consultation process and are anticipated to be positive.

The audit team therefore concludes that the community monitoring plan meets the requirements of the relevant CCB Standard indicators.

4.5.7 Community Monitoring Plan Dissemination (CM4.3)

The audit team affirmed that the Monitoring Plan and results documentation had been made available on both the VCS/CCB website as well as the Lumin/Eucapine website for public comments.

4.5.8 Optional Gold Level: Short-term and Long-term Community Benefits (GL2.2)

N/A.

4.5.9 Optional Gold Level: Smallholder/community member Risks (GL2.3)

N/A.

4.5.10 Optional Gold Level: Marginalized and/or Vulnerable Community Groups (GL2.4)

N/A.

4.5.11 Optional Gold Level: Net Impacts on Women (GL2.5)

N/A.

4.5.12 Optional Gold Level: Benefit Sharing Mechanisms (GL2.6)

N/A.

4.5.13 Optional Gold Level: Governance and Implementation Structures (GL2.8)

N/A.

4.5.14 Optional Gold Level: Smallholders/Community Members Capacity Development (GL2.9)

N/A.

4.6 Biodiversity**4.6.1 Biodiversity Changes (B2.1)**

The project activities will allow for buffer areas to protect native areas while allowing for biological corridors. As such there would be limited changes to native forest areas (and as claimed by the counterfactuals above, the possibility of increased native biodiversity in these areas) and species that typically use grassland areas will still have protected areas. As described in the PD and MR, and supported by biological surveys in project area, species use forest areas even if they have historically only used grasslands as habitat. The PD and MR also reference damaging of native forest, prevention of forest fires, and practices like soil conservation associated with the project to be a positive impact for biodiversity in the project area. These activities are described in detail within section 5.1 of the MR, which summarizes the many biodiversity reports made in compliance with the monitoring plan.

4.6.2 Mitigation Actions (B2.3)

The biological corridors described in the PD are reasonably be expected to mitigate some of the effect of grazing habitat reduction. Overall access to native forest areas are mitigating factors for potential biodiversity impacts. The project proponents also describe their afforestation activities as having a lower impact on biodiversity due to their lack of slash on burn conversion, and the row site preparation preserving areas between rows as much as possible. These practices are consistent with the forestry practices described in the field manuals. Section 5.1.2 of the MR describes how their mitigation measures address potential negative impacts. While on site the audit team identified areas where fencing had been installed, as described, and buffer zones for the native forest were being monitored.

4.6.3 Net Positive Biodiversity Impacts (B2.2)

The assessment described in the MR and supporting documents is appropriate and detailed regards the relative biodiversity impacts of the project. The grazing and grassland areas converted to forest are degraded and relatively low in biodiversity, while the project activities can reasonably be expected to reduce impacts on native forests and not have a significant affect on grassland species or destruction from conversion. As such the audit team concludes that the project has had net positive biodiversity impacts.

4.6.4 High Conservation Values Protected (B2.4)

The project proponents appropriately assess that the project activities will not be expected to contribute negatively to the biodiversity-related HCV in the area. It is sufficiently far from area being forested, and more likely to be affected by positive management and protection activities in the area.

4.6.5 Invasive Species (B2.5)

The audit team performed a site visit and confirmed the species listed in the PD and MR are indeed those planted throughout the project area. Moreover, the audit team reviewed the suite of literature provided on the National Directorate for the Environment of Uruguay (<https://www.mvotma.gub.uy/component/finder/search?q=Eucalyptus&Itemid=1014&b28b8241e720772e9caef6e063b5e063>) and confirmed that the species are adapted to the region and provide low risk of invasiveness. Additionally, the team has no reason to disagree with the VCS validation showing that the species used are not genetically modified. Finally, the team observed that areas adjacent to the project area undergo periodic control of spread of the species planted.

4.6.6 Impacts of Non-native Species (B2.6)

See section 4.6.5 regarding B2.5 above.

4.6.7 GMO Exclusion (B2.7)

See section 4.6.5 regarding B2.5 above.

4.6.8 Inputs Justification (B2.8)

The audit team relied on two types of evidence to confirm conformance to this indicator. First the audit team performed onsite inspections of the reforested areas and found no evidence of inputs or waste as no harvesting or planting/site preparation was occurring at the time. Second, the audit team therefore relied heavily on the FSC certification documentation which confirms that appropriate pesticides are in use and no wastes exist that would fall outside of the national code for good forestry practices.

4.6.9 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Actions (B3.2)

See section 4.6.5 regarding B2.5 above.

4.6.10 Net Offsite Biodiversity Benefits (B3.3)

The audit team performed onsite inspections confirming that the project area prior to commencement and confirmed that the area consistent solely of heavily grazed degraded grasslands. In addition, the audit team confirmed that native forest encroachment is encouraged outside of a 20-meter buffer. Based on this the audit team expects all benefits to biodiversity to be positive.

4.6.11 Biodiversity Monitoring Plan (B4.1, B4.2, GL3.4)

The audit team reviewed the biodiversity monitoring plan, as described in the PD and confirmed that the plan has selected biodiversity indicators that are directly linked to the project's biodiversity objectives, and that the appropriate sampling methods, frequencies, and reporting methods are used. While on site, the audit team interviewed project personnel involved in the wildlife surveys and observed the biomass teams involved in carbon plot monitoring, and confirmed their competence to perform the wildlife and vegetation monitoring protocols. In addition, the audit team was able to independently confirm the accuracy of the GIS and remote sensing work performed by the project partners through validation activities.

The audit team therefore concludes that the biodiversity monitoring plan meets the requirements of the relevant CCB Standard indicators.

4.6.12 Biodiversity Monitoring Plan Dissemination (B4.3)

The audit team affirmed that the Biodiversity Monitoring Plan and results documentation had been made available on both the VCS/CCB website as well as the Lumin/Eucapine website for public comments.

4.6.13 Optional Gold Level: Trigger Species Population Trends (GL3.3)

N/A.

4.6.14 Optional Gold Level: Effectiveness of Threat Reduction Actions (GL3.4)

N/A.

4.7 Additional Project Implementation Information

This section is not applicable, as the information listed in the corresponding section of the implementation report by the project proponents has already been considered and referenced throughout this report.

4.8 Additional Project Impact Information

This section is not applicable, as the information listed in the corresponding section of the implementation report by the project proponents has already been considered and referenced throughout this report.

5 VERIFICATION CONCLUSION

The audit team asserts, with no qualifications or limitations that the project complies with the verification criteria for projects and their GHG emission reductions or removals set out in VCS Version 4.

In addition, the audit team asserts that the project complies with the validation criteria for projects set out in VCS Version 4 (but this statement is qualified and limited in scope to the specific project and methodology deviations assessed by the audit team, as discussed in Sections 3.2 and 3.3 above).

The audit team has been able to confirm that the project has been implemented in accordance with the project description and subsequently validated variations.

The audit team has been able to confirm, with a reasonable level of assurance, that the quantity of GHG emission reductions or removals set out below has been quantified in accordance with the VCS rules. As documented in Section 4.4 above, the audit team can also confirm that the non-permanence risk score of 10% has been quantified in accordance with the VCS rules.

VCS period: 08 April 2013 – 31 December 2020

CCB period: 22 February 2006 – 31 December 2020

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2013	0	629,460	0	629,460
2014	0	567,049	0	567,049
2015	0	512,530	0	512,530
2016	0	419,101	0	419,101
2017	0	609,804	0	609,804
2018	0	569,968	0	569,968
2019	0	694,047	0	694,047
2020	0	797,043	0	797,043
Total	0	4,799,002	0	4,799,002

The total buffer contribution during the verification period is 479,900. After accounting for the buffer, the total verified VCUs for this period is 4,319,102 VCUs.

The project's total verified VCUs prior to the monitoring period is 2,624,257 VCUs, and the long-term average GHG benefit is 5,812,948. $4,319,102 + 2,624,257 = 6,943,359$, which is above the long-term GHG benefit. The standard states that ARR projects with harvesting activities shall not be issued VCUs above the long-term GHG benefit.

Therefore, the maximum issuance for this verification period is 3,188,691 VCUs.

APPENDIX A: LIST OF FINDINGS

NIR 1 Dated 16 Aug 2021

Standard Reference: AR-AM-Tool-v1.0.1 "Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities"

Document Reference: 20210407- MRv1-CCB_VCS Lumin FINAL.docx

Finding: The AR-AM-Tool-v1.0.1 states in Section 2 that one of the following conditions must be met for a volume equation to be "considered appropriate":

- The equation is used in the national forest inventory, or the national GHG inventory, of the host Party;
- The equation has been used in commercial forestry sector of the host Party for 10 years or more;
- The equation was derived from a data set of at least 30 sample trees, and the value of coefficient of determination (R2) was not less than 0.85.

The Monitoring Report states in Section 3.2.2 that the volume equation is appropriate because:

- The equation is used both in the national forestry inventory and the national GHG inventory of Uruguay, and
- The equation has been used in commercial forestry sector in Uruguay for 10 years or more.

References to documents about methods used by the Uruguay's national forestry inventory and methods used by the commercial forestry in Uruguay are required to verify this assertion.

Project Personnel Response: Idem below

Auditor Response: The audit team agrees that the volume equation is a "formula is very generic and applicable in any case," for the timber industry in Uruguay, as mentioned in Section 3.2.2 of the monitoring report, and this point was expressed on a call (8/13/2021) with the project developer who has worked extensively in the timber industry in Uruguay. The 'Tree Shape Factor' applied in the VTree equation has been updated and supported by the document "Capítulo VI - Alternativas regionales para la producción forestal integral". This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 2 Dated 16 Aug 2021

Standard Reference: AR-AM-Tool-v1.0.1 "Demonstrating appropriateness of volume equations for estimation of aboveground tree biomass in A/R CDM project activities"

Document Reference: 20210407- MRv1-CCB_VCS Lumin FINAL.docx

Finding: The AR-AM-Tool-v1.0.1 states in Section 2 that one of the following conditions must be met for a volume equation to be "considered appropriate":

- The equation is used in the national forest inventory, or the national GHG inventory, of the host Party;
- The equation has been used in commercial forestry sector of the host Party for 10 years or more;
- The equation was derived from a data set of at least 30 sample trees, and the value of coefficient of determination (R^2) was not less than 0.85.

Section 3.2.2 of the Monitoring Report states that "the appropriateness of [the tree change factor] was demonstrated during validation; however, I can not locate a rationale in the Project Description ("CF 22M 20210211 PD-V1 March 2021-FINAL- LUMIN v6.docx"). The reference "Proyecto Regional de alternativas para la inversión forestal" does show 0.5 along with other form factors in Table 6.7. More information is needed to justify the choice of 0.5 among other factors for Pinus and Eucalyptus species.

Project Personnel Response: File was corrected. Please see document: V3_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210821.xls in the dropbox file located:

"Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1". New values are the one shown in sheet 3. INPUTS WH, cell "N19:P33"- Also see document "Capitulo VI - Alternativas regionales para la producción forestal integral" where the table 6,7 is shown. This doc is located : "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1"

Auditor Response: The project has updated calculations with form factors that vary according to DBH class as indicated by the document "Capitulo VI - Alternativas regionales para la producción forestal integral.pdf". This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 3 Dated 16 Aug 2021

Standard Reference: Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities v3.0.0

Document Reference: V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx

Finding: The tool states in Sections 8.3, 9.1, 9.2, and 9.3 that for CF_{tree}: "Carbon fraction of tree biomass; t C t d.m.⁻¹ A default value of 0.47 is used unless transparent and verifiable information can be provided to justify a different value." In the workbook "V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx", sheet "4. Carbon Stock WH", cells I8, L8, O8, R8, etc., a carbon fraction of 0.5 is used, which is not more conservative than 0.47. The Monitoring Report also states that the carbon fraction used is 0.5 and cites the "Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities v3.0.0".

Project Personnel Response: We recommend to use a 0.49 factor. Please see document "THESIS MASTERS" uploaded in the Dropbox file: "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1". Chapter 2.1.7 Carbon conversion factors states the following: The general default value recommended by IPCC (1996) to convert dry matter into carbon is 0.5. Kinerson et al. (1977) found that the carbon content of *Pinus taeda* ranged from 45% to 54% with a mean of 49%. Similarly, USDA4 reported percentages of carbon for *P. taeda* planted in different regions of the United States, from 51.2% to 53.1%. Other studies (Maclaren and Wakelin 1991; Beets et al. 1999) used a carbon conversion factor of 0.5 for *P. radiata*. Gifford (2000) surveyed the carbon content of tissues and surface litter of 19 native tree species in Australia (15 of which were *Eucalyptus* species), reporting an unweighted mean carbon content of 50.3%. This study suggested that a value of 50±2% would cover the diverse range of trees examined. Please see document: V3_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210821.xls in the dropbox file located: "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1". Cell I:1 from sheet "4. Carbon Stock WH" shows the new value, that is linked to calculations in line 8 (different columns depending on the planted year).

Auditor Response: The audit team accepts a carbon conversion factor of 0.49 as reasonable for *Eucalyptus* species and *Pinus taeda*, based upon the additional information provided by the project developer. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): M/C

NIR 4 Dated 16 Aug 2021

Standard Reference: Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities v3.0.0

Document Reference: V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx

Finding: The tool states for biomass expansion factors: "Values from Table 3A.1.10 of IPCC GPG-LULUCF 2003 are used unless transparent and verifiable information can be provided to justify different value", and the Monitoring Report indicates that this table was used to assign BEF values. The audit team needs more information about how biomass expansion factors derived for both Pino and Euca species for different years planted in the workbook "V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx", sheet "3. INPUTS WH", cells H19:J34, as these values do not have formulas assigned to them in them in the workbook.

Project Personnel Response: Please see document "THESIS MASTERS" uploaded in the Dropbox file: "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1". Chapter 2.2.1.3, figure 2,5 shows "Foliage and branch biomass as a percentage of stem biomass over time for P. taeda" and Chapter 2.2.2.3, figure 2,9 shows "Foliage and branch biomass as a percentage of stem biomass over time for E. grandis". In both figures, a "Potencial" tendency is shown. Based on this, and starting in 3,4 (young trees) and ending in (1,9- 1,5 Adult forests), we simulated a potential trend line. Please see document: V3_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210821.xls in the dropbox file located: "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1. We added a new sheet, "6. BEF Trend Curve 2021" where we show the final figures.

Auditor Response: After reviewing 'THESIS MASTERS', the audit team agrees that a non-linear decay function of Biomass Expansion Factor (i.e., BEF) with stand age (or year planted in the project's case) in the shape provided is reasonable. The BEF is a factor for converting stem biomass to aboveground biomass, and the curves in the thesis represent the relation between foliar and branch biomass as a percentage of stem biomass to tree age. Branch and foliar are major components of aboveground biomass not part of stem biomass. The curve shape was informed by data from a range of studies, which were outlined in Appendix II of the thesis. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NIR 5 Dated 16 Aug 2021

Standard Reference: Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities v3.0.0

Document Reference: 2020 Ex ANTE Stock de Carbono Weyerhaeuser y

VCU_22_02_2021--20210428.xlsx

Finding: The tool states for biomass expansion factors: "Values from Table 3A.1.10 of IPCC GPG-LULUCF 2003 are used unless transparent and verifiable information can be provided to justify different value", and biomass expansion factors are applied for each species for ex ante stock calculations in the workbook "2020 Ex ANTE Stock de Carbono Weyerhaeuser y VCU_22_02_2021--20210428.xlsx". The biomass expansion factor should vary for stand age, and it does vary for stand age for Pinus in the sheet "Pinus" of that workbook for column N, rows 8:28. However, in row 29, a BEF of 1.15 is applied for Pinus at Age 1, while Age 1 Pinus have a BEF of 3.40 for the same year of planting for row 8. This pattern repeats and is inconsistent for the remainder of column N, and yet sheets "E. grandis" and "E. dunnii" show consistent BEF values with stand age. We need more information about the BEF allocation to stand age for the sheet "Pinus" to verify it was implemented correctly.

Project Personnel Response: File was corrected. Please see document: V3_2020 Ex ANTE Stock de Carbono Weyerhaeuser y VCU_22_02_2021--20210817.xls in the dropbox file located: "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1"

Auditor Response: The Biomass Expansion Factors have been applied consistently with age for Pinus. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 6 Dated 16 Aug 2021

Standard Reference: Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities v3.0.0

Document Reference: V2_Carbon Stock Weyerhaeuser as of DIC 2020_20210520.xlsx

Finding: The tool provides Equation 8 for calculating variance of tree biomass per hectare in a stratum, and variance is calculated in workbook "V2_Carbon Stock Weyerhaeuser as of DIC 2020_20210520.xlsx", sheet "4. Carbon Stock WH", column T. The numerator of the variance calculation partially consists of the following term: $(\sum b_{TREE,p,i,t})^2$. The $b_{TREE,p,i,t}$ term is calculated in Equation 6 for each plot and then summed as part of Equation 8. This term seems to be calculated for each stratum in column Q, but the individual $b_{TREE,p,i,t}$ components are not being summed for this term, as for example, in column Q, row 23.

Project Personnel Response: Formula was corrected. Please see document: V3_Carbon Stock Weyerhaeuser as of DIC 2020_20210821.xls in the dropbox file located: "Dropbox\SCSGlobal_LUMIN2021_CCBVAL&Ver\Findings N1"

Auditor Response: The audit team confirmed the formula correction. This finding is closed.

Bearing on Material Misstatement or Conformance (M/C/NA): C

NCR 7 Dated 16 Aug 2021

Standard Reference: Estimation of carbon stocks and change in carbon stocks of trees and shrubs in A/R CDM project activities v3.0.0

Document Reference: V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx

Finding: The tool defines 'wi' in Equation 10 as "Ratio of the area of stratum i to the sum of areas of biomass

estimation strata; dimensionless". There are two 'wi' columns in "V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx", sheet "4. Carbon Stock WH": columns O and P. Column P appears to be the weight corresponding to the "ratio of the area of stratum i to the sum of areas of biomass estimation", while Column O is a weight corresponding to the area of stratum i to the entire project area. Biomass is not estimated for the entire project area for any year, but the weight in column O is applied for Equation 10 in column W.

Project Personnel Response: This has been consulted with SCS and the findings is not applicable.

Auditor Response: This finding was issued with the impression that the manner in which year-to-year project uncertainty was being calculated may have been impacting project-level uncertainty for this reporting period, but the Project Developer clarified how uncertainty was calculated for this reporting period ('V2_Carbon Stock Weyerhaeuser as of DIC 2020_ 20210520.xlsx', sheet '4. Carbon Stock WH'), and the project-level uncertainty calculation was found to be in conformance with the methodology.

Bearing on Material Misstatement or Conformance (M/C/NA): C