REDUCED EMISSIONS FROM DEFORESTATION AND DEGRADATION IN SEIMA PROTECTION FOREST

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Summary:

This report describes the validation audit of the Reduced Emissions from Deforestation and Degradation in Seima Protection Forest project ("the project"), a Reduced Emissions from Deforestation and Degradation (REDD) project located in the Mondulkiri and Kratie provinces of Cambodia, that was conducted by SCS. The purpose of the validation audit was to conduct an independent assessment of the project to determine whether the project complies with the VCS rules. The criteria for the validation audit was the VCS Version 3. The validation audit was performed through a combination of document review, interviews with relevant personnel and on-site inspections. A total of 78 findings were issued during the validation process. The project complies with all of the validation criteria, and the assessment team has no restrictions or uncertainties with respect to the compliance of the project with the validation criteria.

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1 INTRODUCTION

1.1 Objective

Per Section 5.1.1 of the VCS Standard, SCS carried out an independent assessment of the project by a validation/verification body to determine whether the Reduced Emissions from Deforestation and Degradation in Seima Protection Forest project ("the project"), as described in its project description (PD) complies with the VCS rules. Per Section 2.1.1 of the VCS Validation & Verification Manual, additional objectives of the validation engagement were to conduct an assessment of the PD wherein the following were assessed:

- Project conformance to VCS rules;
- Project conformance to the applied methodology, including the procedure for the demonstration of additionality specified in the methodology; and
- Likelihood that methods and procedures set out in the project description will generate verifiable GHG data and information when implemented.

The other objective of the verification engagement was to assess the non-permanence risk analysis, as required by Section 3.7.3 of the AFOLU Requirements.

1.2 Scope and Criteria

Per Section 4.3.4 of ISO 14064-3:2006, the scope was defined as follows:

- The project and its baseline scenarios;
- The physical infrastructure, activities, technologies and processes of the project;
- The GHG sources, sinks and/or reservoirs that are applicable to the project;
- The types of GHGs that are applicable to the project; and
- The project crediting period, as discussed in Section 3.1.4 of this report.

Per Section 5.3.1 of the VCS Standard, the criteria for validation was the VCS Version 3, including the following documents:

- VCS Program Guide
- VCS Standard
- VCS AFOLU Requirements
- VCS AFOLU Non-Permanence Risk Tool

Unless otherwise indicated, the assessment was performed against the most recent version of the relevant VCS guidance document.

1.3 Level of Assurance

Per Section 5.3.1 of the VCS Standard, the level of assurance of this report is reasonable.

1.4 Summary Description of the Project

The project is located in the Mondulkiri and Kratie provinces of Cambodia, and is aimed at reducing emissions related to unplanned deforestation.

2 VALIDATION PROCESS

2.1 Method and Criteria

The validation was performed through a combination of document review, interviews with relevant personnel and on-site inspections, as discussed in Sections 2.2 through 2.4 of this report. At all times, the project was assessed for conformance to the criteria described in Section 1.2 of this report. As discussed in Section 2.5, findings were issued to ensure that the project was in full conformance to all requirements.

Prior to conducting the site visit activities, the audit team created a sampling plan to determine the areas with the greatest risk of material error. The audit team then created a validation agenda that took the sampling plan into account. The sampling plan was amended, as needed, where new risks or material concerns that could potentially lead to errors, omissions and misrepresentations were identified.

2.2 Document Review

The project description (version 2.10, dated 29 December 2014) was carefully reviewed for conformance to the validation criteria. The following additional documentation, provided by project personnel in support of the aforementioned documents, was also reviewed by the audit team:

Document	**File Name**	**Ref.**
Sub-decree 143 (Khmer text of official document and unofficial English translation, which contains text used by audit team in validation audit)	SPF Sub-decree - Khmer and English.pdf	/1/
letter signed by Dr. Chheng Kimsun, Delegate of the Royal Government of Cambodia and Head of the Forestry Administration and dated 6 October 2014	20141007_033745.pdf	/2/
shapefile showing project area	Final_Project_Area_v13_excised001_ICT	/3/
KML file showing project area	Final_Project_Area_2014	/4/
document describing modifications to the project area and leakage belt boundary after the November 2013 site visit	Response - Revised project boundaries.docx	/5/
shapefiles showing areas already titled to communities Andoung Kraloeng, Gati, O Rona, Sre Lvi and Ou Chrar	[various files]	/6/
shapefiles showing areas proposed to be titled to communities Pu Kong, Kmom, Chak Char, Sre Andaol and Sre Khtong	[various files]	/7/

Document	File Name	Ref.
shapefiles showing delineated buffer areas for Pu Haim and Pu Keh	[various files]	/8/
shapefiles showing areas titled under the “land amnesty” campaign	[various files]	/9/
"National Forest Programme 2010-2029"	RGC (2010) NFP Strategic and Implementation English	/10/
shapefile showing reference region	Final_Reference_Region_Nov11	/11/
shapefile showing leakage belt in calendar years 2010 and 2011	Final_LKB_Nov12_1011.shp	/12/
shapefiles comprising inputs to muti-criteria analysis	[various files]	/13/
shapefiles containing multi-criteria analysis	[various files]	/14/
shapefile showing leakage belt from calendar year 2012 onward	Final_LKB_Nov12_12Onward	/15/
shapefile showing economic land concession in leakage belt	PPWS_ELC_1012	/16/
supporting Excel workbook for degradation assessment in Annex 4.3 of PD	Annex 4.3 degradation assessment	/17/
patrol reports for fiscal years 2010 and 2011	Eng_SPF_Patrol Report_Annual FY10 - wood highlighted, Eng_SPF_Patrol Report_Annual FY11	/18/
classification shapefile(s)	final_classification_17Nov2012_final_ref (shapefile originally assessed by audit team), Defo_98_12_RR (shapefile revised to cover final reference region and leakage belt; audit team understands this shapefile contains same classification as that in "final_classification_17Nov2012_final_ref")	/19/
accuracy assessment points KML file	accuracy_assessment	/20/
Wildlife Conservation Fund funding history database	Annex 4.4 Seima Funding History	/21/

Document	File Name	Ref.
Forestry Administration budget for fiscal year 2013	FA 2013 budget	/22/
shapefile showing the boundaries of stratum 1 and stratum 2 in the reference region for calendar years 2010 and 2011	Strata_1011	/23/
shapefile showing the boundaries of stratum 1 and stratum 2 in the reference region from calendar year 2012 onward	Strata_12onward	/24/
financial model workbook	SPF REDD Financial Model - for PD v2.6 - (revised during validation)	/25/
Hansen and Top (2006) publication entitled "Natural Forest Benefits and Economic Analysis of Natural Forest Conversion in Cambodia – Working Paper 33"	CDRI 2006 Hansen Top Econ Analysis Nat Forest Bens	/26/
"Interministerial proclamation on the collection of national budget funds from the sale of tickets for visitation to National Parks and Wildlife Sanctuaries" (in Khmer)	scan_of_park_fee_documentation	/27/
receipt showing payment of "conservation contribution"	conservation_contribution_receipt	/28/
deforestation rate model workbook	Revised Rate Model 20-11-2014	/29/
slope shapefile	Slope_srtm_90m_Ref_fin	/30/
soils shapefile	SoilsShiftedEastCambodia	/31/
combined suitability shapefile	suitability_land_RR	/32/
calculation workbook	[new PA LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 12-12-14 wv	/33/
workbook used for calculation of travel times	Verburg travel times.	/34/
Verburg et al. (2004)	2004_Verburg_etal	/35/
raster files showing deforestation in each year of baseline period	[various files]	/36/

Document	File Name	Ref.
Avtar et al. (2013)	Avtar (2013) Monitoring-biophysical-cashew plants-Cambodia-ALOSPALSAR	/37/
workbook used to calculate biomass of trees for Chave et al. (2005) equation validation	Annex 5.4 Mass_all_trees (clean final for audit)	/38/
workbook used for Chave et al. (2005) equation validation	Annex 5.4 Test of biomass equation	/39/
dead wood density calculation workbook	Seima PF REDD_Dead wood density 2011 measurements data sheet FINAL	/40/
significance assessment workbook	Step 9.1 Table 5.17 carbon pool significance calculations [PDv2.8 update]	/41/
CVs of key personnel	[various files]	/42/
National Programme Document for Cambodia	RGC & UNREDD (2011) NPD REDD_Official Aug2011	/43/
analysis demonstrating absence of significant natural disturbance	Large Area Deforestation from Uncontrolled Fire and Disease	/44/
workbook supporting disturbance analysis	historic_image_interpretation	/45/
spatial products used in disturbance analysis	[various files]	/46/
adaptive management plan	Seima Adaptive Management SOP	/47/

2.3 Interviews

2.3.1 *Interviews of Project Personnel*

The process used in interviewing project personnel was a process wherein the audit team elicited information from project personnel regarding the project and its compliance with the validation criteria. Some meetings were held concurrently with site inspections (see Section 2.4 below). Other meetings were held remotely via telephone or Skype connection.

The following personnel associated with the project proponent and/or other entities involved in the project were interviewed.

Individual	Affiliation	Role	Date(s) Interviewed
Chea Sam Ang	Forestry Administration	Deputy Director General	15 November 2013
Omaliss Keo	Forestry Administration	Director, Department of Wildlife and Biodiversity	15 November 2013
Men Soriyun	Forestry Administration	Deputy Director, Department of Wildlife and Biodiversity	10-15 November 2013
Chivin Leng	Forestry Administration	Chief of Watershed Management & Forest Cover Assessment Office	15 November 2013
Tom Evans	Wildlife Conservation Society	Lead, REDD+ and Forest Conservation Program	throughout audit
Alex Diment	Wildlife Conservation Society	Senior Technical Advisor	throughout audit
Nut Menghor	Forestry Administration and Wildlife Conservation Society	Head of Seima Research and Monitoring Team	10-15 November 2013
Sot Vandoeun	Wildlife Conservation Society	Field Team Leader	10-15 November 2013
Orn Sam Art	Wildlife Conservation Society	Field Team Leader	10-15 November 2013
Phauk So Pannya	Wildlife Conservation Society	Field Team Member	10-15 November 2013
Toeu Ban	Wildlife Conservation Society	Field Team Member	10-15 November 2013
Sorn Chantoeun	Wildlife Conservation Society	Field Team Member	10-15 November 2013

Individual	Affiliation	Role	Date(s) Interviewed
Hannah O'Kelly	Wildlife Conservation Society	Regional Monitoring Advisor	23 October 2013, 10-15 November 2013
Sarah Walker	Ecosystem Services Unit - Winrock International	Technical Officer II – AFOLU/REDD+ Climate Change Specialist	23 October 2013
Justin Epting	[freelance]	Consultant	23 October 2013, 4 September 2014
Phien Sayon	Wildlife Conservation Society	GIS Analyst	10-15 November 2013, 8 August 2014, 18 August 2014
Yeang Donal	Wildlife Conservation Society	REDD Specialist	3-7 November 2014
Hing Mesa	Wildlife Conservation Society	REDD and Forestry Team Leader	10-15 November 2013, 13-15 May 2014, 3-7 November 2014
Sopha Sokun Narong	Wildlife Conservation Society	REDD Specialist	10-15 November 2013, 13-15 May 2014
Khang Soeung	Wildlife Conservation Society	Ecotourism Officer	10-15 November 2013
Meas Viphou	Cambodia Rural Development Team	Project Manager, Mondulkiri	13 November 2013

2.3.2 *Interviews of Other Individuals*

Residents of villages located near the project boundary (termed "local residents" within this report) were also interviewed. Local residents of the following villages were interviewed during the dates listed.

- 10-15 November 2014: Andoung Kraloeng, Pu Trom, Pu Keh, Pu Ngaol, Pu Char, O Chrar, O Rona
- 13-15 May 2014: Pu Kong, Gati, Pu Haim, Andoung Kraloeng, Sre Lvi, O Rona
- 3-7 November 2014:Chak Char, Andoung Kraloeng, O Rona, Pu Haim, Sre Andaol, Kmom

2.4 Site Inspections

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

- Ensure that the geographic area of the project, as reported in the project description and the accompanying KML file /4/, is in conformance with Section 3.11.1 of the VCS Standard;
- Select samples of data from on-the-ground measurements for validation in order to meet a reasonable level of assurance and to meet the materiality requirements of the project, as required by Section 5.1.3 of the VCS Standard;
- Perform a risk-based review of the project area to ensure that the project is in conformance the eligibility requirements of the VCS rules and the applicability conditions of the methodology; and
- Perform a risk-based review of the project area to ensure that the project conforms to all other requirements of the VCS rules and the methodology.

In fulfilment of the above objectives, the audit team performed an on-site inspection of the project area on the dates 10-15 November 2013. The main activities undertaken by the audit team were as follows:

- Interviewed project personnel (see Section 2.3 of this report) to gather information regarding the design of the project;
- Interviewed project personnel (see Section 2.3 of this report) for the purpose of seeking evidence of conformance with respect to the specific requirements of the methodology and the VCS rules;
- Interviewed residents of communities near the project boundary (termed “local residents” within this report) to confirm the claims of the project proponents with respect to the extent of community engagement, the determination of the baseline scenario (including the extent of degradation within the baseline scenario) and the demonstration of additionality.
- Viewed project personnel conducting re-measurements on inventory plots. The representatives were asked to replicate the measurement protocol that was applied, for the purpose of providing the audit team with reasonable assurance that the measurements were collected to appropriate quality standards.

Additional site inspections were made by the audit team on 13-15 May 2014 and 3-7 November 2014. While the primary purposes of these inspections was to collect information for purposes of the Climate, Community & Biodiversity Standards validation audit (which was ongoing at the time of issuance of this report), the inspections also provided some additional information regarding the project, as discussed throughout this report.

2.5 Resolution of Findings

Any potential or actual material discrepancies identified during the assessment process were resolved through the issuance of findings. The types of findings issued by SCS were characterized as follows:

Non-Conformity Report (NCR): An NCR signified a material discrepancy with respect to a specific requirement. This type of finding could only be closed upon receipt by SCS of evidence indicating that the identified discrepancy had been corrected. Resolution of all open NCRs was a prerequisite for issuance of a validation statement. A total of 46 NCRs were issued during the validation engagement.

New Information Request (NIR): An NIR signified a need for supplementary information in order to determine whether a material discrepancy existed with respect to a specific requirement. Receipt of an NIR did not necessarily indicate that the project was not in compliance with a specific requirement. However, resolution of all open NIRs was a prerequisite for issuance of a validation statement. A total of 29 NIRs were issued during the validation engagement.

Opportunity for Improvement (OFI): An OFI indicated an area that should be monitored or ideally, improved upon. OFI's were considered to be an indication of something that could become a non-conformity if not given proper attention, and were sometimes issued in the case that a non-material discrepancy was identified. OFIs were considered to be closed upon issuance. A total of three OFIs were issued during the validation engagement.

All findings issued by the audit team during the validation process have been closed. In accordance with Section 5.3.6 of the VCS Standard, all findings issued during the validation process, and the impetus for their closure, are described in Appendix A of this report.

2.6 Forward Action Requests

This section is not applicable, as no forward action requests were raised during the validation.

3 VALIDATION FINDINGS

3.1 Project Details

The audit team can confirm, as further justified below, that the description in the project description is accurate, complete, and provides an understanding of the nature of the project.

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

The project exists under sectoral scope 14 (AFOLU). The project falls under the category of Reduced Emissions from Deforestation and Degradation (REDD), as described in Section 4.2 of the AFOLU Requirements. Discussion regarding the project's eligibility under the VM0015 methodology (and, thus, as a REDD project under the VCS Program, as the VM0015 methodology is a methodology for such projects) can be found in Section 3.2.1 below. The technologies and measures implemented, as described in Section 2 of the PD, are likewise eligible under the VCS Program.

3.1.2 Project proponent and other entities involved in the project

The project proponent has been identified in Section 1.4 of the project description as the "Royal Government of Cambodia (RGC), represented by Forestry Administration of the Ministry of Agriculture, Forestry and Fisheries (MAFF)". During site inspections, the audit team interviewed representatives of the Forestry Administration at multiple levels and confirmed that the agency is engaged with, and committed to, the project at a very high level.

Through interviews with representatives of the Wildlife Conservation Society Cambodia Program during site inspections and correspondence with representatives of this organization throughout the audit process, the audit team can confirm that the organization has been fully involved, in the manner described in Section 1.5 of the PD, with project activities. The audit team has also engaged in correspondence and interviews with representatives of Cambodia Rural Development Team and Winrock International, and so can confirm the involvement of those organizations in the project.

3.1.3 Project start date

The project start date is given in Section 1.6 of the PD as 1 January 2010. During site inspections, the audit team received an English translation of Sub-decree 143, the sub-decree establishing the Seima Protection Forest /1/, as evidence that the sub-decree was adopted by the Council of Ministers on 7

August 2009. (See Section 3.2.3 below for a discussion of the relationship between the area described in the sub-decree and the project area.) In addition, the audit team received a letter /2/ stated to be signed by Dr. Chheng Kimsun, Delegate of the Royal Government of Cambodia and Head of the Forestry Administration, which stated the following:

> "Sub-decree 143 (2009) which declares the Seima Protection Forest, was signed by His Excellency the Prime Minister of Cambodia on 02 September 2009. This legal decision enabled the Forestry Administration and its partners to implement new management activities and more effective control of the area within the REDD+ project. With regard to REDD+ it is the implementation of these activities that marks the formal project start date, rather than the date of signing of the Subdecree itself. There is a necessary delay between the official signing of a subdecree and its effect on actions in the field due to normal administrative processes such as official communication between sections of government and the sequence of financial and activity planning at the field level. Hence activities to implement the new Subdecree that had a practical impact on the conservation of carbon stocks began at the start of the fiscal quarter on 1 January 2010".

The audit team agrees with the understanding that, given the reasons for the "necessary delay" stated above, the project activities could not be expected to be implemented immediately upon execution of Sub-decree 143, and that the start of the subsequent fiscal quarter is, therefore, a more realistic representation of when the "activities that lead to the generation of GHG emission reductions or removals" began to be implemented (per Section 3.2.1 of the AFOLU Requirements).

The projects has, as of the initial date of issuance of this report and accompanying representation to the client, completed validation prior to 1 January 2015 and, therefore, within five years of the project start date.

Therefore, the audit team agrees that the project start date complies fully with the VCS rules.

3.1.4 Project crediting period

The project crediting period, as stated in Section 1.7 of the PD, is 60 years, beginning on the project start date. This period complies with all requirements of Section 3.8 of the VCS Standard, as the project crediting period start date is not before 1 January 2002 (Section 3.8.2) and the crediting period is between 20 and 100 years (Section 3.8.1).

As described in Annex 2.3 of the PD, a budget has been produced for the first 30-years of the project crediting period. In addition, a workplan, as set out in Annex 2.1 of the PD, exists for the duration of the project crediting period. While the workplan is less explicit regarding tasks to be carried out for the latter 30 years of the project crediting period, the audit team believes that this is appropriate, as it is unrealistic to make detailed plans in the presence of uncertainty regarding the circumstances that will exist that far in the future. Given this, the audit team agrees that the project currently has "a credible and robust plan for managing and implementing the project over the project crediting period", as required by Section 3.3.1 of the AFOLU Requirements. It will be a responsibility of future verification audit teams to ensure that the workplan for future years is appropriately amended and fleshed out to address any new situations that may emerge in the future.

3.1.5 Project scale and estimated GHG emission reductions or removals

Per Section 3.9.1 of the VCS Standard, the project scale has been correctly indicated in Section 5.1 of the PD to be a "large project", as its estimated annual GHG emission reductions, over the first 10-year baseline period, exceed 300,000 tonnes of CO2e per year.

3.1.6 Project location

The project location is described in Section 1.2 of the PD. Through site inspections of the project area, and overview of the project area maps using GIS and Google Earth software, the audit team can confirm that the depiction given in the PD, and as shown in Figure 1.1 of the PD, is generally correct.

3.1.7 Conditions prior to project initiation

A detailed description of conditions prior to project initiation is given in Section 1.3 of the PD. The information provided is generally consistent with the knowledge gained by the audit team during site inspections.

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

The project activities, as described in Section 2.2 of the PD, do not (per Section 3.1.5 of the AFOLU Requirements) involve the violation of any applicable laws. A key underlying reason for this is that the Forestry Administration has complete authority to develop and manage the project area, as discussed more fully in Section 3.1.9.1 below. A more complete description of legal compliance is provided by sub-objective in the below table.

Sub-objective	Audit Findings
#1	Involves networking, dialoging, collaboration, management planning and maintenance of signboards and other physical markers on or near Seima Protection Forest borders; all activities are at a very low level of risk for legal non-compliance
#2	Involves increase of resources for enforcement; Forestry Administration is fully authorized to enforce provisions of Sub-decree 143, as described in Section 3.1.9 below; therefore, increase in enforcement resources is legally permissible
#3	Involves working with communities to solidify land tenure; a low level of non-compliance risk is ensured by involvement of project proponent, a government agency, in this process; audit team further confirmed, as part of two separate site inspections, that affected communities are actively involved in land titling process and that all agreements with communities appear legally valid
#4	Involves development and maintenance of a system of fiscal and technical support for alternative livelihoods; all activities are at a very low level of risk for legal non-compliance

#5	Involves monitoring and interviewing activities; all activities are at a very low level of risk for legal non-compliance
#6	Involves management of human resources, for which Section 3.1 of PD contains a description of labor laws and how compliance will be ensured; as a result of conversations with project personnel during site inspections, audit team agrees that a system is in place to ensure that labor laws are respected during project implementation
#7	Involves financial planning and other business matters; all activities are at a very low level of risk for legal non-compliance

3.1.9 Ownership and other programs:

3.1.9.1 Right of use

The audit team agrees that the project proponent holds right of use per Section 3.11.1 of the VCS Standard, as further justified below.

The audit team carried out an independent GIS analysis to cross-check the project area shapefile /3/ and KML file /4/ (both of which depict the same area) against the legal description for the "Core Protection Forest Area" as set out in Article 5 of Sub-decree 143 /1/ in order to confirm that the project area is a subset of the "Core Protection Forest Area". Sub-decree 143 /1/ is indefinite in duration and, in Article 7, it forbids activities such as deforestation, burning, land clearing, development (e.g., construction of houses), and commercial timber harvest, thus requiring activities that avoid emissions (that is, the absence of certain activities that cause emissions) in perpetuity within the "Core Protection Forest Area"

Article 8 of Sub-decree 143 /1/ states that "The Ministry of Agriculture, Forestry and Fisheries has authorities to develop and manage this Seima Protection Forest and Biodiversity Conservation Area in Mondulkiri and Kracheh Provinces in cooperation with relevant Ministries and institutions concerned, provincial and local authorities to ensure the sustainable development within this area."

The audit team further reviewed an English translation of Cambodia's Forestry Law (accessed 19 December 2014 from http://www.forestry.gov.kh/Documents/Forestry%20Law_Eng.pdf, a page on the Forestry Administration website) to confirm the following:

- The Forestry Law "has extent of application to all forests, whether natural or planted" (Article 2)
- The Forestry Administration is tasked with "managing forests and forest resources according to the National Forest Sector Policy and this law" (Article 6)
- The Forestry Administration is tasked with, inter alia, "Ensure the sustainable management of the Permanent Forest Estates by Issuing regulations governing forest activities" (Article 7)
- Protection Forests are a subset of Permanent Forest Reserves, which are themselves a subset of the Permanent Forest Estate

As the Forestry Law and Sub-decree 143 combine to task the project proponent with the ultimate authority for management of the Seima Protection Forest (of which the project area is a subset), the audit

team agrees that the project proponent holds the ability to claim that the project will cause any GHG emission reductions occurring within the project area.

In addition, it should be noted that portions of the Seima Protection Forest have been transferred, or are eligible for transfer to, Communal Land Title, as described in Section 3.2 of the PD. The process for conservatively (i.e., erring on the side of removing too much land) excising these areas is described in detail in a document that was provided to the audit team /5/. The audit team carried out the following checks to confirm that this was done appropriately (all work products reviewed were provided by WCS):

- Cross-check of shapefiles showing areas already titled to communities Andoung Kraloeng, Gati, O Rona, Sre Lvi and Ou Chrar 6/ against project boundary shapefile /3/ to confirm that areas were removed from the project area
- Cross-check of shapefiles showing areas proposed to be titled to communities Pu Kong, Kmom, Chak Char, Sre Andaol and Sre Khtong /7/ against project boundary shapefile /3/ to confirm that these areas were removed from the project area
- Cross-check of shapefiles showing delineated buffer areas for Pu Haim and Pu Keh /8/ (which have expressed a desire to be titled but not yet been titled) against project boundary shapefile /3/, further cross-checks against Bing high-resolution aerial imagery as viewed through ArcGIS to confirm appropriate excision of already-deforested areas

A process of excising areas titled under a recent “land amnesty” campaign (described in the above document /5/) was also carried out to ensure that any privately titled areas were removed from the project area. As with the above, the audit team cross-checked shapefiles showing areas titled under the “land amnesty” campaign /9/ against the project area shapefile /3/ to ensure that any privately titled areas were removed from the project area.

Finally, as is described in the PD, the project area lies within a portion of the Samling International Chhlong logging concession. The audit team understands that the concession permit was never formally revoked by the Royal Government of Cambodia. However, the audit team understands, as confirmed by a variety of sources including Section 3.5 of the official document “National Forest Programme 2010-2029” /10/, that a moratorium on logging in timber concessions was imposed by the Royal Government of Cambodia in 2002 (and has not been lifted since). In addition, it appears that, as described above, Sub-decree 143 has effectively nullified the concession permit by prohibiting commercial timber harvest within the project area. This understanding is supported by the letter from Dr. Chheng Kimsun /2/, which states that “the Forestry Administration confirms that as a result of the Sub-decree establishing the Seima Protection Forest, signed by Prime Minister Hun Sen on 02 September 2009, Samling International Ltd does not hold credible land rights, resource access rights, or use rights over any portion of Seima Protection Forest”. Therefore, it appears clear to the audit team that Samling International Chhlong Ltd. holds no access/use rights, or right of use, over the project area.

With the excision of the areas described above, the audit team agrees that the project proponent holds, as of the issuance of this report, the unconditional, undisputed and unencumbered ability to claim that the any GHG emission reductions occurring within the project boundary were caused by the project.

3.1.9.2 Emissions trading programs and other binding limits

As the project does not reduce GHG emissions from activities that are included in an emissions trading program or any other mechanism that includes GHG allowance trading (as reported in Section 3.3 of the PD), this section is not applicable.

3.1.9.3 Other forms of environmental credit sought or received and eligible to be sought or received

As the project has not sought or received another form of GHG-related environmental credit (as reported in Section 3.5 of the PD), this section is not applicable.

3.1.9.4 Participation under other GHG programs

As the project is not registered under another GHG program (as reported in Section 3.4 of the PD), this section is not applicable.

3.1.9.5 Rejection by other GHG programs

As the project has not been rejected by any other GHG programs (as reported in Section 3.6 of the PD), this section is not applicable.

3.1.9.6 Eligibility criteria for grouped projects

As the project is not a grouped project, this section is not applicable.

3.1.9.7 Leakage management for AFOLU projects

The anticipated leakage management activities are outlined in Section 5.2 of the PD. From conversations with project personnel, the audit team can confirm that a high level of technical capacity exists to support the identified activities. It is the hope of the audit team that the identified activities, once fully implemented, will be successful in preventing or mitigating leakage emissions.

3.1.9.8 Commercially sensitive information

As commercially sensitive information has not been withheld from the PD (or withheld, in any other form, from the audit team), this section is not applicable.

3.2 Application of Methodology

3.2.1 *Title and Reference*

The project has applied the following:

- VCS-approved methodology VM0015 (“Methodology for Avoided Unplanned Deforestation”, referred to as “the methodology” in this report), V1.1
- VCS-approved tool VT0001 (“Tool for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities”), V3.0
- CDM “Tool for testing significance of GHG emissions in A/R CDM project activities”, V1.0

The audit team confirmed, through review of the respective web pages for the above methodology elements (http://www.v-c-s.org/methodologies/tool-demonstration-and-assessment-additionality-vcs-agriculture-forestry-and-other, http://www.v-c-s.org/methodologies/methodology-avoided-unplanned-deforestation-v11, https://cdm.unfccc.int/methodologies/ARmethodologies/tools/; all accessed 19 December 2014) that the version of each methodology element referenced above was valid at the time of validation.

3.2.2 *Applicability*

The project complies with each applicability condition of the methodology, as justified below.

Condition	Steps taken to assess compliance
a)	Confirmation that baseline activities, as described in Section 3.2.4 below, constitute unplanned deforestation
b)	Confirmation that, as baseline activities constitute deforestation and project activities constitute "Protection without logging, fuel wood collection or charcoal production", project activities are included within scope of activities as set out in Table 1 of methodology
c)	Confirmation that project area is limited to area defined as "forest" at project start date (as described further in Section 3.2.3.1.2 below
d)	Confirmation that project area is limited to area defined as "forest" 10 years prior to project start date (as described further in Section 3.2.3.1.2 below)
e)	On-site observations of absence of peat soils within project area

3.2.3 *Project Boundary*

Overall, the project boundary and selected sources, sinks and reservoirs are justified for the project. A further discussion of this is given below.

3.2.3.1 Spatial Boundaries

3.2.3.1.1 Reference Region

It is the understanding of the audit team that, given that a jurisdictional REDD program has not yet been fully developed for Cambodia, no sub-national or national baselines exist, and neither has Cambodia (or a subset of it) been divided into spatial units for deforestation baseline establishment.

During meetings as a part of the November 2013 site inspection, the audit team undertook a detailed set of analyses, with the assistance of project personnel, to confirm that the reference region, as described by the reference region shapefile /11/ and maps included in the PD, is fully compliant with each requirement of the methodology, as discussed in detail below.

Requirement	Step(s) taken to assess compliance
The reference region should contain strata with agents, drivers and patterns of deforestation that in the 10-15 year period prior to the start date of the proposed AUD project activity are similar to those expected to exist within the project area	Confirmed, through interviews with project personnel and site inspections (including interviews with residents of areas near project area), that main agent of historic unplanned deforestation (termed “smallholder farmers” in PD) in reference region are similar to those expected to exist within project area
The reference region… must be larger than the project area and include the project area	Recalculated reference region area (996,9512 ha) and project area (166,983 ha) from shapefiles in ArcGIS to confirm that reference region is between five and seven times size of project area; observation of reference region and project area shapefiles to confirm that reference region includes project area
Deforestation agent´s groups (as identified in step 3) expected to encroach into the project area must exist or have existed and caused deforestation elsewhere in the reference region during the historical reference period.	Confirmed, through interviews with project personnel and site inspections (including interviews with residents of areas near project area), that main agent of historic unplanned deforestation (termed “smallholder farmers” in PD) in reference region are similar to those expected to exist within project area
If new or improved infrastructure (such as roads, railroads, bridges, hydroelectric reservoirs, etc.) is expected to develop near or inside the project area, the reference region must include a stratum where such infrastructure was built in the past and where the impact on forest cover was similar to the one expected from the new or improved infrastructure in the project area.	Confirmed, through site inspections and conversations with project personnel and individuals within and adjacent to project area, that new or improved infrastructure is not expected to develop near or inside project area (project area is mainly bisected by dirt roads, which are not expected to be developed)
Any spatial deforestation driver considered relevant according to the analysis of step 3 (e.g. resettlement programs, mining and oil concessions, etc.) must exist or have existed elsewhere in the reference region. The historical impact of such drivers must have been similar to the one expected in the project area.	Confirmed, through site inspections, and review of PD, that main drivers considered relevant according to analysis of Step 3 have existed in reference region, with similar impact as those expected in project area

Requirement	Step(s) taken to assess compliance
Forest/vegetation classes: At least 90% of the project area must have forest classes or vegetation types that exist in at least 90% of the rest of the reference region.	Observed replication of reported values in Table 4.1 using ArcGIS system operated by project personnel*
Elevation: At least 90% of the project area must be within the elevation range of at least 90% of the rest of the reference region.	Observations during site inspections to confirm that, given that topography of entire region in which reference region is located, risk of non-compliance is miniscule
Slope: Average slope of at least 90% of the project area shall be within + 10% of the average slope of at least 90% of the rest of the reference region.	Same as for elevation
Legal status of the land: The legal status of the land (private, forest concession, conservation concession, etc.) in the baseline case within the project area must exist elsewhere in the reference region. If the legal status of the project area is a unique case, demonstrate that legal status is not biasing the baseline of the project area (e.g. by demonstrating that access to the land by deforestation agents is similar to other areas with a different legal status).	• Reviewed analysis in Section 4.5 of PD to confirm that, in baseline case; project remains in "Permanent Forest Reserve" (as described in Forestry Law") • Confirmed that land in "Permanent Forest Reserve" exists elsewhere within reference region through review of reference region shapefile, which shows dormant logging concessions (e.g., Kingwood logging concession) and knowledge that logging concessions can only exist on land considered a Permanent Forest Reserve; confirmed that Kingwood logging concession existed through review of internet sources such as "Cambodia's Family Trees: Illegal logging and the stripping of public assets" (accessed from https://www.globalwitness.org/sites/default/files/pdfs/cambodias_family_trees_low_res.pdf on 19 December 2014) • Confirmed that, while Snuol Wildlife Sanctuary (shown to be directly adjacent to project area on website maintained by Open Development Cambodia, http://www.opendevelopmentcambodia.net/maps/; accessed 19 December 2014) is a wildlife sanctuary managed under a different ministry and set of laws (per Article 3 of Forestry Law, which states "The State delegates management of protected areas to the Ministry of Environment as provisions stated in the Environmental Protection and Natural Resources

Requirement	Step(s) taken to assess compliance
	Management Law of 24th December 1996 and the Royal Decree on the establishment and designation of Natural Protected areas on 1st November, 1993 and other legislations"), similar lack of legal enforcement of has historically existed in this area, as evidence through widespread deforestation as observed by audit team during site inspections
The land-tenure system prevalent in the project area in the baseline case is found elsewhere in the reference region.	See above
Land use: Current and projected classes of land-use in the project area are found elsewhere in the reference region.	Review of remotely sensed imagery to confirm that forest classes in project area also exist elsewhere in reference region, as described in more detail in Section 3.2.4 below
Enforced policies and regulations: The project area shall be governed by the same policies, legislation and regulations that apply elsewhere in the reference region.	See under "Legal status of the land" above

*It should be noted that area was added to the reference region, and removed from the project area, since this assessment was carried out during the November 2013 site inspection. However, given how clearly evident it was that the project area and reference region were compliant with this requirement during the November 2013 site inspection, the audit team is assured that the project area and reference region meet this requirement with their current boundaries.

It is also noteworthy that the reference region was stratified, with stratum boundaries that were dynamic, as allowed for by Step 1.1.1, Part 2 of the methodology and as described in (among other places) Annex 4.1 of the PD. The audit team agrees that it is appropriate to stratify on the basis of deforestation agent. In interviews with project personnel, the audit team learned that stratification was always done in a conservative fashion, in that areas were assigned to stratum 2 for a certain time period (and, therefore, deforestation in these areas was not quantified for purposes of estimating baseline emissions in the time period in question) if an economic land concession (ELC) was identified as having been awarded any time during the time period in question. The audit team agrees that this is conservative it omits accounting of unplanned deforestation that may actually have occurred during the period, thus leading to lower baseline emissions.

The audit team understands that data on ELCs is often not transparently available, as the presence of ELCs themselves may be a secret. However, during site inspections in Phnom Penh and follow-up web-

based meetings, the audit team was able to trace information on a sample of ELCs, as presented in spatial format in a shapefile provided to the audit team.

The audit team reviewed two shapefiles showing the stratification of the reference region: one showing the stratification during the calendar years 2010 and 2011 /23/ and one showing the same for 2012 onward /24/. In addition, the audit team reviewed a source shapefile showing ELCs /25/. For a sample of ELCs, the audit team carried out the following cross-checks:

- Cross-checks against the stratification shapefiles /23/ and /24/ to confirm that areas stratification of subject to ELCs was carried out correctly
- Cross-checks against official sources to confirm that official documentation existed to support presence of ELCs
- Review of land classification shapefile /20/, where relevant, to confirm that delineation of ELC areas (based on observed planned deforestation) was appropriately carried out

3.2.3.1.2 Project Area

The audit team reviewed the project area shapefile /3/ to confirm that all requirements of the methodology were complied with, as described below.

Requirement	**Step(s) taken to assess compliance**
The project area is the area or areas of land under the control of the project proponent on which the project proponent will undertake the project activities.	Confirmed that, as described in Section 3.1.9.1 above, project proponent has control of all land within project area
At the project start date, the project area must include only forest land.	Confirmed, through independent GIS analysis, that project area includes only land classified as “dense forest” or “open forest”, as of project start date, by land classification analysis discussed in Section 3.2.4 below; confirmed, through review of Annex 4.5 of PD and conversations with project personnel, that land classification analysis was such that pixels classified as deforested were never classified as forest at a later date, and therefore, confirmation that project area included only forest as of project start date automatically constitutes confirmation that project area included only forest as of 10 years prior to project start date
Any area affected by planned deforestation due to the construction of planned infrastructure (except if such planned infrastructure is a project activity) must be excluded from the project area.	Confirmed, through site inspections and conversations with project personnel and individuals within and adjacent to project area, that new or improved infrastructure is not expected to develop near or inside project area (project area is mainly bisected by dirt roads, which are not expected to be developed)

Requirement	Step(s) taken to assess compliance
The project area must include areas projected to be deforested in the baseline case…	Confirmed that, as discussed in baseline deforestation analysis described in Sections 3.2.4 and 3.2.6.1 below, project area includes areas projected to be deforested in baseline case
The boundary of the project area shall be defined unambiguously as follows…	"Physical boundary of each discrete area of land included in the project area (using appropriate GIS software formats)"; review of PD to confirm that delineation of project boundary therein is consistent with project boundary shapefile /3/
Name (or names, as appropriate) of the project area	Confirmed that project area is named "Seima Protection Forest" in PD
Physical boundary of each discrete area of land included in the project area (using appropriate GIS software formats).	Reviewed project area shapefile /3/ to confirm that it contains an accurate representation of this information
Description of current land-tenure and ownership, including any legal arrangement related to land ownership and the AUD project activity.	Confirmed that Section 3.2 of PD contains this information
List of the project participants and brief description of their roles in the proposed AUD project activity	Confirmed that Sections 1.4, 1.5 and 2.2 of PD contain this information

3.2.3.1.3 Leakage Belt

The leakage belt is shown in Figure 4.2 of the PD. As documented in Annex 4.2 of the PD, a mobility analysis (Option II) was undertaken to delineate the leakage belt. The audit team reviewed the leakage belt shapefile /12/ to confirm that all requirements of the methodology were complied with, as described below.

Requirement	Step(s) taken to assess compliance
Using historical data, expert opinion, participative rural appraisal (PRA), literature and/or other verifiable sources of information list all relevant criteria that facilitate (at least one criterion) and constrain (at least one criterion) the mobility of the main	Confirmed that expert opinion was appropriately used to list relevant criteria that facilitate and constrain mobility of main deforestation agent (smallholder farmers) identified in Step 3; facilitating and constraining factors are constituent with audit team's general knowledge of factors that facilitate and constrain deforestation, both in Cambodia and elsewhere

Requirement	Step(s) taken to assess compliance
deforestation agents identified in step 3. The overall suitability of the land for the activities of deforestation agents shall be considered.	
For each criterion, generate a map using a GIS.	Carried out observations during site inspections to affirm that all of project area is readily accessible for agricultural purposes; reviewed shapefiles /13/ showing roads and settlements centers for each criterion to confirm that they are reasonable and consistent with on-site observations (i.e., they depict roads traveled, and settlements visited, by audit team during site inspections); confirmed, through visual inspection, that map of each criterion /14/ appeared to be appropriately produced in manner described in Annex 4.2; confirmed, through observation of maps showing historical deforestation (see Section 3.2.4 below for discussion of these maps), that, as stated in PD, most historical deforestation is within 3 km of a settlement center (and, therefore, a 4-km buffer should be adequate to capture leakage emanating from settlement centers); used "measure" tool in ArcGIS to confirm that 4-km buffer was appropriately applied
Using multi-criteria analysis, determine the boundary of the leakage belt. Justify any assumption and weight assigned to the individual criteria.	Used professional judgment to confirm that approach taken (combining maps in GIS, applying equal weight to all maps) is a straightforward and conservative (i.e., erring on side of a larger leakage belt) approach; visually observed leakage belt shapefile /12/ in comparison to input shapefiles to confirm that procedure was carried out correctly
Methods used to perform the analysis shall be transparently documented and presented to VCS verifiers at the validation.	Reviewed Annex 4.2 of PD to confirm that analysis was transparently documented; assessed inputs, methodological steps and outputs to confirm that procedure was implemented as reported
Consideration of other VCS AFOLU projects…	Confirmed, through review of VCS Project Database (http://www.vcsprojectdatabase.org/; most recently accessed 20 December 2014) that leakage belt does not include any part of area of any other VCS AFOLU projects (only other VCS AFOLU project in Cambodia is "Reduced Emissions from Deforestation and Degradation in Community Forests – Oddar Meanchey, Cambodia", which is located in Oddar Meanchey province), and therefore these requirements are not applicable

As touched upon in Section 4.4 of the PD, the leakage belt is actually defined in two shapefiles: one shapefile /12/ that shows the leakage belt during the calendar years 2010 and 2011, and one shapefile /15/ that shows the leakage belt from beginning in calendar year 2012, as was necessitated by the emergence of a new ELC in 2012. The audit team confirmed that the 2012 leakage belt /15/ was appropriately modified from the 2010-2011 leakage belt /12/ through careful comparison of the two leakage belts in combination with a shapefile showing the new ELC /16/. The validity of this latter shapefile was confirmed through a cross-check against an interactive map found on the Open Development Cambodia website (http://www.opendevelopmentcambodia.net/maps/; accessed 20 December 2014), which showed the same ELC. Audit team findings regarding the overall validity of spatial information on ELCs are discussed in Section 3.2.3.1.1 above.

It should also be noted that the leakage belt explicitly does not extend into neighboring Vietnam. While the methodology is silent on the matter of whether leakage belts must cross international borders, the audit team affirms that clipping the leakage belt to the international border is consistent with VCS rules on the topic. This was confirmed through review of Section 4.6.5 of the AFOLU Requirements, which states "Leakage occurring outside the host country (international leakage) does not need to be quantified."

3.2.3.1.4 Leakage Management Areas

The leakage management areas, as clearly shown in Figure 4.2 of the PD (and thus "clearly defined using the common projection and GIS software formats used in the project", per Step 1.1.4 of Part 2 of the methodology) are those areas that would be located within the project area or leakage belt except that they were deforested as of the project start date. The plans for leakage management are clearly stated in Section 5.2 of the PD.

3.2.3.1.5 Forest

The audit team carried out the activities described below to ensure that all requirements of Step 1.1.5, Part 2 of the methodology were complied with.

Requirement	**Step(s) taken to assess compliance**
To define the boundary of the forest, specify… The definition of forest that will be used for measuring deforestation during the project crediting period (see appendix 1 for criteria to define "forest").	Reviewed Section 4.4 of PD to confirm that a definition of "forest" is set out as "an area of at least 0.5 ha with at least 10% crown cover of trees taller than 5 m"; confirmed that above thresholds are consistent with those stated on designated national authority website for Cambodia (http://cdm.unfccc.int/DNA/index.html; accessed 20 December 2014)
The Minimum Mapping Unit (MMU). The MMU size of the LULC maps created using RS imagery shall not be more than one hectare irrespective of forest definition.	Reviewed Section 4.4 of PD to confirm that Minimum Mapping Unit is not less than one hectare

Requirement	Step(s) taken to assess compliance
An initial Forest Cover Benchmark Map is required to report only gross deforestation going forward. It should depict the locations where forest land exists at the project start date.	Reviewed Figure 4.3 of PD to confirm that a Forest Cover Benchmark Map is reported in PD (see Section 3.2.4 for findings regarding derivation of this map)
[rules pertaining to cloud cover]	Confirmed, through steps described in Section 3.2.4 below, that all areas covered by clouds at any one point in time were masked out as required

3.2.3.2 Temporal Boundaries

The project complies with all requirements of Step 1.2, Part 2 of the methodology regarding temporal boundaries, as discussed below.

Requirement	Steps taken to assess compliance
The starting date should not be more than 10-15 years in the past and the end date as close as possible to the project start date	Reviewed description of historical reference in Section 4.4 of PD; confirmed that start date (1 January 1998) is less than 15 years prior to project start date and end date (31 December 2009) is immediately prior to project start date
The length of the project crediting period shall be established as set out on the most recent version of the VCS Standard.	See Section 3.1.4 above
The fixed baseline period shall be 10 years. The starting and end dates must be defined.	Reviewed description in Section 4.4 of PD; confirmed that start and end dates were provided and that duration was 10 years
The minimum duration of a monitoring period is one year and the maximum duration is one fixed baseline period.	Reviewed descriptions of planned monitoring periods in Section 4.4 of PD to confirm that they are consistent with requirements

3.2.3.3 Carbon Pools

The steps taken to assess whether each carbon pool has been selected (or not selected) correctly in accordance with the methodology are described below.

Carbon Pools	Included/Excluded	Steps(s) Taken to Assess Compliance

Above Ground	Tree: Included	Cross-check against Table 3 of methodology to confirm that pool is required to be included
	Non-tree: Excluded	Cross-check against Table 3 of methodology to confirm that pool "can be excluded only when its exclusion does not lead to a significant over-estimation of the net anthropogenic GHG emission reductions of the AUD project activity "; observation, during site inspections, that common land uses do not involve perennial non-tree crops; assessment of analysis of post-deforestation land use in Annex 5.5 of PD, which supports this observation; application of professional judgment to determine that, therefore, pool will be larger in with-project case and can be conservatively omitted
Below Ground	Included	Cross-check against Table 3 of methodology to confirm that pool is allowed to be included
Deadwood	Included	Cross-check against Table 3 of methodology to confirm that pool is allowed to be included
Harvested Wood Products	Excluded	Cross-check against Table 3 of methodology to confirm that pool must be included when significant; assessment of significance analysis as reported in Section 3.2.6 below
Litter	Excluded	Cross-check against Table 3 of methodology to confirm that pool "can be excluded only when its exclusion does not lead to a significant over-estimation of the net anthropogenic GHG emission reductions of the AUD project activity "; application of professional judgment to confirm that pool will typically be greater in natural forest settings than in post-deforestation agricultural settings
Soil Organic Carbon	Excluded	Cross-check against Table 3 of methodology to confirm that pool "can be excluded only when its exclusion does not lead to a significant over-estimation of the net anthropogenic GHG emission reductions of the AUD project activity "; application of professional judgment to confirm that pool will typically be greater in natural forest settings than in post-deforestation agricultural settings

3.2.3.4 Sources of Emissions of Greenhouse Gases (GHGs)

The steps taken to assess whether each GHG emission source has been selected (or not selected) correctly in accordance with the methodology are described below

Source		Gas	Included?	Steps(s) Taken to Assess Compliance
Baseline Scenario	Biomass Burning	CO_2	Excluded	Cross-check against Table 4 of methodology to confirm that source is required to be excluded
		CH_4	Excluded	Cross-check against Table 4 of methodology to confirm that source "can be excluded only when its exclusion does not lead to a significant over-estimation of the net anthropogenic GHE emission reductions of the AUD project activity"; review of PD to confirm that burning is not a project activity; interviews with residents of areas near project area to confirm that burning sometimes occurs as a part of agricultural activities (and thus, burning is far likely to be higher in baseline scenario)
		N_2O	Excluded	Cross-check against Table 4 of methodology to confirm that source is required to be excluded
	Livestock Emissions	CO_2	Excluded	Cross-check against Table 4 of methodology to confirm that source "can be excluded only when its exclusion does not lead to a significant over-estimation of the net anthropogenic GHE emission reductions of the AUD project activity"; review of PD to confirm that project and leakage management activities are not likely to impact density of livestock and, therefore, exclusion of source will not lead to significant over-estimation (or any other significant impact) on net emission reductions
		CH_4	Excluded	
		N_2O	Excluded	
Project Scenario	Biomass Burning	CO_2	Excluded	Cross-check against Table 4 of methodology to confirm that source is required to be excluded
		CH_4	Included	Review of Table 4 of methodology to confirm that source "can be excluded only when its exclusion does not lead to a significant over-

Source		Gas	Included?	Steps(s) Taken to Assess Compliance
				estimation of the net anthropogenic GHE emission reductions of the AUD project activity" and subsequent text which states that "non-CO2 emissions from forest fires must be counted in the project scenario when they are significant"; understanding that this requires inclusion of this source when CH4 emissions from forest fires are significant.
		N_2O	Excluded	Cross-check against Table 4 of methodology to confirm that source is required to be excluded

3.2.4 *Baseline Scenario*

Overall, the identified baseline scenario is justified. The audit team's high-level assessment of the baseline scenario is included in the table below.

Item assessed	Step(s) taken to assess item
Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable	• Confirmed that data on historical deforestation rates, as used in identification of baseline scenario, is derived from high-quality land classification analysis and that processing to extract deforestation rates for each stratum was conducted correctly • Confirmed, through interviews with project personnel who produced analysis documented in Section 4.5, that said personnel have a wealth of experience, both regionally and internationally, assessing drivers and key underlying causes of deforestation
Documentary evidence used in determining the baseline scenario is relevant, and correctly quoted and interpreted in the project description	• Reviewed Section 4.5 of PD to confirm that a wide variety of relevant documentation is cited • Observed that an author of the PD (Tom Evans) appears to have contributed to some cited references, thus lending additional credibility to their interpretation with PD
Relevant national and/or sectoral policies and circumstances have been considered and are listed in the project description	• Reviewed Section 4.5 to confirm that relevant policies pertaining to ELCs and logging/mining concessions have been considered and described

Item assessed	Step(s) taken to assess item
	• Reviewed Section 4.5 to confirm that, while no specific policies pertain to unplanned deforestation in Cambodia, national circumstances have certainly been considered in discussion of unplanned deforestation in stratum 1
The procedures for identifying the baseline scenario have been correctly followed and the identified scenario reasonably represents what would have occurred in the absence of the project	• Assessed procedures against all applicable methodology requirements, as described below • On-the-ground observations of spreading deforestation in immediate vicinity of project area (along southwestern boundary, near Seima Protection Forest headquarters) and review of classification shapefile /19/ as evidence that area observed on-the-ground by audit team was deforested within historical reference period, which together confirm that project area is under a real threat of deforestation and that identified baseline scenario reasonably represents what would have occurred in absence of project

The specific steps taken to validate the baseline scenario against each requirement of Steps 2 and 3 of Part 2 of the methodology are stated below.

Step	Step(s) taken to assess compliance
2.1	• Confirmed, through interviews with project personnel and observation of remotely sourced imagery, that 30-meter medium-resolution images (complying with the methodology resolution requirements) were appropriately acquired and used • Confirmed, through assessment of accuracy assessment (see description under Step 2.5 below), that high-resolution data were appropriately accessed and used • Reviewed Table 5 of Annex 4.5 of PD to confirm that it contains all information required by methodology
2.2	• Reviewed Table 6 of Annex 4.5 of PD to confirm the following: o LU/LC classes include “Forest Land” and “Non-Forest Land” o Criteria and thresholds complying with Step 2.2 are given for each LU/LC class o Table 6 contains all information required by methodology • Carried out following activities to confirm that carbon stocks can reasonably be assumed to not be degrading in baseline scenario (and, therefore, a “sequence of maps” is not required):

Step	Step(s) taken to assess compliance
	o Reviewed analysis of Annex 4.3 and supporting Excel workbook and confirmed it appeared reasonable o Carried out following checks on assumptions listed in Annex 4.3: ▪ Reviewed Forestry Administration/Wildlife Conservation Society patrol reports /18/ to confirm that three species highlighted in Annex 4.3 (beng, neang nuon and thnung) figure very prominently among lists of timber seen, confiscated and destroyed ▪ Interviewed local residents to confirm that species listed above, in particular, are very valuable ▪ Interviewed Forestry Administration representative and local resident\s to confirm that assumption of 10 cubic meters of wood used per house is conservative (i.e., erring on side of overestimation) ▪ Reviewed study "Re-assessment of woodfuel supply and demand relationships in Kampong Thom Province, Cambodia" to confirm it is published literature that is applicable to project area and traced values in Annex 4.3 to Table 2 of that study (noting that values used are "normalized consumption rate" values, which are larger than "consumption rate" and can be considered conservative); while some slight discrepancies were encountered, audit team noted that end result would not be materially affected by these discrepancies ▪ Interviewed local residents to confirm that fuelwood is predominately sourced from non-forest areas near villages (as opposed to from interior of forest)
2.3	• Confirmed that Tables 7a and 7b of methodology were appropriately filled out and included in Annex 4.5 of PD
2.4.1-2.4.3	• Reviewed Annex 4.5 of PD to confirm that steps are well-described and all steps listed comply with methodology requirements • Interviewed project personnel responsible for steps to gain additional assurance that steps were carried out as described • Reviewed classification shapefile /19/ to confirm that it constitutes sources for maps (a)-(d) in Step 2.4.3 • Confirmed that Figures 4.3a-4.3d in Section 4.5 constitute required maps (a)-(d) in Step 2.4.3 • Reviewed Table 4.6 in Section 4.5 of PD to confirm it is a "Land-Use and Land-Cover Change Matrix"
2.5	• Reviewed description of accuracy assessment in Annex 4.5 of PD to confirm that described process is compliant with methodology • Confirmed that, because high-resolution imagery from Google Earth acquired prior to project start date, and for which date of acquisition is verifiable, is only available for February 2003, only accuracy assessment of 2002 forest cover map is required by methodology (per methodology text stating that "If ground-truthing data are not

Step	Step(s) taken to assess compliance
	available for time periods in the past, the accuracy can be assessed only at the most recent date, for which ground-truthing data can be collected", as "most recent date for which ground-truthing data can be collected" was February 2003) • Carried out following assessment of KML file with coordinates of accuracy assessment points /20/ and associated assessment results: o Re-calculated accuracy assessment results to confirm that accuracy of map was over 90% o Replicated analysis of 27 points (~5% sample) using Google Earth data and arrived at same results for all sampled points
2.6	• Reviewed Annex 4.5 of PD to confirm it meets all requirements for a methodology annex
3.1	• Reviewed Section 4.5 of PD to confirm that main groups of deforestation in each stratum, and their relative importance, are described in manner required by methodology, with items (a)-(d) fulfilled in particular • Reviewed Section 4.5 of PD to confirm that description is reasonable • Replicated values in Table 4.9 of PD for five out of six time periods through independent GIS analysis using classification shapefile /19/; an immaterial discrepancy of 13 ha was observed for one period • Conversations carried out with project personnel to gain assurance that "Staff members from FA and WCS have been active widely across the reference area since 2000 and so have first-hand knowledge for almost the entire period in question", as stated in Section 4.5
3.2	• Reviewed Section 4.5 of PD to confirm that information required by methodology is provided in a high degree of detail • Reviewed Section 4.5 of PD to confirm that description is reasonable
3.3	• Reviewed Section 4.5 of PD to confirm that five key underlying causes are listed with all required information in criteria (2)-(4) in methodology • Reviewed Section 4.5 of PD to confirm that description is reasonable
3.4	• Reviewed Section 4.5 of PD to confirm that information requirements of methodology have been complied with • Confirmation, through conversations with project personnel, that personnel are "local experts" for purposes of discussing this topic • Corroboration of Section 4.5 of PD with local residents, during site inspections in November 2013, who confirmed that, in several villages, people have had issues with recent arrivals clearing land for agricultural purposes and also that expansion of boundaries by existing ELCs has been a challenge (although neither or these concerns were identified in two villages that were visited)

Step	Step(s) taken to assess compliance
	• Assessed legality and prevalence of baseline deforestation activities as described in Section 3.2.5.2 below
3.5	• Reviewed Section 4.5 of PD to confirm that information requirements of methodology have been complied with, with respect to both stratum 1 and stratum 2 • Reviewed Section 4.5 of PD to confirm that weight of evidence (especially historical deforestation rates presented in Table 4.9) conclusively indicates that overall trend in future baseline deforestation rates will increase (see discussion for Step 4.1, in Section 3.2.6.1 below, for more details)

3.2.5 Additionality

Overall, additionality is justified for the project. In accordance with the methodology, and as well-documented within Section 4.6 of the PD, the tool Version 3.0 (the most recent version) of the VCS-approved "Tool for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities" has been used to demonstrate additionality. The audit team's findings regarding the application of this tool are as follows.

3.2.5.1 Sub-step 1a

The identified land use scenarios identified in Section 2.5 of the project description include those scenarios required by VT0001. The audit team's findings regarding the identified scenarios are as follows:

Scenario	Audit Findings
1	• In support of assertions regarding declining funding levels, audit team carried out detailed review of Annex 4.4, including the following: o Conversations with project personnel to better understand funding situation, wherein project personnel provided detailed information regarding past donors to Seima Protection Forest and reasons for declining funding levels o Review of funding records while on-site o Received Access database containing historical funding information /21/ o Reviewed Forestry Administration budget for fiscal year 2013 /22/ and interviewed high-level Forestry Administration personnel to confirm assertion that "SPF receives only very limited operational funding from the Cambodian government" • Based on analysis undertaken, audit team agrees this scenario is credible
2	• Although audit team agrees it is conservative, in face of uncertainty, not to select a planned deforestation baseline, findings regarding ELCs within reference region (see Section 3.2.3.1.1 above) also confirm this scenario is credible

Scenario	Audit Findings
3	• Scenario is not necessarily credible, but required to be present by requirement that "The identified land use scenarios shall at least include… Project activity on the land within the project boundary performed without being registered as the VCS AFOLU project"

3.2.5.2 Sub-step 1b

Although the audit team has no reason to doubt the assertion in Section 4.6 of the PD that "the construction of roads and the excision of areas from Protected Forests to permit their issuance as Economic Land Concessions or Mineral Exploitation Concessions are legal within certain constraints" (and, thus, the assertion that scenario 2 is consistent with all applicable legal requirements), because scenario 1 was ultimately selected as the baseline scenario, the audit team focused assessment effort on the compliance of this scenario with legal requirements.

Because the project area lies within both Mondulkiri and Kratie provinces, the "smallest administrative unit that encompasses the project area" is the nation of Cambodia. As noted in the PD, this alternative (and, in particular, the unplanned deforestation envisioned as a component of it) does not comply with all mandatory applicable legislation and regulations, the audit team received evidence that these legal requirements are systematically not enforced and that non-compliance with requirements is widespread (i.e., prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area), as required by VT0001. In the letter from Dr. Chheng Kimsun /2/ as discussed above, the audit team received an attestation that "The Forestry Administration can confirm that this is still true nationally in Cambodia, with the majority of the forest estate lacking fully effective law enforcement. This is recognized as a major issue in the National Forestry Program (NFP) 2010-2029, which has been signed by the Prime Minister as the key policy document guiding the forestry sector in Cambodia." The audit team then reviewed Section B.4 of the official document "National Forest Programme 2010-2029" /10/, which states, under the heading "Illegal activities and weak collaboration", the following:

> "Challenges are overwhelming and the (publicly held resource to which access is open to all) is an overriding feature. The large areas of forest lands being without sufficient management leading to conflicts, illegal logging and encroachment/land grabbing. The majority of forest estate boundaries have never been clearly demarcated and combined with uncoordinated law enforcement and a high demand for land, has further escalated forest encroachment/land grabbing, unsustainable shifting cultivation and forest land conversion."

Formally speaking, it is the audit team's understanding, based on the evidence presented above and the audit team's assessments during multiple visits to the project area and other deforestation-prone locations within rural Cambodia, that non-compliance with the relevant requirements is prevalent on 100% of the Kingdom of Cambodia (the smallest administrative unit that encompasses the project area. Therefore, the audit team agrees that the applicable legal requirements (such as the Forestry Law) are systematically not enforced and that non-compliance with requirements is widespread (as defined by VT0001).

3.2.5.3 Step 2

As noted in the PD, because the VCS AFOLU project has the potential to generate tourism-related revenue, either investment comparison analysis or benchmark analysis is required.

As the project activity may generate tourism-related financial or economic benefits, the audit team agrees that investment comparison analysis is an appropriate analytical tool. Through review of the financial model workbook /25/ in comparison with the in-depth description of the analysis in Annex 2.3 of the PD, the audit team can confirm that is provided in a transparent manner, with sufficient detail that a reader can reproduce the analysis and obtain the same results, in the PD. In general, the audit team notes that the analysis appears quite robust with respect to changes in assumptions (i.e., the same conclusion is reached across a variety of values set for the various assumptions). This is consistent with the audit team's understanding that, while the project area undoubtedly has some attraction as a tourism destination (e.g., it was listed as a destination in a 2013 Lonely Planet guidebook obtained by the audit team), it is in a remote location and is likely to be "off the beaten path" for some time to come. Therefore, while it is mandatory to consider potential gains from tourism revenue in the analysis, the audit team is not surprised that the projected revenue is not enough to materially affect the outcome.

Additional comments regarding the appropriateness of data and parameters used in the financial calculations and sensitivity analyses are as follows.

Data/Parameter	Audit Findings
Financial indicator suitable for project type and decision context	• Audit team agrees, based on professional judgment, that net present value is an appropriate indicator, given its widespread use in financial analysis involving decisions in forestry and other land management disciplines
Real discount rate	• Audit team received Hansen and Top (2006) publication entitled "Natural Forest Benefits and Economic Analysis of Natural Forest Conversion in Cambodia – Working Paper 33" /26/ and confirmed that rate of 10% (baseline discount rate selected by publication authors) was correctly sourced from Section 2.2.1 (and that publication is relevant to circumstances, as it pertains to analysis of costs and benefits of forest conversion in Cambodia)
Visitor fee	• Audit team received, as evidence, legal document in Khmer /27/ (not independently reviewed by audit team) that was stated to be the law requiring that price of admission for international visitors is 20,000 riel per person
"Conservation contribution"	• Audit team received, as evidence, a scanned receipt /28/ showing a value of $30 for this fee

Data/Parameter	Audit Findings
Visitor number growth assumptions	• Assumptions made regarding growth appear to be conservatively high, given remoteness of project area (as noted above) • Audit team agrees it is appropriate to limit projected visitor growth in scenario 1, as said growth likely would have been less under a baseline scenario with active deforestation in project area
Budget under various scenarios	• Audit team agrees that it is appropriate to link expenses with grant revenue in scenario 1, as it was explained to audit team that no money would have been spent additional to that secured by grants in baseline scenario • Budget assumptions are linked to 30-year budget provided in Annex 2.3 of PD, which has been mutually agreed upon by Forestry Administration and Wildlife Conservation Fund and is considered a credible source of information for this purpose

The audit team can confirm, from review of the sensitivity analysis in the financial model workbook /25/ and modification of that workbook as an informal sensitivity analysis, that the determination reached as an outcome of Step 2 is not sensitive to different assumptions regarding the discount rate and other input data.

3.2.5.4 Step 3

Step 3 was not required by the additionality tool, as barrier analysis was not elected, and was not completed.

3.2.5.5 Step 4

The geographical region used in the common practice analysis is implicitly the entire country of Cambodia. The audit team agrees that this is appropriate, as the country appears to be broadly similar in terms of constraints to sustainable forest management and the presence of drivers of deforestation. As noted in the PD, other instances of cooperation between the Forestry Administration and non-governmental organizations do exist, and these agreements are, no doubt, effective in achieving some conservation objectives. However, the audit team agrees that conservation activities at the scale described in the PD are outside the scope of the pre-existing conservation arrangements. The audit team agrees that the discussion regarding the essential distinctions between the project activity and other large-scale conservation efforts is sound. The audit team agrees that short-term donor funding does not facilitate long-term forest conservation efforts, and that, even with an unplanned deforestation baseline, it is also appropriate to consider that such projects cannot fully compensate the Royal Government of Cambodia for the opportunity cost of forest conservation. Therefore, the audit team agrees that appropriate justification has been provided that essential distinctions exist between the project activity and other similar activities within Cambodia.

3.2.6 Quantification of GHG Emission Reductions and Removals

Overall, the methodology and any referenced tools have been applied correctly to calculate baseline emissions, project emissions, leakage and net GHG emission reductions and removals. The quantification of such is described in greater detail below.

The audit team can confirm that the PD contains a very high level of detail regarding the calculation of GHG emission reductions, such that the following are true:

- All relevant assumptions and data are listed in the project description, including their references and sources: the PD is very thoroughly documented and all equations, data, assumptions and other sources of information are included.
- All estimates of the baseline emissions can be replicated using the data and parameter values provided in the project description: the methodology requires, through the use of numerous tables, a very thorough and transparent presentation of the calculations, such that the calculation of all downstream values should be readily traceable from any point upstream. The baseline emissions themselves are also clearly stated in the PD (such that there should be no need to replicate them).

3.2.6.1 Baseline Emissions

The specific steps taken to assess the calculation of baseline emissions against each requirement of Steps 4-9 of Part 2 of the methodology are stated below.

Step	Step(s) taken to assess compliance
4.1	• Confirmed, as described in Section 3.2.3.1.1 above, that procedure for stratification was methodologically sound and appropriately implemented • Reviewed Table 1 of Annex 4.1 of PD to confirm that it meets all requirements of Table 8 of methodology • Confirmed, as discussed in Section 3.2.3.1.1 above, that Cambodia (or a subset of it) has not adopted a VCS or UNFCCC registered (and VCS endorsed) baseline deforestation rate
4.1.1	• Exercised professional judgment to confirm that, as described in Annex 5.1 of PD, it is appropriate (e.g., in compliance with commonly applied statistical best practices) and conservative (i.e., resulting in lower deforestation rate than would otherwise be predicted) to remove anomalously high point in 2008 from analysis • Traced data presented in Figure 1 to deforestation rate model workbook /29/ • Carried independent GIS exercise, using land classification shapefile /19/ and shapefiles showing stratum boundaries over time, to replicate values in stratum 1 deforestation rates presented in deforestation rate model workbook • Confirmed from review of data that, with anomalous point (appropriately) omitted, deforestation rates measured in different historical sub-periods reveal a clear increasing trend, and that therefore methodology allows for approach “b”.
4.1.2	• Review of equations in Annex 5.1 of PD to confirm that they are linear regression equations

Step	Step(s) taken to assess compliance
	• Replicated least-squares linear regression analysis from input data to confirm that 2212.8 and 3516.1 are correct values for intercept and slope, respectively and that the equation therefore complies "with statistical good practice", as required • Confirmed that approach of adding 12 and 13 to value for t for even and odd years, respectively, is appropriate • Reviewed rate model workbook /29/ to confirm that deforestation rate is constrained by area of optimal land, as required by methodology • Reviewed description of process for assigning pixels to "optimal", "average" and "sub-optimal" classes, in Annex 5.1 of PD, to confirm that process is reasonable and compliant with methodology requirements • Reviewed slope shapefile /30/ and soils shapefile /31/ used as inputs to overall suitability shapefile /32/ and carried out spot checks to ensure that slope and soils shapefiles were correctly combined to produce suitability shapefile • Carried out independent GIS analysis to calculate area of stratum 1 in one suitability class; results did not differ materially from those in rate model workbook /29/ • Carried out data checks to confirm accuracy of all relevant calculations in rate model workbook /29/
4.1.2.2	• See Step 4.2.4 below
4.1.2.3	• Confirmed that Tables 9a-9c of methodology were correctly filled in within calculation workbook /33/ and also in Tables 5.3a-5.3c of PD
4.2.1	• Confirmed, through visual observation of all factor maps in GIS system used by project personnel, that valid factor maps have been created using an empirical approach • Data checks on some maps using "ruler" tool in ArcGIS to confirm that buffers were correctly employed • Review of a workbook used for calculation of travel times, as used for "friction maps" (e.g., t2t in Table 1 of Annex 5.1 of PD), to confirm that some travel times were appropriately derived from Table 1 of Verburg et al. (2004) /35/; confirmed that all other travel times appear broadly reasonable
4.2.2	• Brief review of available literature to confirm that generalized linear modeling, as implemented in R software, constitutes an algorithm of "internationally peer-reviewed modeling tools" as required by methodology • Confirmed that modeling was carried out by appropriately qualified personnel • Confirmed, through review of Table 2 of Annex 5.1 of PD, that several risk maps were created • Reviewed Annex 5.1 of PD to confirm that it contains "A list of Factor Maps, including the maps used to produce them and the corresponding sources" (in

Step	Step(s) taken to assess compliance
	required format) as Table 1, along with "a flow-chart diagram illustrating how the Risk Map is generated"
4.2.3	• Observed process of calculating FOM statistic and "net observed change" for selected risk map in R statistical software
4.2.4	• Observed outputs for reference region for each year of baseline period in ArcGIS to visually confirm that deforestation did not overlap (i.e., the same pixel was not deforested twice in subsequent years) • Observed baseline deforestation raster files /36/ for each year of baseline period to confirm that baseline deforestation followed a realistic pattern • Carried out independent GIS analysis, using baseline deforestation maps for each year of baseline period /36/ datasets mentioned under Step 4.2.4 below, to replicate calculation of area of deforested areas in reference region, for all years of baseline period, and project area and leakage belt, for a sample of years in baseline period • Confirmed that modeled deforestation in reference region was constrained to predicted quantities projected under Step 4.1 • Confirmed that required maps were included in Section 5.3 of PD • Confirmed that Tables 9.a-9.c are filled in in calculation workbook /33/
5.1	• Confirmed that calculation of values in Tables 11.a-11.c of methodology, as presented in Section 5.3 of PD, was carried out correctly in calculation workbook /33/ • Carried out independent GIS analysis, using baseline deforestation maps /36/ and classification shapefile /19/, to replicate analysis for a sample of years in baseline period
5.2	• Confirmed that "Method 1" was appropriately carried out • Reviewed Table 5.5d of Section 5.3 of PD to confirm requirements of Table 12 have been complied with • Reviewed Tables 5.5e and 5.5f of Section 5.3 of PD to confirm requirements of Tables 13.b-13.c have been complied with
5.3	• Confirmed that Section 5.3 is not applicable, as "Method 2" was not implemented
6.1.1	• Confirmed conformance of carbon stock inventory data for "open" and "dense" forest classes to Appendix 3 as described below • Confirmed conformance of carbon stock inventory data for post-deforestation classes to Appendix 3 as described below • Confirmed that literature estimates from Avtar et al. (2013) /37/ were appropriately used for estimation of carbon stock in rubber trees, as follows: o Highest value in a given age range was used, thus meeting methodology requirement that "When defaults are used, the lowest value of the range given in the literature source (or the value reduced by 30%) must be used

Step	Step(s) taken to assess compliance
	for the forest classes, and the highest value (or the value augmented by 30%) for non-forest classes." o Data comply with Section 4.5.6 of VCS Standard (as linked through Sections 3.1.5 and 4.1.7(1)), as it is available from a recognized, credible source that required review by an appropriate peer review group (peer-reviewed journal Environmental Monitoring and Assessment), complying with criterion 1, it is from a time period November 2010 and geographic location (a nearby area of Cambodia) that is appropriate to the project's geographic scope (criteria 3 and 7), it is empirical data (criterion 8) and it is publically available (criteria 5 and 6) and criteria 1, 4 and 9 are not applicable here • Confirmed that all calculations required by Step 6.1.1 were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.3 of PD in tables required by methodology
6.1.2-6.1.3	• Confirmed that all calculations required by Steps 6.1.1-6.1.3 were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.3 of PD in tables required by methodology
6.2	• Confirmed that, as baseline non-CO2 emissions from forest fires have been omitted, this section is not applicable

The audit team also carried out a detailed review of the quantification of carbon stocks the "open" and "dense" forest classes, and for the non-forest class, against Annex 3 of the methodology. This entailed the following activities:

- Tracing data for a sample of inventory clusters back to inventory data sheets to confirm that it was correctly transferred
- Observation of project personnel in re-measuring two plots (one each in the "open" and "dense" forest classes) to confirm that inventory measurements were collected to an acceptable standard of quality
- Replication of calculation of carbon stock values from "raw" inventory data
- Tracing of data used in analysis to validate Chave et al. (2005) equation, as discussed in Annex 5.4 of PD, back to its source (i.e., field data sheets) for a sample of trees, and review of calculations for same trees in Excel workbook /38/
- Review and re-calculation of analysis for validation of the Chave et al. (2005) equation /39/
- Confirmation that the approach for calculating average post-deforestation carbon stocks, while complicated, is sound in approach and has been competently carried out
- Review of approach for measurement of project-specific deadwood densities to confirm it was methodologically sound

- Review and recalculation, from raw data as entered into an Excel spreadsheet /40/, of calculations used to determine dead wood density values

3.2.6.2 Project Emissions

The specific steps taken to assess the calculation of project emissions against each requirement of Step 7 of Part 2 of the methodology are stated below.

Step	Step(s) taken to assess compliance
7.1.1	• Confirmed that, as project activities do not include planned deforestation or planned degradation, ex-ante quantification is not required
7.1.2	• Confirmation that an effectiveness index has been calculated, as reported in Table 5.10 of PD
7.1.3	• Confirmed that required calculations were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.4 of PD in table required by methodology
7.2	• Confirmed that, as baseline non-CO2 emissions from forest fires have been omitted, ex-ante calculation of project non-CO2 emissions from forest fires is not required
7.3	• Confirmed that required calculations were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.4 of PD in table required by methodology

3.2.6.3 Leakage Emissions

The specific steps taken to assess the calculation of leakage emissions against each requirement of Step 7 of Part 2 of the methodology are stated below.

Step	Step(s) taken to assess compliance
8.1.1, 8.1.2, 8.1.3	• Confirmed that, as leakage management activities (as described in Sections 2 and 5.2 of PD) do not include activities that are likely to cause decrease in carbon stocks or emissions due to use of grazing animals, ex-ante accounting of any emissions is not required
8.2, 8.3	• Confirmed that a displacement leakage factor, as presented in Table 5.15, has been calculates

Step	Step(s) taken to assess compliance
	• Confirmed that required calculations were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.5 of PD in table required by methodology
9.1	• Review of significance assessment workbook to confirm that a significance assessment was appropriately carried out
7.3	• Confirmed that required calculations were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.4 of PD in table required by methodology

3.2.6.4 Net GHG Emission Reductions

The specific steps taken to assess the calculation of leakage emissions against each requirement of Step 9 of Part 2 of the methodology are stated below.

Step	Step(s) taken to assess compliance
9.1	• Review of significance assessment workbook /41/ to confirm that a significance assessment was appropriately carried out
9.2	• Confirmed that required calculations were correctly carried out through thorough data checks of calculation workbook /33/ and confirmation that information was correctly transferred to Section 5.6 of PD in table required by methodology

In addition, the audit team has the following findings regarding those default factors that were not discussed above.

Parameter	Section of PD	Step(s) taken to assess whether parameter values are considered reasonable in the context of the project
CFdc	8.2, 8.3	• Cross-checked stated value against the IPCC Good Practice Guidance for LULUCF, which indicates (throughout) that value of 0.5 is an acceptable default value • Confirmed, through cross-check against Section 4.5.6 Standard (as linked through Sections 3.1.5 and 4.1.7(1)), that IPCC values are automatically considered compliant with criteria 2, 5, 6 and 8 (criteria 1, 4 and 9 are not applicable here) and that a globally applicable default value automatically complies with criteria 3 and 7

Parameter	Section of PD	Step(s) taken to assess whether parameter values are considered reasonable in the context of the project
CFj	8.2	• Same as for CFdc
Rj	8.2	• Review of Annex 5.3 of PD, which states that "below-ground living biomass was calculated using the lower bound of the range provided by IPCC for tropical moist deciduous forests with biomass >125t/ha – ie a ratio of 0.22 (IPCC 2006, Table 4.4)" • Cross-checked stated value against Table 4.4, Chapter 4, Volume 4 of 2006 IPCC Guidelines for National Greenhouse Gas Inventories to confirm that it is lower range stated for "Tropical moist deciduous forest" where "above-ground biomass >125 tonnes ha-1", and thus is the most conservative choice for this category • Confirmed that, while it is unclear exactly what is meant by "Tropical moist deciduous forest", value sourced is more conservative than values for "Tropical rainforest" and "Tropical dry forest" • Reviewed inventory data, as reported in Annex 5.3 of PD, to confirm that aboveground biomass was measured as >125 tonnes/ha, and therefore appropriate value was chosen • Confirmed, through cross-check against Section 4.5.6 Standard (as linked through Sections 3.1.5 and 4.1.7(1)), that IPCC values are automatically considered compliant with criteria 2, 5, 6 and 8 (criteria 1, 4 and 9 are not applicable here) and that selected value complies with criteria 3 and 7 as described above
Pburnt[p,icl]	8.3	• Cross-checked stated value against Table 2.6, Chapter 2, Volume 4 of 2006 IPCC Guidelines for National Greenhouse Gas Inventories to confirm that it is stated value for "Primary tropical moist forest" and, while it is unclear exactly what is meant by "Primary tropical moist forest ", value sourced is highest available for primary tropical forest (which is clearly an appropriate category for project area, as confirmed through visual observation during site inspection) and therefore a conservative choice • Confirmed, through cross-check against Section 4.5.6 Standard (as linked through Sections 3.1.5 and 4.1.7(1)), that IPCC values are automatically considered compliant with criteria 2, 5, 6 and 8 (criteria 1, 4 and 9 are not applicable here) and that selected value complies with criteria 3 and 7 as described above
CE[p,icl]	8.3	• Cross-checked stated value against Table 3A.1.14 of IPCC Good Practice Guidance for LULUCF to confirm that it is highest stated value for tropical moist primary forest (which is clearly an

Parameter	Section of PD	Step(s) taken to assess whether parameter values are considered reasonable in the context of the project
		appropriate category for project area, as confirmed through visual observation during site inspection) • Confirmed that methodology explicitly states (in Part 2, Step 6.2) that "The combustion efficiencies may be chosen from table 3.A.14 of IPCC GPG LULUCF". • Confirmed, through cross-check against Section 4.5.6 Standard (as linked through Sections 3.1.5 and 4.1.7(1)), that IPCC values are automatically considered compliant with criteria 2, 5, 6 and 8 (criteria 1, 4 and 9 are not applicable here) and that selected value complies with criteria 3 and 7 as described above

3.2.6.5 Uncertainties

The methodology requires account for uncertainty in Step 6.1.1 of Part 2, as follows: "If the uncertainty of the total average carbon stock (Ctotcl) of a class cl is less than 10% of the average value, the average carbon stock value can be used. If the uncertainty is higher than 10%, the lower boundary of the 90% confidence interval must be considered in the calculations if the class is an initial forest class in the project area or a final non-forest class in the leakage belt, and the higher boundary of the 90% confidence interval if the class is an initial forest class in the leakage belt or a final non-forest class in the project area."

Through replication of the uncertainty assessment carried out by project personnel, the audit team can confirm that the assessment was carried out correctly, consistent with best statistical practices (e.g., correctly propagating errors, weighting by areas or proportions, as applicable). The carbon stocks in the "dense forest" class did not need to be adjusted, per the above guidance, but the carbon stocks in the "open forest" class have been correctly adjusted for uncertainty. The uncertainty in post-deforestation carbon stocks was less than 10%, so it was not required to adjust for uncertainty, but project personnel have elected to conservatively adjust for uncertainty anyway.

In summary, GHG emission reductions have been adjusted, in the manner required by the methodology, to account for uncertainties in measurement.

3.2.7 *Methodology Deviations*

Six methodology deviations are described in Section 4.3 of the PD. All deviations applied to the project are valid and conform fully with Section 3.5.1 of the VCS Standard. The assessment of these deviations is described more fully for each deviation (numbered as in the PD) below.

	Steps taken by audit team to assess …	
No.	**whether deviation meets with the criteria and specifications for permitted methodology deviations**	**Whether deviation negatively impacts conservativeness of quantification of GHG emission reductions or removals**
1	• Reviewed methodology to confirm that deviation impacts only criteria and procedures for measurement of leakage emissions in Step 8, Part 2 of methodology, and does not impact any other part	• Applied understanding of methodology to confirm that a larger displacement leakage factor, that incorporates accounting for leakage due to avoided in-migration, results in greater ex-ante quantification of leakage emissions and is therefore conservative
2	• Reviewed methodology to confirm that deviation impacts only criteria and procedures for ex-post monitoring of leakage emissions in Step 8, Part 2 of methodology, and does not impact any other part	• Applied understanding of methodology to confirm that decision to monitor, ex-post, leakage attributable to avoided in-migration (which has been voluntarily elected and is not required by methodology) is fundamentally conservative, as it results in results in greater ex-post quantification of leakage emissions
3	• Reviewed methodology to confirm that deviation only impacts criteria and procedures for measurement of baseline deforestation rate, and thus baseline emissions, Step 4.2, Part 2 of methodology, and does not impact any other part	• Applied understanding of methodology to confirm that omission of a small area from reference region in carrying out Step 4.2, Part of methodology is conservative in case that omitted area is within leakage belt, for reasons stated in PD • Carried out review of reference region shapefiles to confirm that affected area is entirely in leakage belt, and is in a remote area unlikely to have been subject to much deforestation in first fixed baseline period • Confirmation, given above, that deviation does not negatively impact conservativeness of quantification of GHG emission reductions or removals
4	• Reviewed methodology to confirm that deviation only impacts criteria and procedures for measurement of post-deforestation baseline carbon stocks, in Step 6.1.1, Part 2	• Applied understanding of methodology to confirm that applying carbon stock value from peak year or years of a cycle (when biomass is greatest) to all years of that cycle will inherently result in higher post-

	Steps taken by audit team to assess …	
No.	**whether deviation meets with the criteria and specifications for permitted methodology deviations**	**Whether deviation negatively impacts conservativeness of quantification of GHG emission reductions or removals**
	of methodology, and does not impact any other part	deforestation carbon stocks and lower baseline emissions, and is thus conservative
5	• Reviewed methodology to confirm that deviation only impacts criteria and procedures for measurement of dead wood density, in Appendix 3, and does not impact any other part	• Applied professional judgment and knowledge to confirm that procedure described in deviation is a widely accepted practice for determining wood density from pieces of known volume, and that use of procedure described in deviation (as opposed to procedure described in methodology) will have no inherent impact on quantification of GHG emission reductions
6	• Reviewed methodology to confirm that deviation only impacts criteria and procedures for measurement of measurement of baseline deforestation rate, and thus baseline emissions, Step 4.2, Part 2 of methodology, and does not impact any other part	• Applied understanding of methodology to confirm that production of a mathematical model of a risk map, as opposed to a risk map itself, has absolutely no impact on quantification of GHG emission removals or ability to carry out downstream quantitative processes, and therefore deviation does not negatively impact conservativeness of quantification of GHG emission reductions

3.2.8 *Monitoring Plan*

Section 8.1 of the PD contains a robust monitoring plan that is organized in the manner required by the methodology. That is, for Task 1, the monitoring plan is organized according to the three tasks under Task 1, and for of those tasks the plan is organized with sections (a)-(f) as set out in Part 3, Task 1 of the methodology. The plan discusses the tables that will be used to report monitoring results, and the audit team can confirm that the tables listed are consistent with those used to present ex-ante data, in accordance with the methodology.

The audit team can confirm that monitoring procedures are described with an appropriate degree of certainty, but with some flexibility allowed to allow for decisions to be made according to situations that may arise in the future. All monitoring procedures are appropriate to the stated task.

An identification of the parameters to be monitored, and a description of the steps taken to validate the suitability and eligibility of monitoring equipment and procedures, is provided below. Unless otherwise stated, references to "PD" in the below table should be read as referring to the specific section or sub-section that is referred to in the parameter tables in Section 8.3 of the PD. Parameters that have been included in Section 8.3 of the PD but are, in the judgment of the audit team unlikely to be monitored during the project crediting period have not been described below (rather, these have been addressed in Section 3.2.6.4 above).

Parameter	**Step(s) taken to validate suitability and eligibility of monitoring equipment and procedures**
Forest cover maps for each monitored year	• Confirmed that PD (and methodology annex to PD, as discussed in Section 3.2.4 above), contain all necessary information to replicate classification procedure to produce future forest cover maps • Reviewed baseline classification procedure discussed in Section 3.2.4 above to confirm that project personnel have access to technical capacity and equipment as needed to competently carry out this task
Leakage belt map	• Confirmed that assignment of area to stratum 1 is justifiable and that data used for this stratification is traceable and defensible, as discussed in Section 3.2.3.1.1 above • Confirmed that update of the leakage belt from 2012 onwards was carried out appropriately, as discussed in Section 3.2.3.1.3 above • Confirmed, through assessment of GIS processing carried out for purposes of quantifying baseline emissions, that project personnel have access to technical capacity and equipment as needed to competently carry out this task
Stratum boundaries map	• Confirmed that assignment of area to stratum 1 is justifiable and that data used for this stratification is traceable and defensible, as discussed in Section 3.2.3.1.1 above • Confirmed, through assessment of GIS processing carried out for purposes of quantifying baseline emissions, that project personnel have access to technical capacity and equipment as needed to competently carry out this task
ACPAicl,t	• Exercised professional judgement to confirm that a minimum mapping unit of 10 ha is acceptable (given size of project area and that disturbances which impact less than 10 ha are highly unlikely to be significant, even considering in event that multiple small disturbances occur within a given monitoring period) and that it may not be practical to attempt to map smaller areas as

Parameter	Step(s) taken to validate suitability and eligibility of monitoring equipment and procedures
	subject to natural disturbance (as opposed to subject to anthropogenic deforestation) using medium-resolution imagery • Confirmed that PD contains appropriate procedures for monitoring
AP	• Reviewed measurement procedures during site inspection, as discussed in Section 3.2.6 above, to confirm that appropriate procedures are in place for accurate measurements of plot radius • Confirmed that parameter table in Section 8.3 of PD contains correct equation for calculating plot area from plot radius
APDPAicl,t	• Reviewed PD to confirm existence of appropriate monitoring procedures • Carried out observations during site inspections and conversations with project personnel to confirm that monitoring system is sufficiently robust to detect planned deforestation within project area
APFPAicl,t	• Same as for APDPAicl,t above
APLPAicl,t	• Same as for APDPAicl,t above
APNiPAicl,t	• Confirmed that, while audit team understands that plans do not currently exist to account for carbon stock increase, methodology allows for such increase to be accounted for during future monitoring periods, if desired • Reviewed measurement procedures during site inspection, as discussed in Section 3.2.6 above, to confirm that appropriate procedures are in place to yield accurate information on carbon stock increase, should this be desired in the future • Reviewed PD to confirm that appropriate methodology tables are referenced
APSLKfcl,t	• Confirmed that PD contains appropriate methods for accounting carbon stock change, although risk of such change in leakage management areas is low, as 1) leakage management areas were non-forest as of project start date and thus cannot be deforested and 2) project activities in leakage management areas, as described in Sections 2 and 5.2 of PD, do not include activities that are likely to cause decrease in carbon stocks in leakage management areas

Parameter	Step(s) taken to validate suitability and eligibility of monitoring equipment and procedures
AUFPAicl,t	• Same as for ACPAicl,t above
cl	• Confirmed that parameter table in Section 8.3 of PD contains adequate guidance for this parameter, in combination with guidance already present within the methodology
d1, d2, …, dn	• Reviewed measurement procedures during site inspection, as discussed in Section 3.2.6 above, to confirm that appropriate procedures are in place for accurate measurements

3.3 Non-Permanence Risk Analysis

In accordance with Section 3.7.3 of the VCS AFOLU Requirements, the project's non-permanence risk report was assessed by the audit team. The risk analysis assessment was based on the non-permanence risk report that was included as Annex 2.2 of the PD. The findings and conclusion regarding the non-permanence risk analysis undertaken for the project are summarized below for each risk category and factor. In conclusion, the determined value of the overall risk rating, 10%, has been determined in accordance with the AFOLU Non-Permanence Risk Tool.

3.3.1 *Internal Risk - Project Management*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(a)	• As tree planting is not included in project activities as described in Section 2 of PD, risk score is justified	N/A	Risk rating is appropriate
(b)	• As no credits have previously been issued, risk score is justified	N/A	Risk rating is appropriate

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(c)	• From site inspections, review of CVs of key personnel /42/, and interviews with project personnel, audit team can confirm that Forestry Administration and Wildlife Conservation Society possess all key technical skills required to carry out project activities as defined in Section 2 of PD	• CVs of key personnel /42/ are assumed to be of high quality	Risk rating is appropriate
(d)	• From site inspections, audit team can confirm that management team maintains a presence at Seima Protection Forest headquarters, immediately adjacent to project area, and that additional management team personnel are stationed in Phnom Penh, an easy day's drive from project area	NA	Risk rating is appropriate
(e)	-	-	N/A

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(f)	• Audit team received an adaptive management plan /47/ that describes annual management cycle and clarifies how progress is monitored and how lessons learned or corrections are incorporated into project decision-making • During interviews with project personnel during site inspections, audit team gained an understanding of importance of adaptive management in project organization, and audit team agrees that this robust management system will be of value in negotiating future challenges	• Adaptive management plan /47/ exhibits evidence of thoughtful planning and is of high quality	Risk rating is appropriate

3.3.2 *Internal Risk – Financial Viability*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(a)	-	-	N/A
(b)	-	-	N/A
(c)	-.	-	N/A

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(d)	• Audit team reviewed financial model workbook /25/ to confirm that cash flow breakeven point is less than 7 years from current risk assessment • Audit team cross-checked assumed price of a Verified Carbon Unit against report "State of the Voluntary Carbon Markets 2014" (accessed 16 December 2014 from http://www.forest-trends.org/documents/files/doc_4501.pdf) to confirm price estimate for GHG credit sales is based on a credible published source	• Financial model workbook /25/ appears to be of high quality	Risk rating is appropriate
(e)	• Audit team confirmed that score selected is most conservative in range of (e)-(h)	N/A	Risk rating is appropriate
(f)	-	-	N/A
(g)	-	-	N/A
(h)	-	-	N/A
(i)	-	-	N/A

3.3.3 *Internal Risk – Opportunity Cost*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(a)	• Audit team reviewed financial model workbook /25/ to confirm that a net present value analysis was carried out • Audit team cross-checked assumed price of a Verified Carbon Unit against report "State of the Voluntary Carbon Markets 2014" (accessed 16 December 2014 from http://www.forest-trends.org/documents/files/doc_4501.pdf) to confirm price estimate for GHG credit sales is based on a credible published source • Audit team confirmed, through cross-check of stated discount rate against Hansen and Top (2006) /26/, that discount rate is "based on published sources and represent the appropriate risk for the relevant land use scenario" (see Section 3.2.5.3 above for further discussion of this) • Audit team confirmed that analysis results in highest risk score possible, and likely involves use of conservative assumptions	• Financial model workbook /25/ appears to be of high quality • Hansen and Top (2006) is peer-reviewed literature and assumed to be of high quality	Risk rating is appropriate
(b)	-	-	N/A
(c)	-.	-	N/A
(d)	-	-	N/A
(e)	-	-	N/A
(f)	-	-	N/A

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(g)	• As project proponent is a governmental entity, and thus explicitly not a non-profit organization, per AFOLU Non-Permanence Risk Tool, risk score is appropriately selected	-	Risk rating is appropriate
(h)	• As discussed in Section 3.1.9.1 above, audit team confirmed that Sub-decree 143 /1/ is indefinite in duration and, in Article 7, it forbids activities such as deforestation, burning, land clearing, development (e.g., construction of houses), and commercial timber harvest, thus requiring activities that avoid emissions (that is, requiring absence of certain activities that cause emissions) in perpetuity within "Core Protection Forest Area" (of which project area is a subset) • Therefore, audit team agrees that Sub-decree 143 /1/ is a "legally enforceable agreement or requirement, such as a conservation easement or protected area law that would require the continuation of the management practice that sequesters carbon or avoids emissions"	• Sub-decree 143 /1/ is an official government document and is considered to be authentic; English translation is assumed by audit team to be genuine	Risk rating is appropriate

3.3.4 *Internal Risk – Project Longevity*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
	• Same as for Section 3.3.3(h)—as project has a "legally binding agreement that covers at least a 100 year period from the project start date", a score of 0 is appropriate for project longevity	N/A	Risk rating is appropriate

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

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(a)	-	-	N/A
(b)	• As Article 10 of the Cambodian Forestry Law (as discussed in Section 3.1.9.1 above) states that "Local communities have customary user rights to collect Forest Products & By-products within the Protection Forest with minor impact of the forests", audit team agrees that local communities hold access/use rights and therefore stated risk rating is appropriate	N/A	Risk rating is appropriate

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(c)	• During site inspections and interviews with Forestry Administration personnel, audit team received absolutely no indication of disputes over land tenure or ownership within project area • As discussed in Section 3.1.9.1 above, a diligent effort has been made to remove all areas from project area that could potentially be subject to disputes over land tenure or ownership	N/A	Risk rating is appropriate
(d)	• During site inspections and interviews with Forestry Administration personnel, audit team received absolutely no indication of any overlapping access/use rights, or disputes over overlapping access/use rights, within project area • As discussed in Section 3.1.9.1 above, a diligent effort has been made to remove all areas from project area that could potentially be subject to overlapping or disputed access/use rights, and letter from Dr. Chheng Kimsun /2/ explicitly states that “Samling International Ltd does not hold credible land rights, resource access rights, or use rights over any portion of Seima Protection Forest”	• As Dr. Chheng Kimsun is Head of the Forestry Administration, his letter /2/ is assumed to be authoritative regarding the matter of which he has provided input	Risk rating is appropriate
(e)	• Not applicable, as this is not a WRC project	N/A	Risk rating is appropriate

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(f)	• Same as for Section 3.3.3(h)—as project is "is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period", the score is appropriate	N/A	Risk rating is appropriate
(g)	-	-	N/A

3.3.6 *External Risk – Community Engagement*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(a)	• Through on-site observations and interviews during course of three site inspections, audit team can confirm that, as relatively few households should located within project area at as of issuance of this report, majority of any such households who are reliant on project area have been consulted and involved in participatory planning (in some cases, with direct meetings and planning as carried out with commune councils and other agencies of local government that are legally recognized to represent the households)	N/A	N/A

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(b)	• Through on-site observations and interviews during course of three site inspections, audit team can confirm that majority of households living within 20 km of project area, and who are reliant on project area, have been consulted and involved in participatory planning (in some cases, with direct meetings and planning as carried out with commune councils and other agencies of local government that are legally recognized to represent the households)	N/A	Risk rating is appropriate
	• As a validation audit against Climate, Community & Biodiversity Standards is currently in progress, audit team can confirm that PD constitutes a "current participatory assessment of the positive and negative impacts of the project activities on the local communities who derive livelihoods from the project area" • Audit team can confirm, through interviews with local residents during three different site inspections, that project activities, as described in Section 2 of PD will yield net positive benefits on social and economic well-being of these communities	• PD constitutes a thorough participatory assessment of the positive and negative impacts of the project activities on the local communities who derive livelihoods from the project area	Risk rating is appropriate

3.3.7 *External Risk – Political Risk*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
(a)	-	-	N/A
(b)	-	-	N/A
(c)	-	-	N/A
(d)	-	-	N/A
(e)	• Audit team downloaded dataset from World Bank Institute's Worldwide Governance Indicators (for the most recent five years as of time of assessment, 2008-2012) and confirmed that governance score is less than -0.79	• The dataset used is required by the AFOLU Non-Permanence Risk Tool, and can be considered high quality.	Risk rating is appropriate
(f)	• Audit team reviewed National Programme Document /43/ for Cambodia as evidence that Cambodia is receiving REDD+ Readiness funding from UN-REDD and is implementing a REDD+ policy framework covering key components set out in AFOLU Non-Permanence Risk Tool (National Programme Document addresses ownership, clear government authority over REDD+ projects, and national measurement, reporting and verification systems)	• National Programme Document /43/ is an official document and assumed to be authoritative as evidence in this regard	Risk rating is appropriate

3.3.8 *Natural Risk*

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
Fire	• Audit team confirmed that assessed likelihood is as conservative as possible • Audit team was provided with a carefully documented analysis /44/ using Landsat data from 1989-2010 as evidence that all fire and pest/disease risk events in last 20 years have been "insignificant" or "transient" • Audit team was provided with an Excel workbook /45/ used to carry out analysis, as well as spatial products used for analysis /46/ • Audit team was also provided with a letter /47/, from project personnel involved in monitoring on project area, as evidence that no significant wildfires or pest/disease events were ever discussed with monitoring personnel by local residents • From interviews with local residents during site inspection of November 2013, audit team can confirm that fires and pest/disease events have historically not been a concern within project area	• Analysis was carried out by competent personnel and appears to be of high quality	Risk rating is appropriate
Pest and Disease Outbreaks	• Same as for Fire	• Same as for Fire	Risk rating is appropriate

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
Extreme Weather	• Audit team reviewed Yusuf and Francisco (2009) manuscript "Climate Change Vulnerability Mapping for Southeast Asia" and confirmed that Mondulkiri has a climate hazard index (CHAZ) value of 0.02 (out of a range from 0.00 - 1.00 and as stated Appendix 3a of that publication • Review of Section 3.1 of above publication states that "We assessed exposure using information from historical records of climate-related hazards as we considered past exposure to climate risks as the best available proxy for future climate risks", thus providing assurance that stated risk index is rooted in "conservative estimates (ie, not underestimating the possible frequency or severity) of historical events in the region in which the project is located" (as required by Non-Permanence Risk Tool where historical data of at least 20 years are not available for project area) • Audit team observed no evidence of natural disturbances related to extreme weather during site inspections	• Yusuf and Francisco (2009) manuscript "Climate Change Vulnerability Mapping for Southeast Asia" is a work product of Economy and Environment Program for Southeast Asia (EEPSEA) and assumed to be of high quality • Lead authors Drs. Arief Anshory Yusuf and Herminia Francisco appear appropriately qualified to carry out study (as determine through review of professional summaries on http://ceds.fe.unpad.ac.id/about-us/staff/157-arief-anshory-yusuf.html and http://www.eepsea.org/o-content/view-article/id-92/catid-44/Itemid-349/, respectively; both accessed 18 December 2014)	Risk rating is appropriate

Risk	Assessment of rationale, assumptions and justification	Assessment of quality of documentation and data provided	Conclusion regarding appropriateness of the risk rating
Geological Risk	• Through review of "Cambodia: Natural Hazard Risks" map, accessed from http://reliefweb.int/sites/reliefweb.int/files/resources/0635CB2C3B54A768C12572DB0025F816-ocha_ND_khm070430.pdf on 22 December 2014, audit team confirmed that Cambodia is at very low risk for geologic hazards and, therefore, this risk is not applicable to the project area	N/A	Risk rating is appropriate
Other natural risk	• Audit is aware of no risks that could be present in project area apart from above	N/A	Risk rating is appropriate

3.4 Environmental Impact

This section is not applicable, as no environmental impact assessments were conducted with respect to the project.

3.5 Comments by Stakeholders

While some stakeholder consultations were held during site inspections, none are directly relevant to the validation engagement described in this report.

4 VALIDATION CONCLUSION

In conclusion, the project complies with the validation criteria for projects set out in VCS Version 3. The audit team holds no qualifications or limitations regarding the above statement. While only time will tell whether the project is able to achieve the estimated GHG emission reductions, it should be noted that the methodology requires fairly conservative methodological choices for ex-ante calculation (including, as noted in Section 5.5 of the PD, the requirement to multiply the leakage displacement factor by baseline emissions in the project area, instead of by the difference between baseline and project emissions in the project area). These conservative methodological choices, along with the conservative approach choices inherent in the approach selected by project personnel, make it quite likely that the project will meet or exceed the estimated GHG emission reductions.

APPENDIX A: LIST OF FINDINGS

The following tables include all issues raised during the validation audit. It should be noted that all language under “Client Response” is a verbatim transcription of responses to findings as provided by project personnel.

NIR 2013.1 dated 10-11-2013
Standard Reference: VCS Standard V3.4, Section 3.10.1
Document Reference: NA
Finding: The VCS standard requires that "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."
Please provide a KML file indicating the geographic area of the AFOLU project activity.
Client Response: A suitable kmz file is attached to this version of the workbook, along with v2.3 of the PD [Final_Project_Area_v13_excised001_ICT_84.kmz]
Auditor Response: As indicated in the Client Response, a KML file delineating the geographic area of each the project activity has been provided in the file "Final_Project_Area_v13_excised001_ICT_84". Therefore, the information request has been satisfied.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.2 dated 10-11-2013
Standard Reference: VM0015 V1.1, page 105
Document Reference: SPF PD FULL v1.3, page 144
Finding: The methodology requires that the user "Prepare a Monitoring Plan describing how [the three "main monitoring tasks"] will be implemented". The methodology requires that the monitoring plan include the following sections for each of the main monitoring tasks:
a) Technical description of the monitoring tasks.
b) Data to be collected (see appendix 5).
c) Overview of data collection procedures.
d) Quality control and quality assurance procedures.
e) Data archiving.
f) Organization and responsibilities of the parties involved in all the above.
The description of Task 1.3, "Ex post net anthropogenic GHG emission reductions", within the monitoring plan does not contain the required sections.
Client Response: The description of the task has been rewritten under the relevant headings in PDv2.3
Auditor Response: Through review of the relevant section of the updated PD, entitled "SPF PD FULL v2.3 [3nd validation edit]", the audit team can confirm that the section in question includes the required headers, and that information within the section is organized accordingly. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.3 dated 10-11-2013
Standard Reference: VM0015 V1.1, pages 99-100 and 114-115; VCS Standard V3.4, Section 3.18
Document Reference: SPF PD FULL v1.3, Annex 4.2 and Section 4.3
Finding: The VCS Standard requires that "The project proponent shall use the VCS Project Description Template (or approved GHG program project description template where the project is requesting registration under an approved GHG program) and adhere to all instructional text within the template." The VCS+CCB Project Description Template requires, in Section 4.3, that the any methodology deviations be described and justified.
Within Annex 4.2, the PD documents procedures to account for leakage attributable to "those who are deterred from moving to the site by project activities" as parameter DLFa. Such procedures are not set out by the methodology, and therefore the use of such procedures constitutes a methodology deviation. However, the PD does not describe and justify the methodology deviation, but instead states within Section 4.3 that "No methodology deviations are proposed."
Client Response: In PD v2.3, Methodology Deviations 1 and 2 have been added.
Auditor Response: The audit team can confirm, through review of the updated PD entitled "SPF PD FULL v2.3 [3nd validation edit]", that the methodology deviation relating to activity shifting leakage has been clearly described and appropriately justified in Section 4.3. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.4 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.11.1
Document Reference: SPF PD FULL v1.3, Section 3.2
Finding: The VCS Standard requires that "The project description shall be accompanied by documentary evidence establishing conclusively one or more of the following rights of use… accorded to the project proponent(s)." This requirement is followed by seven possible avenues through which right of use can be conferred.
The PD states that "Evidence of right of use for the small areas of forest eligible for transfer to Communal Land Titles arises through signed agreements with the potential holders of these titles (another option permitted by Section 3.11.1 of the standard)." During the site visit, it was further clarified that right of use arising in this manner would potentially fall under option (4), which is described in the VCS Standard as "A right of use arising by virtue of a statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions and/or removals (where such right includes the right of use of such reductions or removals and the project proponent has not been divested of such right of use)." However, review of the community agreements that are referenced in the PD indicates that these agreements have multiple provisions for termination. Therefore, the agreements are not "irrevocable", as required under option (4) of Section 3.11.1 of the VCS Standard. Please provide evidence that the project proponent has right of use over the entire project area (including areas for which indigenous title has been, or could potentially be, established).
Client Response: The project area has been redrawn to exclude the areas covered by this finding. The process is described in the attached file 'Response - Revised project boundaries.docx'. This is reflected in updates to the text of PDv2.3.
Auditor Response: Through review of the document "Response - Revised project boundaries.docx", the audit team has been able to confirm that the actions described within the document have been sufficient to excise from the project area all land that has been transferred, or is eligible for transfer, to Communal Land Title. Through review of the updated project area shapefile, entitled "Final_Project_Area_v13_excised001_ICT", the audit team can confirm that this shapefile faithfully depicts the results of the process of modifying the project area. As all land that has been, or can be, transferred to Communal Land Title has been excised from the project area, the information request is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.5 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.11.1
Document Reference: SPF PD FULL v1.3, Section 3.2
Finding: The VCS Standard requires that "The project description shall be accompanied by documentary evidence establishing conclusively one or more of the following rights of use… accorded to the project proponent(s)."
The PD states that "The project area that will generate credits was 100% State land at the project start date, under the territorial mandate of the Ministry of Agriculture, Forestry and Fisheries (MAFF) through the Forestry Administration (FA)". Through review of the Sub-Decree No. 143 (2009), which established the Seima Protection Forest, the audit team confirmed that this is generally true (but see NIR 2013.6). However, during the site visit the audit team learned of a recent "land amnesty" campaign, which resulted in land which had been settled being demarcated and formally titled to the private individuals who settled the land. In some cases, such land had legally belonged to an entity other than such private individuals prior to the land amnesty campaign. In some cases, such parcels may lie within the boundaries of the project area. While the project area should have been 100% forest as of the project start date, such does not preclude portions of the project area from having been deforested and subsequently titled to private individuals through the land amnesty campaign.
Therefore, please provide evidence that the project proponent continues to hold right of use over all land for which right of use was held as of the project start date.
Client Response: The project area has been redrawn to exclude the areas covered by this finding. The process is described in the attached file 'Response - Revised project boundaries.docx'. This is reflected in updates to the text of PDv2.3.
Auditor Response: Through review of the document "Response - Revised project boundaries.docx", the audit team has been able to confirm that the actions described within the document have been sufficient to excise from the project area all land that has been transferred to private ownership during the "land amnesty" campaign. Through review of the updated project area shapefile, entitled "Final_Project_Area_v13_excised001_ICT", the audit team can confirm that this shapefile faithfully depicts the results of the process of modifying the project area. As all land that has been transferred to private ownership has been excised from the project area, the information request is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.6 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.11.1
Document Reference: SPF PD FULL v1.3, Section 3.2
Finding: The VCS Standard requires that "The project description shall be accompanied by documentary evidence establishing conclusively one or more of the following rights of use… accorded to the project proponent(s)."
The PD states that "The project area that will generate credits was 100% State land at the project start date, under the territorial mandate of the Ministry of Agriculture, Forestry and Fisheries (MAFF) through the Forestry Administration (FA)". Through review of the legal boundaries of the project area as established in Sub-Decree No. 143 (2009), which established the Seima Protection Forest, the audit team confirmed that this is generally true. In review of the shapefile for the Seima Protection Forest (which the audit team understands to have been the basis for the shapefile for the project area), the audit team observed that the boundaries of the shapefile are generally consistent with the boundaries of the map appended to the Sub-Decree. However, the audit team observed a discrepancy of approximately 80 km between the location of point A18 (as indicated on the map appended to the Sub-Decree) and the location of the corresponding corner of the Seima Protection Forest shapefile. Therefore, the possibility exists for some portions on the southern boundary of the project area to be outside the legal boundary of the Seima Protection Forest. Please provide evidence that the project proponent holds right of use over the land which is inside the project area but outside the legal boundary of the Seima Protection Forest.
Client Response: The project area has been redrawn to exclude the areas covered by this finding. The process is described in the attached file 'Response - Revised project boundaries.docx'. This is reflected in updates to the text of PDv2.3.
Auditor Response: It should be noted that the discrepancy that was observed by the audit team was actually a discrepancy of 80 m, not 80 km, as had been stated in the text of the finding. Through review of the document entitled "Response - Revised project boundaries", the audit team can confirm that the discrepancy pertaining to the coordinate of point A18 is irrelevant, as any area that would have been affected has been excised from the project area. Therefore, the information request is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.7 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.7.1; AFOLU Requirements V3.4, Section 3.2.1
Document Reference: SPF PD FULL v1.3, Section 1.6
Finding: The VCS Standard defines the project start date as “the date on which the project began generating GHG emission reductions or removals (see VCS document AFOLU Requirements for further specification for AFOLU projects).” The AFOLU Requirements states that “As set out in the VCS Standard, the project start date of an AFOLU project shall be the date on which activities that lead to the generation of GHG emission reductions or removals are implemented. Such activities may include preparing land for seeding, planting, changing agricultural or forestry practices, rewetting, restoring hydrological functions, or implementing management or protection plans.” The PD states that the project start date is 1 January 2010. However, during the site visit, evidence that the selected project start date was "the date on which activities that lead to the generation of GHG emission reductions or removals [were] implemented" was not presented. Please provide this evidence.
Client Response: A letter from the Cambodian Government dated 6 October 2014 and submitted directly to the validator provides the required documentary evidence (as confirmed in a Response Action Plan discussion).
Auditor Response: As indicated in the Client Response, the audit team received a letter, dated 6 October 2014 and signed by Dr. Chheng Kimsun, Head of the Forestry Administration, in the file entitled "20141007_033745". In this letter, Dr. Kimsun stated the following: "With regard to REDD+, it is the implementation of these activities that marks the formal start date, rather than the date of signing of the Subdecree itself. There is a necessary delay between the official signing of a subdecree and its effect on actions in the field due to normal administrative processes such as official communication between sections of government and the sequence of financial and activity planning at the field level. Hence activities to implement the new Subdecree that had a practical impact on the conservation of carbon stocks in Seima Protection Forest began at the start of the fiscal quarter on 1 January 2010." The logic described in Dr. Kimsun's letter provides a reasonable justification for why 1 January 2010 was the date on which activities that lead to the generation of GHG emission reductions were implemented, particularly given that activities related to said reductions are planned for in operational plans for which the fiscal year provides the main temporal framework. Therefore, the information request has been satisfied.
Closing Remarks: The Client’s response adequately addresses the finding.

NIR 2013.8 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 1, Section 3; VT0001, Section 2.1.2
Document Reference: SPF PD FULL v1.3, Section 4.6, Sub-step 1.b
Finding: The methodology requires that "Additionality of the proposed AUD project activity must be demonstrated using either the most recent VCS-approved VT0001Tool [sic] for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities..." VT0001 requires that “If an alternative does not comply with all mandatory applicable legislation and regulations then show that, based on an examination of current practice in the region in which the mandatory law or regulation applies, those applicable mandatory legal or regulatory requirements are systematically not enforced and that non-compliance with those requirements is widespread, i.e., prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area.” The PD states that "All of the listed scenarios are credible under enforced laws and regulations. In circumstances where the scenarios are not consistent with national laws, the scenarios are consistent with local norms of non-compliance... The majority of unplanned forest loss in all scenarios is technically illegal, but those legal requirements are weakly enforced for a variety of reasons and non-compliance is the norm across the majority of the reference area and the broader region of north-east Cambodia. This is evident from an inspection of deforestation data for the historical baseline period and from participatory rapid assessments conducted in many villages in the area."
The information provide does not constitute a demonstration that "applicable mandatory legal or regulatory requirements are systematically not enforced and that non-compliance with those requirements is widespread, i.e., prevalent on at least 30% of the area of the smallest administrative unit that encompasses the project area". Furthermore, a demonstration of such was not provided during the site visit. Please provide the required demonstration, noting that the project area includes land in the provinces of Mondulkiri and Kratie.
Client Response: A letter from the Cambodian Government dated 6 October 2014 and submitted directly to the validator provides the required documentary evidence (as confirmed in a Response Action Plan discussion).
Auditor Response: As indicated in the Client Response, the audit team received a letter, dated 6 October 2014 and signed by Dr. Chheng Kimsun, Head of the Forestry Administration, in the file entitled "20141007_033745". In this letter, Dr. Kimsun affirmed that compliance with legal requirements regarding the Forestry Law are prevalent on at least 30% of the area of Cambodia as a whole, and provided evidence to support the attestation made. The evidence and information provided is sufficient as demonstration that the requirement of VT0001 has been fulfilled. Therefore, the information request has been satisfied.
Closing Remarks: The Client’s response adequately addresses the finding.

NIR 2013.9 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 1, Section 3; VT0001, Section 2.2.1
Document Reference: SPF PD FULL v1.3, Section 4.6, Sub-step 2.a
Finding: The methodology requires that "Additionality of the proposed AUD project activity must be demonstrated using either the most recent VCS-approved VT0001Tool [sic] for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities..." VT0001 requires that "If the VCS AFOLU project generates no financial or economic benefits other than VCS related income, then apply the simple cost analysis (Option I). Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III)." The PD states that "Since the REDD project generates no financial or economic benefits to the project proponents other than carbon market-related income, Option I (Simple Cost Analysis) is appropriate." However, review of the PD indicates that Action #4 of Sub-Objective #4 is identified as "Establish community-based ecotourism". During the site visit, verbal assurance was provided to the audit team that no financial or economic benefits are currently generated to the project proponent through ecotourism revenues, and that the project proponent is unlikely to collect such revenues in the future. However, evidence was not provided to indicate that collection of such revenues would under no circumstances be pursued. If simple cost analysis is to be applied, then please provide evidence of this.
Client Response: This analysis has now been completed. The text of PDv2.4 has been updated accordingly. The relevant calculations are in a new worksheet ('(NPV calc)') in the workbook 'SPF REDD Financial Model - for PD v2.4 - [revised during validation].xlsx'. This was further updated for PD v2.5 in the file 'SPF REDD Financial Model - for PD v2.4 - [revised during validation].xlsx'.
Auditor Response: Through review of the workbook entitled “SPF REDD Financial Model - for PD v2.5 - [revised during validation]”, the audit team can confirm that investment comparison analysis (Option II) was carried out. Therefore, the information request has been satisfied.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.10 dated 12-14-2013
Standard Reference: VCS Standard Version 3.4, Section 3.16.2; VM0015 V1.1, Part 3, Step 1.1.4
Document Reference: SPF PD FULL v1.3, Section 8.1, Task 1.1.4
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established." The methodology requires that "Decreases in carbon stocks and increases in GHG emissions (e.g. in case of forest fires) due to natural disturbances (such as hurricanes, earthquakes, volcanic eruptions, tsunamis, flooding, drought, fires, tornados or winter storms) or man-made events, including those over which the project proponent has no control (such as acts of terrorism or war), are subject to monitoring and must be accounted under the project scenario, when significant". The monitoring plan within the PD states that "The locations of natural disturbances and other catastrophic events will be delineated in a GIS. For those judged significant the emissions associated with each event and location will be determined in one of two ways at the discretion of the project management team..." However, a threshold for significance in the monitoring of natural disturbances and other catastrophic events has not been established.
Client Response: In PDv2.3 Step 8 Section 1.1.4 a threshold of 10 ha has been chosen and justified as a trigger for monitoring.
Auditor Response: The audit team can confirm, from review of Section 8, Task 1.1.4 of the updated PD entitled "SPF PD FULL v2.3 [3nd validation edit]", that a threshold of 10 ha is described and justified in the updated PD. The audit team agrees that, given that catastrophic natural disturbances are unlikely to occur within the project area, 10 ha constitutes a sensible minimum mapping unit, and that a single natural disturbance of less than 10 ha is highly unlikely to have a significant impact on project carbon stocks. It is possible that many such natural disturbances (of less than 10 ha each) could cumulatively have a significant impact on project carbon stocks, but this appears very highly unlikely. Therefore, as a threshold has been provided and justified, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NIR 2013.11 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.2.3(1)
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool requires that "Opportunity cost analysis shall be undertaken based on the alternative land uses identified in the project's additionality assessment... The opportunity cost analysis shall include a net present value (NPV) analysis, covering the project crediting period, of such alternatives as compared to the project, taking into consideration a conservative estimate of revenue from GHG credit sales and other project revenue streams, and potential price fluctuations of commodities impacted by the project." The PD indicates that "NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities..." However, evidence of a net present value analysis, as required by the AFOLU Non-Permanence Risk Tool, has not been provided. Please provide such evidence.
Client Response: The NPV analysis for cassava is presented in the file 'Seima - Risk Buffer - Agric Opp Cost NPV estimate - 28Nov.xlsx' submitted with PDv2.5, superceding the version submitted with PDv2.4..
Auditor Response: Through review of the workbook entitled "Seima - Risk Buffer - Agric Opp Cost NPV estimate - 28Nov", the audit team can confirm that a net present value analysis has been undertaken. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.12 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.3.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool requires that a score of 2 must be applied under item (b) within the "Land Tenure and Resource Access/Impacts" sub-category in the case that "Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession)". The PD states that this item is "not applicable".
However, as discussed during the site visit, some areas of land within the project area have been titled to the indigenous communities who reside within the project area. It is the understanding of the audit team that, while titles that are issued to indigenous communities are restricted from being transferred to other entities, the indigenous communities can be considered to "own" the land that is titled to them, as defined in the AFOLU Non-Permanence Risk Tool (Section 2.3.1(5) of that tool states that "Ownership refers to a title or right that encompasses full control of the land in perpetuity, and may include the right to transfer or sell land or resource access/use rights", which clarifies that ownership does not necessarily include the right to transfer or sell land). Therefore, for those portions of the project area that are titled to indigenous communities, the ownership and access/use rights are held by different entities, as ownership is held by the indigenous communities and access/use rights are held by the project proponent.
In addition, the audit team understands that Article 40 of the Forestry Law confers upon "local communities living within or near Permanent Forest Reserves" the "traditional user rights" to collect a wide range of forest products. Thus, all participating villages (as described within the PD) have access/use rights to the project area for these purposes. Therefore, even for those portions of the project area that are not titled to indigenous communities, the ownership and access/use rights are held by different entities, as ownership is held by the project proponent and access/use rights are held by the indigenous communities.
Under both cases, it is the determination of the audit team that the ownership and resource access/use rights are held by different entity(s). Therefore, the risk score that was applied does not conform fully to the AFOLU Non-Permanence Risk Tool.

Client Response: The revised project boundaries remove the issue of indigenous land, but the issue of resource use rights under the Forestry Law remains and so a score of 2 has been given here. Relevant changes to the overall risk score have been made and all changes are reflected in PDv2.3 (Section 2.3, Tables 5.18/5.1 and Annex 2.2). Please see calculations in attached file 'VCS Risk Tool SPF [updated version in val].xlsx'.
Auditor Response: Regardless of whether land subject to indigenous land title has been removed from the project area, the audit team agrees that the risk score remains relevant. The audit team can confirm, through review of the updated PD entitled "SPF PD FULL v2.3 [3nd validation edit]", that a value of 2 has been applied for the risk score in question. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.13 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.3.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool requires that a risk score of 10 must be applied under item (c) within the "Land Tenure and Resource Access/Impacts" sub-category in the case that "In more than 5% of the project area, there exist disputes over land tenure or ownership". The PD states that this item is "applicable", and further states that "The continued existence of the Samling logging concession (see Section 1.3 and 3.2) raises the theoretical possibility that Samling may wish to be involved in benefit-sharing from the project. The assessment of the proponent is that this will not occur, but to be conservative this score is included in the calculations. from land remaining under government ownership (Sections 3.2 and 3.7)."
As confirmed within the VCSA in correspondence subsequent to the site visit, a concession that is issued by the government is not considered a form of ownership or land tenure, but is rather considered to be an access/use right. Therefore, it is the determination of the audit team that the risk score in question, which is applicable only to access/use rights, does not apply to the Samling concession. Therefore, the risk score that was applied does not conform fully to the AFOLU Non-Permanence Risk Tool.
Client Response: This finding is accepted and the risk score for this item has been reduced to 0. Relevant changes to the overall risk score have been made and all changes are reflected in PDv2.3 (Section 2.3, Tables 5.18/5.1 and Annex 2.2). Please see calculations in attached file 'VCS Risk Tool SPF [updated version in val].xlsx'.
Auditor Response: The audit team can confirm, through review of the updated PD entitled "SPF PD FULL v2.3 [3nd validation edit]", that a value of 0 has been applied for the risk score in question. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.14 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.3.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool requires that a risk score of 5 must be applied under item (d) within the "Land Tenure and Resource Access/Impacts" sub-category in the case that "There exist disputes over access/use rights (or overlapping rights)". The PD states that this item is "applicable", and further states that "No dispute exists. It is acknowledged that overlapping rights exist over an estimated <3% of the project area as a result of land being potentially eligible for conversion to Indigenous Communal Title." However, it is the determination of the audit team that the rights over land by communities that have received Indigenous Communal Title is an ownership right, rather than an access/use right (see NCR 2013.12). Therefore, such rights should not be considered overlapping access/use rights and do not apply under item (d). Therefore, it may be that the risk score that was applied does not conform fully to the AFOLU Non-Permanence Risk Tool (but see NIR 2013.15).
Client Response: The revised project boundaries remove the issue of overlapping claims to indigenous land so this finding is no longer applicable. The score for this item has been set to 0. Relevant changes to the overall risk score have been made and all changes are reflected in PDv2.3 (Section 2.3, Tables 5.18/5.1 and Annex 2.2). Please see calculations in attached file 'VCS Risk Tool SPF [updated version in val].xlsx'.
Auditor Response: The audit team can confirm, through review of the updated PD entitled "SPF PD FULL v2.3 [3nd validation edit]", that the risk score in question is not applied in the non-permanence risk analysis in Annex 2.2. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.15 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.3.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool requires that a risk score of 5 must be applied under item (d) within the "Land Tenure and Resource Access/Impacts" sub-category in the case that "There exist disputes over access/use rights (or overlapping rights)". While the PD states that this item is "applicable", it is the understanding of the audit team that item (d) is not applicable for the reason indicated in the PD (see NCR 2013.14). However, the possibility does exist that Samling International Chhlong may hold access/use rights (in which case access/use rights would be overlapping, given the access/use rights described in the text of NCR 2013.12), or, at the very least, a claim over access/use rights (in which case access/use rights would be disputed) within the project area. Presence of overlapping or disputed access/use rights requires application of the score required under item (d) within the "Land Tenure and Resource Access/Impacts" sub-category. It also requires that "It shall be demonstrated, in addition to the VCS requirements for right of use, that the project has endorsement (such as a legal agreement or memorandum of understanding) from all entities with credible... land/resource access/use rights..."
As discussed during the site visit, it is the understanding of the audit team that the Royal Government of Cambodia made a series of policy decisions that collectively constitute a "moratorium" on logging concessions. However, the audit team also understands that the logging concession held by Samling International Chhlong has never been formally cancelled.
The audit team understands, from review of Article 10 of the unofficial English translation of the Forestry Law (2002), that the "protection forest" land-use category does not include forest concessions. However, it is not completely clear that the assignment of the project area to "protection forest" would preclude Samling International Chhlong, as a holder of a previously issued forest concession (which was issued while the area was assigned to the "production forest" land-use category), from holding credible access/use rights over the project area.
Please provide documentary evidence that Samling International Chhlong does not hold credible land/resource access/use rights over any portion of the project area. Alternatively, please provide evidence that the project has endorsement from Samling International Chhlong, as required by Section 2.3.1(9) of the AFOLU Non-Permanence Risk Tool.
Client Response: A letter from the Cambodian Government dated 6 October 2014 and submitted directly to the validator provides the required documentary evidence (as confirmed in a Response Action Plan discussion).
Auditor Response: As indicated in the Client Response, the audit team received a letter, dated 6 October 2014 and signed by Dr. Chheng Kimsun, Head of the Forestry Administration, in the file entitled "20141007_033745". In this letter, Dr. Kimsun stated that "The Forestry Administration confirms that as a result of the Sub-decree establishing the Seima Protection Forest, signed by Prime Minister Hun Sen on 02 September 2009, Samling International Ltd doesnot [sic] hold credible land rights, resource access rights, or use rights over any portion of the Seima Protection Forest." The letter received by the audit team constitutes acceptable documentary evidence that Samling International Chhlong does not hold credible land/resource access/use rights over any portion of the project area. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.16 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.3.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool indicates that a mitigation score of -2 may be applied under item (g) within the "Land Tenure and Resource Access/Impacts" sub-category in the case that "Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims". The PD states that this item is "applicable", and further states that "The consent processes described in Sections 2.7 and 3.7 effectively resolve all overlapping community claims.No formal mechanism is believed to be needed to resolve the Samling issue."
As described in the text of NCR 2013.14, the presence of Indigenous Community Titles within the project area is not an instance over overlapping or disputed access/use rights. Therefore, any resolution actions undertaken with respect to the Indigenous Community Titles are not relevant under item (g) within the "Land Tenure and Resource Access/Impacts" sub-category. The presence of the Samling logging concession, as discussed in the text of NCR 2013.15, may well be relevant. However, it is unclear that any action has been taken to "resolve the disputes or clarify overlapping claims" with respect to the Samling logging concession. Therefore, the risk score that was applied does not conform fully to the AFOLU Non-Permanence Risk Tool.
Client Response: As it stands the risk tool identifies no relevant disputes and so no mitigation is possible and the score is changed from -2 to 0. Relevant changes to the overall risk score have been made and all changes are reflected in PDv2.2 (Section 2.3, Tables 5.18/5.1 and Annex 2.2). Please see calculations in attached file 'VCS Risk Tool SPF [updated version in val].xlsx'.
Auditor Response: The audit team can confirm, through review of the updated PD entitled "SPF PD FULL v2.3 [3nd validation edit]", that the risk score in question is no longer applied in the non-permanence risk analysis in Annex 2.2. Therefore, the finding is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.17 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Sections 2.2.3, 2.2.4 and 2.3.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: In multiple sections of the AFOLU Non-Permanence Risk Tool, it is allowed for a lower risk score to be applied (or a negative mitigation risk score to be applied) in the event that the "Project is protected by legally binding commitment (see Section 2.2.4) to continue management practices that protect the credited carbon stocks". The PD applies the risk scores that are appropriate to the presence of a legally binding commitment in all of these cases, stating that "The Subdecree creating the SPF is indefinite in duration". The audit team agrees that Sub-Decree No. 143 (2009), which created the Seima Protection Forest, is indefinite in duration and constitutes a "Legal agreement or requirement to continue the management practice refers to any legally enforceable agreement or requirement, such as a conservation easement or protected area law that would require the continuation of the management practice that sequesters carbon or avoids emissions", as defined within Section 2.2.4(5) of the AFOLU Non-Permanence Risk Tool. However, as described in the text of NIR 2013.6, the legal boundaries of the Seima Protection Forest, as set out in the Sub-Decree, do not include the entire project area. In addition, as discussed during the site visit, it is not clear that the Sub-Decree continues to apply to areas that have been titled to indigenous communities, as such areas have (or will) likely be excised from the Seima Protection Forest. Therefore, please provide evidence that a legally binding commitment, as defined in Section 2.2.4 of the AFOLU Non-Permanence Risk Tool, is in place within the entire project area. Alternatively, please divide the project geographic area to account for the different risk scores, as provided by Section 2.1.3 of the AFOLU Non-Permanence Risk Tool.
Client Response: All areas potentially eligible for indigenous land titling have been excised from the project area as has the area placed in doubt by the discrepancy between point A18 and the official shapefile. Therefore we consider this finding is no longer applicable.
Auditor Response: Through review of the document "Response - Revised project boundaries.docx", the audit team has been able to confirm that the actions described within the document have been sufficient to excise from the project area all land that has been transferred, or is eligible for transfer, to Communal Land Title. Through review of the updated project area shapefile, entitled "Final_Project_Area_v13_excised001_ICT", the audit team can confirm that this shapefile faithfully depicts the results of the process of modifying the project area. In addition, the audit team was able to confirm that, as a result of the various modifications to the project area, the land affected by the discrepancy related to point A18 has been removed from the project area (as documented in resolution to NIR 2013.6). As all of the land in question has been excised from the project area, the information request is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.18 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 1.1.4
Document Reference: SPF PD FULL v1.3, Annex 4.5, Step 2.5
Finding: The methodology requires that "A verifiable accuracy assessment of the maps produced in the previous step is necessary to produce a credible baseline" and proceeds to provide a series of instructions for completing the assessment. The PD describes the accuracy assessment that was conducted. However, clear evidence that an accuracy assessment took place was not provided to the audit team during the site visit. Please provide such evidence.
Client Response: It is our understanding that this was a placeholder finding that has now been closed as a result of telephone conference calls and data provided.
Auditor Response: As mentioned in the Client Response, a response to this finding was provided outside the cover of this workbook in the form of web-based meetings and work products demonstrating that the required accuracy assessment was appropriately carried out. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

OFI 2013.19 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.16.2
Document Reference: SPF PD FULL v1.3, Annex 5.3
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established". In review of data collection procedures for the aboveground tree biomass carbon pool and the standing portion of the dead wood carbon pool, it is clear that adequate quality management procedures have been applied and established. However, the audit team noted the following opportunities for improvement in the data collection procedures for the lying down wood portion of the dead wood carbon pool:
1. The PD states that the transect for measurement of lying dead wood began at "the margin of the central nest", which would mean that the transect began 20 meters away from the plot center. However, it was demonstrated to the audit team in the field that this distance was loosely estimated (by pacing) rather than measured, thus resulting in the potential for limited accuracy and replicability.
2. The transect bearing was not observed to be measured with a high degree of care and attention. This, too, has resulted in the potential for limited accuracy and replicability.
3. It was explained to the audit team in the field that the transect bearing is typically set to due north by default, but can be changed (at the discretion of the team leader) if a difficult or dangerous obstacle is encountered. However, criteria for changing the transect bearing did not appear to be clearly established. In addition, the transect bearing, and the justification for any changes made to the transect bearing, were not documented. Furthermore, it should be noted that any changes to the transect bearing (even if such changes are well-documented and replicable) may result in bias. Therefore, the potential for materially inaccurate results exists if the transect bearing is modified too frequently.
4. The audit team observed one instance where the transect was shifted to one side to avoid an inconvenient measurement situation (a steep drop-off that would have been challenging to work around but which did not present a practical safety hazard), but the decision to shift the transect was not documented. The comments made above for item 3, with respect to documentation and the potential for biased results, apply here as well.
In response to the above, an opportunity exists to substantially improve the replicability and accuracy of the data collection procedures for the measurement of lying dead wood.
Client Response: [A response to this finding was not provided. Responses to Opportunities to Improvement are not required for issuance of a validation statement.]
Auditor Response: Responses to Opportunities to Improvement are not required for issuance of a validation statement.
Closing Remarks: Responses to Opportunities to Improvement are not required for issuance of a validation statement.

NIR 2013.20 dated 12-14-2013
Standard Reference: VCS Standard Version 3.4, Section 3.11.1
Document Reference: SPF PD FULL v1.3, Section 3.2; signed copies of community consent agreements
Finding: The VCS Standard requires that "The project description shall be accompanied by documentary evidence establishing conclusively one or more of the following rights of use… accorded to the project proponent(s)." This requirement is followed by seven possible avenues through which right of use can be conferred.
The PD states that "Evidence of right of use for the small areas of forest eligible for transfer to Communal Land Titles arises through signed agreements with the potential holders of these titles (another option permitted by Section 3.11.1 of the standard)." During the site visit, it was further clarified that right of use arising in this manner would potentially fall under option (4), which is described in the VCS Standard as "A right of use arising by virtue of a statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions and/or removals (where such right includes the right of use of such reductions or removals and the project proponent has not been divested of such right of use)." However, a number of discrepancies have been identified in review of these agreements that casts some doubt on their adequacy for the indicated purpose. These discrepancies are as follows:
- All of the agreements list the community/village name as O Rona at the top of page 2.
- Each of the agreements are indicated to be an agreement between the Mondulkiry Forestry Administration Cantonment of Forestry Administration and the community in question, rather than an agreement between the Forestry Administration of Ministry of Agriculture, Forestry and Fisheries (i.e., the project proponent) and the community in question.
- In each of the agreements with the communities O Am, Pu Char, Sre Phreah, Pu Keh, Pu Ngaol, Pu Haim, Pu Rang and Pu Tang, the representative who signed the agreement, rather than the community itself, is indicated to be "party B" on page 1 and in one location on page 2.
- The agreements with the following communities have no signing date: Pu Khtung, Sre Andoal, Khmaum, Chark Char, Pu Kong, Ou Chra and Pu Ngaol.
Please provide an explanation for the cause of each of the discrepancies described above. In addition, please provide justification for why the community consent agreements continue to function as an appropriate mechanism conferring right of use over the titled lands, in spite of the discrepancies described above.
Client Response: We believe this has been resolved on the basis of documentary evidence presented during the recent field visit.
Auditor Response: As indicated in the Client Response, members of the audit team visited the project area during the week of 3 November 2014. During this visit, the audit team was provided with evidence that all of the Community Consultation Agreements had been revised and that these revised agreements had been executed with community representatives.
In addition, as noted in resolution of NIR 2013.4, all land that has been, or can be, transferred to Communal Land Title has been excised from the project area, and thus evidence of right of use over such land does not need to be demonstrated. Therefore, the Community Consultation Agreements are no longer, strictly speaking, within the scope of the VCS validation audit. Therefore, the information request is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.21 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.2.1(5)
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool indicates that a mitigation score of -2 may be applied under item (f) within the "Project Management" sub-category in the case that an adaptive management plan is in place. The AFOLU Non-Permanence Risk Tool contains the following criteria regarding adaptive management plans: "Adaptive management plans are those that identify, assess and create a mitigation plan for potential risks to the project, including those identified in this document, and any other obstacles to project implementation. They include a process for monitoring progress and documenting lessons learned or corrections that may be needed, and incorporating them into project decision-making in future monitoring periods." During the site visit, it was indicated to the audit team that the project operates on an annual management cycle with an internal reporting and planning workshop that takes place every year. It was indicated to the audit team that it would be possible to provide documentary evidence for a recent meeting to show that an adaptive management plan is in place. Please provide the required evidence.
Client Response: A Standard Operating Procedure for the required adaptive management process has been supplied to the auditor ('Seima Adaptive Management SOP.pdf').
Auditor Response: Through review of the document entitled “Seima Adaptive Management SOP.pdf”, the audit team agrees that this document constitutes an adaptive management plan in accordance with all relevant criteria of the AFOLU Non-Permanence Risk Tool. The plan describes the annual management cycle and clarifies how progress is monitored and how lessons learned or corrections are incorporated into project decision-making. Therefore, the information request has been satisfied.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.22 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1; VCS Standard Version 3.4, Section 3.18
Document Reference: SPF PD FULL v1.3, Annex 5.3
Finding: The VCS Standard requires that "The project proponent shall use the VCS Project Description Template (or approved GHG program project description template where the project is requesting registration under an approved GHG program) and adhere to all instructional text within the template." The VCS+CCB Project Description Template requires, in Section 4.3, that the any methodology deviations be described and justified.
Part 2, Step 6.1.1 of the methodology requires that "For the classes for which no existing data are available it will be necessary to either obtain the data from field measurement or to use conservative estimates from the literature… Design the sampling framework and conduct the field measurements following the guidance of appendix 3..."
The following deviations have been noted with respect to the guidance from Appendix 3:
- Equation A3-15 requires that belowground biomass be calculated as the product of aboveground biomass and a "Root-shoot ratio appropriate for species, group of species or forest type j". As described in Annex 5.3 of the PD, belowground biomass has been calculated using an equation by Cairns et al. (1997) rather than a fixed root-shoot ratio. The Cairns equation is a widely accepted equation for quantifying belowground biomass (being specifically referenced by Section 4.5.2(4) of the AFOLU Requirements as an acceptable method), and can be considered more accurate than a fixed ratio, as it models a different rate of increase in belowground biomass for smaller trees than for larger trees. However, use of this equation does constitute a deviation to the methodology.
- For derivation of dead wood densities, the Appendix A requires a procedure whereby wood samples are submerged in water until saturated, then weighed, and finally dried and weighted again. Equation A3-28 is then used to calculate the density. From review of the calculations of dead wood density, the required procedure was not followed.
The PD does not describe and justify the methodology deviations described above, but instead states within Section 4.3 that "No methodology deviations are proposed."
Client Response: Regarding root/shoot ratios, the Cairns equation has been replaced with a uniform ratio throughout the relevant worksheets (dense forest, open forest and post-deforestation. The lower bound for the default range for moist tropical forest was used (0.22 following IPCC 2006 Chap 4 Forest Land Table 4.4). This led to edits in PDv2.3 in Annex 5.3 and throughout the main text wherever biomass for this class is referred to (from Tables 5.6ai-biii through to the final VCU calcs in Tables 5.18 and 5.1). Please see calculations in attached files: Live Trees & Roots - Dense Stratum.xlsx ; Live Trees & Roots - Open Stratum.xlsx ; Lying Deadwood Dense Stratum.xlsx ; Lying Deadwood Open Stratum.xlsx ; FinalStats_CarbonPools [Table 5.6ai-biii].xlsx ; and Annex 5.5 Post-defor_sample plots and points [update].xls

A methodology deviation will be presented for the procedure for wood density, but is not yet ready for submission.
Auditor Response: The audit team agrees that, because the Cairns equations are no longer applied, the deviation related to the Cairns equation is no longer relevant. This finding remains open, however, pending a response regarding the deviation related to the quantification of carbon in dead wood.
Client Response 2: In PD version 2.4 a deviation has been requested to allow a different, but equally well-established and unbiased method for measuring the density of deadwood.
Auditor Response 2: Through review of Section 4.3 of the updated PD, entitled "SPF PD FULL v2.5 [5th validation edit]", the audit team can confirm that the methodology deviation has been appropriately documented as "Deviation request 5 – to allow use of an alternative, standard method to measure the density of dead wood". The audit team agrees that the procedure described in the deviation is a commonly accepted procedure that is also documented in the Winrock Standard Operating Procedures document, as referenced by the PD. Therefore, the non-conformity has been fully resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.23 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 2.4.1 and 3.1.1
Document Reference: Seima PF REDD_Dead wood density 2011 measurements data sheet FINAL
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of accuracy, as set out in Section 2.4.1, requires the user to "Reduce bias and uncertainties as far as is practical."
Through review of the workbook "Seima PF REDD_Dead wood density 2011 measurements data sheet FINAL", it is clear that separate densities have been calculated for each wood decay class and forest LU/LC class (i.e., sets of wood density values are available for both the "open forest" and "dense forest" classes), as shown in column T of worksheet "FINAL_CALCS_without#82". However, for each wood decay class, a single value has been used for wood density. This value has been calculated as the arithmetic average value of the density values for the two forest LU/LC classes, as shown in column V of worksheet "FINAL_CALCS_without#82". The use of average wood density data, rather than LU/LC-class-specific data, for calculation of forest carbon stocks has resulted in an inaccurate ex-ante quantification of GHG emission reductions over the crediting period, as it results from an incorrect weighting of data. In combination with other errors, such an error would result in a material error in the ex-ante quantification of GHG emission reductions. Therefore, it must be rectified.
Client Response: Forest type-specific deadwood density values were subtituted in the worksheets wherever global means had been used. This led to edits in PDv2.3 in Annex 5.3 and throughout the main text wherever biomass for this class is referred to (from Tables 5.6ai-biii through to the final VCU calcs in Tables 5.18 and 5.1).

Please see calculations in attached files: ; Lying Deadwood Dense Stratum.xlsx ; Lying Deadwood Open Stratum.xlsx ; FinalStats_CarbonPools [Table 5.6ai-biii].xlsx ; and Annex 5.5 Post-defor_sample plots and points [update].xls

Auditor Response: The audit team can confirm that the forest-type-specific deadwood density values have been substituted in the "Lookup factors" worksheets of the following workbooks:
Lying Deadwood Dense Stratum
Lying Deadwood Open Stratum
However, it does not appear that the necessary changes have been made to the following workbooks, as the wood density values that are an output of those workbooks do not appear to have been updated in the workbook "FinalStats_CarbonPools [Table 5.6ai-biii]":
Standing Dead Trees - Dense Stratum
Standing Dead Trees - Open Stratum
In addition, it does not appear that the necessary changes have been made to the workbook "Annex 5.5 Post-defor_sample plots and points [update]", as the values therein do not appear to have changed from the values in the previous submission.
Therefore, the non-conformity has not been fully resolved.
Client Response 2: The values have been updated in the two standing dead trees worksheets. These had not been updated before because these spreadsheets erroneously used the default living tree wood density value. That error has also been resolved to follow the SOPs (which call for use of the 'sound dead wood' value. The resultant changes have been made to the 'FinalStats...' file. In the Post-defor analysis, an area-weighted average of the deadwood densities has been used (based on total ten-year projected defor in the two forest classes).
Auditor Response 2: Through review of the workbooks "Annex 5 5 Post-defor_sample plots and points v2.4", "Standing Dead Trees - Dense Stratum" and "Standing Dead Trees - Open Stratum", the audit team has confirmed that the workbooks have been updated in the manner described in the Client Response, which has been sufficient to resolve the non-conformity.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.24 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 2.4.1 and 3.1.1
Document Reference: Live Trees & Roots - Dense Stratum; FinalStats_CarbonPools [updated after field visit]
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of accuracy, as set out in Section 2.4.1, requires the user to "Reduce bias and uncertainties as far as is practical."
The estimate of average belowground biomass in the "dense forest" LU/LC class, in units of Megagrams biomass per hectare, is correctly calculated in cell H67 of worksheet "tree & root totals" of workbook "Live Trees & Roots - Dense Stratum". However, when this value is transferred to cell F16 of workbook "FinalStats_CarbonPools [updated after field visit]", it is treated as if it were in units of Megagrams carbon per hectare. Therefore, the resulting belowgound biomass value of CO2e-equivalent per hectare, as calculated in cell G37 of workbook "FinalStats_CarbonPools [updated after field visit]", is exactly twice as big as it should be. In combination with other errors, this error would result in a material error in the ex-ante quantification of GHG emission reductions. Therefore, it must be rectified.
Client Response: This error has been rectified (noting that the correct figure identified by the validator has also now changed due to finding 2013.22). This led to edits in PDv2.3 in Annex 5.3 and throughout the main text wherever biomass for this class is referred to (from Tables 5.6ai-biii through to the final VCU calcs in Tables 5.18 and 5.1).

please see revised calculations in attached file: FinalStats_CarbonPools [Table 5.6ai-biii].xlsx

Auditor Response: The audit team can confirm, through review of the updated workbook "FinalStats_CarbonPools [Table 5.6ai-biii]", that all belowground biomass values are transferred from the corresponding workbooks in the reported units. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.25 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 2.4.1 and 3.1.1
Document Reference: SPF PD FULL v1.3, Annex 5.5; Annex 5.5 Post-defor_sample plots
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of accuracy, as set out in Section 2.4.1, requires the user to "Reduce bias and uncertainties as far as is practical."
Annex 5.5 of the PD states that "The allometric equation provided by Schroth et al. (2002) for multi-stemmed citrus trees was used for both cashew and fruit trees". In review of the workbook "Annex 5.5 Post-defor_sample plots", it has been discovered that the equation from Schroth et al. (2002) has not been implemented correctly. As provided in Table 6 of that publication, the final term of the equation is 0.000514*BA^2. Standard order of operations conventions dictate that the BA be squared and then multiplied by 0.000514. However, in the implementation of the equation, BA is first multiplied by 0.000514 and the product is squared, leading to an inaccurate estimate of biomass. In combination with other errors, this error would result in a material error in the ex-ante quantification of GHG emission reductions. Therefore, it must be rectified.
Client Response: This error has been corrected in the relevant spreadsheet. In the process it was noted that the formula used referred in error to DBH rather than BA - this was also rectfied. Consequent changes to other calculations/tables were made accordingly.

please see revised calculations in attached file: Annex 5.5 Post-defor_sample plots and points [update].xls
Auditor Response: Through review of the updated workbook, entitled "Annex 5.5 Post-defor_sample plots and points [update]", it is clear that values calculated using the Schroth et al. (2002) equation are no longer used in the analysis. Therefore, the finding is no longer relevant and will be closed.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.26 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 2.4.1 and 3.1.1
Document Reference: SPF PD FULL v1.3, Annex 5.5; Annex 5.5 Annex 5.5 Post-defor_point sampling and analysis
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of accuracy, as set out in Section 2.4.1, requires the user to "Reduce bias and uncertainties as far as is practical."
During the site visit, a number of errors were identified in the determination of the number of sample points falling within each post-deforestation land-use class, as reported in cells C6:C10 and C13:C29 of worksheet "Zone Summaries" of workbook "Annex 5.5 Post-defor_point sampling and analysis". It is understood that these errors have been fixed in a revised version of the workbook. In combination with other errors, the identified errors would result in a material error in the ex-ante quantification of GHG emission reductions. Therefore, they must be rectified in the material that is reported in the PD.
Client Response: The workbook has been revised, as noted, and has been restructured to make checking of the results easier. This leads to changes in the calculated carbon stock for this vegetation type, which have been applied later in the PD v2.3 as required.

Please see revised calculations in attached file: Annex 5.5 Post-defor_sample plots and points [update].xls
Auditor Response: Through review of the updated workbook, entitled "Annex 5.5 Post-defor_sample plots and points [update]", the audit team was able to confirm that the deforestation point analysis is carried out in a transparent and conservative manner, and that the information within the workbook is consistent with the information that was confirmed by the audit team during the site visit. Therefore, the non-conformity appears to have been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.27 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Steps 5.2 and 6.1.3
Document Reference: SPF PD FULL v1.3,Tables 5.9ai-5.9biv
Finding: Part 2, Step 6.1.3 of the methodology requires that, where Method 1 ("Historical LU/LC-change") from Part 2, Step 5.2 is used to calculate baseline activity data per post-deforestation forest class, the calculations from Step 6.1.3 must be reported in Tables 21.a 1-6 (for the reference region); Tables 21.b.1-6 (for the project area); and Tables 21.c1-6 (for the leakage belt area). Where Method 2 from Part 2, Step 5.2 is used, the results must be reported in Tables 22.a 1-6 (for the reference region); Tables 22.b.1-6 (for the project area); and Tables 22.c1-6 (for the leakage belt area). In discussions with project personnel during the site visit, it was determined that Method 1 was used for the project. However, the results from the analysis conducted in Part 2, Step 6.1.3 have been reported in the tables that are appropriate for Method 2.
Client Response: These calculations have been redone in the tables appropriate to method 1.

Please see attached file: calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.3 update].xlsx
Auditor Response: Through review of the calculation workbook entitled "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 2-12-14 wv", the audit team has confirmed that all applicable tables have been revised to correspond to the "Method 1" approach as set out in Part 2, Step 5.2 of the methodology. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.28 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.3, Equation 10
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: The methodology requires that, where Method 1 is used in Part 2, Step 5.2, Equation 10 be used in Part 2, Step 6.1.3 to determine baseline emissions in each year. The calculations of the project, as implemented within worksheets "6.1.3 BLStChPAab", "6.1.3 BLStChPAbb" and "6.1.3 BLStChPAdw" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]", contain the following inconsistencies with respect to Equation 10:
- As indicated below Equation 10, Table 20.b should be referred to for guidance on the "Average carbon stock change factor for carbon pool p in zone z applicable at time t = t*". Table 20.b clearly indicates that, for the first year of deforestation (when t=t*), the carbon stock change factor should be multiplied by the number of hectares deforested to determine baseline carbon stock changes. As further evidence of this, it is stated within Part 2, Section 6.1.2 of the methodology that a "linear increase from 0 tCO2-e/ha in year t = t* to 100% of the long-term (20-years) average carbon stock (as estimated in Table 17) in year t = t*+9 is assumed to happen in the 10 years period following deforestation (i.e. 1/10th of the final carbon stock is accumulated each year)". However, the calculations reported within workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]" report a carbon stock change in post-deforestation vegetation of 0 in the first year of deforestation.
- Equation 10 requires that, for each year t, the number of hectares deforested in each prior year must be multiplied by the emission factor applicable to year t. Rather than implementing this guidance, the calculations reported in workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]" only include in the calculation of carbon stock changes, for each year t, the number of hectares deforested in that year.
Client Response: These calculations have been redone in the appropriate spreadsheets and the results transferred to the appropriate tables in the PD v2.3.

Please see attached file: calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.3 update].xlsx
Auditor Response: Through review of the calculation workbook entitled "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 2-12-14 wv", the audit team has confirmed that the specific instances of non-conformance with Equation 10 of the methodology have been resolved. However, the audit team notes that cell ranges V5:V14 and AB5:AB14 of worksheet "6.1.2 CSC per class", which contain the post-deforestation carbon stock change factor for aboveground biomass, have been incorrectly calculated. In each of these cell ranges, 100% of the post-deforestation carbon stock change factor is provided in the first year (e.g., in cell V5, in the case of the project area), and no stock increment is indicated in the subsequent cells. This is non-compliant with the following guidance from Part 2, Section 6.1.2 of the methodology (as reinforced by table 20.b): "Above-ground biomass... Post-deforestation classes (fcl) (or their area weighted average per zone z): linear increase from 0 tCO2-e/ha in year t = t* to 100% of the long-term (20-years) average carbon stock (as estimated in Table 17) in year t = t*+9 is assumed to happen in the 10-years period following deforestation (i.e. 1/10th of the final carbon stock is accumulated each year)." In addition, it is likely that this incorrect quantification has carried over into incorrect calculation in cells K9:K18 of worksheet "6.1.3Total CSC-pool-PA(T5.9ai+)" and K10:K19 of worksheet "6.1.3Total CSC-pool-LK(T5.9bi+)" for the project area and leakage belts, respectively. Therefore, the non-conformity has not been fully resolved.
Client Response 2: We believe all the mentioned issues have been resolved in the workbook [new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 12-12-14 wv.xlsx].
Auditor Response 2: Through review of the updated workbook entitled "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 12-12-14 wv", the audit team has been able to confirm that the calculations within cell ranges V5:V14 and AB5:AB14 of worksheet "6.1.2 CSC per class", and within cell ranges K9:K18 of worksheet "6.1.3Total CSC-pool-PA(T5.9ai+)" and K10:K19 of worksheet "6.1.3Total CSC-pool-LK(T5.9bi+)", are fully compliant with the methodology. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.29 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 3.1.5, 4.1.7(1) and 4.5.6; VM0015 V1.1, Part 2, Step 6.2
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: Section 3.1.5 of the VCS Standard requires that "Where projects apply methodologies that permit the project proponent its own choice of third party default factor or standard to ascertain GHG emission data and any supporting data for establishing baseline scenarios and demonstrating additionality, such default factor or standard shall meet with the requirements set out in Section 4.1.7(1)." Section 4.1.7(1) of the VCS Standard states that "Where the methodology uses third party default factors and/or standards, such default factors and standards shall meet with the requirements for data set out in Section 4.5.6, mutatis mutandis." Section 4.5.6 of the VCS Standard provides nine different requirements for default factors. The most relevant of the requirements to the current situation are as follows:
"3) Data shall be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector."
"7) Data shall be appropriate to the methodology's geographic scope and the project activities applicable under it."
The methodology indicates that combustion efficiencies, as used to calculate emissions from biomass burning, "may be chosen from table 3.A.14 of IPCC GPG LULUCF" (presumably this is intended to reference Table 3A.1.14 of IPCC GPG LULUCF). However, the methodology does not require the use of any specific factor. Review of Table 3A.1.14 of IPCC GPG LULUCF indicates that the values relevant for primary tropical forest are "0.15-0.30" (for a drying time of less than six months) and "~0.3" (for a drying time of greater than six months). From review of worksheet "6.2 Fires" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]", it appears that a combustion efficiency of 0.3 has been selected. Please provide evidence that it is appropriate to assume a drying time of greater than six months and, therefore, that the selected factor is accurately reflective of current trends within the region.
Client Response: In response to findings 29-33 & 35 we have elected to disregard emissions from biomass burning. Changes have been made to Table 4.3; Step 6.2 and associated tables have been deleted; Step 7.2 and the associated table has been deleted; the final 2 columns of Table 5.11c have been deleted; table 5.11d has been edited accordingly; Table 5.16 has been edited accordingly; & Tables 5.18 and 5.1 have been edited accordingly. All changes are reflected in PDv2.2 and the new calculation workbook 'calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update].xlsx'.

As a result of these changes, this finding is no longer applicable.
Auditor Response: Step 6.2 of the methodology states that "Emissions from fires used to clear forests in the baseline can always be omitted." Therefore, the audit team agrees that the decision to not account for baseline emissions attributable to biomass burning is in accordance with the methodology (and is conservative in any case).
Through review of the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the audit team was able to confirm that baseline emissions due to biomass burning is no longer accounted for in the quantification of GHG emission reductions as carried out within that workbook, therefore, the audit team agrees that the information request is no longer relevant and can be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.30 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 6.2
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: The methodology requires that, in Equation 14, the "Average carbon stock per hectare in the carbon pool p burnt in the forest class icl at year t" be provided in units of tCO2-e per ha. As implemented within worksheet "6.2 Fires" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]", these values are provided in units of tC per ha (i.e., tonnes of carbon per hectare), thus resulting in an erroneous quantification of emissions.
Client Response: As a result of the changes listed under Finding 2013.29, this finding is no longer applicable.
Auditor Response: Step 6.2 of the methodology states that "Emissions from fires used to clear forests in the baseline can always be omitted." Therefore, the audit team agrees that the decision to not account for baseline emissions attributable to biomass burning is in accordance with the methodology (and is conservative in any case).
Through review of the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the audit team was able to confirm that baseline emissions due to biomass burning is no longer accounted for in the quantification of GHG emission reductions as carried out within that workbook, therefore, the audit team agrees that the finding is no longer relevant and can be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.31 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 3.1.5, 4.1.7(1) and 4.5.6; VM0015 V1.1, Part 2, Step 6.2
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: Section 3.1.5 of the VCS Standard requires that "Where projects apply methodologies that permit the project proponent its own choice of third party default factor or standard to ascertain GHG emission data and any supporting data for establishing baseline scenarios and demonstrating additionality, such default factor or standard shall meet with the requirements set out in Section 4.1.7(1)." Section 4.1.7(1) of the VCS Standard states that "Where the methodology uses third party default factors and/or standards, such default factors and standards shall meet with the requirements for data set out in Section 4.5.6, mutatis mutandis." Section 4.5.6 of the VCS Standard provides nine different requirements for default factors. The most relevant of the requirements to the current situation are as follows:
"7) Data shall be appropriate to the methodology's geographic scope and the project activities applicable under it."
It is indicated in worksheet "6.2 Fires" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]" that values for the "Average proportion of mass burnt in the carbon pool p in the forest class icl", as used in Equation 14, have been sourced from Table 2.6 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4, Chapter 2, Table 2.6. While this appears to be an appropriate reference, it appears that several possible factors could be selected, given the tropical location of the project area. Please provide evidence that the value for "Primary open tropical forest" is most appropriate for both of the forest types within the project area.
Client Response: As a result of the changes listed under Finding 2013.29, this finding is no longer applicable.
Auditor Response: Step 6.2 of the methodology states that "Emissions from fires used to clear forests in the baseline can always be omitted." Therefore, the audit team agrees that the decision to not account for baseline emissions attributable to biomass burning is in accordance with the methodology (and is conservative in any case).
Through review of the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the audit team was able to confirm that baseline emissions due to biomass burning is no longer accounted for in the quantification of GHG emission reductions as carried out within that workbook, therefore, the audit team agrees that the information request is no longer relevant and can be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.32 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 2.4.1 and 3.1.1; VM0015 V1.1, Part 2, Step 6.2
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of accuracy, as set out in Section 2.4.1, requires the user to "Reduce bias and uncertainties as far as is practical." The principle of accuracy, as set out in Section 2.4.1, requires the user to "Use conservative assumptions, values and procedures to ensure that net GHG emission reductions or removals are not overestimated."
As implemented in worksheet "6.2 Fires" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]", the parameter "Proportion of forest area burned during the historical reference period in the forest class icl", from Equation 14 of the methodology, has been given a value of 1%. Please provide a demonstration that this value is accurate and/or conservative.
Client Response: As a result of the changes listed under Finding 2013.29, this finding is no longer applicable.
Auditor Response: Step 6.2 of the methodology states that "Emissions from fires used to clear forests in the baseline can always be omitted." Therefore, the audit team agrees that the decision to not account for baseline emissions attributable to biomass burning is in accordance with the methodology (and is conservative in any case).
Through review of the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the audit team was able to confirm that baseline emissions due to biomass burning is no longer accounted for in the quantification of GHG emission reductions as carried out within that workbook, therefore, the audit team agrees that the information request is no longer relevant and can be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.33 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 7.2
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: Equation 17 of the methodology requires the Effectiveness Index (as determined in Part 2, Step 7.1.2) to be multiplied by the "Total non-CO2 emissions from forest fire at year t in the project area" in a given year t to determine the "Total ex ante actual non-CO2 emissions from forest fire due to unavoided unplanned deforestation at year t in the project area". As implemented in worksheet "7.2-3 Ex ante StCh" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]", the Effectiveness Index for each year t (as presented in cells G6:G15 of worksheet "7.1 EI" is not used in the calculation. Rather, a specific component of Effectiveness Index (as presented in cells D7:D15 of worksheet "7.1 EI") is used instead.
Client Response: As a result of the changes listed under Finding 2013.29, this finding is no longer applicable.
Auditor Response: Step 7.2 of the methodology states that "Where forest fires have been included in the baseline scenario, non-CO2 emissions from biomass burning must be included in the project scenario." As forest fires are no longer included in the baseline scenario, the audit team agrees that the methodology does not require inclusion of said emissions in ex-ante accounting for the project scenario.
Through review of the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the audit team was able to confirm that project emissions due to biomass burning are no longer accounted for in the quantification of GHG emission reductions as carried out within that workbook, therefore, the audit team agrees that the finding is no longer relevant and can be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.34 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 8.2
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: The methodology requires that an ex-ante estimate of leakage be produced by "multiplying the estimated baseline carbon stock changes for the project area by a “Displacement Leakage Factor” (DLF) representing the percent of deforestation expected to be displaced outside the project boundary" and "If emissions from forest fires have been included in the baseline, the ex ante emissions from forest fires due to activity displacement leakage will be calculated by multiplying baseline forest fire emissions in the project area by the same DLF used to estimate the decrease in carbon stocks". As implemented in worksheet "8 exante leakage", the estimated carbon stock change due to leakage has actually been calculated by multiplying the difference between carbon stock changes in the project and baseline scenarios by the Displacement Leakage Factor, and the estimated burning emissions due to leakage have actually been calculated by multiplying the difference between GHG emissions in the project and baseline scenarios by the Displacement Leakage Factor.
Client Response: This change has been made to thenew calculation workbook 'calculation of Tables in Sections 4,5,6,7,8,9 [updated version in validation].xlsx'. In the PD v2.2 Table 5.16 has been updated accordingly. This has a knock on effect on Tables 5.1 and 5.18 which have also been updated accordingly. The knock on effect on the financial model will be addressed under Finding 2013.42.
Auditor Response: Step 8.2 of the methodology states that "If emissions from forest fires have been included in the baseline, the ex ante emissions from forest fires due to activity displacement leakage will be calculated by multiplying baseline forest fire emissions in the project area by the same DLF used to estimate the decrease in carbon stocks." As emissions from forest fires are no longer included in the baseline, the audit team agrees that the methodology does not require inclusion of said emissions in the quantification of leakage emissions.
Through review of the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the audit team was able to confirm that leakage emissions due to biomass burning is no longer accounted for in the quantification of GHG emission reductions as carried out within that workbook, therefore, the audit team agrees that the finding is no longer relevant and can be withdrawn.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.35 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 9.3
Document Reference: calculation of Tables in Sections 6,7,8,9 [updated version after pre val]
Finding: Equation 21 of the methodology requires that the difference between carbon stock changes in the baseline and project scenarios be multiplied by the "Risk factor used to calculate VCS buffer credits". As implemented within worksheet "9 VCUs" of workbook "calculation of Tables in Sections 6,7,8,9 [updated version after pre val]", the calculation Equation 21 also incorporates the difference between non-CO2 emissions in the baseline and project scenarios. This does not conform to the requirements of the methodology.
Client Response: As a result of the changes listed under Finding 2013.29, this finding is no longer applicable.
Auditor Response: The audit team agrees that, as emissions due to biomass burning are not included in the quantification of GHG emission reductions as carried out in the workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]", the baseline and project emissions are equal to the baseline and project carbon stock changes, respectively. Therefore, the audit team has confirmed that the calculation of the number of buffer credits has been correctly carried out in worksheet "9 VCUs" of that workbook, and the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NIR 2013.36 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 3.1.4 and 4.1.6(2)-(6)
Document Reference: SPF PD FULL v1.3, Annex 5.5
Finding: Section 3.1.4 of the VCS Standard requires that "Where projects apply methodologies that permit the project proponent its own choice of model (see VCS document Program Definitions for definition of model), such model shall meet with the requirements set out in Section 4.1.6(2)-(6) and it shall be demonstrated at validation that the model is appropriate to the project circumstances (ie, use of the model will lead to an appropriate quantification of GHG emission reductions or removals)."
Section 4.1.6(2)-(6) of the VCS Standard reads as follows:
"2) Model parameters shall be determined based upon studies by appropriately qualified experts that identify the parameters as important drivers of the model output variable(s)."
"3) Models shall have been appropriately reviewed and tested (eg, ground-truthed using empirical data or results compared against results of similar models) by a recognized, competent organization, or an appropriate peer review group."
"4) All plausible sources of model uncertainty, such as structural uncertainty or parameter uncertainty, shall be assessed using recognized statistical approaches such as those described in 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 1, Chapter 3."
"5) Models shall have comprehensive and appropriate requirements for estimating uncertainty in keeping with IPCC or other appropriate guidance, and the model shall be calibrated by parameters such as geographic location and local climate data."
"6) Models shall apply conservative factors to discount for model uncertainty (in accordance with the requirements set out in Section 4.1.4), and shall use conservative assumptions and parameters that are likely to underestimate, rather than overestimate, the GHG emission reductions or removals."
The PD states that "The allometric equation provided by Schroth et al. (2002) for multi-stemmed citrus trees was used for both cashew and fruit trees." Most of the criteria described above are evidently met by the Schroth et al. (2002) model or are not required because the Schroth et al. (2002) model can be considered a "simple" model. However, it is not clear that the Schroth et al. (2002) model uses "conservative assumptions and parameters that are likely to underestimate, rather than overestimate, the GHG emission reductions or removals" or that the model "is appropriate to the project circumstances (ie, use of the model will lead to an appropriate quantification of GHG emission reductions or removals)". Please provide evidence of this.
Client Response: We were not able to provide the required evidence and so in PDv2.3 have revised our approach to the estimation of cashew biomass. A recent peer-reviewed paper was identified with field data from 22 biomass plots on a large commerical cashew plantation in eastern Cambodia. Tabulated data therein were re-analysed and the upper bound of the confidence interval was taken as a measure to ensure conservativeness, as required by the methodology. The analysis is presented in the file Annex 5.5 Post-defor_sample plots and points [update].xls.
Auditor Response: Because the Schroth et al. (2002) model is not used in the calculations provided in the file "Annex 5.5 Post-defor_sample plots and points [update]", this finding is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.37 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Sections 3.1.4 and 4.1.6(2)-(6)
Document Reference: SPF PD FULL v1.3, Annex 5.5
Finding: Section 3.1.4 of the VCS Standard requires that "Where projects apply methodologies that permit the project proponent its own choice of model (see VCS document Program Definitions for definition of model), such model shall meet with the requirements set out in Section 4.1.6(2)-(6) and it shall be demonstrated at validation that the model is appropriate to the project circumstances (ie, use of the model will lead to an appropriate quantification of GHG emission reductions or removals)."
Section 4.1.6(2)-(6) of the VCS Standard reads as follows:
"2) Model parameters shall be determined based upon studies by appropriately qualified experts that identify the parameters as important drivers of the model output variable(s)."
"3) Models shall have been appropriately reviewed and tested (eg, ground-truthed using empirical data or results compared against results of similar models) by a recognized, competent organization, or an appropriate peer review group."
"4) All plausible sources of model uncertainty, such as structural uncertainty or parameter uncertainty, shall be assessed using recognized statistical approaches such as those described in 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 1, Chapter 3."
"5) Models shall have comprehensive and appropriate requirements for estimating uncertainty in keeping with IPCC or other appropriate guidance, and the model shall be calibrated by parameters such as geographic location and local climate data."
"6) Models shall apply conservative factors to discount for model uncertainty (in accordance with the requirements set out in Section 4.1.4), and shall use conservative assumptions and parameters that are likely to underestimate, rather than overestimate, the GHG emission reductions or removals."
The PD states that "Mature rubber plantations do not exist in the area analysed so a 20 year average stock was estimated from the growth curves presented by Wauters et al. (2008), conservatively using only the results from their more fertile site (Western Ghana)." Most of the criteria described above are evidently met by the Schroth et al. (2002) model or are not required because the Wauters et al. (2008) model can be considered a "simple" model. However, it is not clear that the Wauters et al. (2008) model uses "conservative assumptions and parameters that are likely to underestimate, rather than overestimate, the GHG emission reductions or removals" or that the model "is appropriate to the project circumstances (ie, use of the model will lead to an appropriate quantification of GHG emission reductions or removals)". Please provide evidence of this.
Client Response: We were not able to provide the required evidence and so in PDv2.3 have revised our approach to the estimation of rubber biomass. In PDv2.3 as allowed by the methodology (bottom of page 62) we have now used an IPCC default value for mature rubber in SE Asia taken from the 2006 Good Practice Guidelines Chapter 5 [Cropland] Table 5.3. This is a clearly conservative figure as in actuality the mosaic of post-deforestation land cover covered by rubber is a mix of young and mature rubber. Therefore, by assuming all areas covered by rubber are mature rubber, we are overestimating the post-deforestation carbon stocks and thus under estimating the net GHG emissions reductions and removals. We have also added 30% to the default value as required by the methodology.
Auditor Response: Because the Wauters et al. (2008) model is not used in the calculations provided in the file "Annex 5.5 Post-defor_sample plots and points [update]", this finding is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.38 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 1.1.3; VCS Standard V3.4, Section 2.4.1
Document Reference: SPF PD FULL v1.3, Section 4.4, Step 1.1
Finding: The methodology allows the leakage belt to be delineated using Option I or Option II. As indicated in the PD, Option II has been elected for the project. However, the following discrepancies have been identified between the procedure employed by project personnel and the procedure required under Option II by the methodology:
- The methodology requires project personnel to "list all relevant criteria that facilitate (at least one criterion) and constrain (at least one criterion) the mobility of the main deforestation agents identified in step 3". Project personnel have identified a feature (distance) that constrains mobility, but have not included any criteria that facilitates mobility.
- The methodology states: "Using multi-criteria analysis, determine the boundary of the leakage belt. Justify any assumption and weight assigned to the individual criteria." A multi-criteria analysis has not been performed.
In addition, the audit team has the following overarching concerns about the size and shape of the leakage belt:
- The analysis used to produce the leakage belt assumes that deforestation throughout the crediting period of the project will radiate outward from the settlements that are in or near the project area. This may not be a valid assumption. Clearing for agriculture and settlement may expand away from the currently established settlements to other locations along the project boundary. Because the delineated leakage belt only includes area within three kilometers of existing settlements, it may not be sufficient to capture leakage that occurs in locations that are near the project boundary but further than three kilometers from the settlements.
- The analysis used to produce the leakage belt assumes that the maximum distance from settlements that will be traveled throughout the crediting period for clearing of new agricultural land will be equal to the distance that has historically been traveled. However, this may not be a valid assumption. If the scarcity of available agricultural land increases over time, the willingness of deforestation agents to travel away from the project boundary may increase.
Because a leakage belt that is too small will not capture all activity-shifting leakage that is attributable to project activities, it is not clear that the selected leakage belt is consistent with the requirement of the VCS Standard to "Use conservative assumptions, values and procedures to ensure that net GHG emission reductions or removals are not overestimated."
Client Response: The leakage belt has been fully revised. The new analysis and resulting belt is presented in PDv2.5 and the supporting files have been supplied to the validator.
Auditor Response: Through review of the updated leakage belt shapefiles, entitled "Final_LKB_Nov12_1011" and "Final_LKB_Nov12_12Onward", and the depictions of the leakage belt in the PD, the audit team was able to confirm that all of the audit team's concerns have been effectively addressed. The revised leakage belt has been produced using a multi-criteria analysis and contains a larger buffer around settlements and roads, and is fully consistent with the requirements of the methodology and best practice. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.39 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.4.1
Document Reference: SPF PD FULL v1.3, Annex 2.2
Finding: The AFOLU Non-Permanence Risk Tool requires that "Natural risk is based on likelihood (ie, the historical average number of times the event has occurred in the project area over the last 100 years) and significance (ie, the average significance of each event). Any significant natural risk (ie, a risk affecting more than 5% of the project area) that has occurred over the past 100 years in the project area shall be considered applicable to the project. The frequency and significance of events shall be estimated based on historical records, probabilities, remote sensing data, peer-reviewed scientific literature, and/or documented local knowledge, such as survey data in project areas, and may include projected climate change impacts. Where data are available for at least 20 years, but less than 100 years, projects shall conservatively extrapolate using available data. Where such data are not available for the project area, likelihood and significance shall be determined based on conservative estimates (ie, not underestimating the possible frequency or severity) of historical events in the region in which the project is located." The PD does not contain any evidence that the above requirements were followed with respect to the Fire, Pest and Disease Outbreaks and Extreme Weather risk categories, and no evidence of such was presented during the site visit. Please provide evidence that the natural risks have been determined in accordance with the above requirements.
Client Response: The required evidence is contained in a supplementary document to be submitted along with PDv2.4 ('response - natural risk VCS 2013.39.docx'). We also took the opportunity to conservatively raise the scores for disease and extreme weather from 0 to 2 in each cases. This raises the assessed risk to 7% but the assigned buffer remains 10%, the lowest permitted.

Auditor Response: Through review of the document "response - natural risk VCS 2013.39" it appears that historical data extending back at least 20 years are not available for the project area. Therefore, the information presented has been evaluated in light of the need to determine likelihood and significance "based on conservative estimates (ie, not underestimating the possible frequency or severity) of historical events in the region in which the project is located".
Through review of the Yusuf and Francisco (2009) manuscript (provided as "anshory_2009"), the audit team can confirm that the "climate hazard index" value reported for Mondol Kiri (the Cambodian province in which the project is located) has a climate hazard index of 0.02, which is indicative of a very low level of risk. Therefore, sufficient evidence has been provided to support the selected risk score for extreme weather.
For fire risk, while the audit team understands that mature forests within Southeast Asia are, speaking in broad generalities, considered fire adapted, the audit team has not been provided with sufficient evidence to confirm the claim that fire-related losses are insignificant or transient, as based specifically on conservative estimates of historical events in the region in which the project is located. Of the references provided to the audit team for review, the only seemingly directly applicable reference is that by Stott (1988), provided as "stott_1988". This publication provides a very general treatment of fires in "savanna" forests (which may or may not include the type of evergreen forest found in the project area) in Southeast Asia and indicates that these forests are highly fire-adapted. However, the publication is over 25 years old, and is thus not sufficient, in and of itself, to provide evidence regarding "historical events in the region in which the project is located". In addition, the audit team will need clear indication of which evidence within either the Stott (1988) manuscript or other publications is referred to in order to determine the severity of historical events in the region in which the project is located. The finding response states, additionally, that "Between over 50 years of literature (Richards 1952) describing fire adaptation and resistance of the regional ecotype and 25 years of remote sensing observation is sufficient to confirm the long term trend of stable fire resilience of the Seima forests." However, in the case that remote sensing data are to be used as evidence, it should be noted that it is not clear to the audit team what analysis has been undertaken to confirm that fires have caused only "insignificant or transient" losses over the last 20 years.
For pest and disease risk, the only documentation presented in support of the stated significance of "insignificant or transient" is the study by Nair (2000). While the audit team understands that natural forests, particularly those of high species diversity, are generally considered highly adapted to pest and disease outbreaks, the study by Nair (2000) (based, as it is, on forests in Indonesia) does not provide adequate information to support the claim that the stated significance is "based on conservative estimates... of historical events in the region in which the project is located".
Because insufficient evidence has been provided for the "fire" and "pest and disease outbreak" risk categories, the finding remains open.

Client Response 2: [A response to this finding was provided outside the cover of the findings workbook.]
Auditor Response 2: In further response to this finding, the audit team received evidence demonstrating, empirically, that no fires or pest/disease outbreaks that have been significant have occurred in the project area in the last 20 years. This is sufficient to resolve the information request.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.40 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.16.1
Document Reference: SPF PD FULL v1.3, Section 8.2
Finding: The VCS Standard requires that "Data and parameters used for the quantification of GHG emission reductions and/or removals shall be provided in accordance with the methodology." Many of the relevant data and parameters indicated in Appendix 5 of the methodology have not been provided within the PD.
Client Response: In PDv2.5 a comprehensive set of parameters has been documented. Some limited changes have also been made to the text describing the relevant tasks.
Auditor Response: Through review of Sections 8.2 and 8.3 of the updated PD, entitled "SPF PD FULL v2.7 [7th validation edit]", the audit team can confirm that the most relevant data and parameters have been listed in Sections 8.2 and 8.3. While not all data and parameters have been included, it should be noted that many of the variables listed in Appendix 5 are currently not considered "parameters" in the true sense of the word, as they are calculated using monitored data and parameters (Version 3.3 of the VCS Methodology Template clarifies in Section 9.2 that "Parameters that are not directly monitored themselves (ie, are calculated, using monitored data/parameters and the equations provided in the methodology)" do not need to be included as monitored data and parameters. Therefore, the audit team agrees that enough information has been included in Sections 8.2 and 8.3 of the PD to meet the requirements of the VCS Standard.
Closing Remarks: The Client's response adequately addresses the finding.

OFI 2013.41 dated 12-14-2013
Standard Reference: VCS Standard V3.4, Section 3.16.2
Document Reference: NA
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established".
In re-measurement of plot 93 (the center plot of cluster 93), it was found that the tree with tag 560, which had been included in the inventory, was close to the edge of the 20-meter nest but clearly out by at least 0.5 meters. The overall error of the original plot-level estimate for aboveground biomass in plot 93, as measured in comparison to the re-measured value (assumed correct for purposes of the analysis), was approximately 144.28 metric tons CO2-equivalent per hectare, or approximately 19% of the original estimate. Findings from further analysis indicate that the majority of the observed difference can be attributed to the incorrect inclusion of the tree with tag 560.
While the audit team found that a high level of diligence was generally employed in the assessment of whether borderline trees were "in" or "out", the possibility remains for large errors to result in the case that large trees are mistakenly included in the inventory. If improvements are not made in the quality management procedures used to conduct similar measurements in the future, it is possible that a material error may result in the quantification of GHG emission reductions in future monitoring.
Client Response: [A response to this finding was not provided. Responses to Opportunities to Improvement are not required for issuance of a validation statement.]
Auditor Response: Responses to Opportunities to Improvement are not required for issuance of a validation statement.
Closing Remarks: Responses to Opportunities to Improvement are not required for issuance of a validation statement.

NIR 2013.42 dated 12-14-2013
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.2.22
Document Reference: SPF REDD Financial Model - for PD v1.3 - revised after field visit
Finding: As required by the AFOLU Non-Permanence Risk Tool, a financial model has been presented to the audit team to support the assertion that "Breakeven point is predicted to be early in project life as shown by the financial projections in Annex 2.3", as made in the PD. However, in review of that model, the audit team has been unable to correspond the values in worksheet "Revenues" to the estimated quantity of VCUs to be issued, as presented in Table 5.18 of the PD. Please explain how the values in the financial model are consistent with the ex-ante estimated number of credits to be issued as presented in the PD, or justify any discrepancies.
Client Response: We agree that the VCU quantities had not been updated in this model to match those in the submitted version of the PD. This has been resolved in PDv2.3. Since the ex-ante calculation of VCUs has changed substantially due to other findings, the estimated break-even point is now year 7 and this results in a change to the score assigned to this item. The financial model (Annex 2.3 and associated spreadsheet) have been updated accordingly. These changes are reflected in PD v2.3 Section 2.2, 2.5,

Please see attached spreadsheet; SPF REDD Financial Model - for PD v2.3 - [revised during validation].xlsx. The figures have been further updated in v2.5 of these documents but the breakeven point remains year 7.
Auditor Response: Through review of the updated financial model, entitled "SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2", the audit team can confirm that an underestimate of projected VCUs is presented. The information provided supports the assertion that the breakeven point is 4 years or less from the current risk assessment. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.43 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2
Document Reference: SPF PD FULL v1.3
Finding: The methodology states that "The nine methodology steps that will lead to the calculation of ex ante net anthropogenic GHG emission reductions are summarized in Figure 3. In the PD refer to each of these steps and sub-steps using the same titles and numbers so that the application of the methodology can transparently be validated." The PD typically does refer to each of the required steps using the same titles and numbers. However, the PD does not necessarily refer to each of the required sub-steps using the same numbers. For example, the step wherein the boundary of the reference region is determined is numbered Step 1.1.1 of the methodology, but this assigned number is not translated to the methodology.
Client Response: All relevant Sub-step numbers have been added to PD v2.1.
Auditor Response: The audit team can confirm that, in most cases, the relevant sub-step numbers have been correctly transcribed in the updated PD, entitled "SPF PD FULL v2.1 [1st validation edit]". However, the following instances exist of incorrect or incomplete numbering:
1) The sub-step entitled "Starting Date and End Date of the historical reference period" is numbered 1.2.2, rather than 1.2.1, as specified in the methodology.
2) Sub-steps 4.1.2.1, 4.1.2.2 and 4.1.2.3 are not referred to in the PD.
3) Step 8.3 is not referred to in the PD.
Therefore, the non-conformity has not been fully resolved.
Client Response 2: These errors have been resolved in PDv2.2
Auditor Response 2: The audit team can confirm, through review of the updated project description entitled "SPF PD FULL v2.2 [2nd validation edit]", that all of the relevant sub-steps are referred to using the titles and numbers set out in the methodology. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.44 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 2.6
Document Reference: SPF PD FULL v1.3
Finding: The methodology requires that "To achieve a consistent time-series, the risk of introducing artifacts from method change must be minimized. For this reason, the detailed methodological procedures used in pre-processing, classification, post classification processing, and accuracy assessment of the remotely sensed data, must be carefully documented in an Annex to the PD". The PD does not contain a clearly labeled methodology annex, as required by the methodology.
Client Response: Annex 4.5 p193 clearly states that it is the methodological annex. This is also highlighted in the main text at the start of Step 2 p61. We do not see how the wording could be made clearer.
Auditor Response: The audit team can confirm that the methodology annex is clearly labeled, in Section 4.5 of the updated PD (entitled "SPF PD FULL v2.1 [1st validation edit]"), as residing in Annex 4.5. The audit team can confirm that Annex 4.5 complies with most requirements for a methodology annex. However, the following information, which is required of a methodology annex, is missing from Annex 4.5: Under "Data classification and post-processing", the "software and software version used to perform the classification" is not clearly detailed with respect to the vector processing described under Phase II in the following text: "Manual editing was done in a vector environment so the results of Phase I were first converted to polygons with a 'cover type' field representing the output from Phase I."
Therefore, the non-conformity has not been fully resolved.
Client Response 2: The relevant information has now been inserted in PD v2.2.
Auditor Response 2: The audit team can confirm, through review of the updated project description entitled "SPF PD FULL v2.2 [2nd validation edit]", that the methodology annex now clearly indicates that ArcGIS V9.3 was used to perform the manual editing for Phase II. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.45 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1(b)
Document Reference: SPF PD FULL v1.3
Finding: The methodology requires that, where new data are to be collected for estimation of average carbon stocks within "the post-deforestation classes projected to exist in the project area in the baseline case" and "the post-deforestation classes projected to exist in the leakage belt in the project case", project personnel must "Summarize the sampling design in the PD and provide a map and the coordinates of all sampled locations." The PD does not contain a map and coordinates of all sampled plot locations.
Client Response: In PD v2.2 Annex 5.5 had been edited to add Figure 2 (map of the plots) and Appendix 4 (list of locations).
Auditor Response: The audit team can confirm, through review of the updated PD entitled "SPF PD FULL v2.2 [2nd validation edit]"), that a map showing plot locations has been added as Figure 2, and plot locations provided in Appendix 4, of Annex 5.5. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.46 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 3, Step 1
Document Reference: SPF PD FULL v1.3, Section 8.1, Step 1.1.3
Finding: The methodology requires that the user "Prepare a Monitoring Plan describing how [the three "main monitoring tasks"] will be implemented".
Section 8.1, Step 1.1.3 of the PD states that "Estimation of the non-CO2 emissions from fires used during forest clearance in the with-project case will follow the same calculations used in Tables 5.19 and 5.20 of the PD. The only variable that needs to be monitored is the area of forest cleared. Monitoring of this variable is set out in Section 1.1.2 above. Tables 23 and 24 of the methodology will be used to calculate emissions from this source. Monitoring of unplanned and significant non-CO2 emissions from forest fires not associated with forest clearance is described below under section 1.1.4." However, Section 8.1, Step 1.1.4 does not clearly explain how non-CO2 emissions from forest fires not associated with forest clearance are to be quantified.
Client Response: As non-greenhouse gas emissions are now excluded from the project boundary (PDv2.3, Table 4.3) we believe that this finding is no longer applicable.
Auditor Response: The audit team agrees that, given the exclusion of methane emissions from biomass burning from the project boundary, this finding is no longer applicable and can be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.47 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Steps 4.1 through 5.1
Document Reference: NA
Finding: The methodology provides prescriptive requirements for how Steps 4.1 through 5.1 of Part 2 should be carried out. While many of the actions undertaken to satisfy these requirements have been provided within the PD, the audit team has yet to be provided with a demonstration that all applicable requirements have been met. Please provide this demonstration.
Client Response: [A response to this finding was provided outside the cover of the findings workbook.]
Auditor Response: In response to this finding, a series of web-based meetings was carried out with project personnel, wherein project personnel provided a demonstration of how Steps 4.1 through 5.1 of Part 2 of the methodology were carried out. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.48 dated 12-14-2013
Standard Reference: VM0015 V1.1, Part 2, Steps 2.1 through 2.4
Document Reference: NA
Finding: The methodology provides prescriptive requirements for how Steps 2.1 through 2.4 of Part 2 should be carried out. While many of the actions undertaken to satisfy these requirements have been provided within the PD, the audit team has yet to be provided with a demonstration that all applicable requirements have been met. Please provide this demonstration.
Client Response: [A response to this finding was provided outside the cover of the findings workbook.]
Auditor Response: In response to this finding, a series of web-based meetings was carried out with project personnel, wherein project personnel provided a demonstration of how Steps 2.1 through 2.4 of Part 2 of the methodology were carried out. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.49 dated 08-05-2014
Standard Reference: VM0015 V1.1, Part 2, Step 4.1.1; VCS Standard V3.4, Section 3.5.1; VVCS+CCB Project Description Template V3.0, Section 4.3
Document Reference: SPF PD FULL v1.3, Annex 5.1
Finding: Approach "b" is the baseline modeling approach selected in Annex 5.1 of the PD. The methodology requires that approach "b" be used to project the baseline deforestation rate where there is "An increase of the deforestation rate" and "Conclusive evidence emerges from the analysis of agents and drivers explaining the increased trend and making it likely that this trend will continue in the future". It appears, from review of information provided to the audit team, that there has been an overall increase in the deforestation rate over the period 1998-2008. However, the data point for 2008-2010 shows a lower deforestation rate (25,590 hectares) than had existed in either the 2004-2006 (27,413 hectares) or 2006-2008 (80,574 hectares) periods. Please provide justification, with supplementary evidence as appropriate, that there has been an overall increasing trend and that the increasing trend will likely continue in the future.
Client Response: The rate model has been wholly reassessed and a new, more conservative model is presented in PDv2.5.
Auditor Response: Through review of the updated rate model workbook entitled "Revised Rate Model 20-11-2014", the audit team confirmed that the 2006-2008 data point has been conservatively omitted in the revised rate model. With the point in question omitted, an overall increasing trend is clearly evident in the data. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.50 dated 08-05-2014
Standard Reference: VM0015 V1.1, Part 2, Step 4.1.2; VCS Standard V3.4, Sections 3.5.1 and 5.3.2; VCS+CCB Project Description Template V3.0, Section 4.3
Document Reference: SPF PD FULL v1.3, Section 4.3 and Annex 5.1
Finding: The methodology requires that, where approach "b" has been used to project the baseline deforestation rate, "if ABSLRR(i,t) increases as a function of time, Toptimal(i) is the period of time between t = 1 and t = toptimal(i)".
The methodology then provides procedures to constraint the deforestation rate where Toptimal(i) is less than the project crediting period.
Strictly speaking, the deforestation rate shown in Figure 2 of Annex 5.1 does increase as a function of time for the first three years (although it then decreases over the remainder of the modeled period), and the provisions of the methodology for constraining said rate have not been followed exactly.
Section 5.3.2 of the VCS Standard requires that "Where the project does not fully comply with the methodology, the validation/verification body shall determine whether this represents a methodology deviation or a methodology revision (in accordance with the specifications for each), and the case shall be handled accordingly." The selected analytical approach, as documented in Annex 5.1 of the PD, does not fully comply with the methodology.
Section 3.5.1 of the VCS Standard sets out criteria for acceptable methodology deviations. Based on the preliminary evidence provided to the audit team, the audit team agrees that the discrepancy between the methodology requirements and the selected approach likely constitutes an appropriate methodology deviation in accordance with the criteria set out in Section 3.5.1 of the VCS Standard. However, the proposed deviation has not been described and justified within Section 4.3 of the PD. Section 4.3 of the VCS+CCB Project Description Template requires the user to "Describe and justify any methodology deviations."
Client Response: Given the response to Finding 2013.49, we believe this finding is no longer applicable.
Auditor Response: Through review of the updated rate model workbook entitled "Revised Rate Model 20-11-2014", the audit team confirmed that the approach that had prevailed when this finding was issued has been replaced with a linear regression approach wherein the predicted deforestation rate increases continuously over time. Therefore, a methodology deviation is not necessary, and the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.51 dated 09-23-2014
Standard Reference: VM0015 V1.1, Part 2, Steps 4.2.2 and 4.2.3; VCS Standard V3.4, Sections 3.5.1 and 5.3.2; VCS+CCB Project Description Template V3.0, Section 4.3
Document Reference: SPF PD FULL v1.3, Section 4.3 and Annex 5.2
Finding: Part 2, Step 4.2.2 of the methodology states that a risk map "shows at each pixel location l the risk (or "probability") of deforestation in a numerical scale (e.g., 0 = minimum risk; 255 = maximum risk)". Part 2, Step 4.2.3 of the methodology requires that, where the "calibration and confirmation using two historical sub-periods" approach is undertaken (as is the case here), the following task be completed: "Using only the data from the calibration period, prepare for each Risk Map a Prediction Map of the deforestation for the confirmation period. Overlay the predicted deforestation with locations that were actually deforested during the confirmation period. Select the Prediction Map with the best fit and identify the Risk Map that was used to produce it. Prepare the final Risk Map using the data from the calibration and the confirmation period."
As described to the audit team during a web-based meeting on 18 September 2014, the process set out in Step 4.2.3 of the methodology has been completed, in the R statistical software package, using different models (described in Annex 5.2 of the project description as "candidate models") rather than different risk maps. The Merriam-Webster dictionary (http://www.merriam-webster.com/; accessed 23 September 2014) defines "map" as "a representation usually on a flat surface of the whole or a part of an area". While the implementation of Step 4.2.3, as described in Annex 5.2 of the project description, appears fully compliant with the intent of Step 4.2.3 of the methodology, it does not involve a visual representation of the risk of deforestation at each pixel. Therefore, it is the judgment of the audit team that the implementation of Step 4.2.3 does not fully comply with the methodology.
Section 5.3.2 of the VCS Standard requires that "Where the project does not fully comply with the methodology, the validation/verification body shall determine whether this represents a methodology deviation or a methodology revision (in accordance with the specifications for each), and the case shall be handled accordingly."
Section 3.5.1 of the VCS Standard sets out criteria for acceptable methodology deviations. Based on the preliminary evidence provided to the audit team, the audit team agrees that the discrepancy between the methodology requirements and the selected approach likely constitutes an appropriate methodology deviation in accordance with the criteria set out in Section 3.5.1 of the VCS Standard. However, the proposed deviation has not been described and justified within Section 4.3 of the PD. Section 4.3 of the VCS+CCB Project Description Template requires the user to "Describe and justify any methodology deviations."

Client Response: A methodology deviation has been proposed in PDv2.5.
Auditor Response: Through review of the updated PD entitled "SPF PD FULL v2.5 [5th validation edit]", the audit team has confirmed that the methodology deviation in question has been appropriately described and documented as "Deviation request 6 - Deviation to clarify when deforestation risk maps need to be explicitly presented as an intermediate step in calculations". Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.52 dated 10-01-2014
Standard Reference: VM0015 V1.1, Part 2, Step 4.2.4
Document Reference: SPF PD FULL v2.2 [2nd validation edit], Section 5.3, Table 5.5b
Finding: Part 2, Step 4.2.4 of the methodology states the following: “To obtain the annual areas of baseline deforestation within the project area, combine the annual maps of baseline deforestation for the reference region with a map depicting only the polygon corresponding to the project area. After this step, table 9.b can be filled-out. The same must be done for the leakage belt area to fill-out table 9.c.” The required information, for the project area, is provided in the PD as Table 5.5b. The audit team replicated the analysis required by the methodology by intersecting the deforestation for 2016 (all polygons with gridcode=1 in the shapefile “deforpredmod16_poly”) with a shapefile showing the project area (“VCS_Project_Area”) and the shapefile showing the land classification (“final_classification_17Nov2012_final_ref.shp”). The resulting deforestation values determined by the audit team for 2016 were 6,959 hectares and 7,598 hectares for closed and open forest, respectively (these values sum to 14497 hectares). Thus, the audit team was able to nearly replicate the value of 6,960 hectares, as is stated in Table 5.5b for dense forest. However, through this same analysis, the audit team discovered that an accounting error exists in Table 5.5b, as the value stated to be for open forest is actually the total value for both closed and open forest. The result is that the reported baseline deforestation for 2016 is approximately 50% greater than the correctly calculated value. This fact that such an error was uncovered for 2016 indicates that similar errors may also be present for other years.
Client Response: These transciption errors have been corrected in PD v2.3
Auditor Response: As noted in the Client Response, the transcription errors have corrected. The audit team was able to successfully trace baseline deforestation values from the raster spatial products used for modeling to worksheet "4.1.2 & 5.1 Projected Acty" of workbook "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 12-12-14 wv", thus confirming the absence of any transcription errors. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.53 dated 10-29-2014
Standard Reference: VCS Standard V3.4, Section 3.16.2; Validation and Verification Manual V3.1, Section 3.2
Document Reference: Lying Deadwood Dense Stratum
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established." The Validation and Verification Manual states that "While all material errors, omissions and misrepresentations must be addressed for a project to receive a positive validation or verification opinion, if non-material errors are found in the project documents, VVBs should ensure that such errors are addressed by the project proponent where practicable."
The following code has been observed in column H of worksheet "Lying Deadwood Master" of workbook "Lying Deadwood Dense Stratum":
"=IF([@[Wood Density Class]]="R",'Density lookup'!$B$4,IF([@[Wood Density Class]]="Intermediate",'Density lookup'!$B$3,'Density lookup'!$B$2))"
Because there is are no records for which the "[Wood Density Class]" field takes a value of "Intermediate" (the only possible choices are "I", "R" and "S"), the above code causes an incorrect density to be assigned for records with a wood density class of "I".
Because it is practicable to correct the above error, it must be corrected.
Client Response: The error has ben corrected in the supporting files for v2.4 of the PD. This causes knock-on changes in other caculations that use the output of the sheet.
Auditor Response: Through review of the updated workbook entitled "Lying Deadwood Dense Stratum", the audit team was able to confirm that the code in the affected cells has been revised to correctly source the dead wood density value for the intermediate decay class. The audit team was able to confirm that the updated values were correctly transferred to the "FinalStats_CarbonPools [Table 5.6ai-biii]" workbook. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.54 dated 10-29-2014
Standard Reference: VCS Standard V3.4, Section 3.16.2; Validation and Verification Manual V3.1, Section 3.2
Document Reference: Annex 5.5 Post-defor_sample plots and points [update]; SPF PD FULL v2.3 [3nd validation edit], Annex 5.5
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established." The Validation and Verification Manual states that "While all material errors, omissions and misrepresentations must be addressed for a project to receive a positive validation or verification opinion, if non-material errors are found in the project documents, VVBs should ensure that such errors are addressed by the project proponent where practicable."
The PD indicates, in Table 2 of Annex 5.5, that a 20 m circle was used to measure "Live trees and standing dead wood ≥5 cm dbh " and a 40 m circle was used to measure "Live trees ≥30 cm DBH, standing dead wood ≥30 cm DBH". However, some calculations within the workbook "Annex 5.5 Post-defor_sample plots and points [update]" use expansion factors that are not appropriate for the plot sizes set out above. For example, the calculations for plot SP024, in worksheet "SP024", assume plot radii of 15 m and 20 m, respectively. Other examples of this error may be present as well. Because it is practicable to correct these errors, they must be corrected.
Client Response: The error has ben corrected in the supporting files for v2.4 of the PD. This causes knock-on changes in other caculations that use the output of the sheet. No comparable errors were detected in the other plots.
Auditor Response: Through review of the updated workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.4", the audit team has confirmed that the incorrect scaling factor assignment has been corrected for most of the trees in plot SP024. However, the 32.5 DBH tree continues to have an incorrect scaling factor assignment.
In addition, the following instances of other errors in scaling factor assignment remain noted by the audit team:
1. Almost all live trees (all trees other than the first live tree listed) in plot PC01 appear to have incorrect scaling factors as a result of the values in column F incrementing by one with each row.
2. Same as 1 above, but for plot PC02.
3. Same as 1 above, but for plot SP018.
Client Response 2: These errors have been resolved in 'Annex 5 5 Post-defor_sample plots and points v2.5.xls'
Auditor Response 2: All of the instances of incorrect scaling factors have been corrected in the worksheets previously mentioned. However, an incorrect value in cell F95 of worksheet "PC06" has resulted in a slightly incorrect scaling factor being assigned to tree 56 of plot PC06. Therefore, the non-conformity has not been entirely resolved.
Client Response 3: This error has now been resolved (file name 'Annex 5 5 Post-defor_sample plots and points v2.5a.xls')
Auditor Response 3: Through review of the updated workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.5a", the audit team has confirmed that correct scaling factors have been calculated correctly for all live trees in worksheet "PC06". Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.55 dated 10-29-2014
Standard Reference: VCS Standard V3.4, Section 3.16.2; Validation and Verification Manual V3.1, Section 3.2
Document Reference: Annex 5.5 Post-defor_sample plots and points [update]
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established." The Validation and Verification Manual states that "While all material errors, omissions and misrepresentations must be addressed for a project to receive a positive validation or verification opinion, if non-material errors are found in the project documents, VVBs should ensure that such errors are addressed by the project proponent where practicable."
A value of 1.1 t C/ha in lying dead wood in plot SP021 is indicated in cell E15 of worksheet "summary by crop" of workbook "Annex 5.5 Post-defor_sample plots and points [update]". This value appears to be incorrect, in comparison to worksheet "SP021" of the same workbook, which indicates no records for lying dead wood pieces.
Because it is practicable to correct the above error, it must be corrected.
Client Response: The error has ben corrected in the supporting files for v2.4 of the PD. This causes knock-on changes in other caculations that use the output of the sheet.
Auditor Response: Through review of the updated workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.4", the audit team has confirmed that the value indicated in cell E15 of worksheet "summary by crop" now directly references the appropriate cell of worksheet "SP021". Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.56 dated 10-29-2014
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1
Document Reference: Annex 5.5 Post-defor_sample plots and points [update]
Finding: The methodology indicates that literature estimates may be used as the source for "the post-deforestation classes projected to exist in the project area in the baseline case" and "the post-deforestation classes projected to exist in the leakage belt in the project case", but requires that "When defaults are used, the lowest value of the range given in the literature source (or the value reduced by 30%) must be used for the forest classes, and the highest value (or the value augmented by 30%) for non-forest classes". As indicated in worksheet "cashew" of workbook "Annex 5.5 Post-defor_sample plots and points [update]", data have been sourced from the publication by Avtar et al. (2013). However, the highest value in the range of data provided by Avtar et al. (2013) has not been used, and neither has the value augmented by 30%. Instead, a 90% confidence interval has been used, which is different from either of the above options.
Client Response: The Avtar have been used in a different wayi n PD v2.4. To estimate cashew biomass of different years literature data were categorised into age classes as required by Methodology VM0015, then the highest value from a given age range was used, thus providing a conservative estimate of biomass.
Auditor Response: Through review of the updated workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.5", the audit team can confirm that the sourcing of values from Avtar et al. (2013) has been revised such that the highest value in a given age range is used, and that, therefore, the methodology no longer requires that the value augmented by 30% be used. Therefore, the finding is no longer relevant and will be withdrawn.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.57 dated 10-29-2014
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1
Document Reference: Annex 5.5 Post-defor_sample plots and points [update]
Finding: The methodology indicates that literature estimates may be used as the source for "the post-deforestation classes projected to exist in the project area in the baseline case" and "the post-deforestation classes projected to exist in the leakage belt in the project case", "provided the accuracy and conservativeness of the estimates are demonstrated". As indicated in worksheet "cashew" of workbook "Annex 5.5 Post-defor_sample plots and points [update]", data have been sourced from the publication by Avtar et al. (2013). However, a demonstration of the accuracy and conservativeness of the data from Avtar et al. (2013) has not been provided. Please provide this demonstration.
Client Response: The data were estimated using standard field based measurements and is presented in a peer-reviewed publication and thus are assumed to be accurate. The conservativeness of the data is assured by using the maximum not the mean for each age class, see previous finding. Furthermore, the mean basal diameter of the stands measured by Avtar are markedly higher than those observed in/near the project area, as noted in Annex 5.5 of PDv2.4, increasing the conservativeness of the dataset.
Auditor Response: Through review of the information provided, the audit team agrees that the accuracy and conservativeness of the values provided by Avtar et al. (2013) has been demonstrated. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.58 dated 10-29-2014
Standard Reference: VCS Standard V3.4, Sections 2.4.1 and 3.1.1
Document Reference: Annex 5.5 Post-defor_sample plots and points [update]
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of consistency, as set out in Section 2.4.1, requires the user to "Enable meaningful comparisons in GHG-related information."
The calculation of carbon mass in cashew plants, as carried out in cell J36 of worksheet "cashew" of workbook "Annex 5.5 Post-defor_sample plots and points [update]", applies a carbon fraction value of 0.47. This is inconsistent with all other calculations of carbon stock that have been carried out in the project's Excel workbooks, which (to the best knowledge of the audit team) consistently apply a carbon fraction value of 0.5.
Client Response: The error has been corrected in the supporting files for v2.4 of the PD. This causes knock-on changes in other caculations that use the output of the sheet.
Auditor Response: The audit team reviewed the updated workbook entitled the updated workbook "Annex 5 5 Post-defor_sample plots and points v2.4", which was provided to the audit team via email on 7 November 2014. Through review of cell K31 of worksheet "cashew" of this workbook, it is apparent that a carbon fraction value of 0.47 is applied. Therefore, the non-conformity has not been resolved.
Client Response 2: This error has now been resolved in cells K31 and K32.
Auditor Response 2: Through review of the updated workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.5" (which was revised in a second version sent via email by the client), the audit team can confirm the carbon fraction value that is used in the cells in question is consistent with the value (0.5) used in all other quantification steps. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.59 dated 10-29-2014
Standard Reference: N/A
Document Reference: calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]; [new PA+LB -Scen1=PD1.3] Sct 4,5,6,7,8,9 [PDv2.3 update]
Finding: The values for baseline deforestation, as set out in worksheet "4.1.2 & 5.1 Projected Acty" of the updated workbook "[new PA+LB -Scen1=PD1.3] Sct 4,5,6,7,8,9 [PDv2.3 update]", are different from those in the same worksheet of the prior workbook "calculation of Tables in Sections 4,5,6,7,8,9 [PDv2.2 update]". For example, the baseline area deforested in year 1 in the dense forest stratum in the reference region is given as 23954.179588 ha in the prior workbook and 23919.1716574951 ha in the current workbook. Although it was the audit team's understanding that baseline deforestation values for the reference region, leakage belt and project area would eventually be updated due to changes in the boundaries of said areas, it is unclear to the audit team why changes have been made at this time. Please provide an explanation for each change in value that has been made between the two workbooks.
Client Response: The areas were recalculated in response to finding 2013.52. We were informed tha the assessment of this response was pending. The very slight discrepancies with earlier calculations (e.g. 0.003% difference in total calculated area of reference region) with earlier figures cannot readily be explained but we believe the current numbers are fully repeatable with the input datasets as they now stand..
Auditor Response: As noted in the Client Response, the deforestation values changed since the issuance of this finding. Therefore, the information request is no longer relevant and will be withdrawn. It should be noted that the audit team has been able to readily trace all baseline deforestation values in workbook "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 12-12-14 wv".
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.60 dated 10-29-2014
Standard Reference: VCS Standard V3.4, Section 3.16.2; Validation and Verification Manual V3.1, Section 3.2
Document Reference: FinalStats_CarbonPools [Table 5.6ai-biii]
Finding: The VCS Standard requires that "Quality management procedures to manage data and information shall be applied and established." The Validation and Verification Manual states that "While all material errors, omissions and misrepresentations must be addressed for a project to receive a positive validation or verification opinion, if non-material errors are found in the project documents, VVBs should ensure that such errors are addressed by the project proponent where practicable."
The sampling error values in cells U6 and X6 are incorrectly calculated, as the formulas reference the t-value for deciduous forest (in cell C20) rather than the t-value for evergreen forest (in cell C21). Because it is practicable to correct the above error, it must be corrected.
Client Response: The error has ben corrected in the supporting files for v2.4 of the PD. This causes knock-on changes in other caculations that use the output of the sheet.
Auditor Response: Through review of the updated workbook entitled "FinalStats_CarbonPools [Table 5.6ai-biii]", the audit team was able to confirm that the calculations in question have been revised to source the correct t-value for evergreen forest. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.61 dated 12-07-2014
Standard Reference: N/A
Document Reference: Annex 5 5 Post-defor_sample plots and points v2.4
Finding: The following formula is applied to calculate above-ground biomass of tree 48 in plot PC06 in worksheet "PC06" of workbook "Annex 5 5 Post-defor_sample plots and points v2.4":
=-6.64+(0.279*K87)+(0.000514*D87)^2
Please explain the derivation of the equation and provide a justification for its use in the above context.
Client Response: The tree in question was a cashew, growing among wild trees in a fallow. The equation was the one we formerly used for cashews before we switched to the age-class approach. But looking at it afresh, I have decided to apply the 'global' tree biomass equation, because that is applicable to a wide diversity of tree growth forms in mixed forest, and the cashew growth form lies within the range of variation of many other tree types to which it is considered applicable, without any attempt to assign species-level identifications to them.
Auditor Response: Through review of the updated workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.5", the audit team can confirm that the Chave et al. (2005) equation has been used for the tree in question, and that the Chave et al. (2005) equation is appropriate in this context. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.62 dated 12-08-2014
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1(f); 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 3, Volume 1
Document Reference: Annex 5 5 Post-defor_sample plots and points v2.5
Finding: The methodology requires that the user "Do an uncertainty assessment of all carbon stock estimates following the methods described in appendix 2, Box 2." An uncertainty assessment has been carried out for the non-forest classes within worksheet "Tots=A5.5T3=PD T5.7=MethT116&17" of workbook "Annex 5 5 Post-defor_sample plots and points v2.5". In general, the methods used for error propagation within this worksheet are consistent with "Approach 1" (as set out in Section 3.2.3.1, Chapter 3, Volume 1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories). The audit team agrees that "Approach 1" is appropriately utilized, as uncertain quantities are being added to produce total carbon stock estimates. However, the following non-conformities (with respect to best statistical practices) have been noted in terms of implementation of "Approach 1".
1. Where uncertainties are combined across years in cells G96, I96 and K96, the calculation approach has the effect of weighting by the square of carbon stock, resulting in incorrect quantification. For example, the calculation in cell G6 is as follows:
=SQRT((G76*F76)^2+(G77*F77)^2+(G78*F78)^2+(G79*F79)^2+(G80*F80)^2+(G81*F81)^2+(G82*F82)^2+(G83*F83)^2+(G84*F84)^2+(G85*F85)^2+(G86*F86)^2+(G87*F87)^2+(G88*F88)^2+(G89*F89)^2+(G90*F90)^2+(G91*F91)^2+(G92*F92)^2+(G93*F93)^2+(G94*F94)^2+(G95*F95)^2)/SUM(F76:F95)
This equation would be correct (and consistent with Equation 3.2 of Chapter 3, Volume 1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories) if the values in column G were percentages. However, the values in column G are in units of tCO2e/ha. Therefore, the effect of the calculation in cell G96 is to multiply each quantity in the summation by the carbon stock value prior to squaring, thus resulting in incorrect weighting.
2. Where uncertainties are combined across carbon pools in the range M76:M95, this combination is done through summation of the individual uncertainties. This is not consistent with Equation 3.2 of Chapter 3, Volume 1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, as that equation requires that the uncertainties be squared before they are added.
Client Response: Issues 1 & 2 have been resolved in the file named 'Annex 5 5 Post-defor_sample plots and points v2.5a.xls'.
Auditor Response: Through review of the workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.5a", the audit team can confirm that the both discrepancies have been resolved, and that error propagation has been carried out in accordance with Section 3.2.3.1, Chapter 3, Volume 1 of the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.63 dated 12-08-2014
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1(e)
Document Reference: Annex 5 5 Post-defor_sample plots and points v2.5
Finding: The methodology requires that the user "Calculate the long-term (20-years) average carbon stocks of post-deforestation classes… The carbon stock of post-deforestation classes must be estimated as the long-term (20 years) average carbon stock". In calculation of the weighted average cash crop sector carbon stock in the 6-10 year age class in cell H15 of worksheet "Tots=A5.5T3=PD T5.7=MethT116&17" of workbook "Annex 5 5 Post-defor_sample plots and points v2.5", it appears that the value for "young" rubber plantations (assumed to be 0-5 years old) has been used rather than the value for "mature" rubber plantations (assumed to be greater than 5 years old).
Client Response: This error has now been resolved (file name 'Annex 5 5 Post-defor_sample plots and points v2.5a.xls')
Auditor Response: Through review of the workbook entitled "Annex 5 5 Post-defor_sample plots and points v2.5a", the audit team can confirm that the cell in question now references the rubber value for "mature" rubber plantations. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.64 dated 12-08-2014
Standard Reference: VM0015 V1.1, Part 2, Step 6.1.1(b)
Document Reference: Annex 5 5 Post-defor_sample plots and points v2.5
Finding: The methodology states that, for sourcing values from literature, "The use of carbon stock estimates in similar ecosystems derived from local studies, literature and IPCC defaults is permitted, provided the accuracy and conservativeness of the estimates are demonstrated." Through review of workbook "Annex 5 5 Post-defor_sample plots and points v2.5", it appears that a value appropriate for "young" rubber has been sourced from Table 5.3, Chapter 5, Volume 5 of 2006 IPCC Guidelines for National Greenhouse Gas Inventories for the 0-5 year age class, and that a value appropriate for "mature" rubber has been sourced from the same table for ages greater than 5 years. While the values in question are clearly regionally appropriate, being from Southeast Asia, it is not clear that it is appropriate to use the two values for the age ranges described above. Please provide a justification that the rubber values are accurate and conservative in the context of the age ranges to which they are applied.
Client Response: A response to this finding has been supplied in an email to the validator dated 9 December 2014.
Auditor Response: Through review of the information provided, the audit team agrees that the age class assignments made are appropriate and conservative. Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.65 dated 12-09-2014
Standard Reference: VM0015 V1.1, Part 2, Step 9.2
Document Reference: [new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 2-12-14 wv
Finding: The calculation of Equation 19, as implemented in worksheet "9 VCUs" of workbook "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 2-12-14 wv", does not conform to the requirements of the methodology in the following ways:
1. The methodology requires that "The absolute values of CBSLPAt shall be used in equation 19." The absolute values of this variable have not been used in the calculation (rather, the variable has taken negative values).
2. The methodology requires that "If CPSPAt represents a net increase in carbon stocks, a negative sign before the absolute value of CPSPAt shall be used. If CPSPAt represents a net decrease, the positive sign shall be used." The variable represents a net decrease in carbon stocks (from unavoided unplanned deforestation), but a positive sign has not been used (rather, the variable has taken positive values).
3. Equation 19 requires the subtraction of ex ante estimated leakage net carbon stock changes, rather than the addition of these values, as has been carried out in cells I8:I17.

Client Response: These three findings have been resolved in the file [new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 12-12-14 wv.xlsx]. I believe the sign was also then wrong on the columns showing buffer credits, so these have also been updated.
Auditor Response: Through review of the calculation workbook entitled "[new PA+LB -Scen9=PD2.5] Sct 4,5,6,7,8,9 [PDv2.5 update] 2-12-14 wv", the audit team has confirmed that all of the noted non-conformities (along with the additionality non-conformity noted by the client regarding the calculation of buffer credits) have been resolved, and that the resulting calculation is fully compliant with Equation 19 of the methodology.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.66 dated 12-10-2014
Standard Reference: VM0015 V1.1, Part 1, Section 3; VT0001, Section 2.2.5(a)
Document Reference: SPF REDD Financial Model - for PD v2.5 - [revised during validation]
Finding: The methodology requires that "Additionality of the proposed AUD project activity must be demonstrated using either the most recent VCS-approved VT0001Tool [sic] for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities..." VT0001 requires that the user "calculate the suitable financial indicator for the proposed VCS AFOLU project without the financial benefits from the VCS and, in the case of Option II above, for the other land use scenarios." While the suitable financial indicator (in this case, net present value) has been calculated for the proposed VCS AFOLU project without the financial benefits from the VCS and one other project scenario (the selected baseline scenario), this calculation has not been carried out for all “other land use scenarios”.
Client Response: Of the four Scenarios originally identified and presented in Section 4.6 of the PD for Step A1 of VCS Tool VT0001, it has been clarified that Scenario 3 is identified and considered (as this is mandatory) but is not included because it is evidently not credible and all included scenarios must be credible. Scenario 4, also non-credible, has been removed completely because it was determined that in fact Scenario 1 satisfies the requirement to include the scenario called Scenario (i) in the tool. This leaves two credible, included scenarios:
• Scenario 1 - the chosen baseline scenario – Continued grant-funded conservation activities at declining levels
• Scenario 2 - Economic land concessions in parts of the project area, plus continued grant-funded conservation activities at declining levels
In the case of ELCs (Scenario 2), ELC revenue does not accrue to the proponent or project team and is therefore not included in the NPV calculations, which are therefore identical for the two scenarios from the point of view of the proponent. The PD will be edited to reflect this change (please see attached revised text). Scenario 2 has been added to “SPF REDD Financial model for PD – v2.6”. This has now been updated to SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2.xlsx.
Auditor Response: While the audit team agrees that "Scenario 3 - Greatly increased grant-funding for conservation and increased conservation effort without being registered as a VCS AFOLU Project" is, as noted in the updated PD entitled "SPF PD FULL v2.6 [6th validation edit]", not credible, the audit team notes that this scenario has actually been included in the analysis already, as it is the scenario in which the project activity is implemented without the financial benefits from the VCS. In addition, the audit team also agrees that, as neither added costs nor added benefits accrue to the project proponent under Scenario 2, a stand-alone financial analysis for this scenario, as distinct from the analysis for Scenario 1, is not necessary. However, the it remains required to present " the suitable financial indicator" (NPV) for each of the land use scenarios. The PD states that "Scenarios 1 and 2 have the same financial returns, from the perspective of the Project Proponent", but does not clearly report the financial indicator for each of the three scenarios.
Client Response 2: A new Appendix has been added to Annex 2.3 of PDv2.7 that sets out explicitly the NPVs for all three scenarios, and the text of Section 4.6 has been slightly modfied. We thank the validator for helping us to understand the intent of this requirement of the methodology,.
Auditor Response 2: Through review of the new appendix in Annex 2.3 of the updated PD, entitled "SPF PD FULL v2.7 [7th validation edit]", the audit team can confirm that the net present value has been appropriately reported for all three land use scenarios identified in Section 4.6 of the PD. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.67 dated 12-10-2014
Standard Reference: VM0015 V1.1, Part 1, Section 3; VT0001, Section 2.2.5(b)
Document Reference: SPF PD FULL v2.5 [5th validation edit]
Finding: The methodology requires that "Additionality of the proposed AUD project activity must be demonstrated using either the most recent VCS-approved VT0001Tool [sic] for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities..." VT0001 requires the following: “Present the investment analysis in a transparent manner and provide all the relevant assumptions in the VCS AFOLU project description, so that a reader can reproduce the analysis and obtain the same results. Clearly present critical economic parameters and assumptions (such as capital costs, lifetimes, and discount rate or cost of capital). Justify and/or cite assumptions in a manner that can be validated.” While the investment analysis is provided in a semi-transparent manner in the relevant workbook (“SPF REDD Financial Model - for PD v2.5 - [revised during validation]”), the investment analysis and all relevant assumptions are not provided in the project description in such a manner that a reader can reproduce the analysis and obtain the same results. The discount rate has also not been provided in the PD. In addition, the following assumptions are not justified or cited (in a manner that can be validated) in the PD:
Assumptions regarding the park fee and conservation contribution
Assumptions regarding the number of anticipated visitors per year
Assumptions regarding management costs
Assumptions regarding grant revenue

Client Response: • The discount rate of 10% supporting source has been added to the revised PD (Hansen & Top 2006).
• Park fee of 20,000 Cambodian Riel (~$5 USD) is established by Cambodian law (scanned document available on request), the conservation contribution value is based on the successful Tmat Boey ecotourism case study. The fee is discussed on page 15 of the case study (Clements et al 2008). Citation added to the PD.
• Management costs values were taken from the 30 year budget worksheet, see 30 year budget worksheet in “SPF REDD Financial Model – for PD v2.6” and now SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2.xlsx.
• Grant revenue values were taken from the 30 year budget worksheet, see 30 year budget worksheet in “SPF REDD Financial Model – for PD v2.6” and now SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2.xlsx.

Auditor Response: Through review of Section 4.6 of the updated PD, entitled "SPF PD FULL v2.6 [6th validation edit]", the audit team can confirm that the discount rate has been appropriately described and cited. However, none of the other assumptions listed in the text of the finding have been justified or cited. In addition, the PD still does not contain enough information that a reader can reproduce the analysis and obtain the same results. Therefore, the non-conformity has not been resolved.
Client Response 2: A new Appendix has been added to Annex 2.3 of PDv2.7 that we believe sets out the necessary information in sufficient detail.
Auditor Response 2: Through review of the new appendix in Annex 2.3 of the updated PD, entitled "SPF PD FULL v2.7 [7th validation edit]", the audit team can confirm that the information therein provides the necessary level of information to allow a reader to reproduce most aspects of the investment analysis. However, while the procedure for determining the number of visitors per year under the "low", "medium" and "high" tourism growth scenarios is adequately described, it is not clarified which growth scenario is assumed in the calculation of the values reported in Tables 2, 3 and 4 of the appendix. Also, while the audit team understands that Scenarios 1 and 2 are being treated as equal for purposes of the investment analysis, as it is understood that permitting revenues from any economic land concessions will not accrue to the project proponent, this approach is not clearly described and justified. Therefore, the non-conformity has not been fully resolved.
Client Response 3: These two points are now clarified in Appendix 1 of Annex 2.3 in PDv2.8.
Auditor Response 3: Through review of Appendix 1 in Annex 2.3 of the updated PD, entitled "SPF PD FULL v2.8 [8th validation edit]", the audit team can confirm that both of the assumptions outlined in the second auditor response are described and (briefly but adequately) justified. Therefore, the non-conformity has been fully resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NIR 2013.68 dated 12-10-2014
Standard Reference: VM0015 V1.1, Part 1, Section 3; VT0001, Section 2.2.5(c)
Document Reference: SPF REDD Financial Model - for PD v2.5 - [revised during validation]
Finding: The methodology requires that "Additionality of the proposed AUD project activity must be demonstrated using either the most recent VCS-approved VT0001Tool [sic] for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities..." VT0001 requires the following: "Assumptions and input data for the investment analysis shall not differ across the project activity and its alternatives, unless differences can be well substantiated." In cell C7 of worksheet "(NPV Calc)" of workbook "SPF REDD Financial Model - for PD v2.5 - [revised during validation]", the following is stated: "The revenues from all the villages are summed. This is done for the with-project scenario (all activities) and the without-project scenario (continuation of SVC tours only)". This appears to indicate that assumptions are applied differently across the project activity and its alternatives. In accordance with VT0001, please substantiate the difference in assumptions.
Client Response: The difference in assumptions is due to the definition of the scenarios, namely with project (and thus including all project activities) and without project (project activities excluded). The only constant factor between both scenarios is the presence of the SVC tours.
Auditor Response: The information provided is sufficient to substantiate the difference in assumptions between the scenarios. The audit team agrees that it is conservative to assume that minimal tourism activity in the baseline scenario (in that it results in a lower NPV for the baseline scenario and, thus, a higher relative NPV for the project activity). Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NIR 2013.69 dated 12-10-2014
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.2.3(1)
Document Reference: Seima - Risk Buffer - Agric Opp Cost NPV estimate - 28Nov
Finding: The AFOLU Non-Permanence Risk Tool requires that the following regarding opportunity cost analysis: "The opportunity cost analysis shall include a net present value (NPV) analysis, covering the project crediting period, of such alternatives as compared to the project, taking into consideration a conservative estimate of revenue from GHG credit sales and other project revenue streams, and potential price fluctuations of commodities impacted by the project. The financial discount rates used shall be based on published sources and represent the appropriate risk for the relevant land use scenario. Estimates of prices for GHG credit sales shall be based on published sources such as market intelligence reports." The NPV analysis is documented in the workbook "Seima - Risk Buffer - Agric Opp Cost NPV estimate - 28Nov". However, evidence that the financial discount rate used (11%) is based on published sources and represents the appropriate risk for the relevant land use scenario has not been provided. In addition, evidence that estimates of prices for GHG credit sales have been based on published sources such as market intelligence reports has not been provided. Please provide this evidence.
Client Response: The discount factor used in NPV calculation found in the "Seima - Risk Buffer - Agric Opp Cost" workbook has been adjusted to 10% to match the discount value used in the "SPF REDD Financial Model – for PD v2.6". Supporting source citation has been added to the workbook. Additionally the "Seima - Risk Buffer - Agric Opp Cost NPV estimate" GHG credit sales prices have been updated to the values for average voluntary market credit sales found in the Ecosystem Marketplace report "State of the Forest Carbon Markets 2014". Source added to the workbook. The workbook "Seima - Risk Buffer - Agric Opp Cost NPV estimate" has now been incorporated into SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2.xlsx.
Auditor Response: Through review of Figure 2 of the report "State of the Voluntary Carbon Markets 2014" (accessed 16 December 2014 from http://www.forest-trends.org/documents/files/doc_4501.pdf), the audit team can confirm that the price estimate for GHG credit sales is based on a credible published sources. In addition, the audit team was provided with the report entitled "Natural Forest Benefits and Economic Analysis of Natural Forest Conversion in Cambodia - Working Paper 33" (Hansen and Top 2006). On page 25 of this report, the authors indicate that "a real discount rate of 10 percent was used as a baseline". Therefore, the information request has been satisfied.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.70 dated 12-10-2014
Standard Reference: AFOLU Non-Permanence Risk Tool V3.2, Section 2.2.3(1)
Document Reference: SPF PD FULL v2.5 [5th validation edit]
Finding: The AFOLU Non-Permanence Risk Tool requires that the following regarding opportunity cost analysis: "The opportunity cost analysis shall include a net present value (NPV) analysis, covering the project crediting period, of such alternatives as compared to the project, taking into consideration a conservative estimate of revenue from GHG credit sales and other project revenue streams, and potential price fluctuations of commodities impacted by the project." The NPV analysis is documented in the workbook “Seima - Risk Buffer - Agric Opp Cost NPV estimate - 28Nov”. However, the analysis does not appear to take into consideration the following revenue and/or cost streams:
Grant funding revenue in both the project and baseline scenarios
Tourism revenue in both the project and baseline scenarios
Management costs in both the project and baseline scenarios
Client Response: These revenue and cost streams have been taken into account in the new version of this calculation in the tab 'Opportunity cost' of workbook SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2.xlsx.
Auditor Response: Through review of the revised financial model workbook, entitled "SPF REDD Financial Model - for PD v2.6 - (revised during validation)_TDE_JBS_v2", the audit team can confirm that all applicable revenue and/or cost streams have been taken into consideration. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.71 dated 12-18-2014
Standard Reference: VM0015 V1.1, Part 2, Step 9.2
Document Reference: SPF PD FULL v2.7 [7th validation edit]
Finding: The methodology requires reporting of the "Annual areas of baseline deforestation in the leakage belt" in Table 9.c. These areas are reported correctly as Table 5.3c in Section 5.3 of the PD. However, Table 2c of Annex 5.1 of the PD, which should present the same information, mistakenly contains the annual areas of baseline deforestation in the project area instead.
Client Response: This error has been corrected in PDv2.8.
Auditor Response: Through review of Table 2c of Annex 5.1 of the updated PD, entitled "SPF PD FULL v2.6 [6th validation edit]", the audit team can confirm that the values for baseline deforestation in the leakage belt have been correctly transcribed from cell range Q46:R55 of worksheet "4.1.2 & 5.1 Projected Acty" of workbook "(new PA LB -Scen9=PD2.5) Sct 4,5,6,7,8,9 (PDv2.5 update) 12-12-14 wv". Therefore, the non-conformity has been resolved.
Closing Remarks: The Client’s response adequately addresses the finding.

NCR 2013.72 dated 12-18-2014
Standard Reference: VM0015 V1.1, Appendix 6
Document Reference: SPF PD FULL v2.7 [7th validation edit], Section 8.3
Finding: The methodology indicates that the areas of each stratum, as presented in Table 8, are presented ex ante, at validation, and ex post, at baseline update. It specifically indicates that these areas are not updated at verification (other than as part of a baseline update). Therefore, it appears that the methodology does not permit the stratum areas to be updated at each verification (other than as part of a baseline update). However, Section 8.3 of the PD contains the parameter "Stratum boundaries map", which is stated to be updated "at a minimum before each verification event, but more often if preferred." In addition, the parameter "Leakage belt map" is stated to be "determined by intersecting the leakage belt boundary mapped for 2010 in the PD with the current extent of Stratum 1". This implies that the extent of Stratum 1 can change during verification. It does not appear that this is consistent with the requirements of the methodology.
Client Response: These two errors have been corrected in PDv2.8.
Auditor Response: Through review of the Section 8.3 of the updated PD, entitled "SPF PD FULL v2.8 [8th validation edit]", the audit team can confirm that the descriptions for both of the parameters in question have been revised to no longer indicate that these parameters can be monitored independently of a baseline update. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.73 dated 12-18-2014
Standard Reference: VM0015 V1.1, Part 3, Step 2.2.1
Document Reference: SPF PD FULL v2.7 [7th validation edit], Section 8.3
Finding: It is not indicated, in any part of the methodology, that the outer boundary of the reference region is subject to update at baseline update. Rather, the methodology states in Part 3, Step 2.2.1 that "At the end of each fixed baseline period, the projected annual areas of baseline deforestation for the reference region need to be revisited and eventually adjusted for the subsequent fixed baseline period." The reference to "the reference region" implies that a single reference region is used throughout the project crediting period. This is not consistent with the description for parameter "Reference region map", in Section 8.3 of the PD, wherein it is stated that the parameter is "revised at end of first fixed baseline period on basis of updated driver analysis to allow projections for second fixed crediting period". In addition, it is not consistent with Section 8.1 of the PD, wherein it is stated that "At this stage [the stage of baseline update] it is also permissible to review and adjust the boundaries of the reference region, so as to ensure that it still meets all the criteria set out in the methodology Step 4.4." While the meaning of the reference to Step 4.4 is unclear, it should be noted that the methodology does not appear to contain any requirements for re-assessment of the boundaries of the reference region itself during the baseline update process.
Client Response: in PD v2.8 this parameter has been removed from the list in Section 8.3 and the erroneous sentence has been removed from Task 2 in Section 8.1.
Auditor Response: Through review of the updated PD, entitled "SPF PD FULL v2.8 [8th validation edit]", the audit team can confirm that the parameter "Reference region map" has been removed from Section 8.3 and the reference to the permissibility of modification of the reference region has been removed from Section 8.1. Therefore, the PD no longer contains an indication that the reference region is subject to change during the project crediting period, and the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.74 dated 12-18-2014
Standard Reference: VM0015 V1.1, Appendix 5
Document Reference: SPF PD FULL v2.7 [7th validation edit], Section 8.3
Finding: The methodology indicates, in Appendix 5, that parameter CFdc is monitored "only once at project start and when mandatory", parameter CFj is monitored "only once at project start" and parameter Rj is monitored "only once at project start". This is not consistent with Section 8.3 of the PD, which states that that these parameters are monitored "whenever IPCC guidance is updated".
Client Response: In PDv2.8 the first parameter has been edited accordingly and the other two have been removed from the list.
Auditor Response: Through review of Section 8.3 of the updated PD, entitled "SPF PD FULL v2.8 [8th validation edit]", the audit team can confirm that the description for parameter CFdc has been updated to state that the parameter must be monitored "whenever mandatory" and parameters CFj and Rj have been removed from the section. The audit team notes that a description of the latter two parameters has been retained, as is appropriate, in Section 8.2. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.75 dated 12-18-2014
Standard Reference: VM0015 V1.1, Part 2, Step 4.2.2
Document Reference: SPF PD FULL v2.7 [7th validation edit]
Finding: The methodology requires that "A list of Factor Maps, including the maps used to produce them and the corresponding sources shall be presented in the PD (table 10) together with a flow-chart diagram illustrating how the Risk Map is generated." To the best knowledge of the audit team, the PD does not contain a flow-chart diagram illustrating how the Risk Map is generated.
Client Response: A flow chart has been added to Annex 5.2 in PDv2.8.
Auditor Response: Through review of Annex 5.2 of the updated PD, entitled "SPF PD FULL v2.8 [8th validation edit]", the audit team can confirm that flow-chart diagram, illustrating how the Risk Map is generated, has been added. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

NCR 2013.76 dated 12-21-2014
Standard Reference: VM0015 V1.1, Part 2, Step 4.2.2 and Part 3, Step 1.1.3
Document Reference: SPF PD FULL v2.8 [8th validation edit], Sections 4.4 and 8.1
Finding: Part 2, Step 1.4 of the methodology states "...non-CO2 emissions from forest fires must be counted in the project scenario when they are significant". Part 3, Step 1.1.3 of the methodology states under the heading "Monitoring of non-CO2 emissions from forest fires" that "These are subject to monitoring and accounting, when significant. In this case, under the project scenario it will be necessary to monitor the variables of table 23 within the project area and to report the results in table 24."
The above requirements are taken to be over-riding requirements to include non-CO2 emissions in the project boundary and to monitor for, and account, these emissions when they are significant in the project scenario, irrespective of whether they are accounted for in the baseline scenario. While the audit team understands that non-CO2 emissions from biomass burning have been (conservatively) excluded in the baseline scenario, this does not permit exclusion, from the project boundary, of non-CO2 emissions from forest fires in the project scenario. While the audit team agrees that it is not necessary to quantify project scenario emissions ex-ante, as they have not been quantified for the baseline scenario, the requirement remains for them to be monitored ex-post and accounted for where significant.
Section 4.4 of the PD states, in Table 4.3, that CH4 emissions from biomass burning in the project scenario are excluded, with the justification that "It is optional to include this source of emissions". Section 8.1 of the PD states, under "monitoring of non-CO2 emissions from forest fires", that "As non-CO2 emissions have been conservatively excluded from the boundaries of the project (Table 4.3) no monitoring of such emissions is required." This language is not compliant with the requirements highlighted above.
Client Response: [A response to this finding was provided outside the cover of the findings workbook.]
Auditor Response: In response to this finding, an updated PD, entitled "SPF PD FULL v2.9 [9th validation edit]", was provided, wherein all of the identified discrepancies had been addressed. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.

OFI 2013.77 dated 29-21-2014
Standard Reference: VM0015 V1.1, Part 2, Step 4.1.2.1; VCS Standard V3.4, Sections 2.4.1 and 3.1.1; Validation and Verification Manual V3.1, Section 3.2
Document Reference: Revised Rate Model 20-11-2014
Finding: Section 3.1.1 of the VCS Standard requires that "Projects shall be guided by the principles set out in Section 2.4.1." The principle of accuracy, as set out in Section 2.4.1, requires the user to ""Reduce bias and uncertainties as far as is practical."
The Validation and Verification Manual states that "While all material errors, omissions and misrepresentations must be addressed for a project to receive a positive validation or verification opinion, if non-material errors are found in the project documents, VVBs should ensure that such errors are addressed by the project proponent where practicable."
Approach “b” is the baseline modeling approach selected in Annex 5.1 of the PD. The methodology requires, for this approach, that "The model must demonstrably comply with statistical good practice, and evidence that such requirement has been met shall be provided to VCS verifiers at the time of validation."
In review of the workbook entitled "Revised Rate Model 20-11-2014", the audit team has been able to confirm, through replication of the derivation of the model used to predict annual deforestation, that the model was created using least-squares linear regression, which is consistent with statistical good practice. However, the audit team identified that the number of years, as used as the predictor variable of the regression analysis, has been entered as an integer value. Because the Landsat data that were the basis for the land-cover classification were not acquired at exactly the same time of year in each year, this is not correct. While the data were, for the most part, acquired within the same four-month window, rounding the time since the start of the historical reference period to the nearest year has, in the judgment of the audit team, reduced the accuracy of the analysis. Thus, the approach adopted is considered (slightly) erroneous by the audit team, to the extent that it has reduced the accuracy of the quantification of baseline and leakage emissions.
The audit team carried out an assessment of the quantitative impact of the discrepancy by conducting a comparison between the deforestation rate, as projected in the workbook "Revised Rate Model 20-11-2014", and the rate based on an independent regression analysis carried out by the audit team using, as input data for the predictor variable, the fractional number of years from the start of the historical reference period. It was determined that the discrepancy lead to a cumulative overestimate of the deforestation rate during the baseline period of 2,572 hectares, or 1.19% of the audit team's value.
Because the above discrepancy was first identified shortly before validation was required (per the VCS rules) to be completed, and because the correction of the discrepancy would have required the baseline emissions to be re-calculated from revised projections of the area deforested in the project area and leakage belt in the baseline scenario (which it was not practicable to complete in the available time), the audit team carried out a materiality assessment, wherein it was determined that, in combination with other factors identified by the audit team, there was an estimated 0.6% difference in the ex-ante calculation of GHG emission reductions during the baseline period. Therefore, because the error was less than the 1% materiality threshold, and because it was not practicable to address the error, the error is not required to be corrected prior to issuance of a positive validation opinion. However, project personnel are advised that if the error is not corrected in modeling of the baseline deforestation rate for future baseline periods, the error may lead to a material misstatement of GHG emission reductions that may be identified in future verification audits.
Client Response: [A response to this finding was not provided. Responses to Opportunities to Improvement are not required for issuance of a validation statement.]
Auditor Response: Responses to Opportunities to Improvement are not required for issuance of a validation statement.
Closing Remarks: Responses to Opportunities to Improvement are not required for issuance of a validation statement.

NCR 2013.78 dated 29-21-2014
Standard Reference: VCS Standard V3.4, Section 3.18.1
Document Reference: SPF PD FULL v2.9 [9th validation edit]
Finding: The VCS Standard states that "The project description describes the project's GHG emission reduction or removal activities. The project proponent shall use the VCS Project Description Template (or approved GHG program project description template where the project is requesting registration under an approved GHG program) and adhere to all instructional text within the template." The project proponent has used the VCS+CCB Project Description Template, as allowed for under the VCS rules. The introductory instructional text for that template states that "It should be noted that the instructions provided in this document are meant to help and aid the user in completing the template and the instructions do not represent the VCS or CCB Standards requirements." The audit team understands this to mean that the instructional text within the VCS+CCB Project Description Template is explicitly not required to be followed. However, it is the audit team's understanding that the framework of the template must remain intact.
In the PD, the text in the header, which is given as "VCS Version 3, CCB Standards Second Edition" in the VCS+CCB Project Description Template, has been modified to read "Seima Protection Forest REDD [v2.8]". This is not a correct use of the template, as the text "VCS Version 3, CCB Standards Second Edition" was intended to remain as such in the header of the project description, and not to be replaced with a project-specific identifier.
Client Response: This error has been corrected in PDv2.10.
Auditor Response: Through review of the updated PD, entitled "SPF PD FULL v2.10 [10th validation edit]", the audit team can confirm that the appropriate text is present within the header of the PD. Therefore, the non-conformity has been resolved.
Closing Remarks: The Client's response adequately addresses the finding.