

GUANARE VCS VERIF 14



Document Prepared By Rainforest Alliance

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Summary:

The verification process started on April, 2014 when the project developer submitted the Monitoring Report 2013 and supporting documents such as the calculation spread sheets and the risk assessment of non-permanence. The field visit took place on April 7-12, 2014. The audit team visited a sample of the plantation projects, interviewed key stakeholders, staff and other related experts; and also reviewed the monitoring report, and supporting documents. The purpose of the visit was to determine the conformance of the project with respect to the VCS Version 3 standard, the validated Monitoring Plan and the validated Project Design Document (PD). The scope of the verification was to assess the conformance of Guanare S.A. afforestation project (20,877 hectares) in Treinta y Tres and Cerro Largo, Uruguay, against the Verified Carbon Standard.

The audit team submitted a draft report to the project proponent on July 18th, 2014 in which seven non-conformances were reported. Following revisions of the documentation by the project proponent, a draft final report was created where the Rainforest Alliance auditor has found that with reasonable level of assurance, the project is in conformance with the VCS v3 standard, and verified that the project has removed from the atmosphere (24 April 2006 – 12 January 2013) a total of 3,068,303 tCO₂e; also, the buffer of 10% (equivalent to 306,831 tCO₂e) was approved based on the new risk assessment of non-permanence. VCU's to be issued after the buffer deduction are 2,761,472 tCO₂e. The long term average remains to be of 7,644,973 tCO₂e. The positive verification decision was based on the final Monitoring Report Version 3, dated 21 August 2014 and the final Non-Permanence Risk Report Version 3.1, dated 29 March 2014

For a complete summary of the audit process, please refer to section 2 of this report and section 5 for complete verification field audit findings.

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1 INTRODUCTION

1.1 Objective

The purpose of this report is to document the conformance of the “Guanaré” Forest Plantations on Degraded Grasslands under Extensive Grazing Project, with the requirements of the Verified Carbon Standard (VCS). The project was developed by Guanáre S.A., hereafter referred to as “Project Proponent”. The report presents the findings of qualified Rainforest Alliance auditors who have evaluated the Project Proponent’s systems and performance against the applicable standard.

1.2 Scope and Criteria

Scope: The scope of the audit is to assess the conformance of Guanáre S.A. Afforestation project in Cerro Largo and Treinta y Tres, Uruguay, against the Verified Carbon Standard. The objectives of this audit included an assessment of the project’s conformance with the standard criteria. The project covers an area of 20,877 hectares. The land is privately owned. The project has a lifetime of 60 years, and estimates it will remove 7,644,973 tCO₂e over the course of the project lifetime.

Standard criteria: Criteria from the following documents were used to assess this project:

- Verified Carbon Standard Program Guide 2011 v3;
- Verified Carbon Standard 2011 v3;
- Verified Carbon Standard Agriculture, Forestry and Other Land Use (AFOLU) Requirements 2011 v3;
- Verified Carbon Standard AFOLU Non-Permanence Risk Tool 2011 v3;
- Verified Carbon Standard Program Updates (please see VCS website for the latest updates); and as applicable,
- The VCS approved methodology used by the project.

Materiality: All GHG sinks, sources and/or reservoirs (SSRs) and GHG emissions equal to or greater than 5% of the total GHG assertion for VCS projects (<300,000 tCO₂e/year). All GHG sinks, sources and/or reservoirs (SSRs) and GHG emissions equal to or greater than 1% of the total GHG assertion for VCS large projects (>300,000 tCO₂e/year)

Materiality threshold: 5% ☐ or 1% ☒

1.3 Level of Assurance

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

1.4 Summary Description of the Project

The PD describes the project as follows:

“The project comprises a total area of 20,877 ha with a long history of grazing by beef cattle, activity that have caused soil erosion and land degradation. Forest plantation for obtaining pulp and saw wood and removing carbon dioxide from the atmosphere are being established since 2006.

The project activity is implemented on degraded land, which is expected to continue to degrade in the absence of the project and hence the land cannot be expected to revert to a non-degraded state without human intervention.

Forests consist of *Eucalyptus grandis* and to a lesser extent *Eucalyptus globulus*, *Eucalyptus dunnii*, *Eucalyptus maidenii* and *Pinus taeda* plantations managed with a rotation length of 22 years (one of the properties is expected to have a 16 year rotation). The plantations are established on land previously used for cattle grazing. The implementation of the project activity will not cause any displacement of cattle.

The main objectives of the project activity are wood production, land restoration and carbon sequestration through afforestation. Forest plantation will be completed by year 5 of project and forest will be replanted after clear-cut harvest. Project crediting period is 60 years. All practices will be compatible with FSC standard for sustainable forest management.

Guanaré Forest Plantations on Degraded Grasslands under Extensive Grazing is classified as a “project”, according to its scale: it will remove a total amount of 7,644,973 tCO₂ in a period of 60 years. This means an average of 127,416 tCO₂ per year.”

2 VERIFICATION PROCESS

Guanaré S.A. project was validated on April 30, 2012 under the Validation Registration Code: RA-VAL-VCS-015727, and registered on January 18th, 2013. The current audit corresponds to the first verification - year 2014- against the VCS Standard and other program documents and related requirements.

The verification was conducted in four days in which the audit team reviewed the Monitoring Report 2014 (Version 01), the Non-Permanent Risk Report 2014 (Version 03), carbon stocks calculations and other supporting documents. Onsite, the audit team verified the implementation of the monitoring plan referenced in the Project Description (Version 03) and the correctness and appropriateness of the results. To do so, the audit team re-measured a subsample of 24 permanent sample plots -out of the 144 plots, meaning 17% sampling intensity as part of the monitoring event.

Documentation review also considered the evaluation of different deviations proposed in the monitoring report.

Close interactions with the project developer (Carbosur S.A.) representatives took place during the audit. The preliminary findings were explained to them in a closing meeting.

2.1 Method and Criteria

Auditor(s)	Responsibilities							
	Lead	Desk Review	On-site visit	Climate Specialist	Biodiversity Specialist	Social Specialist	Report	Senior Internal Review
William Arreaga	☒	☒	☒	☒	☐	☐	☒	☐
Violeta Colan	☐	☒	☒	☐	☐	☒	☐	☐
Janice O'Brien	☐	☐	☐	☐	☐	☐	☐	☒

Auditor qualifications:

Auditor(s)	Qualifications
William Arreaga, Senior Associate, Verification Services RA-Cert Mesoamérica <i>Lead auditor</i> Contact info: warreaga@ra.org	Guatemalan; Ing. Agr. RNR from San Carlos de Guatemala University, and M.Sc. from CATIE, Costa Rica. He is also involved in a MBA program on Financial Administration in Guatemala. William serves as lead auditor for FSC Forest Management, Chain-of-Custody, and legality services in Mesoamerica. His experience on carbon projects includes: the developing of two biomass allometric equations in Guatemala (natural forest and teak plantation); participation as a fellow at Winrock International (Norman Borlaug fellowship program) and as lead auditor in more than twenty validations and verifications (VCS, CFS, CCBA) in USA, México, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Ecuador and Uruguay. He had received formal training as carbon validator in Vermont, and as lead auditor against ISO 14001 in Guatemala. As Senior Associate of Verification Services (RA-Cert staff), he has been the point of contact of the carbon services in Mesoamerica Region Office, but also provides technical assistance to South America Region Office.
Violeta Colán, Senior Associate, Andean Region Coordinator RA-Cert South America <i>Audit team member</i> Contact info: vcolan@ra.org	Peruvian Forestry Engineer with Master degree in Integrated Management of Renewable Natural Resources and a specialization in Natural Forest Silviculture. She has participated in formal FSC forest certification auditing courses, volunteer forestry certification, gradual approximation to certification system, chain of custody and environmental auditing ISO 14001. She has also been trained by Rainforest Alliance in carbon validation and verification auditing. Violeta has, to date, participated in over 50 forest management evaluations, certification auditing for FSC P&C in Bolivia, Chile, Colombia, and Peru; and over 20 carbon validation processes in Colombia, Paraguay, Uruguay, Bolivia and Peru. Currently she is the Rainforest Alliance Program Representative for Andean Region.
Janice O'Brien Verification Services Associate RA-Cert Division Toronto, ON Canada <i>Senior Reviewer</i> Contact info: jobrien@ra.org	Janice has a Master's Degree in Forest Conservation from the University of Toronto and has been with Rainforest Alliance for almost 7 years. Janice acts as both the Canadian Verification and Chain of Custody Coordinator. She has task managed Carbon methodology assessments, pre-validations, and validation projects internationally, for 5 years. She has completed a training program in GHG Accounting for Forests and participated as an auditor in 3 Carbon Pre-Assessments, and 5 Carbon Validation/Verification Projects, in Canada, Africa, India, the US and Central America. She has coordinated approximately 800 Chain of Custody audits and assessments, conducted approximately 30 assessments/audits, and participated in 1 Forest Management Audit. Prior to joining Rainforest Alliance she worked in operational and financial risk management for 13 years.

2.2 Document Review

Prior to the onsite visit, the audit team reviewed the Monitoring Report 2014 (Version 01), the Non-Permanence Risk Report (Version 03) and the carbon calculation spreadsheet. As a result, the sampling was designed and resulted in measuring 24 permanent sample plots. During the first day of the audit, the distribution of the plots was established and also specific topics of the documents were widely discussed, for instance risk factors and PD deviations.

2.3 Interviews

As the project developer, Carbosur S.A. representatives were interviewed during and after the verification audit. Also, Pike Consultant representative, one of the service providers, was interviewed during the re measurement of the plots. Finally, Forestal Atlántico Sur (FAS) workers were also interviewed regarding the management of the plantation projects and topics related with internal risk factors.

The following is a list of the people interviewed as part of the audit. The interviewees included those people directly, and in some cases indirectly, involved and/or affected by the project activities.

Name	Title
Agustín Inthamoussu	General Manager, Carbosur S.A.
Alvaro Pérez del Castillo	General Manager, Pike Consultora Forestal & Co.
Yamile Tejera	CFI responsible, Pike Consultora Forestal & Co.
Various	Forestal Atlántico Sur (FAS) workers
Pedro Aramendía	Finance Director, FAS

2.4 Site Inspections

Location/Facility	Date(s)	Length of Audit	Auditor(s)
Administrative office of Carbosur S.A.	Monday 7 April, 2014	One full day	Violeta Colan William Arreaga
Administrative office of FAS - and transportation	Tuesday 8 April 2014	One full day	William Arreaga
Farms at Regis/Garao region	Wednesday 9 April 2014	One full day	William Arreaga
Farms at Las Cañas region – and transportation	Thursday 10 April 2014	One full day	William Arreaga

2.5 Resolution of Findings

Action Taken by Project Proponent following the issuance of the Draft Report			Date
Additional documents submitted to audit team (additional documents listed below)	☒ Yes ☐ No ☐ N/A		August 4th, 2014
Additional stakeholder consultation conducted (evidence described below)	☐ Yes ☒ No ☐ N/A		
Additional clarification provided	☒ Yes ☐ No ☐ N/A		August 18th, 2014
Documents revised (document revision description noted below)	☒ Yes ☐ No ☐ N/A		August 18th, 2014
GHG calculation revised (evidence described below)	☒ Yes ☐ No ☐ N/A		August 18th, 2014

Included in the actions taken by the Project Proponent to address NCRs was the submission of the following revised files:

Ref	Title, Author(s), Version, Date	Electronic Filename
1a.	Final Guanare Carbon stock calculations	Final Guanare Carbon stock calculations 28072014.rar

2a.	Monitoring Report Version 3 21 August 2014	Monitoring report.rar
3a.	NCR 0114-part1	NCR 0114-part1.rar
4a.	NCR 0114-part2	NCR 0114-part2.rar
5a.	NCR 0214	NCR 0214.rar
6a.	NCR 0314	NCR 0314.rar
7a.	NCR 040506 14	NCR 040506 14.rar
8a.	Non-Permanence Risk Report Version 3.2 29 March 2014	Non permanence risk.rar

2.5.1 Forward Action Requests

No Forward Action Requests were issued

2.6 Eligibility for Validation Activities

The Rainforest Alliance audit team evaluated the conformance of the Guanáre afforestation project against the updated version of the VCS Program documents. Rainforest Alliance is properly accredited to perform VCS Validations and Verifications for the AFOLU sector.

3 VALIDATION FINDINGS

The current audit only focuses on verification findings.

3.1 Participation under Other GHG Programs

The “Guanaré” Forest Plantations on degraded grasslands under extensive grazing project was validated on April 30, 2012 under the Validation Registration Code: RA-VAL-VCS-015727, and finally registered on January 18th, 2013.

The Guanáre project has not previously or is currently involved in other GHG program or emission trading schemes. The audit team reviewed the CDM projects listed at <http://cdm.unfccc.int/Projects/projsearch.html> to confirm the project is not registered as a CDM project.

3.2 Methodology Deviations

On the monitoring report Version 3, the proponent lists as deviation the following fact:

1. The Guanáre project was validated against the methodology AR-ACM0001 Version 5.2.0. By the time of the verification, that methodology was not active, but substituted by the combined methodology AR-ACM0003. Although this interpretation is correct, the audit team considers there is no methodology deviation applicable.

3.3 Project Description Deviations

On the monitoring report Version 3, the proponent establishes the following:

1. A PD deviation was experienced when the proponent decided not to actually measure the litter and dead wood pools, but using default values after following the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”. The audit team considers this is in compliance with the tool.
2. Another PD deviation was experienced regarding the established procedures to estimate the tree heights. While in the PD the estimation was based on actually measure a sample of trees, in the monitoring event the proponent decided to measure all of the trees to avoid bias.
3. According to the PD, the estimated number of plots per stratum summed 119 permanent sample plots, however during the monitoring event the proponent established and measured more plots in some stratum. In general, the proponent measured a total of 141 permanent sample plots. The audit team reviewed the rationale of this deviation and agreed that the deviation was not material and likely conservative.
4. On the validated Project Description Version 3, the proponent established the project areas. However, between the validation process and the field measurements (monitoring event) the following farms experienced area updates: Salto de Agua, Ibarra, Caraballo, Ferrari, Barro-Echeverria, G.Araujo, and Da Rosa. Overall, this area updates implies the decreasing of the project area from 21,298 ha to 20,877 ha. The audit team reviewed the carbon stock spreadsheet to confirm this new project area was used.
5. Apart from the project area update explained below, the following two farms were not finally planted as it was established in the validated PD: Mary López (260.6 ha), and Julio Gonzáles (59.6 ha). However, the audit team could confirm that after all, the project area remains to be 20,877 ha.
6. After some revisions during the audit process to address nonconformances, the proponent has submitted a Version 3 Monitoring report which clearly documents the project’s performance during the verification period and uses the appropriate VCS template.

The audit team considers that the mentioned deviations will not impact on the applicability of the methodology, the additionality, or the appropriateness of the baseline scenario. However, a difference in the project area could probably lead to a material discrepancy, mainly regarding the carbon calculations.

3.4 Grouped Project

The Guanáre project is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

In general, the project activity has been developed as planned. Species, planting spacing, tree survival rate, harvesting among other factors did not vary. The project area did vary from an original 21,298 ha to an updated project area of 20,877 ha. This change had been reflected on the carbon calculations; hence no material discrepancy exists between the project implementation and the project description. A list of the project description deviations is included on section 3.3 of this report.

The monitoring plan was fully implemented. The monitoring event took place from July 2012 to January 2013 because it included a more formal inventory called Continuous Forest Inventory (CFI) which is performed in a yearly basis in the project area. The monitoring event indirectly involved staff from the management service provider company (FAS, S.A.) as well as the monitoring provider (Pike, S.A.).

The audit team discussed the specifics about the process of measuring the plots and other aspects of the methodology such as leakage, potential emissions, and also witnessed the re measurement of a random sample of 24 PSP. No material discrepancies were found during this step.

This monitoring event comprised basically gathering information, performing calculations and making estimations of GHG benefits. The audit team agrees that commonly established principles of forest inventory and management were put into practice during this monitoring event.

The monitoring event corresponds to the first VCS verification, therefore the proponent has not traded credits from this project already. The audit team confirmed the Guanaré project is not participating in other trading program or has been rejected under any other GHG program prior or since validation.

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

1. Calculation of emissions in the baseline scenario

During the validation process, the proponent demonstrated that the baseline emissions can be neglected and therefore considered as zero. The monitoring report addresses this on Section 5.1. The main reason is that the same pre project activity has been applied without changes for more than 20 years. The audit team observed this scenario during the verification field visit. Extensive cattle grazing with no pasture improvement is very common in the surroundings of the project area.

2. Calculation of emissions from project activities

During the land preparation, fire was not used at all; hence emissions from project activities can be neglected. This is determined by using the appropriate tool "Estimation of non-CO2 GHG emissions resulting from burning of biomass attributable to an A/R CDM project activity". During the field visit the verification team ratified this.

3. Calculation of emission removals due to the project

In general, the estimation of changes in carbon stocks is appropriately calculated in the carbon spreadsheet and the result are discussed in the 2013 monitoring report.

The determination of changes in tree biomass was based on the measurement of 141 permanent sample plots, instead of using information of only 119 plots as defined in the monitoring plan. The aboveground biomass corresponds to tree biomass only, no shrubs are considered in the calculation.

Sampling methods are described in the monitoring plan and followed in the fields accordingly. Forestry variables as DBH and height were used to estimate the volume per tree, from which the biomass and carbon content were calculated.

The use of default data related with the BEF is not clear and even contradictory among the monitoring report, the spreadsheet calculations and the source of data (IPCC 2003). The monitoring report indicates the proponent used values from 1.5 to 3.4 depending on the tree age while in the spreadsheet values varies from 1.68 to 2.8 and the IPCC 2003 source (Table 3A.1.10) recommends to use 1.4 (1.15 - 3.2). The same scenario is experienced when using other default factor related with the root-to-shoot ratios for all the species. While in the monitoring report it is mentioned 0.3 to 0.31 as the values used, in the spreadsheet the referenced values varies from 0.233 to 0.355 depending on the

species and plantation year. The proponent appropriately aligned information in the monitoring report and the spreadsheet. Also, the hyperlinks in the spreadsheet were fixed therefore the source of the data is clear.

For ex-post estimation the volume of each tree was estimated by using the variables monitored: dbh (and therefore the basal area), and height (and therefore the tree shape form factor). Regarding the tree shape factor, the value applied in the carbon calculations is 0.5 and is aligned with the monitoring report. All default values were reviewed by the audit team to confirm the proponent used the appropriate values accordingly.

In any case, the equation used to estimate the volume was demonstrated to be, both: used in the national forestry inventory of Uruguay, the GHG inventory of Uruguay, and had been used in the commercial forestry sector for more than 10 years.

Wood density of tree species was approved at validation as 0.46 and 0.52 depending on the species. The following are the default data used for the ex post estimation according to the monitoring report: *Pinus taeda*, 440 t.d.m/m³; *Eucalyptus maidenii*, 540 t.d.m/m³; *Eucalyptus globulus*, 520 t.d.m/m³; *Eucalyptus dunnii*, 482 t.d.m/m³; *Eucalyptus grandis*, 460 t.d.m/m³ and *Eucalyptus tereticornis*, 560 t.d.m/m³. After discussions with the proponent, the PD experienced minor edits to better reflect the default data used. Being so, the monitoring report and the carbon calculations were reviewed to confirm all the documents are aligned.

According to the monitoring plan, the change in Soil Organic Carbon stock is estimated by using the appropriate tool in which the use of an appropriate equation is established. The proponent has correctly used the rate of change approved in the validation (2.3 tCO₂/ha/yr) in the *ex post* quantification.

Finally, estimations of carbon stocks in litter and dead wood was done considering default values of 4% and 8% of the total of aboveground biomass estimation. These values are derived from the tool “Estimation of carbon stocks and change in carbon stocks in dead wood and litter in A/R CDM project activities”. This measurement contradicts the original validated monitoring plan in which it was stated that these carbon pools would be measured. However, the audit team approves this deviation from the validated monitoring plan given that it remains in conformance with the methodology.

Total biomass is summed and converted to the carbon fraction using a valid factor (0.5) approved in the validated PD and based on IPCC default values. Review of the methodology confirms that this is appropriate default value.

The monitoring report shows a summary of the estimations while a spreadsheet was designed and submitted for revision. A sample of PSPs have been evaluated in the excel spreadsheets and it has been confirmed in this sample that the appropriate equation, factor for determining belowground biomass, and all equations have been appropriately calculated (with the exemptions highlighted above).

The PP estimated a carbon credit’s vintage to see when exactly the plantations have remove carbon dioxide from the atmosphere; this was done based on the current annual increment for each species/genus and per year since 2006 to 2013.

The Non-Permanence risk report 2013 includes the calculation of total VCUs. Here, the PP subtract leakage from change in carbon stocks to obtain the net GHG benefits, and then subtract 10% (risk) to obtain the GHG credits issued (VCUs). It is important to mention that from the validated VCU estimation, the current verification is taking around 40% of the GHG available credits within the crediting period. The audit team reviewed the calculations to confirm that the methodology w followed.

4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

The audit team witnessed the re measurement of a sample of PSP selected based on a combination of key variables: strata, geographic location, atypical data (Biomass of trees, SOC) and implementation of specific project activities. Data taken onsite was analysed by the audit team and no inconsistencies were found in terms of systematic errors during measuring, collecting and transposition into the monitoring report.

Besides, the proponent submitted in a transparent way all the information collected while measuring the 141 PSP (monitoring event 2013), the worksheets and supporting documents used to determine the GHG removals. The audit team interacted with service providers' representatives (Carbosur, FAS and Pike) to confirm the sufficiency and appropriateness of the data and analysis.

4.4 Non-Permanence Risk Analysis

This is a project afforestation project, the plantations have 22-year rotation, managed with pruning and thinning activities according to FSC practice; the products are log for saw-milling and veneering. Forest will be replanted after clear-cut harvest to maintain carbon stocks through of project. The project crediting period is of 60 years.

Risk Factor	Self Assessment Risk Rating	Findings (including description of any mitigation activities as required per VCS AFOLU Non-Permanence Risk Tool Section 2.1.2.2)	NCR/OBS
Internal Risks (VCS AFOLU Non-Permanence Risk Tool Section 2.2):			
Project Management: Shall be assessed using Table 1 of VCS AFOLU Risk Tool.	- 4	a. The species are not native (<i>Eucalyptus</i> and <i>Pinus</i>). The project proponent has demonstrated that <i>Eucalyptus</i> species planted has been adapted to similar conditions than original site. Score of 0 is claimed. The proponent has justified that the <i>Pinus taeda</i> species is adapted to the site via a national government report on the species showing successful usage of the species without major mortality risks since its introduction in 1975. b. Not applicable. c. All project activities are implemented by the management team of Forestal Atlántico Sur (FAS S.A.), the service provider. They have developed successful experience in forest sector in Uruguay. Score of 0 is agreed by the audit team. d. The management team is based in Uruguay; head office in Montevideo but a formal (technical) office in the project area. Score of 0 is agreed by the audit team. e. The project proponent has contracted Carbosur (expert in AFOLU sector both voluntary and regulated markets). Score -2 is agreed by the audit team. f. Guarané Group has a forest management plan which includes all the plantation projects. There are also other monitoring plans in place to identify potential threatens to the projects, such as pest/disease, forest fires. Score of -2 is accepted.	

Financial viability: Shall be assessed using Table 2 of VCS AFOLU Risk Tool.	1	a. The proponent submitted a worksheet as evidence of compliance. The proponent interpretation is that the project cash flow breakeven point is 11 years (year 2017). The proponent submitted updated evidence to the audit team (file NCR 040506 14.rar) to justify that the original breakeven point is still valid. As a result the score is 1, meaning the breakeven point is 4 years from the current risk assessment. b. Not applicable. c. The audit team agrees that the score should be estimated as 1. d. Not applicable. e. f. g. Not applicable. h. The monitoring event corresponds to a period from 2006 to 2013, meaning the project is facing year 8th from establishment. The proponent has secured so far around 87% of the funding needed while reaching the breakeven point (year 11). Score of 0 is accepted after a discussion with the proponent financial expert to clarify the scope and assumptions. i. The proponent decided not to take the mitigation risk factor.	
Opportunity cost: Shall be assessed using Table 3 of the VCS AFOLU Risk Tool.	0	a. b. c. d. e. Not applicable. f. The excel file shows that cattle production (unique possible alternative land use) Internal Rate of Return is estimated as 2% while the IRR of the project activity is expected to be 9%. Score of -4 is accepted. g. h. i. The proponent decided not to take the mitigation risk factor.	N/A
Project longevity: Shall be assessed using Table 4 of the VCS AFOLU Risk Tool.	4	a. The proponent has demonstrated that the project area will be managed for at least 100 years. Proof of compliance was approved during the validation. Score of 4 is agreed by the audit team. b. Not applicable.	N/A
Total Internal Risk: Shall be calculated using Table 5 of the VCS Risk Tool.	2	The audit team agrees a total risk score of 1	N/A
External risks (VCS AFOLU Non-Permanence Risk Tool Section 2.3):			
Land and resource tenure: Shall be assessed using Table 6 of the VCS Risk Tool.	0	a. Ownership and resource access/right of use are held by the same entity Score of 0 is accepted. b. Not applicable. c. Not applicable. No conflicts over land tenure or ownership were	N/A

		detected by the audit team. d. Not applicable. No conflicts over access/use rights were detected by the audit team. e. Not applicable. The Guaranè project is not categorized as WRC. The proponent decided not to take the mitigation risk factor f and g	
Community engagement: Shall be assessed using Table 7 of the VCS Risk Tool.	0	a and b are not relevant for the project. There is no local population reliant on the project activity. c. The proponent decided not to take the mitigation risk factor.	N/A
Political risk: Shall be assessed using Table 8 of the VCS Risk Tool.	0	a.b.c. Not applicable. d. The proponent demonstrated that the Uruguay Governance score is between 0.19 and 0.82. Score of 1 is accepted. e. Not applicable. f. The proponent has demonstrated that Uruguay has one CDM project already registered, and that there is a DNA already established. Score of -2 (mitigation) is accepted.	N/A
Total external risks: Shall be calculated using Table 9 of the VCS Risk Tool.	0	The audit team agrees a total risk score of 0	N/A
Natural Risks (VCS AFOLU Non-Permanence Risk Tool Section 2.4):			
Natural risks: Shall be assessed using Table 10 of the VCS Risk Tool.	2	Natural risk (fire). Score of 0.5 is accepted. Natural risk (pest disease). Score of 0.5 is accepted. Natural risk (extreme weather). Score of 1 is accepted. Natural risk (geological risk). Score of 0 is accepted. Natural risk (other). Score of 0 is accepted. The proponent conducted the risk analysis by using table 10 of the tool risk; no significant changes have been registered since the validation. The audit team agrees a total score of 2 after checking the correspondent analysis.	N/A

Risk Factor	Self Assessment Risk Rating	Findings	NCR/OBS
Overall non-permanence risk rating as determined using Table 11 of the VCS Risk Tool.	10%	The audit team reviews all the analysis done by the proponent and agrees on a total risk factor of non-permanence of 4. However, as the proponent states, the minimum accepted by the tool are considered to allocate as buffer %.	N/A

5 VERIFICATION CONCLUSION

See Section I above for the verification objectives, scope, criteria, and level of assurance.

After reviewing all the documents submitted by the project proponent and discussions, the Rainforest Alliance found the evidence sufficient to verify that the project proponent has implemented the monitoring activities according to the validated PD and also the validated Monitoring Plan. As a result, the project was found to be in conformance with the VCS Version 3 standard and also that the net GHG benefits (removals) caused by the project can be estimated with a reasonable level of assurance, as of 3,068,303 tCO₂e.

Following the review of the monitoring report and supporting documents, the audit team has concluded with a reasonable level of assurance that the project is in full conformance with the VCS standard requirements, validated project design document, and approved VCS methodology. The positive verification decision was based on the final Monitoring Report Version 3, dated 21 August 2014 and the final Non-Permanence Risk Report Version 3.1, dated 29 March 2014

Below is a description of the verified emission reductions as reviewed and approved by the audit team.

Verification period: From 24-april-2006 to 12-january-2013

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)
2006	0	249,721	0	249,721
2007	0	1,359,224	0	1,359,224
2008	0	1,134,322	0	1,134,322
2009	0	309,067	0	309,067
2010	0	9,749	0	9,749
2011	0	6,220	0	6,220
Total	0	3,068,303	0	3,068,303

Year	Net GHG emission reductions or removals (tCO ₂ e)	Buffer account contribution (tCO ₂ e)	VCUs
2006	249,721	24,972.1	224,748.9
2007	1,359,224	135,922.4	1,223,301.6
2008	1,134,322	113,432.2	1,020,889.8
2009	309,067	30,906.7	278,160.3
2010	9,749	974.9	8,774.1
2011	6,220	622	5,598
Total	3,068,303	306,831	2,761,472

Based on Project's conformance with audit criteria, the auditor makes the following recommendation:

Final Report Conclusions



Verification approved:
NCR(s) closed



Verification not approved:
Conformance with NCR(s) required (See appendix I)

Draft Final Report Conclusions



Verification approved:
NCR(s) closed



Verification not approved:
Conformance with NCR(s) required

The Project Proponent has 7 days from the date of this report to submit any comments related to the factual accuracy of the report or the correctness of decisions reached. The auditors will not review any new material submitted at this time.

Draft Report Conclusions



Verification approved:
No NCRs issued



Verification not approved:
Conformance with NCR(s) required

The Project Proponent has 30 days from the date of this report to revise documentation and provide any additional evidence necessary to close the open non-conformances (NCRs). If new material is submitted the auditor will review the material and add updated findings to this report and close NCRs appropriately. If no new material is received before the 30 day deadline, or the new material was insufficient to close all open NCRs the report will be finalised with the NCRs open, and validation and/or verification will not be achieved. If all NCRs are successfully addressed, the report will be finalised and proceed towards issuance of an assessment statement.

APPENDIX I: NON-CONFORMANCE EVALUATION

Note: A non-conformance is defined in this report as a deficiency, discrepancy or misrepresentation that in all probability materially affects carbon credit claims. Each NCR is brief and refers to a more detailed finding in the appendices.

NCRs identified in the Draft Report must be closed through submission of additional evidence by the Project Proponents before Rainforest Alliance can submit an unqualified statement of conformance to the GHG program. Findings from additional evidence reviewed after the issuance of the draft report are presented in the NCR tables below.

NCR#:	01/14
Standard & Requirement:	VCS Standard 3, Requirement 2.4.1, Principles
Report Section:	3.3. Project Description Deviations.
Description of Non-conformance and Related Evidence:	
Two polygons were not finally planted as planned. Mary López (260.6 ha), and Julio Gonzàles (59.6 ha). The audit team could not confirm if the proponent actually subtracted the non-planted area from the total project area.	
Corrective Action Request:	Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.
Timeline for Conformance:	Prior to Verification
Evidence Provided by Organization:	Shapefiles and a memorandum dated 30 Jul 2014 (within file NCR 0114-part1.rar)
Findings for Evaluation of Evidence:	The auditor confirmed what it was stated in the memorandum by reviewing the carbon calculations and cross referencing with the geographical information. In the memorandum, the proponent ratifies that two polygons (local term, <i>melgas</i>) were not finally planted as it was planned: Mary López (260.6 ha) and Julio Gonzàles (59.6 ha). Moreover the carbon calculation spreadsheet confirms that none of the polygons were taken into account in the GHG benefits calculations. As such, the proponent has substantiated in a transparent way that the project area is 20,877.65 ha.
NCR Status:	CLOSED
Comments (optional):	N/A

NCR#:	02/14
Standard & Requirement:	VCS Standard V3.3.16 Quantification of GHG emissions reductions and removals
Report Section:	4.2. Accuracy of GHG Emission Reduction and Removal Calculations.
Description of Non-conformance and Related Evidence:	

The use of default data related with BEF, root-to-shoot ratio, and tree shape form factors is not clear among the following documents: monitoring plan, worksheets, monitoring report and sources used.

Corrective Action Request:	Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.																																																																																																												
Timeline for Conformance:	Prior to Verification																																																																																																												
Evidence Provided by Organization:	NCR 0214.rar Final Guanare Carbon stock calculations 28072014.rar																																																																																																												
Findings for Evaluation of Evidence:	The proponent reviewed the assignment of BEF values used in the carbon calculations. Two significant errors were identified: a) Eucalyptus species were using BEF values which corresponds to Pinus species, and b) Pinus species values were mismatched between the BEF value and the year of growth. The following table was generated by the auditor while reviewing the correspondence of data used between the monitoring report and the carbon stock calculations: <table><tr><th rowspan="2">Plantation year</th><th colspan="5">Eucalyptus</th><th rowspan="2">Pinus taeda</th></tr><tr><th>Dunnii</th><th>globulus</th><th>grandis</th><th>maidenii</th><th>tereticornis</th></tr><tr><td>2006</td><td>1.35</td><td>1.35</td><td>1.35</td><td>-</td><td>-</td><td>-</td></tr><tr><td>2007</td><td>-</td><td>-</td><td>1.50</td><td>-</td><td>-</td><td>1.95</td></tr><tr><td>2008</td><td>-</td><td>-</td><td>1.70</td><td>-</td><td>-</td><td>-</td></tr><tr><td>2009</td><td>-</td><td>2.00</td><td>2.00</td><td>2.00</td><td>2.00</td><td>2.40</td></tr><tr><td>2010</td><td>-</td><td>-</td><td>-</td><td>2.50</td><td>-</td><td>-</td></tr><tr><td>2011</td><td>-</td><td>-</td><td>3.20</td><td>-</td><td>-</td><td>-</td></tr></table> Since no inconsistencies were found, there is no need for the proponent to update the PD and the monitoring plan. In terms of the factors root-to-shoot, the proponent demonstrated the equation $R = \frac{\exp[-1.085 + 0.9256 \times \ln(A)]}{A}$, was used, using real measurements from the field. In the following table the auditor summarizes the factors used in the carbon calculation spreadsheet. <table><tr><th rowspan="2">Plantation year</th><th colspan="5">Eucalyptus</th><th rowspan="2">Pinus taeda</th></tr><tr><th>dunnii</th><th>globulus</th><th>grandis</th><th>maidenii</th><th>tereticornis</th></tr><tr><td>2006</td><td>0.236</td><td>0.254</td><td>0.236</td><td>-</td><td>-</td><td>-</td></tr><tr><td>2007</td><td>-</td><td>-</td><td>0.246</td><td>-</td><td>-</td><td>0.271</td></tr><tr><td>2008</td><td>-</td><td>-</td><td>0.248</td><td>-</td><td>-</td><td>-</td></tr><tr><td>2009</td><td>-</td><td>0.277</td><td>0.270</td><td>0.277</td><td>0.270</td><td>0.349</td></tr><tr><td>2010</td><td>-</td><td>-</td><td>-</td><td>0.284</td><td>-</td><td>-</td></tr><tr><td>2011</td><td>-</td><td>-</td><td>0.332</td><td>-</td><td>-</td><td>-</td></tr></table> Since no inconsistencies were found, there is no need for the	Plantation year	Eucalyptus					Pinus taeda	Dunnii	globulus	grandis	maidenii	tereticornis	2006	1.35	1.35	1.35	-	-	-	2007	-	-	1.50	-	-	1.95	2008	-	-	1.70	-	-	-	2009	-	2.00	2.00	2.00	2.00	2.40	2010	-	-	-	2.50	-	-	2011	-	-	3.20	-	-	-	Plantation year	Eucalyptus					Pinus taeda	dunnii	globulus	grandis	maidenii	tereticornis	2006	0.236	0.254	0.236	-	-	-	2007	-	-	0.246	-	-	0.271	2008	-	-	0.248	-	-	-	2009	-	0.277	0.270	0.277	0.270	0.349	2010	-	-	-	0.284	-	-	2011	-	-	0.332	-	-	-
Plantation year	Eucalyptus					Pinus taeda																																																																																																							
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	proponent to update the PD and the monitoring plan. Finally, the tree shape factor used is 0.5 for both species, pine and eucalyptus. The proponent added clarification about this in the monitoring report. In summary, the proponent showed transparently the use of factors and as a result, an updated GHG benefit value is accepted, 3,068,303 tCO₂e the project has removed from the atmosphere during the monitoring period.
NCR Status:	CLOSED
Comments (optional):	N/A

NCR#:	03/14
Standard & Requirement:	VCS Standard V3. 3.16 Quantification of GHG emissions reductions and removals
Report Section:	4.2. Accuracy of GHG Emission Reduction and Removal Calculations.
Description of Non-conformance and Related Evidence:	
According to the monitoring plan, the change in Soil Organic Carbon stock is estimated by using the appropriate tool in which it is established the use of an equation. The audit team reviewed the carbon worksheet and notice significant differences between the requirement and the way the proponent estimated the SOC stocks for each plantation year.	
Corrective Action Request:	Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.
Timeline for Conformance:	Prior to Verification
Evidence Provided by Organization:	NCR 0314.rar Final Guanare Carbon stock calculations 28072014.rar
Findings for Evaluation of Evidence:	The proponent has correctly used the rate of change (2.3 tCO₂/ha/yr) – already validated, and has estimated the change of SOC stock for all the strata of the areas (tCO₂e) by applying the equation 8 of the methodological tool. In the worksheet, all the calculations are transparently shown and also a clarification was issued by the proponent. No difference in terms of carbon calculation was experienced, therefore a total SOC of 245,945 tCO₂e is accepted.
NCR Status:	CLOSED
Comments (optional):	N/A

NCR#:	04/14
Standard & Requirement:	VCS AFOLU Non-permanence risk tool, 2.1.1

Report Section:	4.4. Non-Permanence Risk Analysis
Description of Non-conformance and Related Evidence:	
The proponent has planted <i>Pinus taeda</i> , and non-native species to Uruguay. However, a justification of adaptation is not shown in the project management risk category, factor a.	
Corrective Action Request:	Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.
Timeline for Conformance:	Prior to Verification
Evidence Provided by Organization:	VCS Non-permanent risk report version 3
Findings for Evaluation of Evidence:	On risk factor a of the project management risk category, the proponent clarified that the project also involves the establishment of a pine non-native species: <i>Pinus taeda</i> . Consequently, a justification was explained based on a national report. The justification basically relies on the fact that the species has been planted in Uruguay since 1975 showing adaptation and no presence of pests and diseases through the years the proponent had worked with the species.
NCR Status:	CLOSED
Comments (optional):	N/A

NCR#:	05/14
Standard & Requirement:	VCS AFOLU Non-permanence risk tool, 2.2.2
Report Section:	4.4. Non-Permanence Risk Analysis
Description of Non-conformance and Related Evidence:	
According to the audit team interpretation, there is a period of four more years for the project to reach the breakeven point. As per the proponent interpretation is different, a clear justification must be offered.	
Corrective Action Request:	Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.
Timeline for Conformance:	Prior to Verification
Evidence Provided by Organization:	NCR 040506 14.rar
Findings for Evaluation of Evidence:	The proponent has reviewed the rationale of using risk factor a (assigning a score of +3) versus using risk factor c (assigning a score of 1) while evaluating the risk category Financial Viability. After the analysis, the proponent evaluated risk factor c and the auditor agreed a score of 1.

	The general risk score changed to 4, however the minimum 10% was claimed by the proponent.
NCR Status:	CLOSED
Comments (optional):	N/A

NCR#:	06/14
Standard & Requirement:	VCS Standard V3. Requirement 3.6 Project Description Deviations
Report Section:	3.3. Project Description Deviations.
Description of Non-conformance and Related Evidence:	
During the review of the program documents and supporting documentation, the audit team discovered minor issues (no materiality involved) such as: a) The VCS monitoring report template used is not valid anymore. b) Several editions to the monitoring report are needed to better reflect the implementation and the results.	
Corrective Action Request:	Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.
Timeline for Conformance:	Prior to Verification
Evidence Provided by Organization:	Monitoring report Version 3
Findings for Evaluation of Evidence:	The monitoring report was submitted using the most recent version of the template. Also, several minor editions and clarifications were included in the updated version of the document. The auditor compared the monitoring report against the VCS template and also accepted the updates and editions.
NCR Status:	CLOSED
Comments (optional):	N/A

Observations

Note: Observations are issued for areas that the auditor sees the potential for improvement in implementing standard requirements or in the quality system; observations may lead to direct non-conformances if not addressed. Unlike NCRs, observations are not formally closed. Findings from the field audit related to observations are discussed in Appendix A below.

OBS 01/14	Reference Standard & Requirement: VCS Standard V3. Requirement 3.5 Methodology Deviations Requirement 3.6 Project Description Deviations
Description of findings leading to observation: The proponent has identified several deviations; however all of them must be clearly listed in the monitoring report and other relevant documents.	
Observation: Guanare should assure all the deviations (project description and methodology deviations) are presented in the monitoring report.	