

VALIDATION REPORT FOR THE MADRE DE DIOS AMAZON REDD PROJECT



Document Prepared By SCS Global Services

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Summary:

The Madre De Dios Amazon REDD Project is located in the region that belongs to the Vilcabamba-Amboró Conservation Corridor in the Peruvian Amazon, one of the world biodiversity hotspots. The Project Area consists of two logging concessions with a combined area of 98,932 hectares. In the absence of the project these concessions are subject to frontier deforestation risk from new inter-oceanic Highway that unites Brazil with the Peruvian ports.

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.

The purpose of the validation was to assess the project for compliance against the Verified Carbon Standard V3.2 and the selected methodology VM0007 V1.2 and its related modules.

The validation method included review of the project documentation, including the calculation tool developed by the project developer, interviews with key project personnel and stakeholders and a field visit to the project site to conduct validation of project boundaries, forest inventory, assessment of drivers of deforestation and confirmation of intact forest within the project area.

The VCS v3.2 and supporting relevant guidelines as well as the selected methodology VM0007 were used as the criteria for conducting the validation. The validation process involved a thorough review of the Project documentation, interviews with the Project Proponent and Project Implementing Partner, a site visit to the Project area in Madre De Dios to validate biomass plot measurements and assess the relevance of the identified drivers and to meet with a number of concessionaires.

Following the validation activities and an iterative exchange of audit findings, the validation team has determined that the Project meets all relevant criteria for REDD Avoided Unplanned Deforestation projects under VCS. In addition, the Project is in conformance with the selected methodology and its associated modules, as listed in Section 1.2 of this document. We conclude that the Project is likely to achieve the estimated emission reductions and, as such, no qualifications or limitations should be added to the validation outcome. Thus, it is the opinion of VCS that the Project is eligible for registration under the applicable VCS standard.

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1 INTRODUCTION

1.1 Objective

The objective of the validation by SCS Global Services (SCS) is to provide an independent assessment of the proposed project activity against all defined criteria as defined by the Verified Carbon Standard (VCS) 2011 Version 3.2. Validation will result in a conclusion by SCS as to whether the project activity is compliant with the VCS standard and whether the project should be submitted for registration. The ultimate decision on the registration of a proposed project activity rests with VCS.

1.2 Scope and Criteria

The project was assessed for conformance against the following VCS documents:

- Verified Carbon Standard (VCS) 2011 Version 3,
- VCS AFOLU Requirements Version 3.2
- VT001 Tool for the demonstration of assessment of additionality in VCS AFOLU project activities (T-ADD) Version 3.0
- T-BAR Tool for AFOLU non-permanence risk analysis and buffer determination Version 3.1
- EB_31 Tool for testing significance of GHG emissions in A/R CDM project activities (T-SIG) Version 1.0
- VM0007 REDD Methodology Modules (REDD-MF) Version 1.2
- VMD0015 Methods for monitoring of greenhouse gas emissions and removals (M-MON) Version 2.0
- VMD0017 Estimation of uncertainty for REDD project activities (X-UNC) Version 2.0
- VMD0016 Methods for stratification of the project area (X-STR) Version 1.0
- VMD0007 Estimation of baseline carbon stock changes and greenhouse gas emissions from unplanned deforestation (BL-UP) Version 3.0
- VMD0010 Estimation of emissions from activity shifting for avoided unplanned deforestation (LK-ASU) Version Version 1.0
- VMD001 Estimation of carbon stocks in above- and belowground biomass in live tree and non-tree pools (CP-AB) Version 1.0
- VMD0013 Estimation of greenhouse gas emissions from burning biomass (E-BB) Version 1.0

The scope of the audit encompassed the analysis of documentation, data and calculations, outcomes of a field visit to the Project area and stakeholder discussions. The SCS Lead Auditor issued a number of New Information Requests (NIR), Non-Conformity Reports (NCR) and Opportunities for Improvement (OFI) and re-analyzed new submissions arising from the project proponent responses to the issues raised. These issues were subsequently closed and the validation report finalised.

1.3 Level of assurance

SCS provides reasonable assurance that the emission reduction estimations for the Madre De Dios REDD Project are conservative and meet the VCS 2011 criteria as well as the requirements of the selected approved methodology VM0007 REDD Methodology Module Version 1.2 and its associated modules. To ensure complete transparency, SCS has included any clarification or corrective actions that were raised with the proponent and their responses at the end of this validation report.

1.4 Summary Description of the Project

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.

The Project Document states that the project area is located less than 30 km to the side of the new inter-oceanic Highway that will unite Brazil with the Peruvian ports, which presents the main driver of frontier deforestation to the project area. In addition the Project Area area is under risk of degradation which leads to deforestation as a result of illegal loggers who are attracted by the abundance of forestry species of high commercial value, including mahogany. Illegal logging, even though it does not necessarily deforest, will affect the value of the forest and open Highways that make accessibility easier, creating the conditions to future deforestation.

The Project Document describes the “without project” scenario as deforestation and degradation as a result of illegal land conversion as a result of increase population pressure and Highway access within and around the Project Area, while the “with project” scenario is sustainable forest management and avoided deforestation through protection of the Project Area boundaries.

Through the additional finance that the Project will achieve from the sale of carbon credits the concessions will have a secure income stream that they will use for year round surveillance in the Project Area and increase the communication relating to the protection of the Project Boundaries and training in sustainable agriculture.

It is estimated that the project will lead to the reduction of 25,072,135 tCO₂e over the 38 year life of the project.

2 VALIDATION PROCESS

2.1 Method and Criteria

The validation team received and reviewed the Project Description, Monitoring Report, Leakage Assessment, Additionality Assessment and supporting documentation to assess initial conformance with the requirements of the VCS standard. Key factors that impact the reported emission reductions and removals were identified, and a Validation Plan was created to focus on the critical elements presenting potential risk for errors. These elements included inventory data collection and handling, assumptions underlying the baseline characterization, and assessing relevant applicability and eligibility criteria. The validation team conducted a desk review of the documentation provided by the Project Proponent and Implementing Partner (Section 1.6). These documents included the Project Description, which includes a general description of the Project, additionality assessment, an assessment of the ex-ante greenhouse gas reductions, a monitoring plan and a leakage assessment. The Project Proponent provided extensive supporting documentation in addition to these primary documents. Supporting documentation included spatial data of the Project boundaries, and monitoring plot locations; a number of contracts, records of correspondence, and standard operating procedures related to the project implementation; management plans developed for the Project area; scientific literature presented by the Project Proponent in support of assumptions made in the project documentation; financial and operational records; and spreadsheets used to make project calculations. During the review, findings were issued as discussed in Section 2.6 and the Project Proponent updated the PD and monitoring report to address the findings by the audit team.

Review of the documentation provided also focused on the quantitative analyses undertaken by the Project Proponent and the Implementing Partner to perform the calculations required by the methodology to estimate the net carbon benefits of the Project. This included a comparison of inventory data measured during the site visit portion of the audit to that presented by the Project Proponent and Implementing Partner. Additionally, calculations made were reviewed by the audit team. Assessment was made of the baseline determination and of the calculation of VCUs.

The last step in the validation process included a final review of the submitted data, responses to the corrective action requests and drafting of the Validation Opinion and supporting Validation Report. These documents were based on the results of the validation assessment. The draft Validation Report was presented to an internal SCS Technical Reviewer who determined the Validation Opinion to be justified given the evidence presented. The report and opinions were then presented to the Project Proponent and Project Implementation Partner for review and comment.

2.2 Document Review

Prior to the review of the client supplied Project documentation a check list for the VCS standard and the selected methodology was developed. The checklist for the methodological modules is part of this validation report. The project related documents provided by the client that formed part of this review were:

- PD Madre de Dios Amazon REDD Project: Version 3.0, 11th September 2012, prepared by Greenoxx NGO

- REDD Project Calculations v1.(Excel Calculation Spreadsheet)
- BL-UP: MADRE DE DIOS AMAZON REDD PROJECT: “Estimation of carbon stock changes in baseline and greenhouse gas emissions from unplanned deforestation”, Version 2.0, August 2012.
- CP-AB: Estimation of carbon stocks in the above and belowground biomass in live tree and non-tree pools, Version 1.0.
- E-BB: Estimation of greenhouse gases coming from burnt biomass. Version 1.0.
- LK-ASU v2: MADRE DE DIOS REDD PROJECT: “Estimation of emissions from activity shifting for avoided unplanned deforestation”, Version 2, July 2012
- PRA English: PRA Evaluation over the Potential of Degradation of the “Madre de Dios Amazon REDD Project” area
- X-UNC 080812: MADRE DE DIOS AMAZON REDD PROJECT: “Estimation of Uncertainty for REDD Project activity”, Version 2, July 2012.
- X-UNC 080812 (Excel Calculation Spreadsheet)
- Non Permanence Risk Report Madre De Dios Amazon REDD Project, Version 1.0, 17th September 2012

2.3 Interviews

The following personnel were interviewed during the audit process:

- Nelson Kroll – Maderera Río Acre S.A.C.
- Manuel F. Salirrosas Vasquez - Maderera Río Yaverija S.A.C.
- Jorge Torres – Bosques Amazonicos SAC (BAM SAC)
- Natalia Woo - Bosques Amazonicos SAC (BAM SAC)
- Pedro Ruiz – Bosques Amazonicos SAC (BAM SAC)
- Silvia Gomez Caviglia – Executive Vice President Greenox
- Rocco Cheirasco – Chairman and CEO Greenox
- Rosa Goodman – University of Leeds, Allometric Research, Maderera Río Acre S.A.C.

These interviews were conducted on site at the Maderera Río Acre S.A.C head office as well as in the forest at the logging accommodation. A number of phone conferences were also conducted

during the course of the validation to discuss technical elements of the project with Greenox and BAM staff.

2.4 Site Inspections

A site inspection of the Project area and the offices of the Project Proponent were conducted between the 23 – 30 May 2011. The objective of the site visit was to assess the deforestation risks to the project area, assess the accuracy of the forest inventory and to interview project stakeholders.

The validation site inspection plan is attached as Appendix 2 to this report.

2.5 Resolution of Any Material Discrepancy

A number of New Information Requests (NIR) were issued prior to the site inspection to assist in understanding the linkages between the documents provided by the project proponent prior to the field trip. This assisted in effective use of the time in the field. Following the field visit a number of NCRs were raised. The approach to resolving them was primarily through phone and email conversations with the project proponent and their consultants and project partners. These communications focused on clarification around the issued Non-Conformance Reports and New Information Requests. Additional guidance relating to the project developers interpretation of the methodology was also sought from the VCS. In many cases the project proponent revised and resubmitted versions of the documentation, in particular the VCS project document, the BL-UP Module report and the Monitoring Report. This communicative and review process continued until all non-conformances and new information requests related to the project elements were found to be in conformance with the selected methodology VM0007 Version 1.0 and the VCS Version 3.2.

Finally new versions of the PD and supporting documents were provided by the client and these were reviewed again against the checklists developed for this validation and found to be sufficient to close all outstanding issues.

3 VALIDATION FINDINGS

3.1 Project Design

3.1.1 *Project scope, type, technologies and measures implemented, and eligibility of the project*

Section 1.2 of the PD clearly explains that the project falls under the sectoral scope of Agriculture, Forestry and Other Land Use (AFOLU) as a Reduced Emissions from Deforestation and Degradation Project (REDD). The project type is further categorized in accordance with the VCS AFOLU Requirements as an Avoiding Unplanned Deforestation and Degradation (AUDD) from frontier deforestation. The decision tree presented in the selected methodology (VM0007 – REDDMF) is explained and applied correctly in Section 1.2 of the PD to support the project categorization. This section also clearly states that the project is not a grouped project.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.1.2 *Project proponent*

Section 1.3 lists the Project Proponents as Maderera Río Acre S.A.C. (Maderacre), Maderera Río Yaverija S.A.C. (Maderya) and Greenoxx NGO. Whilst the two concessions are separately owned, it was explained that the two concessions are managed jointly for the purposes of FSC and the same approach will be taken for compliance with the VCS for the REDD project. In interviews conducted during the course of the field visit, representatives from both concessions confirmed this to be the case.

An internal arrangement for the distribution of funds from the sale of carbon credits exists between Maderacre and Maderya. The project has experience in working together in the harvest and sale of timber and there appears to be a low risk of dispute over economic benefits. Co-operative management appeared to be strong between the two concessions during the site inspections.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.1.3 Project start date

Section 1.5 of the PD states that in late March 2008, an agreement was signed between Greenoxx NGO and both concessions to implement the REDD Project. The project started to be effectively implemented in 2009, with the design of social plans, biodiversity studies, and design of the technical modelling of the project for the Climate Community and Biodiversity standard commenced. The commencement of this activity was considered to be Project start date. Interviews conducted during the course of the validation confirmed that while the concessions had achieved FSC certification, the finding for this was provided externally and without additional income from the carbon maintain certification and protecting the area from frontier deforestation was not possible with just the income from the timber revenues. Financial modelling seen by the validators during the course of the validation supported this position. Therefore the start date of January 2009 was considered to be consistent with the VCS requirement that the Project start date is the day on which the project began generating GHG emission reductions or removals.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.1.4 Project crediting period

The credit period is specified as 38 years from January 1, 2009 to December 31, 2046. The credit period stated corresponds with the duration of the awarded concession contract. During interviews with stakeholders and citing of the concession contracts it was confirmed that at the end of the current concession contract there is a clause which automatically renews the contract for 5 years with the option for a further 40 years. The concession contracts for both Maderacre and Maderyja were cited by the validation team. The specified project credit period is consistent with the VCS requirements for this project type.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.1.5 Project scale and estimated GHG emission reductions or removals

Section 1.7 of the PD states that the Project is a 'Project' scale. Chart 1 indicates that the project will reduce emissions by 25,072,135 t CO₂e which corresponds with the thresholds to be classified as a Project scale.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.1.6 Project activities

Section 1.8 of the PD states that Project has two main goals:

- a) To reduce the pressure for lands with agricultural and cattle ranching purposes by the local population in the project area and its buffer zone;
- b) To guarantee the sustainable forestry management of both timber concessions through the implementation of an avoided deforestation project that helps to generate higher economical resources for the management of the area.

The Project aims to achieve these goals through the following activities:

1: Contribute to the sustainable development of rural producers living in the buffer zone of the project.

1.1 Socialization and dissemination of the project goals.

1.2 Identification and selection of proposals for the environmentally friendly productive projects.

1.3 Development of skills and capacities of members of the associations linked to the selected projects.

1.4 Design of the project profiles of the selected projects.

1.5 Look for financing and/or co-financing for the approved profiles.

1.6 Support on the implementation of the approved projects.

1.7 Monitoring of the projects.

2: Reduce the vulnerability of the project area from external factors of deforestation and degradation.

- 2.1 Review and update of the custody plan.
- 2.2 Installation of control posts PCA 5 Maderacre.
- 2.3 Delimitation of 100% of the concessions boundaries.
- 2.4 Installation of “Hitos” in the concessions vertexes.
- 2.5 Improve the signalling within the concessions.
- 2.6 Periodic and annual patrolling within vulnerable sectors.
- 2.7 Annual monitoring of possible invasions using satellite images.
- 2.8 In-field verification of sectors identified as potential points of invasion (due to deforestation).
- 2.9 Development and implementation of mechanisms for the dissemination of environmental education among children, adolescents and communities involved in the project.

These activities are considered appropriate for forest protection and alleviation of defined drivers of unplanned deforestation. Interviews during the site inspection indicate interest from external parties in the activities of Maderacre and Maderyja, including their work with their neighbours, the Belgica Community to achieve FSC certification in February 2011.

During the site inspection, Nelson Kroll conducted a presentation on the FSC program which is focused on maintaining carbon stocks in the forest. This presentation provided sufficient detail to indicate activities and commitment focused on maintaining sustainable forest stocks and a commitment to long term forest cover. The validators also witnessed activities and management practices within the operational timber concession during the field visit that were consistent with the activities described and demonstrated a commitment to forest preservation.

<u>Conformance:</u>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<u>Non-Conformity Reports:</u>	None					
<u>New Information Requests:</u>	None					
<u>Opportunities for Improvement:</u>	None					

3.1.7 Project location

Section 1.9 of the PD states that ‘the project is located in the hydrographic basin of the Acre River, Iñapari district, Tahuamanu province, Madre de Dios, South East of Peru. ‘

The area is located approximately 30 km to the side of the new inter-oceanic Highway that will join Brazil with the Peruvian ports. The maps provided in the documentation present the

geographical co-ordinates and the kml files of the Project boundary were provided as required by the standard.

The Project boundary was verified during the field trip by taking GPS co-ordinates and was found to be consistent with the project and forest type description presented in the PD and supporting documents.

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.7

New Information Requests: None

Opportunities for Improvement: None

3.1.8 *Project compliance with applicable laws, statutes and other regulatory frameworks*

Section 1.11 states that the Project will comply with all relevant laws and regulations. The relevant types of laws and regulations adhered to are said to be covered under the follow categories:

- Current Peruvian Forest Laws
- Rights included in the Concession Agreements signed with the Peruvian State
- Labor and human rights laws, regulations and agreements

The project area is certified to both FSC and CCBA standards which also require compliance with laws and regulations. The Project Proponent provided Forest Operational Manuals and the Forest Practices Rulebook as well as Employee Manuals to the validator. Compliance with worker health and safety was evident during the site inspection. A high level of skill was apparent in the operation of equipment and safety gear was worn.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: NIR 2011.4

Opportunities for Improvement: None

3.1.9 Ownership and other programs

The concession contracts between the concessionaires and the government were provided to the validator to demonstrate ownership of the timber and environmental services within the project area.

The project is certified to the CCB standard having achieved Gold standard.

The project states that it is not receiving any other form of environmental credit, nor has it been rejected by any other GHG program.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: NIR 2011.3

Opportunities for Improvement: None

3.1.10 Additional information relevant to the project

Leakage management activities are listed in Section 1.13 of the PD as:

- Training in Agroforestry and Silvopasture to Iñapari District residents and the neighbouring Belgium Native Community.
- Training in sustainable alternative activities such as Ecotourism, Shiringa Management, Fish Farms, etc., that encourages the rational use of resources other than wood in the project zone.

Commercially Sensitive Information provided to the validation team included a cash flow spreadsheet that considered both the with and without Madre de Dios Amazon REDD Project scenario.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.2 Application of Methodology

3.2.1 Title and Reference

The methodology selected was VM0007 REDD Methodology Modules (REDD-MF) V1.2. The methodology is available at: <http://www.v-c-s.org/VM0007.html>

The modules used to develop GHG emission reductions and removals are listed and justified in Section 2.2 of the PD. The information presented provides a complete and transparent description of the methodology modules applied in the project calculations and is consistent with the mandatory and optional application of the modules for this project type.

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.8

New Information Requests: None

Opportunities for Improvement: None

3.2.2 Applicability

The applicability conditions of the project are covered in Section 2.2 of the PD. All of the applicability criteria specified within each of the selected modules was found to be addressed and the justification transparently defined within this section of the PD.

Each of the applicability criteria for the modules applied in this methodology are listed below:

Applicability condition	Evidence of compliance
<p>Applicability This REDD Methodology Framework is applicable to project activities that fall within the AFOLU project category “REDD” as defined in the VCS AFOLU Guidance document. By choosing the appropriate modules on the basis of the applicability conditions mentioned in each of the modules, a project-specific methodology can be constructed. The justification of the choice of modules and why they are applicable to the proposed project activity shall be given in Section 2.2 of the VCS-PD.</p>	<p>Project compliance with the REDD project category in the VCS AFOLU Guidelines has already been demonstrated in Section 3.1.1 of this validation report.</p> <p>Sections 1.2 of the PD states that the aim of the project is to avoid frontier deforestation. Ranchers and farmers are identified as the main agents of deforestation in the area in Sections 1.1 and 2.4 (Baseline Scenario). The relevance of these main agents of deforestation were confirmed during the site visit to the project area. During this visit many instances of clearing for agriculture were seen along the Inter Oceanic Highway.</p> <p>The Proponents have selected and listed the appropriate modules for this project as per Table 1 of VM0007.</p>
<p>REDD-MF Land in the project area has qualified as forest at least 10 years before the project start date.</p>	<p>Section 2.2 of the PD states that all types of forest within the Project Area were classified as forests from 10 years before the project start date, and can be demonstrated by images used in the historical reference period. Deforested</p>

	<p>areas undergoing natural regeneration have been excluded.</p> <p>Satellite images were provided to support this conclusion.</p>
<p>The project area can include forested wetlands (such as bottomland forests, floodplain forests, mangrove forests) as long as they do not grow on peat. Peat shall be defined as organic soils with at least 65% organic matter and a minimum thickness of 50 cm. If the project area includes a forested wetlands growing on peat (e.g. peat swamp forests), this methodology is not applicable.</p>	<p>Section 2.2 of the PD states that there are no soils within the Project Area composed of 65% organic matter or 50cm thick.</p> <p>Maps and stratification of the area suggest there are no wetlands in the project area.</p> <p>During the site visit there was no evidence of peat swamp forest or peat soils found in the areas of the project visited.</p>
<p>Project proponents must be able to show control over the project area and ownership of carbon rights for the project area at the time of verification.</p>	<p>Section 1.12 of the PD and legally binding agreements (supporting documents) between the Peruvian State Government and the Project Proponents demonstrate the land-use rights over the Project area. The wording of the agreements reviewed by the validator demonstrated control of the project area.</p>
<p>Baseline deforestation and baseline forest degradation in the project area fall within one or more of the following categories:</p> <ul style="list-style-type: none"> o Unplanned deforestation (VCS category AUDD); o Planned deforestation (VCS category APD); o Degradation through extraction of wood for fuel (fuelwood and charcoal production) (VCS category AUDD). 	<p>Section 2.2 states that the Project falls into the category of unplanned deforestation, which was covered in earlier sections of this validation document (under Section 3.1.1 Project Eligibility).</p>
<p>Baselines shall be renewed every 10 years after the start of the project except where triggers lead to a more frequent renewal.</p>	<p>Sections 2.2 and 2.3 of the PD both state that the project baseline will be renewed every 10 years from the Project Start Date.</p> <p>It was confirmed during interviews with the project proponent that they understood the requirement to renew the baseline every 10 years from the project start date.</p>
<p>All land areas registered under the CDM or under any other carbon trading scheme (both voluntary and compliance-orientated) must be transparently reported and excluded from the project area. The exclusion of land in the project area from any other carbon trading scheme shall be monitored over time and reported in the monitoring reports.</p>	<p>Section 1.12 and 2.2 of the PD state that the Project Area is not part of any other carbon trading scheme and notes that the project has previously achieved CCB validation. Interviews with the Project Proponents and the Greenox confirm the project's plans to continue with this complimentary certification scheme following VCS validation.</p> <p>A search of the CDM database did not reveal registered projects within the project area.</p>
<p>If land is not being converted to an alternative use but will be allowed to naturally regrow (i.e. temporarily unstocked), this framework shall not be used.</p>	<p>Under the baseline scenario for the Project Area (Section 2.4 of the PD), in the absence of the Project, the land would be converted to agricultural lands and mining, and would not be subject to natural regrowth.</p> <p>During the site visit there was evidence of land use change within concessions bordering the project area as a result of the frontier deforestation leading to an alternative land use (i.e. agricultural crops). It was evident in the region that continual monitoring and surveillance is</p>

	required to avoid permanent land use change.
Where post-deforestation land use constitutes reforestation this framework shall not be used.	It is stated in Section 2.2 of the PD that if deforestation occurred in the Project Area then the new land use would be permanent, therefore not providing an opportunity for re-forestation to occur. The land use change seen during the site visit appeared to be permanent which is consistent with the text.
Leakage avoidance activities shall not include: Agricultural lands that are flooded to increase production (e.g. paddy rice); Intensifying livestock production through use of "feed-lots" ⁴ and/or manure lagoons.	Section 2.2 of the PD states that no agricultural land will be flooded, nor any intensification of livestock production occur as a result of the project or leakage prevention. Interviews conducted during the site visit confirmed that the project participants were familiar with the project activities and there was no indication that leakage avoidance projects would lead to flooding or livestock intensification.
Baseline agents of deforestation shall: (i) clear the land for settlements, crop production (agriculturalist) or ranching, where such clearing for crop production or ranching does not amount to large scale industrial agriculture activities; (ii) have no documented and uncontested legal right to deforest the land for these purposes; and (iii) are either resident in the reference region or immigrants. Under any other condition this framework shall not be used	Section 2.2 of the PD states that the deforestation agents are small farmers, ranchers and miners. Section 2.2 of the PD states that the agents of deforestation have no legal rights to either deforestation or land use. Section 2.2 of the PD states that the agents of deforestation may be residents or migrants. The text presented in the Project Description was consistent with the activities seen and results from the interviews conducted during the site visit.
Where, pre-project, unsustainable fuelwood collection is occurring within the project boundaries modules BL-DFW and LK-DFW shall be used to determine potential leakage	The response to NCR27 provided sufficient information to confirm unsustainable fuelwood collection does not occur within the Project Area.
M-MON	
Strata as defined in the relevant baseline modules are fixed and may not be changed without baseline revision. Without application of this module the methodology shall not be used.	Section 2.2 of the PD states that the ex-ante stratification is fixed for this baseline and will not be changed. Interviews with the project proponent confirmed they understood and would comply with this requirement.
X-STR	
Any module referencing strata i shall be used in combination with this module. Strata are only used for pre-deforestation forest classes, and are the same in baseline and actual cases.	Section 2.2 of the PD states that stratification of pre-deforestation forest classes was made using official data from the Madre de Dios Region.
Post-deforestation (conversion) land-uses are not stratified, instead using average post-deforestation stock values (e.g. "Simple Conservative" or "Historical Area-weighted" approaches per BL-UP).	Average post deforestation stock values have been applied in accordance with the Simple Conservative approach (Option 1 in the BL-UP module).
X-UNC	
It is applicable for estimating the	This module is used to develop the uncertainty

<p>uncertainty of estimates of emissions and removals of CO₂-e generated from REDD project activities.</p>	<p>assessment and make the required deductions. Review of the calculation spreadsheet indicated that the module is correctly applied and the estimations were found to be correct.</p>
<p>T-ADD</p>	
<p>a) AFOLU activities the same or similar to the proposed project activity on the land within the proposed project boundary performed with or without being registered as the VCS AFOLU project shall not lead to violation of any applicable law even if the law is not enforced;</p>	<p>Section 1.11 of the PD provides sufficient evidence that the project compliance with Peruvian Laws. During the site visit the validators saw evidence of compliance with health and safety policies and laws within the logging accommodation inside the Project Area. Compliance with laws and regulations is also an important component of maintaining Forest Stewardship Certification.</p>
<p>b) The use of this tool to determine additionality requires the baseline methodology to provide for a stepwise approach justifying the determination of the most plausible baseline scenario.</p> <p>Project proponent(s) proposing new baseline methodologies shall ensure consistency between the determination of a baseline scenario and the determination of additionality of a project activity.</p>	<p>The accompanying BL_UP module (VMD007) is an existing methodology, not new, and is also step-wise in its approach.</p>
<p>E-BB</p>	
<p>If fire is used to clear the land or constitutes a cause of forest degradation, emissions of CO₂, N₂O and CH₄ result. Inclusion in the baseline is always optional. Where used in the baseline, accounting must occur under both the baseline and with-project scenarios in both the project area and in the leakage belt. Where fires occur, <i>ex-post</i> the module shall be used to account greenhouse gas emissions.</p>	<p>Section 2.2 of the PD states that fire is used to clear both forestlands, along with post deforestation grass and agricultural lands. Fire was a feature of land use conversion that was seen during the site visit. As such other GHG emissions are being accounted for.</p> <p>Section 2.3 of the PD (Table 8) states the CH₄ and N₂O have been included in the baseline scenario as fire is used in the region for burning of forest and agricultural biomass.</p>
<p>BL-UP</p>	
<p>The module is applicable for estimating baseline emissions from unplanned deforestation (conversion of forest land to non-forest land in the baseline case). The following conditions must be met to apply this module. The forest landscape configuration can be mosaic, transition, or frontier.</p> <p>The module shall be applied to all project activities where the baseline agents of deforestation:</p> <p>1) clear the land for settlements, crop production (agriculturalist) or ranching, where such clearing for crop production or ranching does not amount to large scale industrial agriculture activities;</p>	<p>Section 2.2 states that deforestation activities are not supported by planning or the State, but are small scale by local inhabitants and migrants for self-consumption. As such they do not have any legal right to the land.</p> <p>During the site visit interviews with local people confirmed that the frontier deforestation was illegal. Many people discussed the challenges of patrolling boundaries and stopping illegal land conversion.</p> <p>Section 2.2 also states that reforestation would not occur as new land use would continue. During the site visit tour of the area, there was no evidence of tree planting on the lands that had been deforested.</p> <p>Section 2.2 states that no unsustainable fuelwood collection occurs in the Project Area.</p>

<p>2) have no documented and uncontested legal right to deforest the land for these purposes; and (iii) are either resident in the region (reference region—cf. section 1 below) or immigrants.</p> <p>It shall be demonstrated that post-deforestation land use shall not constitute reforestation</p> <p>Where, pre-project, unsustainable fuelwood collection is occurring within the project boundaries modules BL-DFW and LK-DFW shall be used to determine potential leakage³</p>	
<p>Any module referencing strata i shall be used in combination with this module. Strata are only used for pre-deforestation forest classes, and are the same in baseline and actual cases.</p>	<p>This requirement is met through the project documentation, including the modules and the excel spreadsheets.</p>
<p>Post-deforestation (conversion) land-uses are not stratified, instead using average post-deforestation stock values (e.g. “Simple Conservative” or “Historical Area-weighted” approaches per BL-UP).</p>	<p>Project complies, as per the REDD-MF section earlier in this section of the validation report, and the BL-UP portion of Section 2.2 of the PD.</p>
<p>LK-ASU</p>	
<p>The module is applicable for estimating carbon stock changes and greenhouse gas emissions related to the displacement of activities that cause deforestation of lands outside the project area due to the avoided unplanned deforestation in the project area.</p> <p>Activities subject to potential displacement are: conversion of forest land to grazing lands, crop lands, and other land uses.</p> <p>The module is mandatory if BL-UP has been used to define the baseline and the applicability criteria in BL-UP must be complied with in full</p>	<p>As the main drivers of deforestation are crop lands and agricultural land uses, these will be potentially displaced by the project.</p> <p>The Project uses the BL-UP module and complies with all of the applicability criteria in full as previously stated in this validation report.</p>
<p>CP-AB</p>	
<p>This module is applicable to all forest types and age classes. Inclusion of the aboveground tree biomass pool as part of the project boundary is mandatory as per the framework module REDD-MF.</p> <p>Non-tree aboveground biomass must be included as part of the project boundary if the following applicability criteria are met (per framework module REDD-MF):</p> <p>Stocks of non-tree aboveground biomass are greater in the baseline than in the</p>	<p>Chart 18 in Section 2.3 of the PD lists aboveground tree biomass as included as part of the project boundary. Calculations presented in the project excel spreadsheets also confirm the correct application of this module.</p> <p>Section 2.2 states that above-ground non-tree biomass has been excluded, as it was not significant in previous results of regional inventories.</p> <p>Chart 18, in Section 2.3 of the PD, along with an explanation in Section 2.2 of the PD states that below ground biomass has been included as it is significant.</p>

<p>project scenario, and</p> <p>Non-tree aboveground biomass is determined to be significant (using the T-SIG module).</p> <p>Belowground (tree and non-tree) biomass are not required for inclusion in the project boundary because omission is conservative.</p>	<p>The field inventory data collected was confirmed during site visit to 6 plots within the project area. The plots visited were restricted to those accessible as the site was still quite wet following the wet season. Access was by 6 hour tractor ride. We spent 2 nights in the Maderera Rio Acre logging camp. The data collected was consistent with estimating the selected carbon pools. The field inventory was found to have been conducted within the stated level of accuracy.</p>
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Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: NIR 2011.2

Opportunities for Improvement: None

3.2.3 Project Boundary

Section 2.3 of the PD discusses the Project boundary and provides a detailed map of the project area, the leakage belt and the reference region.

Geographical boundaries of the Project Area and the Reference Area are clearly demarcated and conformance with the methodology threshold requirements were found to be adequately and transparently demonstrated in the Tables 2 - 8 presented in Section 1.1.1 of the BL-UP module.

During the field trip, the project boundary and location of plots were verified by taking GPS coordinates and comparing against the maps and KML files provided. In addition to these GPS waypoints, the concession manager was asked to identify the concession boundary edge in the field. GPS points were taken at two boundary points located by the concession manager, and at one further point where a sign post to the concession was positioned. All GPS point taken during the field visit were found to correspond with the KML files and maps provided.

Concession boundaries (and by default the Project Boundaries) were also confirmed in a review of the concession contracts (inclusive of maps) with the Peruvian Government and the Forest Management Plans prepared for Forest Stewardship Certification.

Temporal boundaries including the start and end date of the historical reference period are defined in this section of the PD as the period from 2000 to 2008. This meets the methodology requirements which state that the start date shall be between 9 and 12 years in the past and the end date shall be within two years of project start.

The start date and end date of the project crediting period are reported to be 1st January 2009 to 31st December 2046 respectively. The duration of crediting period is to be 38 years. This section

also confirms that the baseline will be revisited every 10 years in accordance with the standards requirements.

Carbon pools included in the Project are reported to be aboveground biomass, belowground biomass. The following sources of greenhouse gases are included in the baseline:

- Agriculture: CH₄ and N₂O
- Livestock: N₂O
- Biomass burning: CH₄ and N₂O

Sources of leakage were considered in the module LK-ASU. Deforestation by Agriculture & Cattle Ranching through migrants and residents were considered to be the main course of leakage. These activities are consistent with the non-forest land uses that were seen in the region during the field visit.

The Participatory Rural Appraisal (PRA) conducted for the project and for the concessions FSC monitoring report, illegal logging is non-significant in the baseline. Therefore, LK ME Module has not been applied which is in conformance with the requirements set out in REDD MF for dealing with leakage. During the field visit the validation team did not see any evidence of Highway side markets selling charcoal or fuel wood which would be consistent with the PRA finding that these forest products are not collected/produced for commercial markets, but rather any collection/production is for personal use. .

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.9
NCR 2011.14

New Information Requests: None

Opportunities for Improvement: None

3.2.4 Baseline Scenario

Section 2.4 of the PD states that the baseline scenario where the Madre de Dios Amazon REDD project activities are not implemented, would be sustainable forest management under FSC initially, however improvements of the Inter-oceanic Highway and subsequent migration of people into the area, would lead to significant deforestation agents. These drivers would be of a scale that would lead to the concessions being subject to deforestation by illegal loggers and settlers to develop agricultural activities. The forest within the concession is more accessible by the paved Highway and without an effective surveillance and monitoring system in the project area due to lack of financial resources under the baseline scenario, the concessions would be invaded by migrant farmers for planting subsistence crops or livestock grazing.

The deforested areas would be converted to areas with different land uses such as: agriculture, livestock and grasslands. These land uses have been established according to the study developed by CDC and the La Molina Agrarian University in the “Monitoring of land use between Puerto Maldonado and Iñapari, corresponding to segment 3 of the Interoceanic Highway for the years 1990, 2000 and 2005”.

During the field visit the validation team travelled along the Interoceanic Highway from Puerto Maldonado to the small township of Iñapari, a distance of approximately 200km. Along this Highway trip there was significant evidence of land clearing along the Highway and the development of new townships which suggested an increase in the population in the region. It was evident that the Highway was opening up new business opportunities such as Highway-side markets and increasing access to the area.

The field visit to the region coincided with an additional validation of another REDD project in proximity to the project area. Interviews were conducted with a number of smaller scale timber concessionaires who expressed their concerns and battles with opportunistic locals clearing land for agriculture. The validation team saw at least 2 instances of land within the boundaries of concessions which had been cleared using slash and burn techniques. It appears that the forest is cleared using a slash and burn technique rather than in combination with high value timber extraction. These techniques would be consistent with the opportunistic behaviour and the requirement for fast land use conversion to avoid detection before the land is cleared.

Within the concession bordering the Project Area an area had been cleared in this manner for agricultural production. Nelson Kroll explained that it was common for a group of families to move into these areas and work together to clear the forest and then set up camp. When challenged by the concession owners, these groups then demand money to leave, sometimes more than the concession can afford and so they stay and expand their areas.

Based on the land use change activities seen in the region of the Project Area and the discussions with the project proponent and other local people in the Madre de Dios region along the Interoceanic Highway, the description in the Project Documentation appears valid.

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.24

New Information Requests: NIR 2011.5

NIR 2011.27

Opportunities for Improvement: None

3.2.5 Additionality

VM0007 REDD-MF Version 1.2 requires the application of the VCS Tool VT0001 to demonstrate project additionality. Section 2.5 of the PD presents the application of the VT0001 tool. The

applicability requirements for the use of the tool appear to be met in the documentation provided. The validation findings related to the correct application of the tool are presented in the table below.

Criteria (VT0001)	Finding
Step 1: Identification of Alternative Land use Scenarios to the Proposed AFOLU Project Activity	
Sub-step 1a: Identify credible alternative land use scenarios to the proposed project activity	<p>Section 2.5 of the PD addresses Additionality. This section details the approach to demonstrating additionality which is consistent with the VT0001 tool. Three alternative scenarios are presented.</p> <p>Scenario 1 describes the case where the project activity is preformed without being registered as a VCS AFOLU project where the concessions are able to secure additional funds from the local government to assist in securing the concession boundaries leading to no significant land use changes even with the additional population pressure.</p> <p>Scenario 2 represents the continuation of the pre-project land use being loss of forest cover from unplanned frontier deforestation caused by the inability to protect the concession borders from increased population pressure as a result of the Interoceanic Highway.</p> <p>Paving of Section 3 of Interoceanic Highway, which runs from Inambari to Iñapari, began in Iñapari in 2006 and reached Puerto Maldonado in 2010. The road around the project area was completed prior to the project start date and represents a risk of frontier deforestation and conversion to ranching and agriculture that is expected to increase as other sections of the road are completed. On this basis Scenario 2 seems plausible.</p> <p>Scenario 3 describes the case of similar activities to the proposed VCS AFOLU project through partnering with neighbouring concessions to protect against the threat of frontier deforestation.</p> <p>This Step covers the minimum requirements of this step of VT0001.</p>
Sub-step 1b: Consistency of credible land use scenarios with enforced mandatory applicable laws and regulations	<p>Under the three proposed alternative scenarios Maderacre and Maderyja timber concessions will continue their mandate to manage their areas under forest harvesting, however the profitability of each scenario is different.</p> <p>The activities of the road construction and the timber harvest inside the concession boundaries are legal activities sanctioned by the Government of Peru. The risk of frontier deforestation is from illegal activity as a result of improved access made possible by the Interoceanic Highway. This activity is well documented in the literature and wide scale evidence of this activity was seen during the field visit. This activity generally results from a lack of</p>

	governance at the regional and national levels. Many peer reviewed studies project that these illegal land use conversion activities will lead to wide scale deforestation up to 50 km either side of the highway in addition to developing wider accessed road networks into the forest. Based on the field visit and the more than 1000 km travelled by the validation team along the Interoceanic Highway during the validation of two projects in Madre De Dios it is considered that this illegal activity is occurring on a considerable scale.
Sub-step 1c: Selection of the baseline scenario	Scenario 2 is selected as the most probable baseline scenario, because it is the most likely, it is related to the regional history in terms of land-use change and continues with the legislation of granting and management of Maderacre and Maderyja timber concessions.
Step 2: Investment Analysis – Discounted Cash Flow Method	
Sub-step 2a. Determine appropriate analysis method	The tool requires the determination whether to apply simple cost analysis, investment comparison analysis or benchmark analysis. The investment analysis (Option II) was correctly applied; this is due to other income to be generated through sustainable and selective logging.
Sub-step 2b.	The Net Present Value (NPV) was identified as financial indicator for the Project.
Sub-step 2c. Calculation and comparison of financial indicators	The Net Present Value was identified as positive for both concessions in the “without Madre de Dios Amazon REDD Project” Scenario. Financial NPV per hectare (US\$ 14.04 per hectare) is lower, through income of sale of standing wood, than the one offered by the extensive livestock activity under the Inter-oceanic scenario (US\$ 50/ha), or agriculture (US\$ 42.50/ha). In the scenario “With the Madre de Dios Amazon REDD Project” the NPV is expected to be higher than the livestock and agriculture activities, projected at 66% to 96% higher, respectively. The NPV calculator was supplied and has been reviewed and found to be correct.
Sub-step 2d. Sensitivity analysis	The Project was found to be robust to reasonable variations in the critical assumptions. A reduction of the VCU price (by 10%) and increase in the implementation cost (10%) were considered. With these considerations the NPV per hectare is greater with the Project scenario than the second economic alternative of land use (livestock and agriculture).
Step 3: Barrier Analysis	Investment Analysis was performed therefore the Barrier Analysis is not required (VT0001 SubStep 1c).
Step 4: Common Practice Analysis	Although there are numerous existing forest concessions, Maderacre and Maderyja are the only concessions in Peru that have achieved both FSC and CCB Certification. Therefore they are the only concessions that are implementing the important number of additional activities that are required to obtain certification and hence the project activity is not common practice and therefore is additional.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.2.6 Quantification of GHG Emission Reductions and Removals

In accordance with VM0007 (REDD-MF) Section 2.1 of the PD presents a reference to the methodology framework and Section 3 of the PD details the modules used to construct the project specific methodology. These specific modules are listed as BL-UP, X-STR, C-AB, E-BB. In addition X-UNC was used to determine uncertainty and justification for the treatment of optional pools is provided throughout the documentation provided.

Findings from document review and interviews with the project proponent, project developer and key technical consultants, relating to the correct application of each module in the quantification of GHG emission reductions and removals are presented in the following table.

Applicability Conditions	Finding
REDD-MF	
Identification of the most plausible VCS-eligible activity(ies)	All aspects of the REDD-MF were found to be covered in the documentation provided by the project developer. This documentation included the PD document and Annexes which addressed the relevant modules utilised by the project. The calculation spreadsheet was found to be consistent with the module descriptions and the figures consistently reported within the spreadsheet and document tables.
Definition of the project boundaries	
Demonstration of additionality	
Development of Monitoring Plan	
Estimation of baseline carbon stock changes and GHG emissions	
Estimation of total net GHG emissions reductions (net of project minus baseline and leakage)	
X-STR	
Strata are only used for pre-deforestation forest classes and are the same in the baseline and actual cases.	Five forest classes were defined and are consistent in the baseline and the proposed project scenario. This was confirmed in the excel calculation tool provided by the project proponent for validation.
Post deforestation land-uses are	The detail provided in Section 3.1 of the PD combined with

not stratified, instead using average deforestation stock values.	the calculation tool provided by the project proponent indicate that this criteria has been met.
CP-AB	
Aboveground tree biomass: Estimation of carbon stocks in aboveground tree biomass	Carbon stocks in the aboveground biomass pools were calculated in accordance with the CP-AB module. In total DBH and tree species were measured in 217 plots across the project area. Seven plots were checked by the validation team in areas there were accessible during the field visit. The measurements were found to be with the accuracy limits expected. The allometric equations and carbon stocks of the species recorded were based on relevant published literature for the tree species found within the Project area.
Belowground tree biomass: Estimation of carbon stocks in belowground tree biomass	Carbon stocks in the belowground biomass pools were calculated in accordance with the CP-AB module. The belowground biomass expansion factor of 0.24 was used to estimate belowground biomass from the aboveground biomass across the 217 plots across the project area. The calculations on were found to be correct following the review of the project calculation tool.
Aboveground non-tree biomass: Estimation of carbon stocks in aboveground non-tree woody biomass (<i>CAB_nontree,i</i>)	Section 2.2 of the PD states that Above ground non-tree biomass pool has been excluded as it was not significant in previous results of regional inventories.
LK-ASU	
Estimation of baseline carbon stock changes and greenhouse gas emissions in the Leakage Belt	The application of the leakage module is summarised in Section 3.3 of the PD and explained in detail in the project Annex LK-ASU
Estimation of baseline carbon stock changes and greenhouse gas emissions in the Leakage Belt	The BL-UP module describes the appropriate approach to estimating the baseline carbon stock changes and greenhouse gas emissions in the Leakage Belt. A summary of the findings are found in the LK-ASU. The figures were found to be consistent between the BL-UP, LK-ASU and the Project calculation tool.
Estimation of the proportions of area deforested by immigrant and local deforestation agents in the baseline	Section 2.2 of the LK-ASU module presents information and assumptions relating to the estimation of proportions of area deforested by immigrant and local deforestation agents in the baseline. This approach appears to be consistent with the approach required by the module and

	provides justification for assumptions and sources for data used.
Emissions from leakage prevention activities	Emissions from leakage prevention activities have been assumed to be zero. The justification for this is that these emissions are already counted in the project activity emissions. Checks of these modules and the calculation spreadsheet found this to be correct.
Estimation of total leakage due to the displacement of unplanned deforestation	The calculations to arrive at the total emissions from leakage are reported to be t CO ₂ -e in Section 2.6 of the LK-ASU module. The calculations were found to be consistent with the approach presented in the methodology and the calculation tool presents these equations correctly.
M-MON	The VCS and methodology requirements are adequately covered in Section 4 of the PD. Monitoring capability was assessed during the field trip and in interviews with the project proponent and the developers. Given that the concessions hold FSC certification the group are experienced with monitoring reporting and validation processes.
X-UNC	
Assess uncertainty in projection of baseline rate of deforestation or degradation and Estimate total uncertainty in baseline scenario	<p>Uncertainty calculations for the selected carbon pools were presented in the spreadsheet titled X-UNC 080812.xlsx.</p> <p>The calculations presented in this spreadsheet were found to be consistent with the approach presented in the X-UNC module. The total uncertainty of the carbon pools were reported to be 5% and as such no deduction was necessary.</p>
E-BB	The E-BB module is correctly applied in the Annex to the PD and in the excel calculator.
E-FCC	Section 2.3 of the PD states that the estimation of emissions from fossil fuels combustion was not considered because it is uncertain how many machines and tools as a result of post-deforestation activities will be incorporated during the baseline. Hence, it was not estimated in the baseline scenario.

BL-UP	Finding
Part 1: Definition of Boundaries	
Part 1.1: Definition of the spatial boundaries of the analytical domain	
<p>Reference region for projecting deforestation (RRD).</p> <p>1) Must be 100% forested at the start of the historical reference period</p> <p>2) The RRD area shall be equal to or greater than the MREF as calculated in equation 1 and 2 of the VMD0007.</p> <p>3) The RRD must comply with criteria A-F of Section 1.1.1.1</p>	<p>Compliance with the BL-UP module (VMD0007) in presented in the document accompanying the Project Description titled BL-UP V 2.0.</p> <p>Satellite images have been provided to confirm that the RDD was 100% forest at the start of the historical reference period (2000).</p> <p>The RRD (300,333.8 hectares) is larger than the calculated MREF (235,605.9 hectares) which is reported on page 6 of the BL-UP module.</p> <p>The Project complies with the requirements of Step 1.1.1.1 of the methodology as the RRD excludes the Project Area (PA) and retains the proportionality requirements specified in the methodology and therefore contains the same: agents of deforestation, landscape factors, transportation networks and human infrastructure, policies and regulations, and exclusion of planned deforestation. During the field visit the validation team drive through much of the RRD along the InterOceanic Highway. During this trip similar agents of deforestation, landscape factors, transportation networks were seen within the RRD area and the project area.</p>
<p>Reference region for projecting the location of deforestation (RRL).</p> <p>1) The RRL must be a single parcel, contiguous with and including the project area and leakage belt</p> <p>2) The RRL shall consist of a minimum of 5% non-forest and a minimum of 50% forest.</p> <p>3) The area of forest in the RRL shall be equal to the area of the RRD ($\pm 25\%$)</p> <p>4) The RRL must have the same proportion of forests suitable for conversion to the land-use practices of the deforestation agents as the project area ($\pm 30\%$)</p> <p>5) The RRL shall exclude areas of protected forest where the protected status is enforced</p>	<p>The area of the RRL is defined in Figure 5 of the BL-UP module.</p> <ol style="list-style-type: none"> 1) The RRL is a single parcel of land and includes the project area and the leakage belt. 2) It meets the minimum forest non-forest requirements of the methodology. 3) The area of forest in the RRL is equal to the area of the RRD (-9%). 4) The proportionality requirements have been met as demonstrated in Table 7 and 8 of the BL-UP. 5) Maps were provided to the valuator to confirm that protected forest areas were excluded from the RRL.
<p>Project Area.</p> <p>1) The project area is a discrete</p>	<p>The project area is a discrete parcel of land (BL-UP Figure 7). The project area is 97,817.41 hectares.</p>

<p>parcel(s) of land that are under threat of deforestation</p> <p>2) The project area itself shall be 100% forested at time zero</p>	<p>The threat of deforestation comes from its proximity (30km) to the InterOceanic Highway.</p> <p>The project area is stated to be 100% forest. Visits to random locations during the field trip confirmed that the area was 100% forest as did the 2000 satellite image.</p>
<p>The leakage belt must conform with criteria a-g of Section 1.1.3 of BL-UP</p> <p>The minimum leakage belt area shall be equal to at least 90% of the project area.</p>	<p>The net area of the leakage belt (following the removal of protected areas) is 159,018.02 hectares and consists primarily of forest concessions and agricultural plots.</p> <ul style="list-style-type: none"> a) The leakage belt is represented by the forest area closest to the project area. b) Accessibility factors have been considered and are deemed to be the same within the leakage belt and the Project Area. c) The placement of the leakage belt does not appear to be spatially biased. d) The landscape factors have the required proportionality between the Project Area and the Leakage Belt. e) Transport factors and Highways are discussed and justified adequately. f) The Project Area and the Leakage Belt are in the same jurisdiction and therefore appear to be subject to the same policies and regulations. g) There appears to be no differences in jurisdictional or social factors between the Project Area and the Leakage Belt. <p>The area of the leakage belt exceeds the minimum area as it is 160% of the Project Area.</p>
<p>Part 1.2 Temporal Boundaries</p>	
<p>Historical Reference Period.</p> <p>1) All dates required by the methodology must be provided in the format dd/mm/yyyy</p>	<p>Step 1.2 of the BL-UP states that the state date as 1st January 2009, the credit period as 01/01/2009 and the end date of the credit period as 31/12/2046.</p> <p>This section also confirms that the project baseline will be reviewed every 10 years in accordance with the methodology.</p>
<p>Part 2: Estimation of Annual Areas of Unplanned Deforestation</p>	
<p>Step 2.1: Analysis of historical deforestation</p>	
<p>2.1.1 Collection of appropriate data sources.</p> <p>1) Collect medium resolution remotely sensed spatial data (30x30m resolution or less) for three points in time of no less than 3 years apart covering no more than 12 years (the first point in time being no less than 2 years from the project start date). Three time points over a maximum of</p>	<p>LandSat data of 30x30m resolution were collected for the years 2000, 2005 and 2008 meeting the methodology requirement that the images be at least 3 years apart. The 2008 images are 1 year from the project start date.</p> <p>Field assessment work was completed to ground truth the medium resolution (30x30m resolution) LandSat images. Accuracy of the mapping was determined to be no less than 90% based on the</p>

<p>12 years must be included, however, additional points either within or beyond the 12 year period may be added to enhance the deforestation analysis.</p> <p>2) For the first point in time from the project start date, collect high-resolution data from remote sensors (<5 x 5m pixels) and/or from direct field observations for ground-truthing the medium resolution data collected in the previous step</p> <p>3) Data must be of sufficient quantity to produce a map that shall have an accuracy of no less than 90% in classification of forest vs non-forest as per step 2.1.4</p>	<p>procedures described in Section 2.1.4. The accuracy assessment approach is described in detail and the approach is consistent with good practice.</p>
<p>2.1.2 Mapping historical deforestation</p> <p>1) Using the data collected in Step 2.1.1 divide the RRD into polygons representing 'forest', 'non-forest' and 'deforested'; land at different dates in the past</p> <p>2) Deforestation maps showing deforestation with paired data (time series) shall be prepared and available for the time periods between each historic image.</p> <p>3) Remote sensing must demonstrate use of good practice, and mapping methods for each map type (forest/deforestation) have to be able to generate consistent datasets.</p> <p>4) Planned areas of deforestation must be identified and excluded from both <i>Forest Cover Maps</i> and <i>Deforestation maps</i>.</p>	<p>Maps of historical deforestation are presented in Section 2.1.2 and the approach described is consistent with that required by the BL_UP module.</p>
<p>2.1.3 Calculation of historical deforestation.</p> <p>1) Calculations must provide the area of forest at the beginning and end of the historical reference period, the number of hectares deforested for each interval of the historical reference period</p> <p>2) Gross deforestation shall be measured rather than net deforestation</p> <p>3) Where cloud cover is an issue, multiple-date images for the same 12 month period can significantly reduce cloud cover, and the cloud cover in the</p>	<p>Section 2.1.3 of the BL-UP module provided and also the response to NIR41 demonstrate project compliance with the requirement that remote sensing data has no more than 10% cloud coverage. The Project Proponents have removed scene 4-69 in response to cloud coverage being greater than 10%, this area has been removed from the RRD as a result.</p>

<p>final images must be no more than 10% of any image. If there are clouds in either date in question in the area for which the rate is being calculated, then the rate should come from areas that were cloud free in both dates in question. This should be estimated in hectares per year.</p>	
<p>2.1.4 Map accuracy assessment</p> <p>1) A verifiable accuracy assessment of the maps (AA_u) produced in the previous sub-step is necessary to produce a credible estimate of the historical deforestation rate</p> <p>2) The minimum map accuracy shall be 90% for both the “forest” class and the “non-forest” class. (a map of less accuracy is not acceptable for further analysis)</p>	<p>The accuracy assessment appears to be in conformance with the Methodology VMD0007.</p>
<p>2.2 Estimation of annual areas of unplanned baseline deforestation in the RRD</p> <p>1) The modelled annual area of deforestation in the RRD shall be calculated across the historical reference period by one of the three approaches:</p> <p>a) Historical average annual deforestation during the historical reference period,</p> <p>b) A linear regression of deforestation during the historical reference period, or</p> <p>c) A non-linear regression of deforested area against time.</p> <p>2) Any regression must have be significant ($p \leq 0.05$) and have an r^2 of ≥ 0.75 and must be free from bias (demonstrated through selection of the fit with the lowest residuals)</p> <p>3) Non-linear regression can be used if 5 or more points in time are available for analysis. A linear regression shall be used if there are less than 5 points.</p>	<p>The BL-UP module describes in detail the approach taken to estimate the annual areas of unplanned baseline deforestation in the RRD. The explanation provided along with the supporting evidence appears to be in conformance with the selected methodology.</p>
<p>2.3 Estimation of annual areas of unplanned baseline deforestation in the project area</p> <p>1) Equations 4-8 must be applied and demonstrated only if no spatial modelling has been completed</p>	<p>Spatial modelling was used to determine the annual area of deforestation so equations 4-6 are not applicable.</p>
<p>2.4 Analysis of deforestation constraints</p> <p>1) Demonstrate that the remaining</p>	<p>The analysis of deforestation constraints appears to be in conformance with the Methodology VMD0007</p>

<p>forest is not a limiting factor for ongoing deforestation (i.e. forest remaining)</p>	
<p>Step 3: Location and Quantification of Threat of Unplanned Deforestation</p>	
<p>3.0) Location analysis required for frontier deforestation 3.1.1) Must use peer-reviewed, transparent models/software that incorporates spatial data sets and be able to project location of future deforestation 3.1.2) One factor from each of landscape factors, accessibility factors, anthropogenic factors and actual land tenure and management. Factor maps need to be included. 3.2) Risk map preparation must show the suitability for deforestation of each pixel for deforestation on a numerical scale 3.3) Selection of the most accurate deforestation risk map 3.4) Mapping of location of future deforestation</p>	<p>The project deforestation approach is noted as frontier deforestation therefore location analysis is required and has been completed.</p> <p>The Project uses DINAMICA EGO 1.6 software. It is peer-reviewed and can project the future location of deforestation. Evidence of its relevance was provided by the project proponent and found to be sufficient to demonstrate its applicability.</p> <p>Section 3.1.2 of the BL-UP document incorporates at least one factor from the 4 classes listed. Factor maps have been included.</p> <p>Section 3.2 of the BL-UP document classifies each pixel on a numerical scale of the likelihood.</p> <p>3.3 of the BL-UP describes and presents the most accurate deforestation risk map.</p> <p>3.4 of the BL-UP module provides the maps and tables of deforestation over the baseline and crediting periods in conformance with the requirements of step 3.4.2 of the BL-UP methodology module (location analysis).</p>
<p>Step 4: Estimation of Carbon Stock Changes and Greenhouse Gas Emissions</p>	
<p>4.1) Stratification must use X-STR 4.2.1) Forest carbon stocks 4.2.2) Estimation of post-deforestation carbon stocks 4.3) Estimation of the sum of baseline carbon stock changes 4.4) Estimation of the sum of baseline carbon stock changes 4.5) calculation of net emissions</p>	<p>The information provided in step 4.1 is provided from the X-STR module. Pre-deforestation forest strata are presented and appear to be consistent with what is reported in X-STR.</p> <p>Step 4.3 of BL-UP calculates the emissions from biomass burning and estimation of methane and nitrous oxide emissions from farmland in the baseline scenario, as per the E-BB methodology module. Emissions from fossil fuel burning has been excluded which is optional under this methodology and therefore exclusion complies.</p> <p>Step 4.5 of BL-UP calculates net emissions as per equations 23-25 of BL-UP methodology module.</p> <p>The correct application of the equations and completeness of the calculations was confirmed with the review of the Project calculation tool titled REDD Project Calculations v1.(Excel Calculation Spreadsheet)</p>

Conformance:

Yes No N/A

<u>Non-Conformity Reports:</u>	NCR 2011.6
	NCR 2011.7
	NCR 2011.16
	NCR 2011.17
	NCR 2011.22
	NCR 2011.23
<u>New Information Requests:</u>	NIR 2011.1
	NIR 2011.15
	NIR 2011.19
	NIR 2011.20
	NIR 2011.21
<u>Opportunities for Improvement:</u>	OFI 2011.18

3.2.7 Methodology Deviations

Section 2.6 of the methodology states that there are no deviations from the selected methodology (VM0007) and the relevant modules applied to the project area. A thorough review of the calculation spreadsheet confirmed the correct application of the selected modules.

<u>Conformance:</u>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<u>Non-Conformity Reports:</u>	None					
<u>New Information Requests:</u>	None					
<u>Opportunities for Improvement:</u>	None					

3.2.8 Monitoring Plan

Section 4 of the PD details the monitoring methodology. Section 4.2 of the PD confirms that the project follows the guidelines of module M-MON (Approved VCS Module VMD0015). The parameters to be monitored listed in Section 4.1 of the PD are consistent with the requirements of this approved monitoring module.

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.10

New Information Requests: None

Opportunities for Improvement: None

3.2.8.1 Description of the monitoring plan

Section 4.2 of the PD provides a detailed description of the monitoring plan. Given the description of the stakeholders presented in earlier sections of the PD the monitoring plan appears to be workable. An organisational structure for the monitoring plan has been provided and details on organisation and responsibilities, information management and in-house audit requirements are documented. All of the specific regenerating, recording, storage, aggregation, collating and reporting requirements for the monitored parameters are adequately presented in this section of the PD.

Table 10: VCS Standard, Version 3.2 required monitoring plan procedures

VCS Required Monitoring Procedures	Findings
1) Purpose of monitoring	The purpose of the monitoring plan is adequately described in Section 4.2 of the PD.
2) Monitoring methodologies, including estimation, modeling, measurement and calculation approaches	These requirements are adequately presented in the parameter tables presented in Section 4.2 of the PD.
3) Procedures of managing data quality	The procedures described in the 'In-house Audit' sub-section of Section 4.2 of the PD adequately address the approach to managing data quality.
4) Monitoring frequency and measurement procedures	The procedures described in Section 4.2 of the PD adequately address the monitoring frequency and measurement procedures.

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.25

New Information Requests: None

Opportunities for Improvement: None

3.2.8.2 Data and parameters available at validation and to be monitored

Section 4.1 of the PD lists the data and parameters that were used. Those listed are in accordance with the selected methodology. The sources of the data have been identified and they appear to be relevant and credible. The units of measure have been provided and are consistent with those required by the methodology. The information is presented in accordance with the VCS PD template tables. The information presented is clear, easily understood and adequately justified.

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.25

New Information Requests: None

Opportunities for Improvement: None

3.2.8.3 Applicability and eligibility of monitoring equipment and procedures

Section 4 of the PD presents information related to the applicability and eligibility of the monitoring equipment and procedures. The monitoring methodology presented complies with that specified in the selected project methodology. The PD clearly identifies what needs to be monitored, providing a list of the specific parameters. The tables presented in Section 4.1 and 4.2 give details on how the parameters will be monitored. The monitoring plan presented in the PD appears to be realistic in its approach and there appears to be no stated or unstated deviations from the monitoring requirements of the selected methodology.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.3 Environmental Impact

Section 5 of the PD provides details of a number of High Conservation Value (HCV) and describes in detail the approaches used to identify the HCV. This process has been developed over a number of years for the FSC and the CBB validation process. The process lead to the identification of areas for protection and resulted in 4% of the area being protected from sustainable timber harvest.

In addition to this, the Government of Peru (Supreme Decree (DS) N° 014-2001-AG) requires that forest concessions submit a General Management Plan which must incorporate potential environmental impacts and proposed mitigation measures.

The following activities are described as having an impact on the environment in the General Management Plan.

1. Construction of camping sites.
2. Construction of Highways.
3. Felling and cutting up of trees.
4. Extraction of trees.
5. Terrestrial transportation of the wood.
6. Forestry operations.
7. Maintenance of protection and conservation areas.

Each of these activities have a list of mitigation measures presented in Chart 38 which appears to adequately describe relevant mitigation measures proposed for the main environmental impacts

identified. Overall Section 5 adequately demonstrates that the Project Proponent has considered environmental impacts and has designed or implemented measures to lower any environmental impact from the project scenario. During the field visit it was observed that the Project Proponents have the skills and commitment to implement the mitigation activities suggested and that some of the mitigation activities are being implemented in the construction of Highways and camping grounds.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.4 Comments by stakeholders

Section 6 of the PD describes the project stakeholder consultation process. It appears that a detail communication plan has been developed and implemented. The way in which communication has taken place to date is adequately documented in this section of the PD. The presented material and evidence collected from interviews in the field indicate that the communication strategy has been effective and there is a commitment to continue engaging with the project stakeholders to achieve successful project outcomes.

Conformance: Yes No N/A

Non-Conformity Reports: None

New Information Requests: None

Opportunities for Improvement: None

3.5 Risk Assessment

In accordance with the VCS 2011 Version 3.2, the Project Proponent applied AFOLU Non-Permanence Risk Tool. The application of this tool was presented in the client supplied report titled 'Non Permanence Risk Report Madre De Dios Amazon REDD Project, Version 1.0, 17th September 2012'. During the field visit this report was reviewed in a meeting between the validators, Nelson Kroll – Maderera Río Acre S.A.C., Manuel F. Salirrosas Vasquez - Maderera Río Yaverija S.A.C. and Silvia Gomez Caviglia – Executive Vice President Greenox. Corrections to the initial risk assessment were made following the issuance of three non-conformancies. Subsequently the risk assessment was found to be conducted in accordance with the required tool.

Risk Factor	Initial Project Finding	Validator Finding	Final Risk Buffer
Internal Risk			
Project Management	-2	- 2	-2

Financial Viability	0	0	0
Opportunity Cost	0	0	0
Project Longevity	10	10	10
Sub-Total	8	8	8
External Risk			
Land Ownership and Resource Access/Use Rights	0	0	0
Community Engagement	-5	0	0
Political Risk	0	2	2
Sub-Total	0	2	2
Natural Risk			
Fire (F)	0	0	0
Pest and Disease Outbreaks (PD)	0	0	0
Extreme Weather (W)	0	0	0
Geological Risk (G)	0	0	0
Other natural risk (ON)	0	0	0
Total	8	10	10

Conformance: Yes No N/A

Non-Conformity Reports: NCR 2011.11
NCR 2011.12
NCR 2011.13

New Information Requests: None

Opportunities for Improvement: None

4 VALIDATION CONCLUSION

SCS has performed the validation the Madre De Dios Amazon REDD Project (the project) for conformance against the Verified Carbon Standard 2011 Version 3.2 (VCS) and its supporting documents including the selected VCS approved methodology VM0007 REDD Methodology Module Version 1.2 and its associated modules.

The review of the project design documentation, field inspections, interviews and subsequent responses to the findings issued during the validation have provided SCS with sufficient evidence to determine the fulfillment of the stated criteria.

SCS gives reasonable assurance that the Madre De Dios Amazon REDD Project presented in the VCS PD 11th September 2012 meets all relevant requirements of the VCS 2011 Version 3.2 for an Avoided Unplanned Deforestation project and correctly applies the appropriate VCS approved methodology VM0007 REDD Methodology Module Version 1.2. If the Project is implemented as described in the VCS PD 11th September 2012 it is likely to achieve the estimated GHG reductions or removals presented.

5 APPENDIX 1 – VALIDATION FINDINGS AND RESPONSES

NIR Number 2011.1 of 27 Dated 05/16/2012

Finding:

Please provide the Forest Management Plans for both Maderacre and Maderyja that are referred to in the development of baseline and project estimations of net greenhouse gas reductions.

Proponent Response:

Provided documents:

- Forestry Management Plan for Maderacre SAC.
- Forestry Management Plan for Maderyja SAC.

How they satisfy the NIR: documents required by the auditor which give detailed information about the sustainable forest management applied in Maderacre SAC and Maderyja SAC timber concessions.

Validator Response:

References and documents were provided as requested and the FMPs contained sufficient information to address this NIR.

NIR Number 2011.2 of 27 Dated 05/16/2011

Finding:

Please provide evidence to support the comments made in the PD that the project meets all applicability criteria.

Proponent Response:

Please, see document Annex NIR 2, which details how the project meets all applicability criteria.

Validator Response:

The Annex and changes to the PD provided more detail and specific information which sufficiently demonstrated compliance with the applicability of all the utilized modules of the selected methodology.

NIR Number 2011.3 of 27 Dated 05/16/2011

Finding:

Please provide the concession approval documents as evidence that the concessions are in the names of the detailed project proponents.

Proponent Response:

Provided documents:

- 1. Concession approval document for Maderera Rio Acre SAC
- 2. Concession approval document for Maderera Rio Yaveryja SAC

Validator Response:

The documents provided were sufficient to confirm the project proponents have the rights of use to the forest within the project area.

NIR Number 2011.4 of 27 Dated 05/16/2011

Finding:

Please provide evidence to support compliance with social and labour laws described in the PD, in particular the employee manuals and procedures referred to in Section 1.11 of the PD.

Proponent Response:

In order to provide evidence to support compliance with social and labour laws we are attaching the following documentation for both concessions as well as a support document explaining the documentation included:

- FSC Certificates
- FSC Reports
- Manuals of Forestry Operations
- First Aid Manuals
- Forestry Operation Regulations
- Industrial Safety Regulations
- Forestry Law N° 27308
- Forestry Law Regulation

Validator Response:

A significant amount of supporting documentation was provided. Most the documentation relates to the FCS certification. Elements of the concessions policies and procedures were seen during the field visit to the concession and the logging station.

NIR Number 2011.5 of 27 Dated 05/16/2011

Finding:

Please provide the landuse study developed by CDC referenced on page 133 of the PD.

Proponent Response:

Provided document:

- “Monitoring of land use between Puerto Maldonado and Iñapari, corresponding to the segment 3 of the Interoceanic Highway for the years 1990, 2000 and 2005” (in spanish “Monitoreo del Uso del Suelo entre Puerto Maldonado e Iñapari, correspondiente al tramo 3 de la carretera interoceánica para los años 1990, 2000 y 2005”), developed by CDC, La Molina Agrarian University, Frankfort Zoological Society and INRENA, October 2007.

Validator Response:

The information within the reference provided was consistent with the information presented in the PD. The post deforestation land uses reported in the PD are consistent with the information presented in this reference.

NIR Number 2011.6 of 27 Dated 05/16/2011

Finding:

The project scenario describes sustainable timber harvesting in the project scenario. The selected methodology (Module REDD-MF, page 7) states that "if degradation is caused by either illegal or legal tree extraction for timber, this framework cannot be used." Given that the project baseline and project scenario lead to 'forest degradation' as defined by the standard (even though the timber extraction is legal and certified to FSC) please provide justification for the applicability of the selected methodology to the project.

Proponent Response:

Validator Response:

The project proponent updated the project documentation following the release of the update M-MON module. This module was updated to version 2.0 on 23 November 2011 to include monitoring methods for degradation from natural disturbance and degradation from Forest Stewardship Council-certified selective logging. As such this project meets the applicability criteria of the M-MON module.

NCR Number 2011.7 of 27 Dated 05/16/2011

Finding:

The selected methodology states that module X-UNC is mandatory. There is no reference or evidence of the application of this module in the PD or supporting calculations. Please ensure that this module is fully implemented and documented in the PD.

Proponent Response:

Please, find attached module X-UNC, as required per the selected methodology.

Validator Response:

The response document and the excel spreadsheet present information and calculations that are consistent with the X-UNC module.

NCR Number 2011.8 of 27 Dated 05/25/2011

Finding:

The reference to the Methodology Framework is presented in the PD, however to be in conformance with the REDD-MF, the modules used to construct the project-specific methodology should be given in the VCD Project Description. References to some of the mandatory modules are not presented in the PD, making it difficult for a third party to evaluate conformance with this requirement.

Proponent Response:

Please, find attached the list of modules/ tools employed in the PD.

Validator Response:

The additional information provided and changes made to the PD are sufficient for a third party to assess compliance with the VM0007 methodology framework.

NCR Number 2011.9 of 27 Dated 05/25/2011

Finding:

There are a number of areas presented in the PD related to the project area. It is not always clear which area is considered the project area. Please provide a concise and consistent description of the project area. Additionally provide references for any other areas referred to in the PD.

Proponent Response:

The different number of areas that were present in version 1 of PDD responded to the specific characteristics of the SIMAMAZONIA modelation that was previously used. Modelation has been changed, and therefore the different number of areas that were present in version 1 of PDD are no longer present.

The project area, granted by the Peruvian State to Maderacre and Maderyja concessions corresponds to 97,951.59 hectares. Under the current modelation, we worked with an area of 97,817.40 hectares. The difference in areas is based in the fact that according to the methodology the project area must be 100% forest and therefore we should work with the types of forest classes. In the present case, these were obtained from IIAP (source) and the shapes that IIAP has generated for this border zone cover the indicated area (97,817.40 ha), which is a conservative approach.

Validator Response:

The changes made to the PD subsequent to the change in deforestation model from SIMAMAZONIA to DYNAMICA. This change made the definition of the Project Area clearer and achieved compliance with the selected methodology modules.

NCR Number 2011.10 of 27 Dated 05/25/2011

Finding:

The standard requires that the data be stored in two places. It also requires a commitment to store the data for 2 years after the project completion.

Proponent Response:

The following phrase was added to the Monitoring Plan, under the subtitle **INFORMATION MANAGEMENT: DATA COLLECTION, PROCESSING AND REPORT**: The physical and digital files which store the data generated during the monitoring process will be accessible in the two modalities described before (physical files and digital files), being kept in the project offices in the locality of *Iñapari and in Maderacre's central office in Lima, Perú* throughout the Madre de Dios Amazon REDD Project duration and for at least two years after the end of the project crediting period.

This guarantees that the data are stored in two places, in physical and digital form and will be kept for at least two years after the end of the project crediting period.

Validator Response:

The response and changes made to the Project Documentation are sufficient to close this issue.

NCR Number 2011.11 of 27 Dated 05/25/2011

Finding:

The mitigation component of the community engagement risk factors is not applicable. The rating for c) in the Community Engagement table should be 0.

Proponent Response:

The rating for c) in the Community Engagement table has been changed to 0.

Validator Response:

The response and changes made to the Project Documentation are sufficient to close this issue.

NCR Number 2011.12 of 27 Dated 05/25/2011

Finding:

The Governance score calculated for Peru falls into the risk rating of 4. Please update the risk assessment accordingly.

Proponent Response:

The Governance score calculated for Peru has been changed to 4.

Validator Response:

The response and changes made to the Project Documentation are sufficient to close this issue.

NCR Number 2011.13 of 27 Dated 05/25/2011

Finding:

The risk tool allows for mitigation against Project Management if an adaptive management plan is in place. Whilst an approach was described by the project proponent during interviews, this process should be documented in the PD as supporting evidence that the plan is in place.

Proponent Response:

The following text has been added to the monitoring plan, as supporting evidence that an adaptive management plan is in place. The project is based in the premise of the "Adaptive Management", in this sense every intervention on the forest and its surroundings are sustained in previous information collected in field as a knowledge basis. Based on this knowledge is that Management Plans, Operative Plans and the rest of the necessary instructions for the implementation of the project, the interventions on the forest and the treatment of the social component are defined.

The permanent implementation of the Monitoring Plan allows the identification of the tendencies of the different parameters, including those that are useful to evaluate the compliance with the objectives of the Project. This knowledge that is generated allows the adaptation of the system (plans and the rest of the instructions).

Validator Response:

The response and changes made to the Project Documentation are sufficient to close this issue.

NCR Number 2011.14 of 27 Dated 05/28/2011**Finding:**

Project location for AFOLU projects shall be specified using geodetic polygons to delineate the geographic area of each AFOLU project activity and provided in a KML file.

Proponent Response:

The polygons for project area and project zone are sent in KMZ format files as required for AFOLU projects.

Validator Response:

The files provided were sufficient to close this issue.

NIR Number 2011.15 of 27 Dated 05/31/2011**Finding:**

Please justify why the concession area to the south east of the project area (see Figure 60) was excluded from the project zone. Please include it if it meets the criteria used for determining the project zone.

Proponent Response:

Based on the location of each concession and the distance to main settlements (Iñapari and Iberia), we have included in the leakage belt area only concessions that are located nearer to Iñapari than Iberia, as it was considered that the deforestation on the project area and leakage belt will be expanded from this population center rather than from Iberia.

Validator Response:

This response and the visit to the Project Area were sufficient to confirm the location of the leakage belt.

NCR Number 2011.16 of 27 Dated 05/31/2011**Finding:**

The spatial variables that most likely explain the pattern of deforestation in the RRL need to be identified and described. These must include the following key classes: Landscape Factors, Accessibility Factors, Anthropogenic Factors, Actual Land Tenure and Management. The way in which SIMAMAZONIA considers these variables should be described in detail in the PD.

Proponent Response:

Please, see information contained in the BL UP document.

Validator Response:

The change of model from SIMAMAZONIA to Dynamica combined with the threshold tables listed in BL-UP confirm the key classes required for comparative purposes of the Project Area, the RRD and the RRL.

NCR Number 2011.17 of 27 Dated 05/31/2011

Finding:

The harvested wood product pool will be the same in the project scenario and the baseline scenario. It should be included in both or conservatively excluded in accordance with the REDD-MF module.

Proponent Response:

Please, see Excel file REDD Project Calculations sent via yousendit

Validator Response:

The wood products pool was conservatively excluded from the project and baseline scenario. This was confirmed in the documents provided in response to this finding.

OFI Number 2011.18 of 27 Dated 05/31/2011

Finding:

A description of the definitions for each land use class listed in the PD would increase transparency.

Proponent Response:

In an attached Excel file, a glossary of the main vegetal cover categories used is detailed, especially in the post-deforestation analysis with the operational definition for each case. The definitions were translated from the CDC-UNALM report for the Interoceanic Highway, given to the auditor during the field visit. The categories include forest, agriculture, cattle livestock, Highways, hydrography, among other common uses of the land in Madre de Dios.

Validator Response:

The additional information provided closes this OFI.

NIR Number 2011.19 of 27 Dated 05/31/2011

Finding:

Please provide justification (i.e. published reference) for the selection of a discount factor used to estimate Area Burned from Area Deforested.

Proponent Response:

According to the "Mapa de Deforestación de la Amazonía Peruana 2000" of the Ministry of Environment of Peru, migratory agriculture is the main source of deforestation and biomass burning. In chapter 4, it is estimated that 50% of total biomass is burned in-situ and an additional 5% is burned ex-situ, while the other 45% is left in the forest to rot. The referred document is sent attached to this NIR.

According to the auditors request the exact reference to the 55% factor for Area Burned is extracted from "Mapa de la Deforestación de la Amazonía Peruana 2000. Chapter 4", page 2, paragraph 6.

Validator Response:

The supporting reference provided is sufficient to clarify this new information request.

NIR Number 2011.20 of 27 Dated 05/31/2011**Finding:**

Please provide a more detailed description as to how the estimate of percent leakage displacement (i.e. 15% presented on page 222 of the PD). The current explanation is not clear.

Proponent Response:

According to official demographic statistics from National Census 2007 (as can be seen in page 222 of PD), Iñapari district has an Economically Active Population of 670 persons: 54% lived in the district at least 5 years ago, while 46% migrated in the last 5 years. 44% of total EAP is dedicated to agriculture, livestock, hunting and silviculture activities. From this percentage, 26% are settled persons (living in Iñapari since at least 5 years ago) while 17% are newcomers (coming in the last 5 years). The determination of leakage rate of 15% is estimated from the assumption that the project will be successful in maintaining current farmers and cattle ranchers to keep in their actual plots and not to clear new lands in the project area while, to be conservative, only 2% of the total of newcomers (17%) will be convinced to change their productive pattern. This assumption is extremely conservative for the following reasons:

- * It is not reasonable that the newcomers who will dedicate to these activities were planning to settle in the project area
- * A portion of newcomers will work in forest activities, so this should be discounted at the beginning
- * It is hard to believe that the project will be so little efficient in its productive promotion strategy

For this reason, it is considered that 15% of leakage is reasonable and conservative to use.

Validator Response:

The discussion and justification in response to this finding was sufficient to close this issue.

NIR Number 2011.21 of 27 Dated 05/31/2011**Finding:**

Please provide the reference from which the factors used for N₂O emissions were sourced.

Proponent Response:

The factor of 0.125 used for N₂O emissions in Spreadsheet calculations was obtained from the official report "INVENTARIO NACIONAL DE GASES EFECTO INVERNADERO SECTOR AGRICULTURA Y CAMBIO DE USO DE LA TIERRA Y SILVICULTURA" (attached to this response) developed by Environment Ministry, referenced in Table 36 (page 34) for different types of fertilizers.

Validator Response:

The reference provided was sufficient to close this request.

NCR Number 2011.22 of 27 Dated 05/31/2011**Finding:**

The estimates of post-deforestation carbon stocks are listed in the wrong column of spreadsheet in T14. Please ensure that the carbon stock estimates.

Proponent Response:

Please, see Excel file REDD Project Calculations sent via yousendit.

Validator Response:

A new excel spreadsheet was submitted following the change in modeling approach. The new spreadsheet was found to be correct and therefore this finding is closed.

NCR Number 2011.23 of 27 Dated 05/31/2011

Finding:

Step 5 of the REDD-MF has not been fully implemented. In particular the equations for the calculation of the VCS Buffer, Uncertainty Analysis and Verified Carbon Units have not been presented in the PD or the project calculation tool. Please ensure that these calculations are completed and are presented in the PD.

Proponent Response:

Please, see Excel file REDD Project Calculations sent via yousendit.

Validator Response:

A new excel spreadsheet was submitted following the change in modeling approach. The new spreadsheet was found to be correct and therefore this finding is closed.

NCR Number 2011.24 of 27 Dated 05/31/2011

Finding:

Please ensure that the projects approach to compliance with each Part (steps and sub-steps) of the BL-UP module is detailed in the methodology so that a third party can evaluation compliance, in particular a focus should be made on each requirements of Part 1, 2 and 3.

Proponent Response:

Please, see BL UP document attached.

Validator Response:

The new version of the BL-UP module sufficiently demonstrates compliance with the steps of the methodology module.

NCR Number 2011.25 of 27 Dated 05/31/2011

Finding:

Please ensure that all parameters that will be monitored are listed in the PD, and that they are consistent with the requirements of the implemented modules.

Proponent Response:

Please, see attached document where the above finding is addressed.

Validator Response:

Additional documentation and changes to the PD are sufficient to close this non-conformity.

NCR Number 2011.26 of 27 Dated 05/31/2011

Finding:

The VCS standard requirements set out in Section 3.17.2 are not presented in the PD. In particular the project proponent should develop a GHG information system for obtaining, recording, compiling and analyzing data and information important for quantifying and reporting GHG emissions and/or removals relevant for the project (including leakage) and baseline scenario. Please provide evidence that such a system exists.

Proponent Response:

A monitoring system has been implemented that includes social, economic and forestry variables as indicated in the PD with the involvement of technicians, professionals and a person responsible of all the monitoring area. Details can be seen in attached file where an organizational chart is included.

Validator Response:

The new version of the PD has improved and complete description of monitoring plan.

NIR Number 2011.27 of 27 Dated 05/31/2011

Finding:

Please provide the reference to support the carbon stock estimates of the identified post deforestation land uses.

Proponent Response:

The analysis conducted, considers the following post-deforestation uses, based on an independent field study of CDC-UNALM: pastures and agriculture and the amount of carbon in each one of these uses have been obtained from another independent study called "Carbono Almacenado en diferentes sistemas de uso de la tierra del distrito de José Crespo y Castillo, Huánuco, Perú" elaborated by Anthony Robert Yquise Pérez, Vicente Pocomucha and Ytavclerh Vargas C, that is attached to this NIR. This study does a collection of different determination of carbon stocks based on destructive sampling field works. The uses selected were:

- 1) Improved Pastures of *Brachiaria decumbes* (Pasturas mejoradas de *Brachiaria decumbes*) - page 9 and used as a reference for pastures in our model. *Brachiaria* is the most extended type of pasture in the Peruvian Amazon and is also the most common pasture cover in the project zone;
- 2) maize annual crop (Cultivo Annual Maiz) - page 10, because according to another study of CSF-GRADE, maize is the most common of the annual agricultural crops in Madre de Dios.

It must be mentioned that the calculations excluded carbon in soils and the results must be multiplied for 44/12 to change it to CO₂e.

Validator Response:

The information provided is sufficient to close this information request.

6 APPENDIX 2 – VALIDATION FIELD VISIT PLAN

Scientific Certification Systems (SCS)

Madre de Dios Validation Audit Agenda

Time	Process, Department or Function
Monday 23 May 2011	
5.20am	TRAVEL TO PROJECT AREA
	Opening Meeting (Please advise where the meeting will take place)
	Introductions Review and Finalize Audit Itinerary
	Review and Confirm that there are no changes to Project <ul style="list-style-type: none"> • Project Proponent representative to present documentation
Tuesday 24 May 2011	
	Focus on particular elements of VCS <ul style="list-style-type: none"> • Project Design • Baseline • Monitoring Plan • Environmental and Social Impact • Sampling methodology (include any changes in number of plots or methodology) • Description of existing forest
	Discussion on the methodology Calculation of GHG Emissions
	Discuss Field Work <ul style="list-style-type: none"> • Stratification • Field Inventory
Wednesday 25 May 2010	

Time	Process, Department or Function
	Validation and Verification Data Collection <ul style="list-style-type: none"> Field work checking of plots/stratification boundaries
Thursday 26 May 2011	
	Validation and Verification Data Collection <ul style="list-style-type: none"> Field work checking of plots/stratification boundaries
Friday 27 May 2011	
	<ul style="list-style-type: none"> Travel to Lima
Saturday 28 May 2011	
	Auditor report writing and issuance of findings
Sunday 29 May 2011	
	Auditor report writing and issuance of findings
Monday 30 May 2011	
	Discussion on the methodology – BAM Offices Calculation of GHG Emissions Satellite imagery Dynamica Modelling
Tuesday 31 May 2011	
	Closing Meeting – Conference Call with Greenox from BAM offices Initial Findings Next Steps
01/06/11	Auditors depart for Airport
01 /06/11	Flight departs