

VERIFICATION REPORT FOR THE MADRE DE DIOS AMAZON REDD PROJECT



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Summary:

This report describes the verification audit of the Madre de Dios Amazon REDD Project (“the project”), a Reduced Emissions from Deforestation and Degradation (REDD) project located in the Madre de Dios region of Peru, that was conducted by SCS. The purpose of the verification audit was to conduct, in accordance with the VCS rules, 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. The verification audit was performed through a combination of document review, interviews with relevant personnel and on-site inspections. As part of the verification seven findings were raised: three Non-Conformity Reports, four New Information Requests and no Observations. These findings are described in Appendix A of this report. In summary, the audit team is able to verify with a reasonable level of assurance that the GHG removals generated by the project, quantified in accordance with the verification criteria, amount to 928,563 tonnes CO₂ equivalent. SCS verified that the non-permanence risk rating of the proposed project activity for this verification is 10% which is to be applied to the change in carbon stocks at this verification (equal to 92,887 tCO₂e). The amount of VCUs to be issued would be 835,676 tCO₂e. The project complies with all of 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

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, V3.1, 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.

1.2 Scope and Criteria

1.2.1 Scope

In accordance with Section 4.3.4 of ISO 14064-3:2006, 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, as discussed in Section 5 of this report

1.2.2 Criteria

In accordance with Section 5.3.1 of the VCS Standard (see below for full reference), the criteria for verification was the VCS Version 3, including the following documents:

- VCS Program Guide, V3.7
- VCS Standard, V3.7
- VCS AFOLU Requirements, V3.6
- VCS Non-Permanence Risk Tool, V3.3
- The VCS-approved methodology VM0007 ("the methodology"; see Section 2.1 of the validated project description for a reference to the version numbers of all documents comprising the methodology), as applied to the project

1.3 Level of Assurance

In accordance with Section 5.3.1 of the VCS Standard, the level of assurance of this report is reasonable.

1.4 Summary Description of the Project

From the Validated PD (Version 3):

“The proposed project activity consists of sustainable forest management in the certified timber concessions “Maderera Río Acre S.A.C. and Maderera Río Yaverija S.A.C.” in Madre de Dios department, South East of Peru, in the Peruvian Amazon.

Both timber concessions have signed long-term concession contracts with the Peruvian State in May 2002 for 40 years, renewable for 40 more years, totaling 80 years of contract, for an area of 98,932 hectares (49,376.0 hectares for Maderacre and 49,556.0 hectares for Maderyja).

The project area is located less than 30 km to the side of the new inter-oceanic road that will unite Brazil with the Peruvian ports, in the region that belongs to the Vilcabamba-Amboró Conservation Corridor in the Peruvian Amazon, one of the world’s biodiversity hotspots.

The area of influence of the Interoceanic road is characterized for still having areas of forests of great importance for their biodiversity and the environmental services they offer. However, the presence of the inter-oceanic road represents a great risk due to a major pressure of population from rural Andes regions that will migrate looking for lands, and the economic activities that will consequently be established. In this sense, it is relevant to consolidate the sustainable management of the area, as it is the case of forestry concessions with timber and non-timber destination, private areas and protected natural areas.

Another secondary source of risk for the future could come from illegal logging, which may affect in a much lower level of risk, the project area. Illegal loggers could be attracted in the future by the abundance of forestry species of high commercial value, as mahogany. Illegal logging, even though it does not necessarily deforest, if happens, could affect in the future value of the forest and open roads that make accessibility easier, creating the conditions for future deforestation. However, it is clear from different independent studies and from the Participatory Rural Appraisal diagnosis (PRA conducted for the project) that this risk is not significant and the main reason for land use change has been, and remains, the installation of crops and pastures.

The Madre de Dios Amazon REDD Project will dramatically reduce deforestation by increasing surveillance in the rainforest and benefiting local communities. The project was been validated on 2nd December 2009, according to the Climate, Community & Biodiversity Alliance (CCB Standards) by Scientific Certification Systems (SCS), which guarantees its social and environmental sustainability and validates that carbon calculations have been done following appropriate methodologies. This is furthermore enhanced by the fact that the project has obtained the maximum status within the CCB Standard: Gold.”

2 VERIFICATION PROCESS

2.1 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. At all times, the monitoring report and non-permanence risk analysis were assessed for conformance to the criteria described in Section 1.2 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 14064-3:2006, 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 the material discrepancy 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.

2.2 Document Review

The monitoring report (version 01 dated 15 May 2017, revised 11 January 2014 V3.4; “MR”) and non-permanence risk report (version 1.0 dated 15-05-2017; “NPRR”) 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:

Document/Description	Document Title	/Ref/
Monitoring report	VCS Monitoring Report MDD 2016 FINAL	/1/
Main Data Input Workbooks for Each Concession	COC 2016 MRY_(20-09-17)	/2/
Leakage Calculations Workbook	Leakage Estimations in MDD 2016	/3/
Monitoring Parameters and Calculations Workbook	Cp Estimations in MDD 2016	/4/
Uncertainty Analysis Workbook	Uncertainty Analysis MDD 2016	/5/
GHG Reductions Workbook	VCUs Estimation in MDD 2016 2nd Version: VCUs Estimations in MDD 2015 (October 2016)	/6/
Non-permanence risk report	VCS NonPermRisk 2016 v1	/7/
Validated Project Description Document	PD Madre de Dios Amazon REDD Project v3	/8/
GIS/Remote Sensing Procedure Protocol and Document	01. memoria_M&M_jun_2017_v1	/9/
Government Mill Receipts	Maderyja_Balance_de_extraccion_PCA14; Maderyja_Balance_de_extraccion_PCA15	/10/
2016 Forest Management Plan	PGMF_Maderyja_Reformula-2016	/11/
Monitoring Memo	Informe Control y vigilancia 2016 listo	/12/
Mill Logs & Measurements	Trozas verificadas_REDD (02-09-2017) (1)	/13/

Road, Skid Trail, and Landing Monitoring Documents	Patios de acopio_campamentos_PC 14 y PC 15; MONITOREO ARRASTRE PC14-2016FINAL; MONITOREO ARRASTRE PC15-2016_FINAL; Caminos	/14/
Census Data	Data poa14 maderya sac; PO 15 Reform-2 (MRY)	/15/
High Value Forests Management Plan	INFORME BAVC MADERYJA, 2017	/16/
Annual Operating Plan	PO 15 reformul-2 (MRY); PO 14	/17/
FSC Certification Documentation for both Concessions	FSC Public Search – Maderacre; FSC Public Search – Maderya; Maderacre FSC FM reassess 17 SPA public; Maderera Rio Yaverija FSC FM reassess 17 SPA public	/18/
GIS Aerial Images and Shapefiles	Multiple Documents	/19/
Management Concessions	Multiple Documents	/20/
“Memoria Descriptiva del Procedimiento Metodológico” (November 2017)	01. memoria_M&M_nov_2017_v2 (1)	/21/

2.3 Interviews

Interviews constituted an important component of the audit process. The following personnel associated with the project proponent and/or implementing partner were interviewed.

Individual	Affiliation/Role	Date Interviewed
Silvia Gomez	Greenox	Throughout Audit
José Luis Canchaya Toledo	Maderacre Administrator	Throughout Audit
Alejandro Ji	Administrator Maderya	Throughout Audit
Tatiana Lapeyre	GIS Consultant	6 June 2017
Lizardo Fachiu	GIS Consultant	6 June 2017
Nelson Kroll Kohel	Maderacre-Chief Forest Engineer	6 June 2017
Enrique Pacheco	Maderacre-Engineer/Technician	6 June 2017
Milton R. Huancha	Ambiente y Desarrollo de las Comunidades del Perú (ADECOMP)	6 June 2017

Individual	Affiliation/Role	Date Interviewed
Silvia Gomez	Greenox	Throughout Audit
Milagros Jauregui Robladillo	Maderacre-Social Scientist/Community Relations	6-8 June 2017
Enrique Pacheco	Maderyja-Engineer/Technician	6 June 2017

The following personnel not associated with the project proponent and/or implementing partner were interviewed.

Individual	Affiliation/Role	Date Interviewed
Representatives of Local Community Villa Primavera	The Community of Villa Primavera	8 June 2017
Representatives of Local Community Belgica	Various other individuals, representatives, and members from the community's women's cooperative group from comunidad Belgica.	8 June 2017

2.4 Site Inspections

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

- Select samples of data from on-the-ground measurements for verification in order to meet a reasonable level of assurance and to meet the materiality requirements of the project, as required by Section 5.1.3 of the VCS Standard;
- Perform a risk-based review of the project area and project activities to ensure that the project conformed to the requirements of the VCS rules and the methodology throughout the monitoring period; and
- Ensure that monitoring was conducted in accordance with the requirements of the validated monitoring plan, the methodology employed, and the VCS rules.

In fulfilment of the above objectives, the audit team performed an on-site inspection of the project area on the dates of 6-8 June 2017. The main activities undertaken by the audit team were as follows:

- An assessment of the implementation and operation of the project activity through visual inspection and through interviews with the project proponent's staff. Project, concession, and parcel boundaries and information were assessed using a GPS receiver as well as through visual observation;
- Identified and measured randomly selected logs at the Maderyja mill which were harvested from the Parcelas de Corte Annual (PCAs) active during the monitoring period in question (PCA 14 and PCA 15 of the Maderyja concessions) to ensure that the operational and data collection procedures were implemented in accordance with the monitoring plan of the PD and to verify the information flows for generating, aggregating and reporting monitoring parameters. As all

harvesting is directly regulated by the Peruvian government, the verification team performed on site interviews with government officials to confirm the absence of harvesting in other areas of the project.

- Interviewed project personnel (see Section 2.3 of this report) to gather information regarding monitoring procedures and project implementation;
- Interviewed project personnel to confirm the appropriateness of the non-permanence risk score claimed for the project (see Section 4.4 below for further details);
- Conducted appropriate cross-checks to confirm the validity of the data used to quantify the parameters required to be monitored by the methodology;
- Conducted a field review of measurement systems and methods employed to determine the area of skid trails, logging decks and logging roads, as required by the methodology; and
- Visited the two community projects and interviewed community members to assess the ongoing operations of the community partnerships.

2.5 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, three NCRs, four NIRs and no OBS were issued. All findings issued by the audit team during the verification process have been closed. In accordance with Section 5.3.7 of the VCS Standard, all findings issued during the verification process, and the impetus for their closure, are described in Appendix A of this report.

2.5.1 Forward Action Requests

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

2.6 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

3.1 Participation under Other GHG Programs

Not applicable, as the project is not seeking registration under the VCS Program and any other approved GHG program.

3.2 Methodology Deviations

One deviation was applied to the project, as described in Section 2.2.1 of the MR. The below table identifies contains details regarding the findings of the audit team. The audit team concludes, in summary, that the deviations is valid.

Identification of deviation	Assessment column 1*	Assessment column 2**
Deviation from procedures for quantification of number of buffer credits to be issued, as set out in Equation 5 of REDD-MF methodology framework	Applies solely to quantification of parameter Buffer(UNPLANNED), which is a monitored parameter	Does not have any bearing on the quantification of GHG emission reductions or removals; moreover, the deviation corrects the calculation, as the calculation in Equation 5 would lead to a highly erroneous quantification of the allocation to the risk buffer pool, and the deviation entails the use of a corrected equation

- *Assessment column 1 contains information regarding assessment of whether the deviation meets with the criteria and specifications for permitted methodology deviations.
- **Assessment column 2 contains information regarding assessment of whether the deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals (except where it results in increased accuracy)

3.3 Project Description Deviations

Not applicable, as no project description deviations were noted nor required during this monitoring period.

3.4 Grouped Project

Not applicable, as this is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The audit team checked the monitoring plan contained in the latest version of the PD /8/ and compared it with the latest version of the MR /1/ to verify whether there was any difference that would cause an increase in estimates of the GHG emission reductions in the current monitoring period. The audit team confirmed that the implementation is in accordance with that stated in the monitoring plan of the PD, and that no project description deviations were present.

The audit team also confirmed that the monitoring of project implementation has been carried out in accordance with the monitoring plan contained in the registered PD. According to the validated PD (Version 03), the project will achieve the expected GHG emission reductions through two outcomes:

Outcome 1 - Contribute to the sustainable development of rural producers living in the buffer zone of the project through the following activities:

- a) Socialization and dissemination of the project goals: the audit team verified this activity through documentation, pictures, and interviews with community members that the project goals were presented in public events such as workshops, town meetings, and other events, mainly in the Villa Primavera and Belgica communities
- b) Identification and selection of proposals for the environmentally friendly productive projects: The audit team was able to verify implementation of these activities through interviews with the recipients of the environmentally friendly productive projects contest winners from Inapari and from other buffer areas of the project
- c) Development of the skills and capacities of the members of the associations linked to the selected projects
- d) Design of the project profiles of the selected projects
- e) Look for financing and/or co-financing for the approved profiles
- f) Support on the implementation of the approved projects
- g) Monitoring of the projects

d-g: The audit team was able to verify implementation of the initiatives mentioned in the MR through review of documentation, materials employed, and interviews with respective community members and beneficiaries. While some progress has been made with individuals that have won the environmentally friendly production project contests, most of the implementation in this regard has been made with two distinct projects involving local communities; a local handcraft project with a women's group in the Belgica community and with the creation of a Children's educational forest in the Villa Primavera community.

Outcome 2 - Reduce the vulnerability of the project area from external factors of deforestation and degradation through the following activities:

- a) Review and update of the custody plan
- b) Installation of control posts PCA 5 Maderacre
- c) Delimitation of 100% of the concessions boundaries
- d) Installation of "Hitos" in the concessions vertexes
- e) Improve the signaling within the concessions

- f) Periodic and annual patrolling within vulnerable sectors
- g) Annual monitoring of possible invasions using satellite images
- h) In-field verification of sectors identified as potential points of invasion (due to deforestation)
- i) Development and implementation of mechanisms for the dissemination of environmental education among children, adolescents and communities involved in the project

The audit team confirmed that the Comunidad Nativa Belgica situated in the leakage belt, is by far the most important neighbor of the REDD Project. During the site visit, it was evident that the members are informed of the project and are well aware of the impacts of its implementation. Checkpoints, or control posts, were visited during the onsite visit and the audit team was also able to interview guards who confirmed the presence of project personnel in the area at all times in order to prevent illegal activities and to monitor who enters or leaves the concessions. The audit team also confirmed through visualization, interviews, photographs, and review of documentation that all the project boundaries have been clearly delineated in the field, that there exists periodic and annual patrolling of vulnerable areas that the proposed “hitos”, or boundary posts have been installed, and that signage within the concessions had also been improved.

The monitoring based on satellite images did not register illegal activities during the monitoring period, and the audit team found that the procedures and level of accuracy necessary to comply with the methodology have been properly followed and in accordance with best practices with regards to land use change analysis using remote sensing /9/. After a review of the initial project documentation, the verification team requested that project personnel increase the accuracy assessment sample to ensure conformance with the accuracy requirement of 90%, as stated in Section 5.1.2 of the M-MON methodological tool. Based on the updated sampling effort, the verification team confirmed that the project now meets the accuracy assessment requirement of the tool.

The audit team can confirm that the monitoring of the project has been carried out in accordance with the revised monitoring plan and formulae contained in the registered PD. As required by the monitoring plan of the PD and the applicable methodology, the project proponent effectively monitors the required parameters to determine the project's removals by sinks and emissions by sources.

Section 4 of the M-MON module (monitoring module) of the methodology requires, as an applicability condition, that “If emissions from logging are not omitted as de minimis, logging may only take place within forest management areas that possess and maintain a Forest Stewardship Council (FSC) certificate for the years when the selective logging occurs”. The audit team confirmed that the concessions that underwent logging operations during this current monitoring period worked under the auspices and guidelines of FSC certifications /18/. Evidence provided in the form of FSC certificates from the Rainforest Alliance show that both concessions hold FSC certification through 2022, and through review of the parcels and areas that underwent logging operations in the monitoring report, that these in fact lie within the geographic scope of each certificate.

The audit team visited the Maderyja mill to identify and measure logs that had been harvested from PCA 14 and PCA 15 during the reporting period. These measurements were used to ensure that the operational and data collection procedures were implemented in accordance with the monitoring plan of

the PD and to verify the information flows for generating, aggregating and reporting monitoring parameters – as well as – the calculation of VCU's.

Whereas, the verification team was not able to access the harvest areas for this monitoring period (due to a bridge having been washed out), the verification team employed verification activities performed in the previous verification to further confirm the reporting of logging activities. Throughout the evaluation, the verification team confirmed that the same procedures for collecting, analysing and archiving data was being used for reporting and that the reported values based solely on the mill and government records has been reported accurately.

Based on the verification activities, the audit team has a reasonable level of assurance that no material discrepancies exist between the project description and project implementation or between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology. Furthermore, the audit team can also confirm that the proposed project activity is not participating towards any other GHG program as confirmed by the audit team by checking with national authorities as well as checking the CDM, VCS, Gold Standard, and other relevant databases, both at the national level in Peru as well as Internationally. Therefore, the project does not participate under other GHG programs, nor does it generate any other forms of environmental credit.

The following discussion of previously validated methodology deviations was taken directly from previous verification reports for the project. None of the below deviations held any consequences for the verification engagement described in this report, because none of them were applied during the monitoring period under assessment.

Methodology deviation 01

Equation 13 of the M-MON module requires that the length of skid trails in stratum *i* in time *t* be multiplied by a “skid trail emissions factor” to determine the emissions from skid trails in stratum *i* at time *t*. A deviation from this approach was applied for PCAs 8 and 9 in the Maderacre concession and PCAs 8-10 in the Maderyja concession, as the length and width of the skid trails in the above PCAs had not been measured. It was indicated to the audit team during on-site activities that it was not feasible to perform measurements of these skid trails because, as of the release of Version 2.0 of the M-MON module (released in 23 November 2011), sufficient time had passed since construction of the skid trails to make measurements difficult. The audit team can attest that it can be difficult to accurately establish the boundaries of skid trails some time after harvest, due to vegetative growth. As a work-around to this situation, a ratio estimator was applied, using the known skid trail emissions from PCAs 10 and 11 of Maderyja (where measurements were undertaken) to predict skid trail emissions for the remaining PCAs using harvested volume as the predictor variable. The approach undertaken was determined by the audit team to be theoretically sound and competently carried out. While it would not be appropriate to engage in such a deviation during every monitoring period, the discrepancy is a deviation to the criteria and procedures for monitoring and is unlikely to impact the conservativeness of the quantification of GHG emission reductions in this monitoring period.

Methodology deviation 02

Section 5.1 of the M-MON module requires that “A change in source data may only occur if the images based on interpretation of the new data overlap the images based on interpretation of the old data by at

least 1 year and they cross calibrate to acceptable levels based on commonly used methods in the remote sensing community.” The project does not conform to the temporal aspect of this requirement, which appears to require that images from two different points of time be available from the “new” and “old” sources, and that the temporal overlap between the different sets of images be at least one year. However, the audit team was provided with a Landsat TM 5 image from July 2010 to observe in comparison with the ResourceSat-1 imagery from July and September 2012. As minimal LU/LC change occurred between the dates of acquisition of the Landsat and ResourceSat-1 images, the cross-calibration between the images produced by the two sources was readily observed.

Methodology deviation 03

For the quantification of uncertainty in emissions from construction of skid trails, logging decks and logging roads, the M-MON module requires that “The uncertainty in carbon stocks estimates and resulting emissions must be included in the estimation of with-project scenario uncertainty calculations performed using the module X-UNC (VMD0017) during each verification event unless indisputably conservative estimates are used”. The uncertainty in carbon stock estimates was not included in the estimation of with-project scenario uncertainty calculations.

For the quantification of uncertainty in skid trail emissions, the audit team agrees that the uncertainty in carbon stock estimates does not have to be included, as discussed in Section 4.2 below. However, for quantification of uncertainty in emission from creation of logging decks and logging roads, sufficient evidence was not provided to the audit team to demonstrate that indisputably conservative estimates of carbon stock have been used. However, the total percent uncertainty calculated by the audit team (using statistically sound calculations and fully accounting for the uncertainty in the carbon stock estimates employed in logging deck and logging road emissions) was far less than 15%, as was the uncertainty reported by project personnel. Therefore, no deduction for uncertainty was required on the basis of either uncertainty calculation. On this basis, the deviation, which applies to the criteria and procedures for monitoring, can be considered to have no impact conservativeness of the quantification of GHG emission reductions, and is therefore considered appropriate with respect to the present monitoring period. It is noted that such a discrepancy with respect to the requirements of the methodology may prove to be a material discrepancy in a future monitoring period.

Methodology deviation 04

During the 1 January 2015 to 31 December 2015 monitoring period, the value of logging deck area estimated for several parcels did not come from a source permitted by the methodological tool VMD0015 M-Mon, but rather from an estimate that utilizes the average area of logging decks from another harvested parcel to then multiply by the number of decks on record for those parcels. This represents a methodological deviation that is permissible under the VCS standard (a deviation from the criteria and procedures relating to monitoring or measurement), and the project proponents have justified that this would not negatively impact the conservativeness of the quantification of GHG emission reductions because the average size of landing deck areas used for this estimation is based on the direct field measurements from a parcel that was harvested during the same monitoring period and using the same equipment and operators as the parcel in question. Thus, the audit team deems this methodological deviation permissible and appropriate under these circumstances and in lieu of not being able to obtain direct field measurements.

Methodology deviation 05

During the 1 January 2015 to 31 December 2015 monitoring period the project proponents employed a methodology deviation in the absence of obtaining direct field measurements for some secondary roads in parcels that underwent harvesting during the monitoring period in both concessions. The audit team can confirm that the estimates used do not negatively impact the conservativeness of the quantification of GHG emissions reductions because they were determined in the following manner: (a) missing width data for secondary roads in PCA 12 were obtained from widths measured in the field PCA 13, and this is deemed appropriate as the audit team determined that the same machinery was used for road construction in both parcels; (b) missing lengths for secondary roads in PCAs 3 and 4 were estimated based on the proportion of known length of secondary roads constructed in neighbouring harvested parcels per the volume of wood extracted from those known parcels, and this is more appropriate than estimates that use area in the proportion as secondary roads are constructed according to volume and location of wood to be extracted.

Methodology deviation 06

Equation 4 in version 1.2 of the methodology requires that net emissions in the baseline minus emissions from fossil fuel use and fertilizer use minus the net emissions in the project case minus emissions from fossil fuels and fertilizer use be multiplied by $(1 - \text{Buffer}\%)$. This was found to be incorrect, as it would result in an overestimation of buffer credits. Hence, the project proponents performed the calculation using the corrected version of equation 4 from version 1.4 of the methodology instead, and the audit team was able to confirm that this method of performing the required buffer calculation was appropriate since: (a) the total buffer value feeds into the monitoring parameter ΔVCUt planned, and thus meets the criteria of a monitored parameter permitted for a possible methodology deviation under the VCS standard; and (b) the buffer allocation is not applied until after the GHG reductions are calculated, it is not possible for this deviation to affect the conservativeness of the reported reductions.

Furthermore, the steps taken by the audit team to assess each of the following items is summarized below.

Item	Verification findings
Existence of any material discrepancies between project implementation and the project description	On-site review, document review and interviews with project personnel revealed no such material discrepancies
The implementation status of the monitoring plan and the completeness of monitoring, including the suitability of the implemented monitoring system (i.e., process and schedule for obtaining, recording, compiling and analyzing the monitored data and parameters)	Through on-site review, independent review of remotely sensed imagery and interviews with project personnel, audit team can confirm that the monitoring plan is being implemented and that all monitoring is fully complete
The existence of any material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description	Through detailed review as described above, the audit team was able to confirm absence of any such material

Item	Verification findings
and the applied methodology	discrepancies
Whether the GHG emission reductions or removals generated by the project have become included in an emissions trading program or any other mechanism that includes GHG allowance trading	Through general familiarity with the region in which the project is located, the audit team has a reasonable level of assurance that the GHG emission reductions or removals generated by the project have not become involved in any such program or mechanism (e.g., while the Governors' Climate and Forests Task Force does include the region of Madre de Dios, the audit team understands that Madre de Dios is not linked into any trading scheme as a jurisdictional entity)
Whether the project has received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification	- The audit team has reasonable assurance that the project has not received or sought any other form of environmental credit through on-site review, document review and interviews (during which the topic of such crediting did not come to the attention of the audit team) - While it is possible that the project has become eligible to receive or seek such crediting, this seems to be a strictly hypothetical matter, given that no such crediting has been received or sought
Whether the project has participated or been rejected under any other GHG programs since validation or previous verification	The audit team has reasonable assurance that the project has not participated or been rejected under any other GHG programs since the previous verification through on-site review, document review and interviews (during which the topic of such crediting did not come to the attention of the audit team)
Sustainable development contributions	Not applicable

On the basis of observations made during the site visit, the audit team has no reason to doubt the assertions made in Section 2.1 of the monitoring report and has a reasonable level of assurance that the project has been implemented as described in the project description.

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

The GHG emission reductions and/or removals have been quantified correctly in accordance with the project description and (with the exception of the methodology deviations discussed in Sections 3.2 and/or 4.3.1.1 above) with the applied methodology.

The GHG emission reductions and/or removals have been quantified correctly in accordance with the project description and with 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 and removals/or, 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 and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values
Degradation PRA Results (M-MON)	As required by the M-MON module, this parameter is monitored every two years, and was determined on the basis of a participatory rural appraisal (PRA) that was carried out with surrounding communities to the project area. The results of the PRA are reported on in the document identified as document /10/ in the verification report for the 1 January 2015-31 December 2015 monitoring period (verification of which was also carried out by SCS). According to Section III of this document, the PRA was conducted in February-March 2015. Therefore, new surveys were not required to be conducted until February-March 2017, which falls after the monitoring period. As it was therefore outside the scope of the verification engagement documented in this report to review the updated PRA, the findings of the prior verification engagement regarding the PRA, as documented in the Section 4.2 of the verification report for the 1 January 2015-31 December 2015 monitoring period, remain valid and the observations made during the prior verification engagement can also serve for purposes of the current verification engagement. These findings are quoted below. “As required by the M-MON module, this parameter was determined on the basis of a participatory rural appraisal (PRA) that was carried out with surrounding communities to the project		N/A (no default values)

	Steps taken by audit team to assess...																		
Data/Parameter	Accuracy of GHG emission reductions and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values																
	area. The PRA conducted by the proponent indicates no evidence of degradation. A capable sociologist team conducted the survey; the audit team evaluated the survey and its results, and found it to be credible and in line with the general lack of dependency upon the project’s carbon stocks from the surrounding communities. Additional related parameters were not measured by the proponent (area degraded, dbh of stumps, etc.) for this monitoring period as there was no evidence of degradation.”																		
$\Delta C_{BSL,unplanned}$	N/A (assessed at validation)	The audit team reviewed the PD and confirmed that the previously validated baseline carbon stocks were appropriately included in the GHG calculations and therefore considered accurate for this current monitoring period (T CO2e/Ha): <table><tr><td>Hill Forest</td><td>505.10</td></tr><tr><td>Terrace Forest</td><td>547.81</td></tr><tr><td>Bamboos</td><td>604.48</td></tr><tr><td>Tree swamp</td><td>543.42</td></tr><tr><td>DP</td><td>18.63</td></tr><tr><td>DA</td><td>31.75</td></tr><tr><td>DI</td><td>-</td></tr><tr><td>DC</td><td>31.63</td></tr></table>	Hill Forest	505.10	Terrace Forest	547.81	Bamboos	604.48	Tree swamp	543.42	DP	18.63	DA	31.75	DI	-	DC	31.63	N/A
Hill Forest	505.10																		
Terrace Forest	547.81																		
Bamboos	604.48																		
Tree swamp	543.42																		
DP	18.63																		
DA	31.75																		
DI	-																		
DC	31.63																		

	Steps taken by audit team to assess...		
Data/Parameter	Accuracy of GHG emission reductions and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values
A _{DefPA,u,i,t} (M-MON)	This parameter was quantified using the scene from the Landsat-8, OLI sensor, that of the 14 July 2016. The audit team viewed the website from which the scenes were downloaded (http://www.dgi.inpe.br/catalogo/) and confirmed that the selected scene had less than 10% cloud cover. The procedures used for geometric and radiometric correction of the remotely sensed data were reviewed by the audit team and determined to conform to good remote sensing practice, as well as to the monitoring plan. The audit team also confirmed that monitoring of deforestation within the selected scenes was implemented in accordance with the monitoring plan, and that it was carried out by a seasoned and qualified remote sensing analyst and expert. Through visual observation of the satellite scenes and other documentation reviewed, the audit team can confirm the attestation that that no deforestation occurred within the project area during this monitoring period. The audit team also was able to confirm that an accuracy assessment was duly undertaken and	Through interviews with project personnel and reviews of process, audit team was able to confirm that methods set out on pages 199-200 of PD have been followed	N/A

	Steps taken by audit team to assess...		
Data/Parameter	Accuracy of GHG emission reductions and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values
	confirmed that the maps produced as a result of the remote sensing work met the requirements of the methodology (see Section 4.1 above).		
A _{DefLB, u, i, t} (M-MON)	The audit team can confirm that this parameter was quantified using the same remotely sensed data and techniques described above. The audit team confirmed, through visual review of the land classification polygons in comparison to the satellite imagery data, that the classification procedures used to determine the quantity of area of land-cover change in the leakage belt were appropriate, replicable and justified. The proponent analysis resulted in identifying 124.83 ha of land use change (apparent deforestation) in the leakage belt resulting from forest being cleared for agricultural purposes. The proponents and audit team were able to confirm this by also relying on the results of the ground truthing exercise that was carried out as part of the project's QA/QC procedures. This information helped the audit team confirm that the deforestation activities detected within the leakage belt were appropriately	Through interviews with project personnel and reviews of process, audit team was able to confirm that methods set out on pages 199-200 of PD have been followed	N/A

	Steps taken by audit team to assess...		
Data/Parameter	Accuracy of GHG emission reductions and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values
	identified and quantified.		
$A_{ROADi,t}$ (M-MON)	The accuracy of quantification of this parameter was assessed by the audit team through interviews and spreadsheet review with project personnel during an office meeting, along with field-based interviews and review of measurement procedures for quantifying this parameter. While the audit team was unable to access harvested areas and so unable to directly test quantification of this parameter (for the reason described in Section 4.1 above), based on the review activities described above, the audit team felt that it could be reasonably concluded that the data was appropriately collected and processed.	N/A (no methods and/or formulae, aside from those set out in the methodology, are set out in the PD)	N/A
$A_{DECKSi,t}$ (M-MON)	Same as for $A_{ROADi,t}$	Same as for $A_{ROADi,t}$	N/A
$LSKID_{i,t}$ (M-MON)	Same as for $A_{ROADi,t}$	Same as for $A_{ROADi,t}$	N/A

	Steps taken by audit team to assess...		
Data/Parameter	Accuracy of GHG emission reductions and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values
W_{SKID} (M-MON)	Same as for $A_{ROADi,t}$	Same as for $A_{ROADi,t}$	N/A
$V_{EXTi,t}$ (M-MON)	The audit team confirmed the quantification of the values reported for this parameter at the stratum level by crosschecking a sample of log records presented in an Excel workbook against the original datasheets that were used to record the measured volume for each log. The audit team confirmed that the reported volumes were consistent with the records provided by Instituto Nacional de Recursos Naturales (INRENA).	N/A (no methods and/or formulae, aside from those set out in the methodology, are set out in the PD)	N/A
ΔC_p	See $V_{EXTi,t}$, $A_{ROADSit}$, and $A_{DECKSit}$ above.	See $V_{EXTi,t}$, $A_{ROADSit}$, and $A_{DECKSit}$ above.	See $V_{EXTi,t}$, $A_{ROADSit}$, and $A_{DECKSit}$ above.

	Steps taken by audit team to assess...		
Data/Parameter	Accuracy of GHG emission reductions and removals	Whether methods/formulae set out in project description have been followed	Appropriateness of default values
A _{DisPA,q,i,t} (M-MON)	The audit team was able to confirm through review of the satellite imagery and through interviews and observations carried out during the site visit that no large scale or significant natural disturbance was identified during this monitoring period, so this value was appropriately omitted from the subsequent calculations.	Same as for A _{DefPA,u,i,t}	N/A

4.3 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 and 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 of the evidence, source and nature of evidence for the determination of GHG emission reductions or removals	Information flow from data generation and aggregation, to recording, calculation and final transposition into the MR	Appropriateness of implemented calibration frequency of monitoring equipment
Calculation workbooks	Review of calculations to verify that workbooks are free of errors and, thus, highly reliable	Tracing of information through workbooks to source data	N/A
Analysis of remotely sensed imagery	Through review of procedures and independent review of satellite imagery, audit	Through review of spatial analysis processes, audit team confirmed that data	Audit team confirmed that source data for this analysis is the Landsat program, an official

	team can confirm this evidence is highly reliable	were appropriately transcribed into the calculation workbooks (see above)	program of the United States government that can be assumed to have industry-standard calibration procedures in place to ensure high-quality data
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Overall, the evidence used to determine the GHG reductions and removals is of sufficient quantity (i.e., all necessary information has been provided to allow the audit team to trace and, as necessary, recalculate the quantification of GHG reductions and removals), and of appropriate quality (i.e., information presented is free of misstatements, whether material or immaterial) to allow the audit team to render a verification opinion.

4.4 Non-Permanence Risk Analysis

The reported value of the overall risk rating, as determined based in the risk analysis reported on in the NPRR, was 10%. The audit team did not perform a re-assessment of the risk analysis from first principles, but did assess the following:

- Whether any circumstances or conditions may have transpired since the previous risk analysis such that a previous determination having bearing on the risk rating is no longer valid
- Whether items meant to address certain risks are in place and functioning as intended

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.

The findings of the audit team regarding the risk scores applied for each factor are as follows:

	Project Management		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
a)	The audit team confirmed that the project does not employ artificial regeneration nor does it contemplate the use of exotic species, thus this risk indicator can	N/A	N/A

	be confirmed as not applicable.		
b)	The audit team confirmed that the project area has had a custody plan in place prior to the implementation of the REDD project, and continues to do so without the need for further enforcement to prevent encroachment.	The audit team visited project personnel at control posts and interviewed community members and other neighboring stakeholders and were able to conclude that the information provided by project personnel is consistent with the information provided in their non-permanence risk tool.	The Risk Score Is Appropriate
c)	The audit team was able to confirm, through interviews with project personnel, that the management team includes individuals with significant experience in each of the skills required for effective project implementation.	Interview with personnel confirmed their significant experience, and this was also corroborated through review of key team members CVs during previous verification periods.	The Risk Score Is Appropriate
d)	The base of operations for Maderacre and Maderyja are located near the town of Iñapari, and thus within a day's travel from the project area.	The audit team performed a site visit and was able to confirm this base of operations. Even then, other key members are also based in Lima, which is less than a day travel from the project site.	The Risk Score Is Appropriate
e)	The audit team can affirm that the management team includes individuals that have already guided the project through successful validation, verification and issuance of GHG credits of the project under the VCS Program.	Evidence of prior successful verifications and validations are present on the VCS website.	The Risk Score Is Appropriate
f)	The audit team reviewed the management plan governing the project and confirmed that the plan includes an entire section and activities as part of adaptive management procedures.	Through interviews with project personnel, and review of the management plan, the audit team confirmed that the adaptive strategies were the result of a long collaborative process with stakeholders. The forest management plan /11/ provided to the auditors also corroborated this information.	The Risk Score Is Appropriate
Total Project Management (PM) [as applicable, (a + b + c + d + e + f)] Total may be less than zero.			The Risk Score Is Appropriate

	Financial Viability		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
a)	N/A	N/A	N/A
b)	N/A	N/A	N/A
c)	N/A	N/A	N/A
d)	During the previous verification audit the team was provided with evidence that the Project has been able to finance its initial investment, so that revenues from timber sustainable exploitation (under the forest management model) can thus be added to income from the VCU sales, assuring a healthy cash flow for the project.	The documentation provided included audited financial documents and a detailed, user friendly budget workbook that allowed for assessment by the audit team and is therefore of high quality.	The Risk Score Is Appropriate
e)	N/A	N/A	N/A
f)	N/A	N/A	N/A
g)	N/A	N/A	N/A
h)	N/A	N/A	N/A
i)	N/A	N/A	N/A
Total Financial Viability (FV) [as applicable, (a + b + c + d + e + f+g+h+i)] Total may not be less than zero.			The Risk Score Is Appropriate

	Opportunity Cost		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk

			rating
a)	The audit team reviewed the calculation of the net present value (NPV) of project activities, which was approved during the Validation phase.	Previous evaluation of the NPV analysis has confirmed that the score indicated in the report reflects an analysis that errs on the side of conservatism (i.e., a higher net present value for the alternative land use).	The Risk Score Is Appropriate
b)			
c)			
d)			
e)			
f)			
g)	N/A The project is comprised of for-profit companies.	N/A	N/A
h)	The audit team confirmed that the project is developed in an area that is determined by law as a permanent productive forest (PPF). A PPF is an area intended for responsible use of the forest resources, including timber, through a forest management model, which enables to keep it as standing forest overtime. This particular PPF was given to the project proponents in concession with a contract signed with the Peruvian government.	During site visit the audit team reviewed the concession documentation /20/ to confirm that the concession contracts are official documents executed with the Regional Government of Madre de Dios; these documents can thus be assumed to be of high quality	The Risk Score Is Appropriate
i)	As confirmed during the previous monitoring period and confirmed during the site visit the project is compelled by the current forest use law in Peru to continue the forest practices over the crediting period. In addition, the same law ensures that the forest area is to be kept in standing forest in perpetuity ensuring the avoided deforestation activities overtime.	During site visit the audit team reviewed the concession documentation /20/ to confirm that the concession contracts are official documents executed with the Regional Government of Madre de Dios; these documents can thus be assumed to be of high quality	The Risk Score Is Appropriate

Total Opportunity Cost (OC) [as applicable, (a + b + c + d + e + f+g+h+i)] Total may not be less than zero.	The Risk Score Is Appropriate
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	Project Longevity		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Risk
a)	Not Applicable	N/A	N/A
b)	As commented earlier, The Madre de Dios Amazon REDD Project area include two adjacent forest concessions, given to them with Concession Contracts granted by the Peruvian State for a period of 40 years renewable, which ensures that the management of the area will continue after the end of the Madre de Dios Amazon REDD Project duration. The audit team also confirmed that the project is developed in an area that is determined by law as a permanent productive forest (PPF). A PPF is an area intended for responsible use of the forest resources, including timber, through a forest management model, which enables to keep it as standing forest overtime. This particular PPF was given to the project proponents in concession with a contract signed with the Peruvian government.	During site visit the audit team reviewed the concession documentation /20/ to confirm that the concession contracts are official documents executed with the Regional Government of Madre de Dios; these documents can thus be assumed to be of high quality	The Risk Score Is Appropriate
Total Project Longevity (PL) May not be less than zero			The Risk Score Is Appropriate

	Land Ownership and Resource Access/Use Rights		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Risk
a)	N/A	N/A	N/A
b)	The audit team can confirm that conditions to this risk assessment have not changed since the last verification and that the ownership and resource access/use rights are held by different entities, as the concession contracts for Maderacre and Maderyja clarify that the concession areas (of which the project area is a subset) are owned by the government of Peru, with certain access/use rights granted to the companies Maderacre and Maderyja for their respective concessions.	The audit team reviewed the concession agreements and confirmed their validity through interviews with project personnel who confirmed no changes in the agreements since the previous monitoring period.	The Risk Score Is Appropriate
c)	The audit team confirmed through review of documents and interviews with stakeholders that the ownership of the concession areas are not disputed.	The audit team met with leaders from a Belgium Native Community who confirmed project claims of no disputes with respect to land tenure	The Risk Score Is Appropriate
d)	N/A, see above.	N/A	N/A
e)	N/A as project is not a WRC project	N/A	N/A
f)	See item h of the opportunity cost above	See item h of the opportunity cost above	The Risk Score Is Appropriate
g)	N/A	N/A	N/A
Total Land Tenure (LT) [as applicable, ((a or b) + c + d + e + f + g)] May not be less than zero			The Risk Score Is Appropriate

	Community Engagement		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Risk
a)	The audit team can confirm, through review of remotely sensed data indicating the absence of any land clearing, visits to the project area, and general knowledge of settlement patterns in the region, that there are no households within the project area.	Interviews with leaders from Belgium Native Community and verified remotes sensing products.	The Risk Score Is Appropriate
b)	The audit team can confirm, through review of Participatory Rural Appraisal results reviewed during the previous verification, that there are no households within 20 km of the project area that could be considered reliant on the project area.	Interviews with local communities and other stakeholders during the site visit corroborated this information.	The Risk Score Is Appropriate
c)	As there are no communities who derive livelihoods from the project area, this mitigation score is not applicable.	N/A	N/A
Total Community Engagement (CE) [where applicable, (a + b + c)] May not be less than zero			The Risk Score Is Appropriate

	Political Risk		
Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Risk

a)	N/A	N/A	N/A
b)	N/A	N/A	N/A
c)	The audit team download the WGI scores on 19 October 2017 and confirmed the governance score as reported in the project non-permanence risk report	The World bank governance indicator online database: (https://data.worldbank.org/data-catalog/worldwide-governance-indicators)	The Risk Score Is Appropriate
d)	N/A	N/A	N/A
e)	N/A	N/A	N/A
f)	The Madre de Dios region of Peru is participating in the Governors' Climate and Forest Taskforce (GCF), as confirmed through review of the Governors' Climate and Forest Taskforce (GCF) website (http://www.gcftaskforce.org/ ; accessed 19 October 2017). Thus, at least one of the criteria necessary to claim the mitigation risk score has been met.	The audit team considers the GCF website for this assessment: (http://www.gcftaskforce.org/ ; accessed 19 October 2017)	The Risk Score Is Appropriate
Total Political Risk (CE) [where applicable, (a + b + c)] May not be less than zero			The Risk Score Is Appropriate

Natural Risk		
Risk Factor	Verification Findings	Risk Rating
F	The audit team can confirm, through knowledge of the region in which the project is located, that the risk of natural fires (i.e., fires for whom the ignition source is not humans) is not applicable to the project area. While lightning storms do exist in the Peruvian highlands, they are not common in the region in which the project is located.	0
PD	The audit team can confirm, through knowledge of the region in which the project is located, that the risk of pest and disease outbreaks is not applicable to the project area. As with most natural forests in tropical ecosystems, the project area has a diverse array of tree species, which serves to minimize the risk of any outbreaks. While pests (e.g., moths) have been a problem in some plantation areas in the past, the instances of enrichment planting within the project area will be dispersed throughout the project area so as to minimize the risk of pest outbreaks.	0
W	The audit team can confirm, through knowledge of the region in which the project is located, that extreme weather events that would result significant impacts on carbon stocks do not occur in the project area. While strong wind events do occur, they do not typically knock trees down.	0
G	The audit team agrees that the risk of landslides in the project area is low. The audit team also agrees that the risk of other geological hazards is not applicable to the project area.	0
Total Natural Risk (as applicable, F + PD + W + G + ON)		0

Thus, the audit team can confirm that 92,887 buffer credits, as calculated using Equation 5 of the REDD-MF methodology framework (as deviated from in the manner discussed in Section 3.2 above), should be deposited into the AFOLU pooled buffer account.

5 SAFEGUARDS

5.1 No Net Harm

This section is not applicable, as no potential negative environmental and socio-economic impacts have been identified by the project proponent, neither have any such impacts been identified by the audit team.

5.2 Local Stakeholder Consultation

The stakeholder input received by the audit team, during the site visit, was quite positive. Therefore, there is no stakeholder input that was required to be responded to by the project proponent.

6 VERIFICATION CONCLUSION

The project conforms with to the verification criteria for projects and their GHG emission reductions set out in the VCS rules. The audit team asserts no qualifications or limitations with respect to the statement above. 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 set out below has been quantified in accordance with the VCS rules. The audit team can also confirm that the non-permanence risk score of 10% has been quantified in accordance with the VCS rules.

Verification period: From 1-January-2016 to 31-December-2016

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)
2016	1,028,528	99,388	307	928,563
Total	1,028,528	99,388	307	928,563

APPENDIX A: LIST OF FINDINGS**NIR 1 Dated 27 Jun 2017**

Standard Reference: VCS Standard, Version 3.6, 19 October 2016, Section 2.4.1 Principles: Transparency

Document Reference: N/A

Finding: Section 2.4.1 of the VCS Standard states that, "The application of principles is fundamental in ensuring that GHG-related information is a true and fair account. The principles below shall provide the basis for, and shall guide the application of, the VCS rules and requirements...Transparency:

Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence."

In the spirit of transparency, please provide the audit team with copies of the following documents:

- (1) The results of the government audit for PCA 13, conducted in June/July 2015
- (2) Letter of approval from the government office for the PCA 14 and PCA 15 harvest plans
- (3) A copy of the updated Balance de Extraccion (if available)

Project Personnel Response: Attached is requested on file

Auditor Response: The documents have been provided by the project team, and reviewed by the audit team. Issue Closed.

NIR 2 Dated 27 Jun 2017

Standard Reference: VCS Standard, Version 3.6, 19 October 2016, Section 2.4.1 Principles: Transparency

Document Reference: N/A

Finding: Section 2.4.1 of the VCS Standard states that, "The application of principles is fundamental in ensuring that GHG-related information is a true and fair account. The principles below shall provide the basis for, and shall guide the application of, the VCS rules and requirements...Transparency:

Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence."

In the spirit of transparency, please provide the audit team with the project recorded tree level measurements for the following tree ID's harvested within PCA-14:

- (1) 16-2532
- (2) 16-2530
- (3) 16-2542
- (4) 16-1455
- (5) 16-1432
- (6) 16-1424
- (7) 16-1835
- (8) 16-1589
- (9) 16-0971
- (10) 16-0986

Project Personnel Response: Attached is requested on file

Auditor Response: The measurements have been provided by the project team, and reviewed by the audit team. Issue Closed.

NIR 3 Dated 27 Jun 2017

Standard Reference: VCS Standard, Version 3.6, 19 October 2016, Section 2.4.1 Principles: Transparency

Document Reference: N/A

Finding: Section 2.4.1 of the VCS Standard states that, "The application of principles is fundamental in ensuring that GHG-related information is a true and fair account. The principles below shall provide the basis for, and shall guide the application of, the VCS rules and requirements...Transparency:

Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence."

In the spirit of transparency, please provide the audit team with the project recorded tree level measurements for the following tree ID's harvested within PCA-15:

- (1) 16-3895
- (2) 16-3670
- (3) 16-4005
- (4) 16-4022
- (5) 16-3411
- (6) 16-3841

Project Personnel Response: Attached is requested on file

Auditor Response: The measurements have been provided by the project team, and reviewed by the audit team. Issue Closed.

NIR 4 Dated 27 Jun 2017

Standard Reference: VCS MODULE VMD0015 REDD METHODOLOGICAL MODULE: METHODS FOR MONITORING OF GHG EMISSIONS AND REMOVALS (M-MON); Version 2.1,

20 November 2012; Section 6.2 Data and Parameters Monitored for Verification

Document Reference: N/A

Finding: In section 6.2 of M-MON, the Justification of choice of data or description of measurement methods and procedures applied for the Leakage Belt Forest Cover Monitoring Map states that, "The minimum map accuracy must be 90% for the classification of forest/non-forest in the remote sensing imagery. If the classification accuracy is less than 90% then the map is not acceptable for further analysis. More remote sensing data and ground truthing data will be needed to produce a product that reaches the 90% minimum mapping accuracy. Frequency: Must be monitored at least every 5 years or if verification occurs on a frequency of less than every 5 years examination must occur prior to any verification event."

During the site visit meeting on 6 June 2017, it was stated by the project personnel that the ground truthing of the LANDSAT imagery used to monitor deforestation in the leakage belt for the current monitoring period resulted in an accuracy of roughly 87%. Please provide any evidence to support a documented accuracy assessment conducted on the use of the LANDSAT imagery for the current monitoring period, and indicate whether the assessment meets the 90% threshold required by section 6.2 of M-MON.

Project Personnel Response: It seems that there was a misunderstanding, in the final work the calculated results is determined by using the matrix of confusion which applying the Kappa index was 89.47%. This quantity is in accordance with the table of "Force of Concordance" for the referred index which represents a concordance "Almost Perfect" since it is in the range of 81% to 100% (See 01.Memoria_M & M_jun_2017_v1.pdf, page 25).

Auditor Response: Additional accuracy points were added to bring the accuracy upto the 90% threshold. Issue closed.

NCR 5 Dated 19 Dec 2017

Standard Reference: VCS Standard, Version 3.7, 21 June 2017, Section 3.16.6

Document Reference: VCS Monitoring Report MDD 2016 FINAL

Finding: The VCS Standard requires the following: "The monitoring report describes all the data and information related to the monitoring of GHG emission reductions or removals. The project proponent shall use the VCS Monitoring Report Template, VCS Joint Project Description & Monitoring Report Template, VCS & CCB Monitoring Report Template or VCS+SOCIALCARBON Monitoring Report Template, as appropriate, and adhere to all instructional text within the template."

The monitoring report has been produced using an out-dated version of the VCS Monitoring Report Template, Version 3.3. Version 3.4 of that template was released by the VCSA on 19 October 2016 and required to be used from 19 April 2017 (per <http://database.v-c-s.org/sites/vcs.benfredaconsulting.com/files/VCS%20Program%20Update%20Catalogue%2C%2019%20OCT%202016.pdf>).

Project Personnel Response: [A response to this finding was provided outside the cover of the findings workbook.]

Auditor Response: In response to this finding, the audit team was provided with the updated monitoring report, entitled "VCS Monitoring Report MDD 2016 FINAL. dic 2017docx". The audit team was able to confirm that this monitoring report report has been produced using Version 3.4 of the VCS Monitoring Report Template. Therefore, the non-conformity has been resolved.

NCR 6 Dated 19 Dec 2017

Standard Reference: VCS Monitoring Report Template, V3.4

Document Reference: VCS Monitoring Report MDD 2016 FINAL; Cp Estimations in MDD 2016

Finding: Section 4.2 of the VCS Monitoring Report Template requires the following: "Quantify project emissions and/or removals providing sufficient information to allow the reader to reproduce the calculation." While a high level of detail is provided in the monitoring report regarding the quantification of project emissions, the values provided in the monitoring report are not consistent with those specified in the workbook "Cp Estimations in MDD 2016", as submitted for review by the audit team.

Project Personnel Response: [A response to this finding was provided outside the cover of the findings workbook.]

Auditor Response: In response to this finding, the audit team was provided with the updated monitoring report, entitled "VCS Monitoring Report MDD 2016 FINAL. dic 2017docx". The audit team was able to confirm that the information in Section 4.2 of this monitoring report is consistent with the information provided in the workbook "Cp Estimations in MDD 2016". Therefore, the non-conformity has been resolved.

NCR 7 Dated 26 Dec 2017

Standard Reference: VCS Standard, Version 3.7, 21 June 2017, Section; VCS Monitoring Report Template, V3.4

Document Reference: VCS Monitoring Report MDD 2016 FINAL. dic 2017docx

Finding: The VCS Standard requires the following: "The monitoring report describes all the data and information related to the monitoring of GHG emission reductions or removals. The project proponent shall use the VCS Monitoring Report Template, VCS Joint Project Description & Monitoring Report Template, VCS & CCB Monitoring Report Template or VCS+SOCIALCARBON Monitoring Report Template, as appropriate, and adhere to all instructional text within the template."

The following non-conformities regarding the requirements of the VCS Monitoring Report Template, V3.4 ("the Template") have been noted by the audit team:

1. Section 1.1 of the Template requires reporting of "The total GHG emission reductions or removals generated in this monitoring period." Section 1.1 of the monitoring report states that "The Total emissions avoided by the project... during the period 2016 was 835,676.12 t CO₂-e". However, this is not consistent with Section 4.4 of the monitoring report, which reports the net GHG emission reductions generated during the monitoring period as being 928,563.12 tCO₂e (the audit team understands that the latter is the correct number). In the context of the methodology, the net GHG emission reductions generated by the monitoring period is calculated as parameter Adjusted_C(REDD) in the REDD-MF methodology framework.
2. Section 1.8 of the Template requires reporting of "the title and version number of any tools applied by the project." Section 1.8 of the monitoring report indicates that the "AFOLU non-permanence risk analysis and buffer determination, v3.3" is applied by the project. However, the correct name for this tool is the "AFOLU Non-Permanence Risk Tool, V3.3".
3. Section 2.2.1 of the Template requires the following: "Describe and justify any methodology deviations applied during this monitoring period." Aside from the deviation to Equation 4 of the REDD-MF methodology framework that was previously reported, several other deviations are now reported in this section. However, the description of the deviations is confusing, as it appears that these reported deviations were actually applied during the 2015 monitoring period, and it is unclear whether they were applied in the 2016 monitoring period. (Section 2.2.1 of the Template only requires reporting of deviations that were applied during the 2016 monitoring period.) Section 2.2.2 of the monitoring report does appear to identify a deviation in the calculation of area in skid trails in PCAs 14 and 15. However, Section 2.2.2 of the monitoring report is not the appropriate place to report this (as per the Template, Section 2.2.2 should be titled "Project Description Deviations" and used to "Describe any project description deviations applied during this monitoring period"). In addition, this methodology deviation is not described or justified in the monitoring report. Finally, the monitoring report does not include evidence to demonstrate that "The deviation does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals" and that "The deviations relates only to the criteria and procedures for monitoring or measurement, and do not relate to any other part of the methodology", as required by the Template.

4. Section 3.1 of the Template requires the following: “Complete the table below for all data and parameters that are determined or available at validation, and remain fixed throughout the project crediting period (copy the table as necessary for each data unit/parameter).” In the row entitled “Justification of choice of data or description of measurement methods and procedures applied”, the following information is required: “Justify the choice of data source, providing references where applicable. Where values are based on measurement, include a description of the measurement methods and procedures applied (eg, what standards or protocols have been followed), indicate the responsible person/entity that undertook the measurement, the date of the measurement and the measurement results.” This information is not provided for the following parameters:
- For the parameter A(i), in the row entitled “Justification of choice of data or description of measurement methods and procedures applied”, the following is stated: “Frequency at a minimum every 10 years prior to baseline renewal”. This does not provide the required justification of data source and/or description of measurement methods and procedures applied.
 - For the parameter CF, in the row entitled “Justification of choice of data or description of measurement methods and procedures applied”, the following is stated: “for Tropical Forests and wood, tree d>10 cm”. This, too, does not provide the required justification of data source.
 - For the parameter fj (X,Y), in the row entitled “Justification of choice of data or description of measurement methods and procedures applied”, the sources for the allometric equations used to quantify biomass are provided. This does not constitute the required justification of data source.
 - For the parameter “Carbon stock in all pools in the forest stratum”, in the row entitled “Justification of choice of data or description of measurement methods and procedures applied”, some information regarding measurement methods and procedures is provided, but the “measurement methods and procedures applied (eg, what standards or protocols have been followed)” are not specified, and the following information is also not provided: “indicate the responsible person/entity that undertook the measurement, the date of the measurement”.
5. Section 3.2 of the Template requires the following: “Complete the table below for all data and parameters monitored during the project crediting period (copy the table as necessary for each data unit/parameter).” In the row entitled “Description of measurement methods and procedures to be applied”, the following is stated: “Specify the measurement methods and procedures, any standards or protocols to be followed, and the person/entity responsible for the measurement. Include any relevant information regarding the accuracy of the measurements (eg, accuracy associated with meter equipment or laboratory s).” There appears to be a recurring gap in conformance to this requirement. For example, for the parameter “Project Forest Cover Monitoring Map”, the following is stated: “Analysis and Classification of Satellite Images”. This does not provide anywhere near the level of detail required by the Template.
6. Section 2.2.1 of the VCS Standard requires the following: “The operating language of the VCS Program is English. The project and program description, validation report, monitoring report, verification report and all other documentation (including all and any appendices) required under the VCS Program shall be in English.” While the monitoring report is generally in English, there are instances of non-English terms being used in the monitoring report, and in a context that makes it unclear what is referred to by the terms in question. The following instances of non-English terms have

been identified by the audit team:

a. The term “wincha” is used in Section 3.2.

b. The terms “Campamento” and “muestal” are used in Chart 6 in Section 2.2.2.

7. Section 4.1 of the Template requires the following: “Quantify the baseline emissions and/or removals, providing sufficient information to allow the reader to reproduce the calculation.” It should be noted that this requires “sufficient information to allow the reader to reproduce the calculation” to be provided within the monitoring report. It is acknowledged that sufficient information to allow the reader to reproduce the calculation is provided within the project description (as referenced in the monitoring report), but this must be provided in the monitoring report as well. The required level of detail is not provided in Section 4.1 of the monitoring report.

8. Section 4.4 of the Template requires the following: “Quantify the net GHG emission reductions and removals, summarizing the key results using the table below.” In the table in Section 4.4 of the monitoring report, the net GHG emission reductions are specified as being 28,563.12 tCO₂e. This is not consistent with the text below the table, which indicates that the net GHG emission reductions are 928,563.12 tCO₂e.

9. Section 4.4 of the Template requires the following: “For AFOLU projects, include quantification of the net change in carbon stocks.” The net change in carbon stocks, as used to calculate the number of buffer credits, are calculated by taking the carbon stock change in the baseline scenario and subtracting the carbon stock change in the project scenario. This quantity is not specifically reported in Section 4.4 of the monitoring report.

Project Personnel Response: [A response to this finding was provided outside the cover of the findings workbook.]

Auditor Response: Through review of the revised monitoring report, entitled “VCS Monitoring Report MDD 2016 FINAL. 14ene 2018”, the audit team was able to confirm that all of the non-conformities previously identified were duly resolved.