



**Verification Assessment
Report for:**

**CIKEL BRAZILIAN AMAZON REDD APD PROJECT
– AVOIDING PLANNED DEFORESTATION
in
Brazil**

RA-Cert Division Headquarters
65 Millet St. Suite 201
Richmond, VT 05477 USA
Tel: +1 802-434-5491
Fax: +1 802-434-3116
www.rainforest-alliance.org

Audit
Managed by:
Imaflora

Estrada Chico Mendes, 185
Sertãozinho Piracicaba - SP, Brazil
13400970
Tel: +55 19 3429 0800
Fax: +55 19 3429 0800
Contact Person: Talia Bonfante
Email: talia@imaflora.org
www.imaflora.org

| | |
|-----------------------------|---|
| Report Finalized: | June, 20, 2012. |
| Draft Report Date: | 17 May 2012 |
| Field Audit Dates: | November 21 - 23, 2011. |
| Lead Auditor: | Talia Bonfante |
| Audit Team Member(s): | Thales West, Guilherme Stucchi |
| Senior Internal Reviewer | Leonardo Martin Sobral |
| Audit Standard: | VCS Version 3 |
| Verification Code(s): | RA-VER-VCS-016372 |
| Project Latitude/Longitude: | Lat – 3.684566° Lon – 48.81265° |
| Monitoring Report Version: | v. 02 (18 May 2012) |
| Project Proponent Contact: | Aparecida Denadai – cida@cikel.com.br |
| Project Proponent Address: | Estrada do 40 horas, 17, km 04, Ananindeua, PA, Brazil. Zip Code: 67.120-000 |

CKBV PLANNED VCS VER 12

Document Prepared By Rainforest Alliance

| | |
|----------------------|--|
| Project Title | <i>Cikel Brazilian Amazon REDD APD Project – GHG Emission Reductions From Avoiding Planned Deforestation</i> |
| Version | <i>02 (18 May 2012)</i> |
| Report ID | CKBV Planned VCS verif 12 |

| | |
|----------------------------|---|
| Report Title | <i>CKBV Planned VCS Ver 12</i> |
| Client | <i>CKBV Florestal Ltda</i> |
| Pages | 36 |
| Date of Issue | <i>June 20th, 2012.</i> |
| Prepared By | Imaflora and Rainforest Alliance |
| Contact | Rainforest Alliance 65 Millet Street Suite 201 Richmond, Vermont USA 05477 jnunery@ra.org |
| Approved By | Leonardo Martin Sobral |
| Work Carried Out By | <i>Imaflora</i> <i>Talia Bonfante (Lead Auditor)</i> <i>Thales West</i> <i>Guilherme Stucchi</i> |

Summary:

CIKEL Brazilian Amazon REDD APD Project aim to avoid emissions from planned deforestation on a property in Para state, Brazil. The verification audit, for the first monitoring period from July 19 2007 to July 18 2010, was conducted simultaneous to the validation process in two-steps. The first step included the field audit of the project area carried out in November, 2011. The second step in the audit process included a document review held in the project proponent's office located in Belém on February and May, 2012. Verification audit was conducted against the VCS Version 3 and consisted of a combination of interviews with project staff and key stakeholders, review of GHG calculations and project documentation, and field inventory of permanent sample plots used in the project biomass inventory. Findings related to verification process are described in Appendix A of this report. All identified non-conformances are described within section 2.2 of this audit report. Following the issuance of the Draft Validation Report, which included all findings from the field visit and document review, the Project Proponent submitted revised documents and additional evidence to address non-conformances identified. Findings from the review of all non-conformances are included within section 2.2 of this report. Following the review of the revised documents, the audit team found with a reasonable level of assurance that the project is in full conformance with the VCS Version 3. For the first monitoring period, the net GHG emission reductions verified is 3.284.853 tCO₂e (see section 2.1 of this audit report).

Table of Contents

| | | |
|-----|--|----|
| 1 | Introduction | 4 |
| 1.1 | Objective | 4 |
| 1.2 | Scope and Criteria | 4 |
| 1.3 | Level of assurance | 4 |
| 1.4 | Project Description | 4 |
| 2 | Audit Overview..... | 6 |
| 2.1 | Audit Conclusions | 6 |
| 2.2 | Nonconformance evaluation..... | 6 |
| 2.3 | Observations | 10 |
| 2.4 | Actions taken by the Project Proponent address NCRs (including any resolution of material discrepancy) | 11 |
| 3 | Audit Methodology | 12 |
| 3.1 | Audit Team..... | 12 |
| 3.2 | Description of the Audit Process..... | 12 |
| 3.3 | Review of Documents | 13 |
| 3.4 | Interviews..... | 16 |
| 4 | APPENDIX A: Field Audit Findings | 18 |
| | 2.1.7 VCS AFOLU Requirements Section 3.1.4: Negative environmental and socio-economic impacts | 25 |
| | APPENDIX B: Non-permanence Risk Assessment..... | 32 |

1 Introduction

Rainforest Alliance certification and auditing services are managed and implemented within its RA-Cert Division. All related personnel responsible for audit design, evaluation, and certification/verification/validation decisions are under the purview of the RA-Cert Division, hereafter referred to as Rainforest Alliance or RA. Rainforest Alliance is an ANSI ISO 14065:2007 accredited validation and verification body; additionally, Rainforest Alliance is a member of the Climate, Community, and Biodiversity Alliance (CCBA) standards, and an approved verification body with a number of other forest carbon project standards. For a complete list of the services provided by the Rainforest Alliance, see http://www.rainforest-alliance.org/climate.cfm?id=international_standards.

Dispute resolution: If Rainforest Alliance clients encounter organizations or individuals having concerns or comments about Rainforest Alliance and our services, these parties are strongly encouraged to contact the local Rainforest Alliance regional office or the RA-Cert Division headquarters directly. Formal complaints or concerns should be sent in writing.

1.1 Objective

The purpose of this report is to document the conformance of Cikel Brazilian Amazon REDD APD Project – GHG Emission Reductions From Avoiding Planned Deforestation with the requirements of the Verified Carbon Standard (VCS). The project was developed by CKBV Florestal Ltda (Project Proponent) and 33 Forest Capital and TerraCarbon LLC O (Consultants), hereafter referred to as “Project Proponent”. The report presents the findings of qualified Rainforest Alliance auditors who have evaluated the Project Proponent’s systems and performance against the applicable standard(s).

1.2 Scope and Criteria

Scope: The scope of the audit is to assess the conformance of Cikel Brazilian Amazon REDD APD Project – GHG Emission Reductions From Avoiding Planned Deforestation REDD project in Brazil (Pará State) against the Verified Carbon Standard. The objectives of this audit included an assessment of the project’s conformance with the standard criteria. In addition, the audit assessed the project with respect to the baseline scenarios presented in the project design document. The project covers an area of 27,434.9 ha. The land is privately owned. The project has a lifetime of 20 years, and has calculated a GHG reduction and/or removal of 9,432.299 tCO₂e in a period of 10 years in the absence of the project (monitoring period), not including the project’s non-permanence risk buffer contribution’.

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

- Verified Carbon Standard Program Guide Version 3;
- Verified Carbon Standard Version 3;
- Verified Carbon Standard Agriculture, Forestry and Other Land Use (AFOLU) Requirements Version 3;
- Verified Carbon Standard AFOLU Non-Permanence Risk Tool Version 3;
- Verified Carbon Standard Program Updates (please see VCS website for the latest updates); and as applicable,
- The VCS approved methodology/modules used by the project.

Materiality: All GHG sinks, sources and/or reservoirs (SSRs) and GHG emissions equal to or greater than 5% of the total GHG assertion unless otherwise defined by the standard criteria.

1.3 Level of assurance

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

1.4 Project Description

The following is taken from section 1.1 of the PD v. 01 (February 2012):

‘The objective of the project, referred to as the CIKEL Brazilian Amazon REDD APD Project, is avoid emissions from planned deforestation on a property in Para state, Brazil. The project proponent is CKBV Florestal Ltda (CKBV or “the company”), a Brazilian private and family company whose main business is the management and commercialization of native wood. CKBV is part of CIKEL group, which has been working in forest management in the Brazilian Amazon since 1977.

Due to difficulties in its commercial wood business in 2005 and 2006, which had a negative financial impact on the company, in 2006 CKBV decided to diversify its business beyond wood products. The diversification alternative chosen was livestock, and to pursue this new business activity CKBV had initiated plans to legally convert (suppress) 20% of its forest property in the Rio Capim Complex to pasture.

The main activity of the CIKEL Brazilian Amazon REDD APD Project is the cancelation of the planned deforestation activities and decision to instead conserve the forest area and continue limited forest management activities in the area under Forest Stewardship Council® Certification (FSC®) with Low Impact Logging (SFMLIL) practices. Also, the company is intensifying and improving its practices to support the sustainable social development, maintaining and improving the biodiversity monitoring at the RCC in the framework of FCS certification and REDD activities.

The financial incentives from the sale of VCUs permit the project activity to be competitive with alternative business scenarios like livestock and allow CKBV to cancel its legal forest conversion plans and maintain its forest management activities.

The project is located at the Rio Capim Complex (RCC), Paragominas municipality, in Para State, in the Eastern Amazon. The RCC property includes five forest areas: Rio Capim, Poty, Cauaxi, Sumal and Caculé, totaling 209,130.54 ha. The project area is a subset of the RCC property and covers an area of 27,434.9 ha of native forest.

From the implementation of this REDD Project, it is estimated that 9,432,299 tonnes of carbon dioxide emissions will be avoided which would have been emitted into the atmosphere in a period of 10 years in the absence of the project, not including the project's non-permanence risk buffer contribution'.

2 Audit Overview

| | | |
|--|---|---|
| Based on Project's conformance with audit criteria, the auditor makes the following recommendation: | | |
| Final Report Conclusions | | |
| <input checked="" type="checkbox"/> | Verification approved: <i>No NCRs issued</i> | |
| <input type="checkbox"/> | Verification not approved: <i>Conformance with NCR(s) required</i> | |
| Draft Final Report Conclusions | | |
| <input checked="" type="checkbox"/> | Verification approved: <i>No NCRs issued</i> | The Project Proponent has 7 days from the date of this report to submit any comments related to the factual accuracy of the report or the correctness of decisions reached. The auditors will not review any new material submitted at this time. |
| <input type="checkbox"/> | Verification not approved: <i>Conformance with NCR(s) required</i> | |
| Draft Report Conclusions | | |
| <input type="checkbox"/> | Verification approved: <i>No NCRs issued</i> | The Project Proponent has 30 days from the date of this report to revise documentation and provide any additional evidence necessary to close the open non-conformances (NCRs). If new material is submitted the auditor will review the material and add updated findings to this report and close NCRs appropriately. If no new material is received before the 30 day deadline, or the new material was insufficient to close all open NCRs the report will be finalised with the NCRs open, and validation and/or verification will not be achieved. If all NCRs are successfully addressed, the report will be finalised and proceed towards issuance of a assessment statement. |
| <input checked="" type="checkbox"/> | Verification not approved: <i>Conformance with NCR(s) required</i> | |

2.1 Audit Conclusions

The audit team has reviewed all the exhibits submitted by the Project Proponent (see sections 2.4 and 3.3 of this report) and considers that the proposed project is in conformance with VCS 3.2 standard.

Reporting Period: From July 19 2007 to July 18 2010.

| GHG Emission Reductions or Removals | tCO₂e |
|--|-------------------------|
| Baseline Emissions | 5.223.284 |
| Project Emissions | 0 |
| Leakage | 1.128.822 |
| Deductions for AFOLU pooled buffer account | 809.609 |
| Net GHG emission reductions or removals | 3.284.853 |

2.2 Nonconformance evaluation

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

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

| | |
|-------------------------|---|
| NCR#: | NCR 01/12 |
| Standard & Requirement: | Verified Carbon Standard, v. 3.2, Requirement 4.8.5 |
| Report Section: | APPENDIX A - 1.1 |

| Description of Non-conformance and Related Evidence: | |
|--|--|
| In the updated version of Monitoring Report (Ref. 1a), in the section 3.3 Description of the Monitoring Plan, pg. 42, subsection 'Volume wood removed, by product class (logs and residues) and species', the project proponent included a description (that was not part of the previous validated monitoring plan), to define how the project will monitor a logged area when it is not entirely within the project area. However, the audit team evaluates that the monitoring method presented is not adequate, since CKBV has a robust control system program (Datasul) that can support the proposed project to monitor and to present in a more transparent and accurate manner the volume of woods removed by logging, as this program supports CKBV to monitor their logging activities through UT's – Unidades de Trabalho (the working unit division of the annual forest management plan). | |
| Corrective Action Request: | Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance. |
| Timeline for Conformance: | Prior to Verification |
| Evidence Provided by Organization: | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT. Version 02 (18 May 2012). Respostas as NCRs 01/12 e 05/12 e comentários do relatório de verificação. May 2012 |
| Findings for Evaluation of Evidence: | The project proponent sent to the audit team a new version of the monitoring report (version 02, 18 May 2012 – Ref. 5a) which excluded from the previous monitoring report (version 01 11 May 2012 – Ref. 01a) the monitoring method proposed before in the pg. 42. As for this first verification, does not occur any situation that is necessary to define how the project will monitor a logged area when it is not entirely within the project area, the audit team evaluates that it is more appropriated to treat this issue in future verifications since this case is not applicable for the first monitoring period. |
| NCR Status: | CLOSED |
| Comments (optional): | For the next verification processes, the project proponent shall provide in the monitoring report a consistent monitoring method to define how the project will monitor a logged area when it is not entirely within the project area. |

| NCR#: | NCR 02/12 |
|---|---|
| Standard & Requirement: | Verified Carbon Standard, v. 3.2, Requirement 4.8 |
| Report Section: | APPENDIX A - 2.1.5 |
| Description of Non-conformance and Related Evidence: | |
| As stated in Section 5.1 of the M-MON v.2.0, medium resolution remotely sensed spatial data shall be used (30m x 30m resolution or less, such as Landsat, Resourcesat-1 or Spot sensor data). In compliance with Brazilian DNA definition of forest area (1 ha), a Minimum Mapping Unit of 0.81 ha (90m x 90m) was used to record deforestation in the project area. For the given monitoring period, Landsat imagery was used to produce a classified forest cover map in which forest and non-forest were distinguished. Although the Monitoring Report presents satellite images of the project in Section 4.3, the actual Landsat imagery files used in the Monitoring Report were not presented to audit team as an evidence of monitoring for the verification. | |
| Corrective Action Request: | Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above. Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance. |
| Timeline for Conformance: | Prior to Verification |
| Evidence Provided by Organization: | Planned Maps Folders Interview with Imazon technical staff |
| Findings for Evaluation of Evidence: | The audit team interviewed Imazon technical staff responsible for the imagery acquisition, processing and development of the accuracy report classifying the forest and non-forest areas within the project boundaries. The procedure conducted by Imazon was revised by the audit |

| | |
|----------------------|---|
| | team and was found to be in conformance with monitoring plan in the PD v.01 (Ref. 19). The Lansat images used were collected by the audit team and used as an evidence to close the NCR. |
| NCR Status: | CLOSED |
| Comments (optional): | N/A |

| | |
|---|--|
| NCR#: | NCR 03/12 |
| Standard & Requirement: | Verified Carbon Standard, v. 3.2, Requirement 4.8 |
| Report Section: | APPENDIX A - 2.1.5 |
| Description of Non-conformance and Related Evidence: | |
| <p>According to the monitoring plan, information related to monitoring deforestation maintained in the archive shall include:</p> <ul style="list-style-type: none"> • Base (raw) imagery used (specifying type, source, resolution, imagery date, acquisition date); • Any cartographic data used to geo-reference the image (source, base data); • Data used for training classification; • Definition of land cover classes assessed; • Documentation of software type and procedures applied (including all pre-processing steps and corrections, spectral bands used in final classifications, and classification methodologies and algorithms applied); • Classified images; • Data used in accuracy assessment - ground-truth points (including GPS coordinates, identified land-use class, and supporting photographic evidence) and/or sample points of high resolution imagery; • Accuracy assessment matrix with minimally the following errors presented: overall classification accuracy, error of omission of each land-use category (forest and non-forest), and error of commission of each land-use category (forest and non-forest). <p>Apart from the accuracy assessment report, the information above was not available to the audit team. As such the project proponent has not submitted verifiable evidence that they have followed in full the monitoring plan and M-MON (section 5.3) regarding data archiving.</p> | |
| Corrective Action Request: | <p>Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above.</p> <p>Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.</p> |
| Timeline for Conformance: | Prior to Verification |
| Evidence Provided by Organization: | <p>Planned Maps Folders</p> <p>Interview with Imazon technical staff</p> |
| Findings for Evaluation of Evidence: | <p>The missing data was gathered and achieved in project proponent's office and will be available for the next verification events during the project lifetime.</p> <p>This process was conducted along with Imazon technical staff, responsible for the 30m x 30m imagery processing and the accuracy assessment of the forest and non-forest areas in the project and the TerraCarbon technical staff, who conducted the 90m x 90m imagery analysis based on the Minimum Mapping Unit (0.81 ha) closest with Brazilian DNA forest area definition (1 ha).</p> <p>The documentation was revised by the audit team and found to be in conformance with the approved monitoring plan designed in the PD v.01 (Ref. 19). Therefore this NCR related to the data archiving is closed.</p> |
| NCR Status: | CLOSED |

| | |
|----------------------|-----|
| Comments (optional): | N/A |
|----------------------|-----|

| | |
|--|--|
| NCR#: | NCR 04/12 |
| Standard & Requirement: | Verified Carbon Standard, v. 3.2, Requirement 4.8 |
| Report Section: | APPENDIX A - 2.2.2 |
| Description of Non-conformance and Related Evidence: | |
| <p>The values presented in the worksheet "w proj ex post" regarding the harvested area (1,122.3 ha) and the volume of timber extracted (18,416.6 m³) for the Caculé area in 2010 could not be verified by the audit team in official reports provided by CKBV. According to 2010 CIKEL Annual Operation Plan Logging report (Ref. 31), the values for the harvested area and volume of timber extracted were monitored together for Rio Capim, Caculé, Cauaxi, Sumal and Poty areas and, therefore, the specific values for Caculé were not available for review. CKBV made another document available to the audit (Ref. 42), specifically for the monitoring in Caculé area in 2010, but again these values used for the calculation could not be confirmed. As such the project proponent has not submitted verifiable evidence that they have followed in full the requirements of the monitoring plan and M-MON (Section 5.2.2.2) regarding carbon losses from the forest management activity.</p> | |
| Corrective Action Request: | <p>Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above.</p> <p>Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.</p> |
| Timeline for Conformance: | Prior to Verification |
| Evidence Provided by Organization: | <p>2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT rev11May2012.doc</p> <p>CIKEL APD monitoring calcs May2012.xlsx</p> <p>Caculé Selective logging from 2007 to 2010</p> |
| Findings for Evaluation of Evidence: | <p>A non - conformity was found in the regarding the emissions due to FSC-certified selective logging in the Caculé area in 2010. As specified in the PD, each project year ends July 18, and the annual interval of the 2010 project year extends from July 19 2009 to July 18 2010. This corresponds to the Landsat image used for monitoring, which is dated 3 July 2010. Hence, the harvest in Cacule, took place in November/December 2010, actually refers to project year 2011, which is not currently being monitoring and verified.</p> <p>The 2010 monitoring report, covering project years 2008 to 2010, was corrected to show that no harvests have occurred in the project area. Calculations were revised to reflect this change (see worksheet "w proj ex post" of the spreadsheet "CIKEL APD monitoring calcs May2012.xlsx").</p> <p>The calculations were revised by the audit team and found to be in conformance with the methodology. As such this NCR is closed.</p> |
| NCR Status: | CLOSED |
| Comments (optional): | <p>As results of corrective actions regarding the absence of harvest activities within the project area:</p> <ul style="list-style-type: none"> • Parameters $L_{SKID2010}$, $A_{ROAD2010}$, $A_{DECKS2010}$ e W_{SKID} are not part of the calculations anymore (Ref 2a); • No emission from harvested wood products were accounted for (Ref. 2a); • No monitoring of project emissions took place. |

| | |
|---|--|
| NCR#: | NCR 05/12 |
| Standard & Requirement: | Verified Carbon Standard, v. 3.2, Requirement 3.18.1 |
| Report Section: | APPENDIX A - 2.4.4 |
| Description of Non-conformance and Related Evidence: | |

| | |
|---|--|
| <p>In the audit conducted in Belém on May 08, 2012, the audit team checked the Data Archiving Procedures for the field sampling and has found that the software MFT – Monitoramento de Florestas Tropicais used to electronic storage these data does not demonstrate effective retrieval of archived data for the period of time defined, since the all inventory dates from year 2009 year could not be retrieved by the audit team due MFT conflict version. In response to this issue, the project proponent decided to use the MFT to data management and quality control and export the inventory data to excel files and then storage these files in the CKBV file served. However this change in the storage procedure is not described in the Monitoring Report.</p> | |
| Corrective Action Request: | <p>Organization shall implement corrective actions to demonstrate conformance with the requirement(s) referenced above.</p> <p>Note: Effective corrective actions focus on addressing the specific occurrence described in evidence above, as well as the root cause to eliminate and prevent recurrence of the non-conformance.</p> |
| Timeline for Conformance: | Prior to Verification |
| Evidence Provided by Organization: | <p>2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT. Version 02 (18 May 2012).</p> <p>Respostas as NCRs 01/12 e 05/12 e comentários do relatório de verificação. May 2012.</p> <p>Inventory Excel spreadsheets</p> |
| Findings for Evaluation of Evidence: | <p>In the Monitoring Report v. 02 – 18 May 2012, pg. 39 states <i>‘Original data sheets will be permanently archived at the CKBV office on-site at Rio Capim, and the electronic MFT database of all field measurements will be exported to Excel spreadsheets and will be stored in the dedicated long-term electronic archive maintained by CKBV at its main office in Ananindeua. Software MFT will be used as a tool for the accurate transcription of the data in the typing process.</i> Furthermore, during the audit in Belém (May, 2012) the project proponent showed to the auditors team all the Inventory Excel spreadsheets. As such, the audit team evaluates that this NCR is closed.</p> |
| NCR Status: | CLOSED |
| Comments (optional): | N/A |

2.3 Observations

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

| | |
|--|--|
| OBS 01/12 | Reference Standard & Requirement: VCS AFOLU Requirements Section 3.1.2 |
| <p>In section 1.11 of the PD v.01, the project lists (table 1.9) applicable laws to forest management activities and describes their compliance. However this list does not mention any labour regulations or laws. The audit team reviewed the last FSC audit report issued in August 26, 2011 and found some non-conformances connected with labor law and NR-31. The audit team checked this information with FSC auditors and confirmed that the non-conformances raised in the FSC report are not critical and that CKBV is committed to resolve these issues before the next FSC Monitoring Assessment schedule from October 01 to 05, 2012, which the FSC audit team will evaluate if CKBV took adequate corrective action to address the findings raised in the FSC report. Considering that the non-conformances connected with labour law and NR-31 were considered minor by the FSC audit team and for this reason they FSC certification status is active, CKBV is committed to resolve these issue and all these points will be evaluated continually by FSC certification, the verification audit team finds that these issue at this moment are not impeditive to project verification. However, if CKBV does not take effective action to address this and consequently in the next FSC report; non-conformances connected with labour law and NR-31 become major and compromise FSC certification or new critical points appear along of the project life time, it may become relevant for the further verifications.</p> <p>At this moment in the validation process, there is not a REDD+ regulatory regime applicable to the proposed project in the Brazilian or International political context.</p> | |
| <p>Observation: The project proponent should ensure that all relevant laws are complied with during project implementation, including if Brazilian and/or Para state REDD+ regulatory regime become formally regulated during subsequent monitoring periods.</p> | |

| | |
|---|--|
| OBS 02/12. | Reference Standard & Requirement: VCS AFOLU Requirements Section 3.1.4 |
| In the Rio Capim Complex there are charcoal production facilities (See Ref. 34). During interviews with project proponent staff involved management of the complex, the audit team confirmed that in the validation and verification moment these facilities were deactivated, however CKBV has plan to reactive them sooner to use the residues from forest management activity to be converted to charcoal. | |
| Observation: When the charcoal production facilities become active, the project proponent should have implemented an environmental and social monitoring plan as well as a mitigation plan to avoid possible environmental impacts that the residue collection (volume collected and collection methodology) may cause in the forest area and also monitoring the social aspects involved in the charcoal production. | |

2.4 Actions taken by the Project Proponent address NCRs (including any resolution of material discrepancy)

| Action Taken by Project Proponent following the issuance of the Draft Report | Date |
|--|--|
| Additional documents submitted to audit team (additional documents listed below) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A 14 May 2012 |
| Additional stakeholder consultation conducted (evidence described below) | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A N/A |
| Additional clarification provided | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A 14 May 2012 |
| Documents revised (document revision description noted below) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A 18 May 2012 |
| GHG calculation revised (evidence described below) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A 11 May 2012 |

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

| Ref | Title, Author(s), Version, Date | Electronic Filename |
|-----|--|---|
| 1a. | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT rev11May2012 | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT rev11May2012.doc |
| 2a. | CIKEL APD monitoring calcs May2012 | CIKEL APD monitoring calcs May2012.xlsx |
| 3a. | Caculé Selective logging from 2007 to 2010 | Resposta_Exploração_Caculé_2007_2010.docx |
| 4a. | Planned Maps Folders | Mapas_Planned.ZIP |
| 5a | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT. Version 02 (18 May 2012) | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT rev18May2012-v2.docx |
| 6a. | Respostas as NCRs 01/12 e 05/12 e comentários do relatório de verificação. May 2012. | Respostas as NCRs1_12 e 5_12 e comentários relatorio verificacao.may2012.docx |
| 7a | Inventory Excel spreadsheets | Showed to audit team during the audit in Belém (May, 2012). |

3 Audit Methodology

3.1 Audit Team

Overview of roles and responsibilities:

| Auditor(s) | Responsibilities | | | | | | | |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | Lead | Desk Review | On-site visit | Climate Specialist | Biodiversity Specialist | Social Specialist | Report | Senior Internal Review |
| Talia Manceira Bonfante | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Thales West | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Guilherme Stucchi | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Leonardo Martin Sobral | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Auditor qualifications:

| Auditor(s) | Qualifications |
|------------------------------|--|
| Talia Manceira Bonfante (TB) | Biologist and expert in Integrated Management Systems - Health, Environment and Security. Talia received her master's degree in the program of Management of Organizations FEA - USP, where she studied the economic viability of small scale projects included in the CDM. She has experience in social and environmental audits (FSC, CCB, VCS standards) as well in research related to the carbon market and socio-environmental responsibility. She has strong project expertise in biodiversity assessment, forest management, and nuanced local context issues. |
| Thales A. P. West (TW) | Forest Engineer and M.Sc. in Forest Resources, both from the University of São Paulo, studying forest management and carbon project activities. Thales holds a specialization in Business Management from Fundação Getúlio Vargas and has worked for several companies as a consultant in forest carbon projects, under the CDM and voluntary carbon market schemes. |
| Guilherme Stucchi (GS) | Forest Engineer. Auditor in FSC certification processes for Amazon natural forest management. He has more than 3 years of experience in reduced impact forest management and worked for FSC certified companies in the Brazilian Amazon. In addition he is a certified lead auditor by – Lead Advisor to ISO 14001: 2004. |
| Leonardo Martin Sobral | Forest Engineer. Forest Certification Manager, 11 year of experience in forest management and FSC forest certification. Worked for NGOs and FSC certified companies in Brazilian Amazon. Lead auditor (ISO 14.001:2004), reviewer and approver FSC, VLO and Carbon (VCS and CCB) reports, trainer to FSC forest management. |

3.2 Description of the Audit Process

The verification audit was conducted simultaneous to the validation process in two-steps. The first step included the field audit of the project area carried out in November, 20 – 23, 2011. During the field audit, the audit team conducted an evaluation of the field inventory completed by the project proponent. This evaluation included verifying permanent sample plot (PSP) locations with handheld GPS units, re-measurement of permanent sample plots, verification of implementation of inventory SOPs, and interviews with field inventory crews responsible for the completion of carbon stock inventories. The audit team visited a sample of the PSPs used to quantify biomass within the project area. The implementation of inventory SOPs was evaluated by witnessing the inventory crew re-measure 11 PSPs (see table below). Simultaneously to the re-measurement of these PSPs, 7 plots were also measured by the audit team. Diameters measured by the audit team and the inventory crew were systematised and compared. The results were not found to be statistically different. However, at this moment, the audit team checked that even the inventory data has a good quality, their traceability was compromised (See Section 2.2 of validation report, NCR 01/12 for details). This issue was discussed with the project proponent and they committed themselves to take the necessary actions to address this issue as soon as possible and demonstrate to the audit team that corrective actions were implemented prior to the finalization of the validation process.

The second step in the audit process included a document review held in the project proponent's office located in Belém on February 9-10, 2012. At this time, the PD v 01 (January 2011) and all supporting documents related to the project were analysed, and further interviews with the persons involved in the project were conducted by the audit team. The project

proponent also had a chance to demonstrate to the audit team the corrective actions taken to address the inventory data traceability issue and presented new documents. Based on auditor review of these materials, they found the project proponent's corrective action sufficient. After the audit conducted in Belém, the project proponent sent to the audit team an updated version of the PD (v.01 – February 2012), which was considered by the auditors in the validation. For the elaboration of the verification Draft Report was considerate the Monitoring Reporting v.01 (February 2012).

In the Section 3.3 of this report includes a complete list of documents considered by the audit team for verification process. In addition, the audit team come back to Belém on May, 2012 and interviewed Imazon technical staff, responsible for the 30m x 30m imagery processing and the accuracy assessment of the forest and non-forest areas in the project and the TerraCarbon technical staff, who conducted the 90m x 90m imagery analysis based on the Minimum Mapping United (0.81 ha) closest with Brazilian DNA forest area definition (1 ha).

Additionally, in order to demonstrate conformance with the monitoring module applicability condition (M-MON v. 2.0) of the methodology VM 0007 which states *'If emissions from logging are not omitted as de minimis, logging may only take place within forest management areas that possess and maintain a Forest Stewardship Council (FSC) certificate for the years when the selective logging occurs'* the project proponent decided to exclude 377,4 ha (from Poty Farm) of the project area. This area is included in the Suppression Plan (the plan to clear the forest in the baseline activity as allowed by Brazilian law), however, as harvest activity took place during the project crediting period and prior to secure FSC certification it was decided to remove this area from the project area (and GHG calculations) in order to conform to M-MON v2.0 applicability conditions.

Should be emphasized that during the verification process, after audit team delivered the Draft Report, the project proponent realized they had committed a mistake regarding Caculé area, since there were no forest management activities in the project area from 19 July 2007 to July 18 2010. So the project proponent presented extras evidences to the audit team to prove the absence of exploitation in this area (Ref. 3a.), as well as submitted a new version of the monitoring report (version 02 – 18 May 2012 – Ref. 5a) and spreadsheet calculations (Ref. 2a) to be evaluated in the verification process. These documents and the others pointed in the section 2.4 were considerate in the Final Draft Report elaboration. Below is a description of the field audit process and list of documents reviewed during the audit process.

| Location/Facility | Date(s) | Length of Audit (hours) | Auditor(s) |
|---|-----------|-------------------------|------------|
| CKBV – Rio Capim Complex Office | 20 Nov 11 | 3 | TB, TW, GS |
| CKBV - Rio Capim Farm – Inventory Plots: GEO_5_2011; PARA_5_11; PARA_3_2011; | 21 Nov 11 | 8 | TB, TW, GS |
| CKBV - Rio Capim Farm – Inventory Plots: 2002_13_2003; 2003_3_2004 | 22 Nov 11 | 3 | TB, TW |
| CKBV - Rio Capim Farm – Inventory Plots: 2003_23_2004; 2008_13_2008; 2008_1_2008; 2008_7_2008 | 22 Nov 11 | 5 | TW |
| CKBV – Caculé Farm – Inventory Plots: PARA_14_2011; Cikel Rio Capim Farm PARA_2_2011 | 22 Nov 11 | 8 | GS |
| CKBV – Rio Capim Complex Office | 22 Nov 11 | 5 | TB |
| CKBV – Rio Capim Complex Office | 23 Nov 11 | 2 | TW; GS |
| CKBV – Rio Capim Complex Office | 23 Nov 11 | 2,5 | TB |
| CKBV – Rio Capim Complex Office | 23 Nov 11 | 1,5 | TB, TW,GS |
| CKBV Belém Office | 09 Feb 12 | 9 | TB, TW |
| CKBV Belém Office | 10 Feb 12 | 6 | TB, TW |
| CKBV Belém Office | 08 May 12 | 2 | TB, TW |
| Imazon Office | 09 May 12 | 1 | TB, TW |

3.3 Review of Documents

The following documents were viewed as a part of the field audit:

| Ref | Title, Author(s), Version, Date | Electronic Filename |
|-----|---|--|
| 1 | Monitoramento Floresta Tropical – Programa Livre. Embrapa. | Free Software used to systematic and store the inventory data. This program was assessments by the audit team in November, 2011. |
| 2 | Biomass inventory field sheets | Printed Material |
| 3 | Biomass Inventory Map. November, 2011. | Printed Material |
| 4 | Remedição de Parcelas Permanentes. ITOSMA 19. Revisão 01. Julho/2010. | Printed Material |
| 6 | Mapa Geral Complexo Rio Capim. Localização Parcelas Permanentes. Nov.11 | MAPA C - Mapa Geral_PARCELAS_RED_A0.jpg |
| 7 | Land Legal Title and Rights of Use Documents | Annex 7 - Result of geo-referencing in 2008 and Property Legal Title |
| 8 | VCU's Legal Title | 1º_ADITIVO_CONTRATO_ARRENDAMENTO_MATRÍCULA_2.501..pdf 1º_ADITIVO_CONTRATO_ARRENDAMENTO_MATRÍCULA_4.594_4.828_4.595..pdf 1º_ADITIVO_CONTRATO_ARRENDAMENTO_MATRÍCULA_8.823..pdf 1º_ADITIVO_CONTRATO_ARRENDAMENTO_MATRÍCULA_8.824..pdf 1º_ADITIVO_CONTRATO_ARRENDAMENTO_MATRÍCULA_8.988..pdf 1º_ADITIVO_CONTRATO_ARRENDAMENTO_MATRÍCULA_306..pdf |
| 9 | Updated Forest Biomass Inventory Results for Rio Capim property, Cikel, REDD project areas, Paragominas, Para, Brazil. David Shoch, Lucas José Mazzei de Freitas, Evandro Ferreira. November, 2011. | Annex 13 - Forest Biomass Inventory Results for CIKEL.pdf |
| 10 | PD v 01 – February 2012 | PDD APD CIKEL 27Feb2012 version post-visit.pdf |
| 11 | FSC Certification | Annex 6 - FSC Certifications.pdf |
| 12 | FSC Reportes Certification | Printed Materials |
| 13 | Relatório de Ações do Inventário de Biomassa Florestal para a Propriedade Rio Capim, CIKEL, Áreas do projeto REDD, Paragominas, Pará, Brasil (Forest Biomass Inventory Action Report to Rio Capim Proprietary, Cikel, REDD Project Area, Paragominas, Pará, Brazil). Evandro Ferreira, Lucas José Mazzei de Freitas, Fernanda Bortolotto. February 2012; and the follow report annex: | Relatório ações do Inventário de biomassa florestal no CRC_15-fev-2012.pdf |
| 14 | Annex 1_Field Sheet Photos | Geoflor.JPG Paragogeo.JPG UPA 4.JPG UPA 5.JPG UPA 6.JPG UPA 7.JPG UPA 11.JPG UPA 13.JPG |
| 15 | Annex 2_Inventory Plot Relation | Anexo 2_Relação parcelas.xls |
| 16 | Annex 3_ Rio Capim Inventory Analysis | Anexo 3_Rio Capim inventory analysis_i_arbre.xls |
| 17 | Annex 4_Inventory Plots Map | Anexo 4 _Mapa 04 Ambientes - 152 |

| | | |
|----|---|--|
| | | Parcelas_A0_NOVO_sem_HA.jpg |
| 18 | Annex 5_ Monitoring Plots | Anexo 5_Parcelas para monitoramento (2).xls |
| 19 | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT GHG EMISSION REDUCTIONS FROM AVOIDING PLANNED DEFORESTATION. Monitoring Period: July 19 2007 to July 18 2010. V. 01 - February 2012 | 2010 MONITORING REPORT FOR CIKEL BRAZILIAN AMAZON REDD APD PROJECT-Feb2012-v1.pdf |
| 20 | Calculus Excel Spreadsheet - February 2012 | CIKEL APD monitoring calcs Feb2012.xlsx |
| 21 | Análise de acurácia da classificação de cinco fazendas pertencentes à Cikel. | accuracy_report.docx.doc.doc |
| 22 | AUTEF's 2007 | AUTEF_2007_Caculé.pdf AUTEF_2007_IFT.pdf AUTEF_2007_Poty.pdf AUTEF_2007_RC.pdf POA_AUTEF_2007.pdf |
| 23 | RELATORIO DE MONITORAMENTO DAS ATIVIDADES DO POA 2.007. NOME DAS PROPRIEDADES: FAZENDAS RIO CAPIM, SÃO ROMUALDO, CAUAXI, SUMAL E POTY. RESPONSÁVEL PELA ELABORAÇÃO E EXECUÇÃO: ENG. FLORESTAL JOSUÉ EVANDRO R. FERREIRA | Monitoramento_POA_2007.pdf |
| 24 | AUTEF's 2008 | AUTEF 2008 - Caculé.pdf AUTEF 2008 - IFT.pdf AUTEF 2008 - Prorrogação Caculé Resíduos.pdf AUTEF 2008 - Prorrogação IFT.pdf AUTEF 2008 - Prorrogação Poty.pdf AUTEF 2008 - Prorrogação RC Resíduos.pdf AUTEF 2008 - RC.pdf POA-AUTEF 2008 RC.pdf |
| 25 | Licença de Operação. LO Nº 1098/2008. Validade: 30/01/2009. Secretaria do Estado do Meio Ambiente do Pará. | POA-AUTEF 2008 RC.pdf |
| 26 | RELATORIO DE MONITORAMENTO DAS ATIVIDADES DO POA 2.008. NOME DAS PROPRIEDADES: FAZENDAS RIO CAPIM, SÃO ROMUALDO, CAUAXI, SUMAL E POTY. RESPONSÁVEL PELA ELABORAÇÃO E XECUÇÃO: ENG. FLORESTAL JOSUÉ EVANDRO R. FERREIRA | Monitoramento_POA_2008.pdf |
| 27 | AUTEF's 2009 | POA_AUTEF_2009.pdf |
| 28 | RELATORIO DE MONITORAMENTO DAS ATIVIDADES DO POA 2.009. NOME DAS PROPRIEDADES: FAZENDAS RIO CAPIM, SÃO ROMUALDO, CAUAXI, SUMAL E POTY. RESPONSÁVEL PELA ELABORAÇÃO E XECUÇÃO: ENG. FLORESTAL JOSUÉ EVANDRO R. FERREIRA | |
| 29 | Licenças de Operação das Carvoarias (Coalyards Operation Licenses) | LO_ECO_2009-2013.jpg LO_Fergumar_2009-2011.pdf |

| | | |
|----|---|--|
| | | LO_Ibérica_2009-2013.jpg LO_Ibérica_Metálicos_2009-2013.pdf |
| 30 | AUTEF's 2010 | AUTEF 2010 - Caculé - Prorrogação.pdf AUTEF 2010 - IFT.pdf AUTEF 2010 - IFT - Prorrogação.pdf AUTEF 2010 - IFT Resíduos.pdf POA-AUTEF 2010 - RC.pdf |
| 31 | RELATORIO DE MONITORAMENTO DAS ATIVIDADES DO POA 2010. NOME DAS PROPRIEDADES: FAZENDAS RIO CAPIM, SÃO ROMUALDO, CAUAXI, SUMAL E POTY. RESPONSÁVEL PELA ELABORAÇÃO E XECUÇÃO: ENG. FLORESTAL JOSUÉ EVANDRO R. FERREIRA | Monitoramento_POA_2010.pdf |
| 32 | Registro Treinamento Brigada de Incêndio Florestal (2010). | Brigada RC 2010 01.jpg Brigada RC 2010 02.jpg Brigada RC 2010 03.jpg |
| 33 | Charcoal production facilities map | Carvoarias - Imagem de satélite 2011[1].jpg |
| 34 | Property Security Agreements (Contratos segurança patrimonial) | Contrato Bertillon - 01mai2007 a 30abr2009.pdf Contrato Bertillon - 01mai2009 a 30abr2011 - Termo aditivo.pdf Contrato Bertillon - Termo Aditivo Reajuste - 01abr2008.pdf Contrato Bertillon - Termo Aditivo Reajuste - 01jan2009.pdf |
| 35 | 22 ITOSMA_ExploraçãoResíduos | 22 ITOSMA_ExploraçãoResíduos.pdf |
| 36 | 23 ITOSMA_AvaliaçãoMonitoramentoDanosFlora_a_RC | 23 ITOSMA_AvaliaçãoMonitoramentoDanosFlora_RC.pdf |
| 37 | Annex 10 - Suppression Plan | Annex 10 - Suppression Plan.pdf |
| 38 | Relatório de caracterização das famílias residents na fazenda Jaguará. CKBV Florestal Ltda – Responsabilidade Socioambiental. 02/12/2011. | Printed Material |
| 39 | KML maps of the project area | Area_Projeto_RED_gcs.kml RC_complex_gcs.kml |
| 40 | CIKEL APD Non-permanence Risk Analysis - February 2012 | FINAL CIKEL APD Non-permanence Risk Analysis Feb2012.xlsx |
| 41 | PLANO DE PREVENÇÃO DE COMBATE A INCÊNDIOS FLORESTAIS. Leonardo Pedrosa. | Annex 5 - Fire Fighting Plan.doc |
| 42 | RELATORIO POA 2010_CACULÉ | RELATORIO POA 2010_CACULÉ.doc |
| 43 | Annex 11 - Business Plan | Annex 11 - Business Plan.pdf |
| 44 | Relatório de caracterização das Propriedades localizadas no Entorno do Complexo Rio Capim – Responsabilidade Socioambiental. 28/11/2011. | Printed material |
| 45 | Financial Statements | CKBV 2002.pdf CKBV 2003.pdf CKBV 2005.pdf CKBV 2006.pdf |
| 46 | CKBV Sustainable Forest Management Plan | CKBV Forest Management Plan.pdf |

3.4 Interviews

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

| Audit Date | Name | Title |
|--|---|---|
| 19 – 23 Nov 11/ 09-10 Feb 12/ 09-10 May 12 | Fernanda Bortolotto | Technical support of field and PDD development - 33 Forest Capital Team |
| 19 – 23 Nov 11 | Fernando Augusto Pinto | Field activities planning - 33 Forest Capital Team |
| 19 – 23 Nov 11/ 09-10 Feb 12/ 09-10 May 12 | Josué Evandro Ribeiro Ferreira | Forest Area Responsible - CKVB Florestal Team |
| 19 – 23 Nov 11/ 10 Feb 12/ 09- 10 May 12 | Lucas Mazzei | Selection of strata, selection of the allometric equation and inventory quality control - Embrapa Amazônia Oriental |
| 20-23 Nov 11/ 09-10 Feb 12 | Ivana Cepon | General Manager of the REDD-VCS Project - 33 Forest Capital Team |
| 20-23 Nov 11/ 09-10 Feb 12 | Francy Rosy Nava de Oliveira Souza | Coordinator of the REDD/VCS Project - CKVB Florestal Team |
| 20-23 Nov 11/ 09-10 Feb 12 | Karen Juliana dos Anjos | Responsible by the social responsibility – coordination of the public consult and divulgation of the REDD project - CKVB Florestal Team |
| 20-23 Nov 11/ 09-10 Feb 12 | Aparecida Calixto Pereira Denadai (Cida) | General Director of the REDD Project - project - CKVB Florestal Team |
| 20-23 Nov 11 | Raimundo Nonato Jesus dos Santos | Responsible by the implementation and monitoring of the permanent plots, monitoring of the SMFLIL and fauna - CKVB Florestal Team |
| 20-23 Nov 11 | Joaquim Gomes da Silva Neto | Main Permanent Plots Team - CKVB Florestal Team |
| 20-23 Nov 11 | João Batista Rodrigues | Main Permanent Plots Team - CKVB Florestal Team |
| 09-10 Feb 12 | Eliane Assunção | Responsible by Geoprocessing - CKVB Florestal Team |
| 09-10 Feb 12 | Manoel Pereira Dias | Responsible by the business of the group - CKVB Florestal Team |
| 09-10 Feb 12 | Damião Pereira Dias | Responsible by the business of the group - CKVB Florestal Team |
| 09-10 Feb 12 | Flávio de Souza Batistel | Participation in the financial analysis of the additionality of the REDD Project - CKVB Florestal Team |
| 09-10 Feb 12 | Rodrigo Augusto Sousa | Responsible by the legal analysis of the REDD Project - CKVB Florestal Team |
| 09 Feb 12 | Jenny Sayaka Komatsu | Technical coordination of the development of baseline and additionality sections - 33 Forest Capital Team |
| 09 Feb 12/08 May 12 | David Shoch | Technical Director of the PDD - Terra Carbon LLC Team |
| 09-10 Feb 12 | Leonardo Nobrega Pedrosa | Responsible by the Work Safety in the Project area - CKVB Florestal Team |
| 08 May 12 | Rebecca Dickson | Mapping and remote sensing - TerraCarbon Team |
| 09 May 12 | Carlos Souza Junior Antônio Fonseca João Siqueira | Imazon Technical Staff |

4 APPENDIX A: Field Audit Findings

Note: Findings presented in this section are specific to the findings resulting from the field audit as presented in the Draft Audit Report. Any non-conformances or observations identified during the field audit are noted in this section, and specific NCR and OBS tables are included in section 2 of this report for each identified non-conformance and observations. All findings related to audit team review of additional evidence submitted by the Project Proponent following the issuance of the Draft Audit Report by Rainforest Alliance, is included within section 2 of this report.

1. Evaluation of Validated PDD

This section includes a review of the validated PDD to ensure that validated project activities have continued without significant changes.

1.1 Methodology Deviations

Identify, discuss and justify conclusions regarding any methodology deviations applied to the project. Note this includes any applicable deviations from the methodology as well as deviations in monitoring report from the validated monitoring plan.

| Findings from Verification Field Audit | | | |
|---|------------------------------|--|------------------------------|
| The audit team review 'CIKEL APD monitoring calcs Feb2012.xlsx spreadsheets' (Ref. 20), the PD v. 01 – February 2012 as well as Monitoring Report and verified that the project proposed does not present any methodology (VM 0007 v.01) deviations methodology applied (VM 0007 v. 01). | | | |
| In the updated version of Monitoring Report (Ref. 1a), in the section 3.3 Description of the Monitoring Plan, pg. 42, subsection 'Volume wood removed, by product class (logs and residues) and species', the project proponent included a description (that was not part of the previous validated monitoring plan), to define how the project will monitor a logged area when it is not entirely within the project area. However, the audit team evaluates that the monitoring method presented is not adequate, since CKBV has a robust control system program (Datasul) that can support the proposed project to monitor and to present in a more transparent and accurate manner the volume of woods removed by logging, as this program supports CKBV to monitor their logging activities through UT's – Unidades de Trabalhos (the working unit division of the annual forest management plan). (NCR 01/12). | | | |
| Conformance | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | NCR 01/12 | | |

1.2 New Project Activity Instances

For grouped projects, identify, discuss and justify conclusions regarding the following:

- Number of new project activity instances included in the project at this monitoring/verification event.
- Quality and completeness of evidence, data and documentation of new project activity instances
- Eligibility of new project activity instances
- Sampling process for validation of new project activity instances

| Findings from Verification Field Audit | | | |
|--|------------------------------|-----------------------------|---|
| The proposed project is not a grouped project. | | | |
| Conformance | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| NCR/OBS | Not applicable. | | |

1.3 Validation Conclusion

Clearly state whether the project conforms with the validation criteria for projects, as set out in VCS Version 3, and include any qualifications or limitations. This section should include a brief description of any changes from the validated PDD, and a review of project continued conformance with the validated PDD.

| Findings from Verification Field Audit | | | |
|--|---|-----------------------------|------------------------------|
| The validation and the first verification process are been conducted simultaneously as allowed by VCS v. 3.2 Requirement 5.2.2. Based on document review, the audit team has found that the project did not have any change from validated PDD (PD v. 01 – February 2012). | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2. Verification Findings

2.1 Project Implementation Status

Identify, discuss and justify conclusions with respect to the following:

- Implementation status of the project activity(s), including any material discrepancies between the project and the project description.
- Implementation status of the monitoring plan and the completeness of monitoring, including any material discrepancies between the project and the project description.
- Any remaining issues from previous validation or verification.

2.1.1 Project title, Purposes and Objectives

Identify any changes in the project title, purpose or objectives since the project validation or the last verification.

| | | | |
|---|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| Based on the Monitoring Report review, the audit team has found that the project title and objective have not been changed. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2.1.2 Stratification of Baseline and Project Areas

Identify any changes in baseline or project area stratification. Review application of stratification in GHG calculations.

| | | | |
|---|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| As stated in the PD v.01 and the 2010 Monitoring Report, module X -STR "VMD0016 Methods for stratification of the project area", v.1.0, was used for stratification. No changes were identified in the baseline from July 19 2007 to July 18 2010, the giving monitoring period (noting that past natural events were likely already accounted for during the forest inventory steps to estimate the baseline carbon stocks, as confirmed by the audit team), therefore, no baseline re-stratification was necessary. | | | |
| In addition, the living biomass carbon stock estimated from the forest inventory completed in 2011 (using measurements from 2005 to 2011 - Ref. 9), are valid for 10 years (per VM0007), minimally through 2015. Post 2015, forest carbon stock estimates will be updated for any strata where deforestation or natural disturbance is detected. Further, during the field audit the audit team did not observe any significant disturbances that would impact the original stratification process. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.1.3 Ownership/Proof of Title/Right of Use

Identify any changes in project area land ownership/demonstration of right of use as identified in the validated PDD.

| | | | |
|--|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| As validation and the first verification process are been conducted simultaneously, no changes had found. Section 1.12 of the PD v.01 states that ownership of the project area is composed by the five proprietary (Rio Capim, Sumal, Poty, Cauaxi, São Romoaldo/Caculé) companies belonging to CKBV group. The legal title of each property is presented in table 1.10. During the field audit, all the documents requested were made available to the audit team, which could confirm the information described in the PD. For all areas that are not belong to project proponent, CKBV has the legal right to forest management (since May 2000) and the corresponding title of the carbon credits generating from the project activity. These documents (Ref. 07, 08) were analyzed by the audit team, who has found that they conform to VCS AFOLU Requirements 3.1.2. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2.1.4 Double counting and whether the project participated in another emission trading programme

Identify if the project has participated in other emission trading programmes.

| | | | |
|---|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| Section 1.12.2 of the PD v. 01 states 'Brazil is a non-Annex I country under Kyoto Protocol and does not have any GHG reduction commitments under the Convention. Moreover, CKBV does not have any project related to carbon credit generation under the CDM or other regulatory scheme within the project area'. The audit team confirmed this information during the audit with the project proponent. At the moment of validation and this first verification, Brazilian REDD projects are not eligible under other emission trading programme. Additionally, the audit team took a remote assessment to CCBA webpage and checked that the project is not validated or in validation process under CCB Standard. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

| | |
|---------|-----------------------|
| NCR/OBS | No NCR or OBS raised. |
|---------|-----------------------|

2.1.5 Conformance with PDD Monitoring Protocol

Evaluate project activity conformance with the validated PDD Monitoring Plan. Review each step outlined within the monitoring plan in the findings box below.

| Findings from Verification Field Audit | |
|---|---|
| In accordance with PD v.01 and the 2010 Monitoring Report, module M-MON “M-MON Methods for monitoring of greenhouse gas emissions and removals”, v. 2.0, was used. In addition, the procedures outlined in Section 4 of the PD, “Monitoring”, were evaluated as followed: | |
| PDD Required Monitoring Procedures | Findings |
| <p>Where selective logging is taking place in the project case (M-MON, Applicability Conditions):</p> <ul style="list-style-type: none"> Emissions from logging may be omitted if it can be demonstrated the emissions are de <i>minimis</i> using T-SIG, If emissions from logging are not omitted as de <i>minimis</i> logging may only take place within forest management areas that possess and maintain a Forest Stewardship Council (FSC) certificate for the years when the selective logging occurs; Logging operations may only conduct selective logging that maintains a land cover that meets the definition of forest within the project boundary; All trees cut for timber extraction during logging operations must have a DBH greater than 30 cm; During logging operations, only the bole/log of the felled tree may be removed. The top/crown of the tree must remain within the forested area; The logging practices cannot include the piling and/or burning of logging slash; Volume of timber harvested must be measured and monitored. | <p>At the time of validation in 2012, the entire project area was under FSC certification, and as detailed in Section 1.8 of the PD v.01 and the 2010 Monitoring Report. The FSC certificates were reviewed by the audit team (Ref. 11 and 12) as evidence of the certification. Note that in order to demonstrate conformance with the monitoring module applicability condition (M-MON v. 2.0) of the methodology VM 0007 which states ‘<i>If emissions from logging are not omitted as de minimis, logging may only take place within forest management areas that possess and maintain a Forest Stewardship Council (FSC) certificate for the years when the selective logging occurs</i>’ the project proponent decided to exclude 377,4 ha (from Poty Farm) of the project area. This area is included in the Suppression Plan (the plan to clear the forest in the baseline activity as allowed by Brazilian law), however, as harvest activity took place during the project crediting period and prior to secure FSC certification it was decided to remove this area from the project area (and GHG calculations) in order to conform to M-MON v2.0 applicability conditions.</p> <p>Forest management practices were reviewed during the field audit by the forest management specialist of the audit team. Review of current forestry practices confirmed:</p> <ul style="list-style-type: none"> Logging practices implemented are selective, low impact logging with a minimum DBH cut of 50 cm in accordance with the Brazilian Law for legally approved forest management plans. Logging slash is not piled and burned in the with-project case (although some burning of woody debris would occur post suppression activities in the baseline). Harvested timber volumes are routinely measured and recorded in annual harvest reports in accordance with the Brazilian Law and the FSC requirements. |
| Revision of the baseline | The baseline is valid until July 2017, as such the baseline has not been revised from the validated PD. |
| Selection and analyses of sources of land-use and land-cover (LU/LC) change data (M-MON, Section 5.1) | As stated in Section 5.1 of the M-MON v.2.0, medium resolution remotely sensed spatial data shall be used (30m x 30m resolution or less, such as Landsat, Resourcesat-1 or Spot sensor data). In compliance with Brazilian DNA definition of forest area (1 ha), a Minimum Mapping Unit of 0.81 ha (90m x 90m) was used to record deforestation in the project area. For the given monitoring period, Landsat imagery was used to produce a classified forest cover map in which forest and non forest were distinguished. Although the Monitoring Report presents satellite images of the project in Section 4.3, the actual Landsat imagery files used in the Monitoring Report were not presented to audit team as an evidence of monitoring for the verification. (NCR 02/12) |

| | <p>As stated in the 2010 Monitoring Report and the monitoring plan (PD v.01), the composite image used for the monitoring shall be at least 90% cloud free. This requirement complies with M-MON v.2.0, Section 5.1.2, where multi-date images must be used to reduce cloud cover to no more than 10% of any image. Although no report was presented to the audit team states about the actual percent of cloud cover in the images used for the monitoring, it was verified with Imazon, a highly accredited institution in Brazil and responsible for preparing the project images, that this threshold was attended. In the same way imagery processing, as such cloud and shadow detection and removal, in accordance with the Monitoring Plan, was followed. According to the Monitoring Report and the PD v.01, water detection and removal was conducted. The masking of water was performed in x WaterMask module from software ImgTools 0.8 Beta, using the fraction images resulting from MMS of every year of the temporal series, resulting in a water mask for each year of the series. Cloud and shadow detection and removal were performed in xCloudMask module, present in ImgTools 0.8 Beta.</p> <p>According to the monitoring plan (see PD v.01, Section 4) and in accordance with the imagery processing procedures of M-MON v.2.0, from the images obtained by SMM, NDFI images were generated for all images to highlight the signals of forest degradation caused by woody exploration and fire. Further, evidences of the classification of NDFI images that resulted in the map of the base year (Baseline) and the map(s) of increment of deforestation and degradation (MIDD) were not available to the audit team. The baseline was obtained through xNDFISlicer module presents in the software ImgTools 0.8 Beta, where the NDFI image, referent to the first year of the analysis was classified. MIDD's were obtained in the xChangeDetection module, available in the software ImgTools 0.8 beta, in order to generate thematic classes: forest, non-forest, water, cloud (cloud and shade of cloud), degradation and deforestation could not be reviewed by the audit team.</p> <p>As stated above, although no evidences of each step of the imagery processing and analysis was presented to the audit team, apart from the final accuracy report, the Imazon staff, a highly accredited institution in Brazil and responsible for preparing the project images, was interviewed by the audit team and no inconsistencies with the monitoring plan were raised.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|----------------|--------------|-------|--------------|-------------------------|-------------------------|------------|--------------|-----|----|-----|------|-----|------------------|----|-----|-----|------|-----|-------|-----|-----|-----|----|-----|--------------|------|------|----|--|--|-------------------------|-----|-----|-----|--|--|
| <p>Post-processing data and Quality Assurance/Quality assessment (M-MON, Section 5.1.2)</p> | <p>The accuracy assessment was developed by Imazon and reviewed by the audit team. Results of the accuracy are presented and analyzed in the matrix below (see Section 5 of 2010 Monitoring Report and Ref. 21)</p> <table border="1" data-bbox="799 1534 1809 2051"> <thead> <tr> <th rowspan="2">Land-use class as determined from ground-truth points</th> <th colspan="2">Classification</th> <th rowspan="2">Total</th> <th rowspan="2">Accuracy (%)</th> <th rowspan="2">Error of commission (%)</th> </tr> <tr> <th>Forest</th> <th>Non-forest</th> </tr> </thead> <tbody> <tr> <td>Forest (100)</td> <td>489</td> <td>13</td> <td>502</td> <td>97.4</td> <td>2.6</td> </tr> <tr> <td>Non-forest (100)</td> <td>22</td> <td>538</td> <td>380</td> <td>94.2</td> <td>5.8</td> </tr> <tr> <td>Total</td> <td>511</td> <td>371</td> <td>882</td> <td>96</td> <td>4.0</td> </tr> <tr> <td>Accuracy (%)</td> <td>95.7</td> <td>96.5</td> <td>96</td> <td></td> <td></td> </tr> <tr> <td>Error of commission (%)</td> <td>4.3</td> <td>3.5</td> <td>4.0</td> <td></td> <td></td> </tr> </tbody> </table> | Land-use class as determined from ground-truth points | Classification | | Total | Accuracy (%) | Error of commission (%) | Forest | Non-forest | Forest (100) | 489 | 13 | 502 | 97.4 | 2.6 | Non-forest (100) | 22 | 538 | 380 | 94.2 | 5.8 | Total | 511 | 371 | 882 | 96 | 4.0 | Accuracy (%) | 95.7 | 96.5 | 96 | | | Error of commission (%) | 4.3 | 3.5 | 4.0 | | |
| Land-use class as determined from ground-truth points | Classification | | Total | Accuracy (%) | | | | Error of commission (%) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Forest | Non-forest | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Forest (100) | 489 | 13 | 502 | 97.4 | 2.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Non-forest (100) | 22 | 538 | 380 | 94.2 | 5.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 511 | 371 | 882 | 96 | 4.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accuracy (%) | 95.7 | 96.5 | 96 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Error of commission (%) | 4.3 | 3.5 | 4.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|--|---|
| | <p>The total accuracy result was higher than the threshold required by the methodology.</p> |
| Monitoring deforestation (M-MON, Section 5.2.1) and degradation (M-MON, Section 5.2.2) | <p>As stated above, although the 2010 Monitoring Report presents images proving that the forest area suffered deforestation (see Figure 4.2 and 4.3). As mentioned above, the accuracy assessment (Ref. 21) was in conformance with the monitoring and the imagery from Google Earth was used to track the activity-shifting leakage resulted from the project implementation, in compliance with the monitoring plan (see Section 3.3 and 4.3 of the 2010 Monitoring Report and Figures 4.1 and 4.3).</p> |
| Degradation through extraction of trees for illegal timber or fuelwood and charcoal (M-MON, Section 5.2.2.1) | <p>According to the monitoring plan, forest degradation is associated to illegal activities (see Section 3.3 of the 2010 Monitoring Report).</p> <p>As stated in the Monitoring Report (Section 4.2.2), the potential for emissions due to illegal logging were monitored by conducting surveys in the surrounding areas of CIKEL in November and December 2011. Locations surveyed included:</p> <ul style="list-style-type: none"> • Ararandeuá Community; • Barreirinha (14 households interviewed); • Vila Betânia; • Families residing along the neighbouring access between RCC and PA150; • Nearby farms and rural properties, including 77 households in the surroundings of RCC. <p>Additionally, CKBV presents to the audit team a full reports (Ref. 44 and 38) relating the survey, which includes methodology applied; the map which illustrates the neighbour's proprietaries of RCC, the survey field sheet and the survey results. The people in charge of this survey were also interviewed by the audit team.</p> <p>The Monitoring Report points that no indications were encountered that emissions resulting from degradation due to illegal logging are occurring in the project area, based on negative results of surveys surrounding the project area carried out in December 2011, as well as lack of evidence of illegal logging encountered in the project area during extensive inventory field work conducted August to October 2011. The audit team visited the project area in November 2011 for evaluation of the field inventory completed by the project proponent and had not also meet in the areas that visited any evidence of illegal logging.</p> |
| Emissions arising in the logging gap (M-MON, Section 5.2.2.2.1) | <p>Calculated in conformance with Equation 10 of M-MON module. The estimation is presented in the worksheet "w proj ex post" of the spreadsheet "CIKEL APD monitoring calcs Feb2012" (Ref. 20) reviewed by the audit team. The calculation was found to be in conformance with the methodology, nevertheless some values used as reference could not be verified by the audit team (see findings elaborated in Section 2.2.2 of this report).</p> |
| Monitoring degradation due to selective logging of forest management areas possessing a FSC certificate (M-MON, Section 5.2.2.2) | <p>As stated in the Monitoring Report, Section 2.1, in 2010 low-impact logging, following the requirements of FSC certification was conducted in Caculé forest area. At this time, FSC certification was in process for this area, and in fact the harvest at Caculé APU (Annual Production Unit) was used as reference to audit the compliance of FSC criteria and validate the increased certification scope (to the entire RCC area, including the areas Poty, Caculé, Sumal and</p> |

| | | | | | | | | | | | | | |
|---|---|------------------|--------|------|------------|------|---|------------------|--------|-------|-------------------|--------|-------|
| | <p>Cauaxi). These FSC audits took place from November 29th to December 3rd of 2010; the FSC report of the increased scope was received by CKBV in February, 07th of 2011. Note that the new areas (Poty, Cacule, Sumal and Cauaxi) were not issued independent FSC certificates, but instead the existing certificate (SW-FM/COC-005147, initiated and validated in 2001) for the Rio Capim forest area was extended to include all of the areas of the Rio Capim Complex (see Ref. 11 and 12).</p> <p>However, as harvest activity took place during the project crediting period and prior to secure FSC certification in the Poty area, it was decided to remove this area from the project area (and GHG calculations) in order to conform to M-MON v2.0 applicability conditions.</p> | | | | | | | | | | | | |
| <p>Emissions arising through logging infrastructure (M-MON, Section 5.2.2.2.2)</p> <ul style="list-style-type: none"> • Skid Trails; • Logging Roads; • Logging Decks. | <p>During the field audit, the audit team reviewed the quantification of emissions arising through logging infrastructure with the project staff responsible for GHG calculations and confirmed the correct application methodological requirements.</p> <p>The implementation of logging infrastructure followed the procedures stated in the 2010 Monitoring Report, in accordance with ITOSMA 23 document (Ref. 36). To account for emissions due to logging infrastructure, apart from the W_{SKID}, an area-weighted average from calendar year CIKEL logging reports "Annual Operation Plan Logging report" was used. The value used for the W_{SKID} was an average derived directly from 2010 CIKEL logging report "Annual Operation Plan Logging report " from the project area.</p> <p>The following parameters values were used (see Section 4.2.3 of the Monitoring Report and worksheets "w proj ex post" and "logging data" of the spreadsheet "CIKEL APD monitoring calcs Feb2012", Ref. 20) and were reviewed by the audit team:</p> <table border="1" data-bbox="976 1256 1628 1429"> <tr> <td>$L_{SKID\ 2010}$</td> <td>110.56</td> <td>m/ha</td> </tr> <tr> <td>W_{SKID}</td> <td>4.28</td> <td>m</td> </tr> <tr> <td>$A_{ROAD\ 2010}$</td> <td>0.0184</td> <td>ha/ha</td> </tr> <tr> <td>$A_{DECKS\ 2010}$</td> <td>0.0059</td> <td>ha/ha</td> </tr> </table> | $L_{SKID\ 2010}$ | 110.56 | m/ha | W_{SKID} | 4.28 | m | $A_{ROAD\ 2010}$ | 0.0184 | ha/ha | $A_{DECKS\ 2010}$ | 0.0059 | ha/ha |
| $L_{SKID\ 2010}$ | 110.56 | m/ha | | | | | | | | | | | |
| W_{SKID} | 4.28 | m | | | | | | | | | | | |
| $A_{ROAD\ 2010}$ | 0.0184 | ha/ha | | | | | | | | | | | |
| $A_{DECKS\ 2010}$ | 0.0059 | ha/ha | | | | | | | | | | | |
| <p>Emissions from Harvested Wood Products (M-MON, Section 5.2.2.2.3)</p> | <p>The module CP-W was used to estimate the carbon stocks in the long-term wood products pool, in accordance with M-MON module, Option 1, Direct Volume Extraction Estimation based on the suppression plan for the project. (Ref. 37). As stated in the Monitoring Plan (Section 4.1) one wood product class (sawnwood) is extracted in the baseline.</p> <p>The estimation is available in worksheets "wood products" of the spreadsheet "CIKEL APD monitoring calcs Feb2012" (Ref. 20), was reviewed by the audit team with the project staff responsible for GHG quantification, and found to be in conformance with the methodological requirements.</p> | | | | | | | | | | | | |
| <p>Emissions due to natural disturbance (M-MON, Section 5.2.3)</p> | <p>As stated in Section 4.2.1 of the 2010 Monitoring Report, forest cover change due to deforestation and natural disturbance was monitored through assessment of classified satellite imagery covering the project area and no deforestation was detected in the project area for the giving monitoring period. This was supported through audit team observations of the forest during the field audit.</p> | | | | | | | | | | | | |
| <p>Monitoring areas undergoing carbon stock</p> | <p>The project conservatively assumes stable stocks and no biomass monitoring</p> | | | | | | | | | | | | |

| | | | |
|---|--|--|------------------------------|
| enhancement (M-MON, Section 5.2.4) | is conducted in areas undergoing carbon stock enhancement, as permitted in the methodology monitoring module M-MON, hence carbon stock enhancement is set to 0. | | |
| Monitoring project emissions (M-MON, Section 5.2.5) | <p>As stated in the PD v.01, Table 2.2, CO₂ emissions from fossil fuel combustion mostly occur in the baseline, and are from fuel consumption in machinery and transport activity for the suppression and livestock, emissions from fossil fuel combustion are thus conservatively excluded from accounting in the baseline and project cases.</p> <p>CH₄ emissions from biomass burning occurring exclusively under the baseline scenario were conservatively excluded. CH₄ and N₂O emissions from fossil fuel combustion are small and negligible. Emissions from the use of fertilizers are small and negligible for CO₂ and CH₄ and excluded for N₂O (no increase in fertilizer use is contemplated in the project case as part of leakage mitigation or any other activity).</p> | | |
| Documentation (M-MON, Section 5.3) | <p>All data sources and processing, classification and change detection procedures is stored in a dedicated long-term electronic archive maintained by CKBV at its main office in Ananindeua.</p> <p>According to the monitoring plan, information related to monitoring deforestation maintained in the archive shall include:</p> <ul style="list-style-type: none"> • Base (raw) imagery used (specifying type, source, resolution, imagery date, acquisition date); • Any cartographic data used to geo-reference the image (source, base data); • Data used for training classification; • Definition of land cover classes assessed; • Documentation of software type and procedures applied (including all pre-processing steps and corrections, spectral bands used in final classifications, and classification methodologies and algorithms applied); • Classified images; • Data used in accuracy assessment - ground-truth points (including GPS coordinates, identified land-use class, and supporting photographic evidence) and/or sample points of high resolution imagery; • Accuracy assessment matrix with minimally the following errors presented: overall classification accuracy, error of omission of each land-use category (forest and non-forest), and error of commission of each land-use category (forest and non-forest). <p>Apart from the accuracy assessment report, the information above was not available to the audit team. As such the project proponent has not submitted verifiable evidence that they have followed in full the monitoring plan and M-MON (section 5.3) regarding data archiving. NCR 03/12</p> | | |
| Conformance | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | NCR 02/12 NCR 03/12 | | |

2.1.6 Observation of local laws and regulations

Identify any relevant local laws and regulations and confirm project compliance with all applicable laws and regulations.

| |
|---|
| Findings from Verification Field Audit |
| At the time of verification, the total project area is certified by Forest Stewardship Council - FSC (see FSC certification |

framework on PD v. 01 – Section 1.9 pg. 11-12). During the audit it was checked that their FSC certification status is active. According to the FSC Standard CKBV at RCC must follow national and state regulations and laws related to forest management. In section 1.11 of the PD v.01, the project lists (table 1.9) applicable laws to forest management activities and describes their compliance. However this list does not mention any labor regulations or laws. The audit team reviewed the last FSC audit report issued in August 26, 2011 and found some non-conformances connected with labor law and NR-31. The audit team checked this information with FSC auditors and confirmed that the non-conformances raised in the FSC report are not critical and that CKBV is committed to resolve these issues before the next FSC Monitoring Assessment schedule from October 01 to 05 , 2012, which the FSC audit team will evaluate if CKBV took adequate corrective action to address the findings raised in the FSC report. Considering that the -conformances connected with labor law and NR-31 were considered minor by the FSC audit team and for this reason they FSC certification status is active, CKBV is committed to resolve these issue and all these points will be evaluated continually by FSC certification, the verification audit team confirmed that this issue is not relevant to project verification. However, whether CKBV does not take effective action to address this and consequently in the next FSC report; non-conformances connected with labor law and NR-31 become major and compromise FSC certification or new critical points appear along of the project life time, it may become relevant for the further verifications.

Furthermore, CKBV juridical staff was interviewed and the audit team gathered enough information to check that CKBV has a robust system to monitor the laws and regulations applicable to their activities.

Note that at the time of the verification process, there was not in the Brazilian or International political context, a REDD+ regulatory regime applicable to the proposed project. **OBS 01/12.**

| | | | |
|-------------|---|-----------------------------|------------------------------|
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | OBS 01/12. | | |

2.1.7 VCS AFOLU Requirements Section 3.1.4: Negative environmental and socio-economic impacts

Project proponents shall identify potential negative environmental and socio-economic impacts and shall take steps to mitigate them. Additional standards such as the Climate, Community & Biodiversity Standards (CCBS) or Forest Stewardship Council (FSC) certification may be applied to demonstrate social and environmental benefits beyond GHG emissions reductions or removals. VCU's may be tagged with additional standards and certifications on the VCS project database where both the VCS and another standard are applied.

Findings from Field Audit

Section 5 of the PD v.01 describes how the project identifies potential negative environmental and socio-economic impacts. The description provided is in accordance with the information gathered by the audit team during the document review, field audit and interviews.

The project proponent (CKBV Florestal Ltda) conducts their Forest Management in accordance with local regulation and has a Sustainable Forest Management Plan (Ref. 46) approved by competent environmental body, SEMA - Environment Secretariat of the State of Pará. Furthermore, CKBV has been committed to the FSC certification since 2000 and nowadays all the project area is certified to the FSC Standards (A summary of FSC certification of the project area is in the section 1.8, pg. 10-12).

It is important to highlight that in the Rio Capim Complex there are charcoal production facilities (See Ref. 33). During interviews with project proponent represents involved, the audit team confirmed that in the validation and verification moment these facilities were deactivated, however CKBV has plan to reactive them sooner to use the residues from forest management activity to be converted to charcoal. **OBS 02/12.**

| | | | |
|-------------|---|-----------------------------|------------------------------|
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | OBS 02/12. | | |

2.2 Accuracy of GHG Emission Reduction or Removal Calculations

2.2.1 Calculation of emissions in the baseline scenario (ex-post estimate) following identified methodology and validated PDD

Review relevant methodological equation logic for the calculation of baseline emissions as required for the relevant monitoring years. Note that the baseline calculations from some AFOLU projects must be re-validated every 10 years.

Findings from Verification Field Audit

As stated above the emissions from the baseline scenario followed the BL-PL module. The emissions were calculated in the worksheet "baseline" of the spreadsheet titled "CIKEL APD monitoring calcs Feb2012" (Ref. 20) in accordance with the Suppression Plan developed by CKBV (Ref. 37). The document was reviewed by the audit team and CKBV staff was interviewed during the auditing, confirming the intended to clear the project area and start cattle pastures. This intent is further

supported by the Business Plan (Ref. 43) developed by the CKBV and its economic feasibility assessment. Hence, the deforestation rate used was a direct result from the areas to be suppressed each year according to the developed plan, from 2008 to 2010.

As stated in the PD, Section 3.1, and explained previously, deforestation is legal permissibility, as the Brazilian Forest Law/Legislation, no 4771 of 1965, in its article 16, allows the owner to suppress up to 20% of the total area for its economic use such as livestock or agricultural activities. RCC, in 2006 had 197,811.95 ha (prior to geo-referencing in 2008, which established legal recognition of an even larger property area of 209,130.54 ha), allowing legal deforestation of up to 39,562.39 ha. As 10,091.80 ha were already without forest at the time of acquisition of the property by CKBV, this left an area of 29,470,59 ha in 2006, which after excluding designated areas of permanent protection, results in an area of 27,934.48 ha that could be legally deforested (of which 27,434.9 ha the project area, meet VCS REDD project eligibility criteria). As therefore, for the giving monitoring period and in accordance with the Suppression Plan (Ref. 38), 8,636.2 ha would have been suppressed in the selected baseline scenario.

Baseline carbon quantifications were reviewed by the audit team during the office audit with the project staff responsible for GHG quantification. The carbon removals from forest compensation (9,427 ha) of the Suppression Plan (Ref. 37), required by Law, was calculated based on an increment of $4.2 \text{ m}^3 \text{ ha}^{-1}$, for a mix of native commercial species. A BCEF conservative factor of 4 was applied and the carbon fraction considered was 0.47 (both values suggested by IPCC, 2006). The belowground biomass was estimated according to the equation developed by Cairns et al. (1997). The correct application of the equation parameters was reviewed by the audit team with the staff responsible for the biomass estimation. The total amount of carbon reductions estimated for the compensation activity for the giving monitoring period was 101,297 T $\text{CO}_2\text{-e}$ (see worksheet "compensation" in the "CIKEL APD monitoring calcs Feb2012" (Ref. 20).

Calculation of carbon stored in harvested wood products was reviewed during the field auditing. The project used equations and default values as required per CP-W (see worksheet titled 'wood product' in the spreadsheet t "CIKEL APD monitoring calcs Feb2012" - Ref. 20). The estimations were found to be in conformance with CP-W requirements.

The currently baseline is valid until July 2017. Review of baseline quantification documents confirmed the correct application of the BL-PL module.

| | | | |
|-------------|---|-----------------------------|------------------------------|
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.2.2 Calculation of emissions from project activities (ex-post estimate) following identified methodology and validated PDD

Review relevant methodological equation logic for the calculation of emissions for project activities as required for the relevant monitoring years. Note that emissions may be considered de minimis; refer to the validated PDD for project specific requirements in relation to project activity emissions.

Findings from Verification Field Audit

The audit team reviewed all GHG calculations with the staff responsible for the project calculations (see worksheet "w proj ex ante" in the "CIKEL APD monitoring calcs Feb2012" (Ref. 20).

In this worksheet, project harvested area per year was based on the M-MON v.2.0 module. The estimated volume of sawlogs extracted per unit area was based on the CIKEL Annual Operation Plan Logging reports from 2008 to 2010 (Ref. 23, 26, 28 and 31) and there were no residues extracted per unit area for giving monitoring period (Ref. 31). The values used for L_{SKID} , A_{ROAD} , and A_{DECKS} were area-weighted average from calendar year CIKEL logging reports (Ref. 23, 26, 28 and 31) and the value used for W_{SKID} was derived from CIKEL "2010 Annual Operation Plan Logging report" (Ref 31). All the values were reviewed by the audit team. The total emission from forest management activity within the project area from 2008 to 2010 was estimated to be 116,338 t $\text{CO}_2\text{-e}$.

Carbon stocks within the 3 strata of the project area were calculated using the forest inventory (see findings related to forest inventory issues above). Aboveground biomass was then calculated using a Higuchi et al. (1998) equation. The correct application of the equation parameters was reviewed by the audit team with the staff responsible for the biomass estimation. Wood density values used were from the Brazilian government research institution EMBRAPA's database (see Section 3.1 of the PD v.01). Belowground biomass was calculated using the equation proposed by Cairns et al. (1997), which was verified during field auditing. Total aboveground and belowground biomass was then calculated by multiplying the per area stock by the individual stratum area. The calculations were found to be in conformance with CP-AB.

Finally, the carbon stocks for the forest types within the project area presented were properly estimated in conformance with X-UNC module :

| Forest type | Ha | Mean ABGB (t C/ha) | 95% C.I. | 95% C.I. as % of mean |
|-------------|--------|--------------------|-------------------------------------|-----------------------|
| FOD | 7973,5 | 175,5 | 9,9 | 6% |
| FS | 662,7 | 100,1 | 56,4 | 56% |
| APP | 0,0 | 119,2 | 56,5 | 47% |
| | | | Uncertainty_{BSL,SS} | 6,3% |

Nevertheless, the values presented in the worksheet "w proj ex post" and the volume of timber extracted (18,416.6 m³) for the Caculé area in 2010 could not be verified by the audit team in official reports provided by CKBV. According to 2010 CIKEL Annual Operation Plan Logging report (Ref. 31), the values for the harvested area and volume of timber extracted were monitored together for Rio Capim, Caculé, Cauaxi, Sumal and Poty areas and, therefore, the specific values for Caculé were not available for review. CBVK made another document available to the audit (Ref. 42), specifically for the monitoring in Caculé area in 2010, but again these values used for the calculation could not be confirmed. As such the project proponent has not submitted verifiable evidence that they have followed in full the requirements of the monitoring plan and M-MON (Section 5.2.2.2) regarding carbon losses from the forest management activity. **NCR 04/12**

| | | | |
|-------------|------------------------------|--|------------------------------|
| Conformance | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | NCR 04/12 | | |

2.2.3 Calculation of emissions reductions or avoided emissions due to the project (ex-post estimate) following identified methodology and validated PDD

Review relevant methodological equation logic for the calculation of avoided emissions or removals from project activities as required for the relevant monitoring years.

| | | | |
|--|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| Following the steps identified above, the calculation of avoided emissions due to the project activity was reviewed by the audit team and found to be in conformance with the methodology VM0007 and the PD v.01. The calculation was presented in the spreadsheet "CIKEL APD monitoring calcs Feb2012" (Ref. 20), specifically in the worksheet "total VCU calc". | | | |
| A summary result is presented in Section 4.4 of the 2010 Monitoring Report. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No OBS/OBS raised. | | |

2.2.4 Calculation of emissions from leakage (ex-post estimate) following identified methodology and validated PDD

Review relevant methodological equation logic for the calculation of emissions from leakage as required for the relevant monitoring years.

Note that emissions may be considered de minimis for some projects; refer to the validated PDD for project specific requirements in relation to project activity emissions.

| | | | |
|--|--|--|--|
| Findings from Verification Field Audit | | | |
| The agent of deforestation is the project proponent, CKBV (see Section 2.4 of the PD v.01) and as a result, Section 3.3 of the PD v.01 states that only two sources of leakage were considered: activity shifting and market leakage. | | | |
| According to the Monitoring Report, activity-shifting leakage was monitored by tracking forest cover change across all lands outside of the project area owned or under the management of CKBV, in accordance with the monitoring plan, using classified Landsat imagery. All changes in forest cover detected for the monitoring interval were annualized (to produce estimates of ha for each year) by dividing the area by the number of years in the period. | | | |
| From 2007 to 2009, CKBV deforested with authorization 84.2 ha its area (Figure 4.1 of the Monitoring Report), outside the project area, for the implementation of the necessary infrastructure to the development of the carbonization activity, according to the partnership signed with steel companies. | | | |
| At the time of clearing, all of the areas cleared were on mature <i>floresta ombrofila densa</i> (FOD stratum) forests. The areas converted were not burned in the clearing process, and hence no non-CO ₂ emissions from biomass burning resulted from these activities. These areas were not suppressed in the REDD Planned Project areas and had no impacts in FSC certification, however, are included in assessment of activity shifting leakage. The companies will use forest residues generated in the sustainable forest management activities. The carbon losses from the residues utilization shall be accounted for in the next | | | |

verification events as an activity shifting leakage, as described in the monitoring plan and in accordance with M-MON v.2.0.

The total activity shifting leakage estimated for the monitoring period was 54,157 T CO₂.

Market leakage was calculated by applying module LK-ME. Leakage due to market effects is restricted to reductions in harvest of wood for charcoal production destined for domestic markets, as all sawn wood harvested in the baseline is exported and thus not included in accounting of market leakage. For estimation of market leakage, the main parameter monitored was annual volume of fuelwood harvested from the project area (FG_{LP,i}), which was monitored and reported in the CIKEL Annual Operation Plan Logging reports (Ref. 23, 26, 28 and 31). Nevertheless, for the giving monitoring period, there was no fuelwood harvested from the project area (see worksheet “market leakage” in the spreadsheet “CIKEL APD monitoring calcs Feb2012” - Ref. 20).

The total market leakage estimated for the monitoring period was 1,074,665 T CO₂.

Following review of the leakage quantification, the audit team found the project to be in conformance with the requirements of VM0007 for the quantification of activity shifting leakage and market leakage.

| | | | |
|-------------|---|-----------------------------|------------------------------|
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.2.5 Assessment of uncertainty following identified methodology and validated PDD

Review methodological requirements for uncertainty calculations and confirm calculations are in conformance with all methodological requirements related to uncertainty calculations.

Findings from Verification Field Audit

Assessment of uncertainty was used for the total carbon stocks. It was equal to combined uncertainty of forest carbon stock estimates across strata/forest types, calculated using propagation of errors in accordance with module X-UNC. Parameter Uncertainty_{BSL,SS} was calculated to be 6.3% at the 95% confidence level (see 2.2.2 above). Total uncertainty in the baseline scenario (Uncertainty_{BSL}) was also 6.3%, applying equation 4 of VM0007 module X-UNC (see table above in item 2.2.2 of this report), because uncertainty in the baseline rate (Uncertainty_{BSL,RATE}) is assumed to be zero where the planned deforestation rate is based on actual plans (Suppression Plan - Ref. 37).

As stated above, the calculation used in the assessment of uncertainty is presented in the worksheet “baseline” of the spreadsheet “CIKEL APD monitoring calcs Feb2012” (Ref. 20), reviewed by the audit team.

| | | | |
|-------------|---|-----------------------------|------------------------------|
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.2.6 Appropriate use of default values following identified methodology and validated PDD

Review default values used for GHG calculations and confirm conformance with required values identified in the validated PDD and applicable methodology.

Findings from Verification Field Audit

The following default values were used for GHG calculations:

- 0.47 Mg C t⁻¹ d.m. (IPCC, 2006) for CF/CF_i used in the CP-AB and CP-W module;
- 4 tonnes biomass (m³ of wood volume)⁻¹ for BCEF (IPCC, 2006) used in the CP-AB module;
- 0.24 dimensionless for WW_s (methodological default value used for developing countries) used in the CP-W module;
- 0.2 dimensionless for SLF_s (methodological default value used for sawnwood) used in the CP-W module;
- 0.84 dimensionless for Ofs (methodological default value used for sawnwood in Tropical regions) used in the CP-W module;
- 0.4 dimensionless for LK_{ME} (methodological default value used when the proportion of total biomass in commercial species that is merchantable within the stratum is equal to the mean proportion of total biomass that is merchantable for each forest type) used in the LK-ME module.

As per above, all default values used were in accordance with the methodology and were from a reliable source. This was further confirmed by the audit team through cross referencing a sample of the parameters used with the original sourced literature values to confirm the correct application of sourced data.

| | | | |
|-------------|---|-----------------------------|------------------------------|
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.2.7 The assumptions made for calculating GHG emission reductions and/or removals

Identify assumptions made when calculating GHG emission reductions and/or removals, and confirm assumptions are in conformance with those in the validated PDD. Assumptions should be clearly and transparently described within the monitoring report, and supported with verifiable evidence.

| | | | |
|---|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| The following assumptions were considered for GHG calculations: | | | |
| <ul style="list-style-type: none"> Wood density applied, D_j, represents a volume-weighted wood density across all species for the project area, referencing species-specific wood densities from the Forest Products Laboratory (LPG) of the Brazilian Forest Service database (see worksheet "wood products" of the spreadsheet "CIKEL APD monitoring calcs Feb2012" (Ref 20); The deforestation rate used was a direct result from the areas to be suppressed each year according to the developed Suppression Plan (Ref. 37); Values used for L_{SKID}, A_{ROAD}, and A_{DECKS} were averages from the CIKEL Annual Operation Plan Logging reports (Ref. 23, 26, 28 and 31) from the project area. | | | |
| All assumptions were reviewed by the audit team and found to be in accordance with the methodology and the project activity. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.2.8 Calculation of net VCUs to be issued (ex-post estimate) following identified methodology and validated PDD

| | | | |
|--|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| All the worksheets of the spreadsheet "CIKEL APD monitoring calcs Feb2012" (Ref. 20) were reviewed by the audit team. Leakage was correctly subtracted from gross project GHG emissions. The "total VCU calc" worksheet presents the estimated net GHG emission reductions for the giving monitoring period (3.186.547 VCU). A summary with this information is also available in the 2010 Monitoring Report, Section 4.4. | | | |
| The VCU were properly assigned to the project pooled buffer account (noting NCR 03/12 issued above). No release of buffer credits took place given that this was the first verification event. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.3 Quality of Evidence to Determine GHG Emission Reductions or Removals

Identify, discuss and justify conclusions regarding the sufficiency of quantity and appropriateness of quality of the evidence, the reliability of the evidence, and the source and nature of the evidence (external or internal, oral or documented) for the determination of GHG emission reductions or removals.

2.3.1 Verification of inventory equipment used to calculate emissions reduction and/or removals

Identify the inventory techniques used to calculate project emission reductions and removals. Confirm techniques conform with those identified in the validated monitoring plan outlined within the validated PDD. Note that most PDD's include Standard Operating Procedures (SOPs) for forest inventory that detail the inventory design and process.

| | | | |
|--|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| The Methodology VM 0007 v. 01 applied by the project and its corresponding Monitoring Module M-MON v. 2.0 do not request re-inventory the project area every year, as in the project area occurs selective logging of forest management areas possessing a FSC certificate. As such, the project has used the original validated inventory to complete verification calculations, confirmed with appropriate leakage monitoring as required by the methodology. See the validation report for findings on the validated field inventory. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2.3.2 Verification of use of GPS and remote sensing analysis following identified methodology and validated PDD

Identify any GPS and/or remote sensing analysis conducted as part of the development of the monitoring report. Confirm all remote sensing analysis and georeferencing was conducted in conformance with the identified methodology and validated PDD.

| | | | |
|--|--|--|--|
| Findings from Verification Field Audit | | | |
| According to the Monitoring Report, remote sensing analyses were conducted in accordance with the monitoring plan. Leakage monitoring imagery based on remote sensing is presented in Section 4.3 of the Monitoring Report (see Figures 4.1 to 4.3). | | | |

| | | | |
|--|--|-----------------------------|------------------------------|
| Nevertheless, the official imagery files were not available to the audit team (see NCRs 02/12 to 04/12). For complementary information regarding the remote sensing monitoring in the project area see Section 2.1.5 of this report. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised.(See NCRs 02/12 to 04/12) | | |

2.3.3 Implementation of sampling plan described in the PDD

Identify any requirements within the validated PDD that describe the sampling plan and confirm conformance with the sampling plan requirements. Confirm adequate sampling intensity was completed based on calculated project area variability.

| | | | |
|---|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| The sampling plan set for the estimations of the baseline carbon stocks, calculated as per the “Forest Biomass Inventory Results for CIKEL” document (Ref. 9) were not used for the defined monitoring period given that the estimations are valid until July 2017. | | | |
| The sampling measurement procedures conducted in the field to account for the carbon removal due to forest management practices were implemented according to ITOSMA 23 (Ref. 36) where: | | | |
| <ul style="list-style-type: none"> All logging decks shall be measured at widest points; and the measurements shall include open areas by machine when driving or deposit logs beyond the planned area (usually this occur after the roads); Access roads: all access road shall be measure at each 2.5 km; main roads: all main roads measure at each 1 km; secondary and tertiary roads: measure at each 250 meters; Length and width of skid trails shall be measure after and before the night skid; measure after and before the residues harvest; all skid trails of two maps of 6.25 ha for each Unit of Work shall be measured, being the first measure at the entrance of the skid trail, the second in the middle and the third in the end. In the same skid trail, the presence of exposed soil caused by the blade of the skidder shall be noted, and a measure in cross in the wider parts shall be done. | | | |
| The results of these sampling measurement procedures were presented to audit team (see CIKEL Annual Operation Plan Logging reports - Ref. 23, 26, 28 and 31) and used for the GHG calculations. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

2.4 Management and Operational System

Identify, discuss and justify conclusions regarding the suitability of the management system for monitoring and reporting (ie, organisational structure, responsibilities, competencies, non-conformance handling, internal audits and management review).

2.4.1 Monitoring roles and responsibilities identified

Identify any changes in the monitoring roles and responsibilities from the validated PDD. Confirm project staff competency for conducting applicable tasks as designated.

| | | | |
|---|---|-----------------------------|------------------------------|
| Findings from Verification Field Audit | | | |
| No changes in the monitoring roles and responsibilities from the validated PD were identified in the monitoring report. During the field visit in November and Document Review, CKBV representatives were interviewed by audit team, who found that they are competent for conducting applicable tasks as designated. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2.4.2 Inventory quality management systems (including both field and remote sensing as applicable)

Identify quality management systems (QMS) required by the project methodology and/or described within the validated PDD. Confirm project has implemented QMS effectively, and inventory accuracy thresholds if applicable are met.

| | | | |
|--|------------------------------|-----------------------------|---|
| Findings from Verification Field Audit | | | |
| The validated monitoring plan defines a number of criteria relevant to ensure inventory quality. However, as the project has not completed a second inventory at this time (as it is not required of the VM0007 methodology), the project has developed GHG quantification based on the inventory completed prior to the project validation which is valid through 2017. As such, please see the project validation report for findings relevant to the inventory QMS. | | | |
| Conformance | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2.4.3 Data transcription quality management systems

Identify data management systems required by the project methodology and/or described within the validated PDD. Confirm project has implemented data management systems, and data transcription from field inventory to electronic records is accurate. Audit team should complete a sample of data transcription accuracy from original field data sheets.

| | | | |
|--|------------------------------|-----------------------------|---|
| Findings from Verification Field Audit | | | |
| The validated monitoring plan defines a number of criteria relevant to ensure inventory quality. However, as the project has not completed a second inventory at this time (as it is not required of the VM0007 methodology), the project has developed GHG quantification based on the inventory completed prior to the project validation which is valid through 2017. As such, please see the project validation report for findings relevant to the inventory QMS. | | | |
| Conformance | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| NCR/OBS | No NCR or OBS raised. | | |

2.4.4 Data management and archival systems

Identify data management and archival systems required by the project methodology and/or described within the validated PDD. Confirm project has implemented data archival systems and can demonstrate effective retrieval of archived data for the period of time defined within the validated PDD (note the VCS requires at a minimum the storage of all relevant data for 2 years following the end of the project crediting period).

| | | | |
|---|------------------------------|--|------------------------------|
| Findings from Verification Field Audit | | | |
| In the section 3.5 of the Monitoring Report, it is described in the table (pgs. 47 - 49) the variables monitored how these data are and will be stored along of the project lifetime. The project proponent is also committed to storage them after 2 years following the end of the project crediting period. | | | |
| In the audit conducted in Belém on May 08, 2012, the audit team checked the Data Archiving Procedures for the field sampling and has found that the software MFT – Monitoramento de Florestas Tropicais used to electronic storage these data does not demonstrate effective retrieval of archived data for the period of time defined, since the all inventory dates from year 2009 year could not be retrieved by the audit team due MFT conflict version. In response to this issue, the project proponent decided to use the MFT to data management and quality control and export the inventory data to excel files and then storage these files in the CKBV file served. However this change in the storage procedure is not described in the Monitoring Report. (NCR 05/12) . | | | |
| Conformance | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | NCR 05/12 | | |

APPENDIX B: Non-permanence Risk Assessment

Note: Risk factors are determined through a qualitative analysis conducted, following the guidance of the VCS AFOLU Non-Permanence Risk Tool. As stated in Section 1.1.3 "Project proponents shall clearly document and substantiate the risk analysis covering each risk factor applicable to the project. During the analysis, the validation/verification body shall evaluate the risk assessment undertaken by the project proponent and assess all data, rationales, assumptions, justifications and documentation provided by the project proponent to support the non-permanence risk rating."

1.1 VCS AFOLU Non-Permanence Risk Tool Section 2.2.4.4: Projects with tree harvesting

For ARR and IFM projects with harvesting, project longevity may include the length of time the activities that maintain carbon stocks will continue, either through the continuation of the project activity or by replanting or re-growth of the trees after the last harvest in the project crediting period. Such commitment to continue the management practice, or to replant or allow re-growth shall be demonstrated through evidence such as certification of sustainable forest management under Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC) or other internationally recognized schemes, or contractual agreements for timber supply beyond the last harvest in the project crediting period. Re-growth may be considered only where project areas, after harvesting, will be managed for regeneration (naturally or with assistance), maintaining the current species mix and allowing trees to re-grow to an age equivalent to at least the age at which trees were harvested, as demonstrated in management plans.

| | | | |
|--|---|-----------------------------|------------------------------|
| Findings from Field Audit | | | |
| Reduced Impact Logging activities occur under the project area, nevertheless, all project proponent areas (not only the project area) are under FSC certification (see Section 1.1 and 1.8 of the PD v.01). The audit team reviewed the FSC certificates issued for the project proponent. | | | |
| Conformance | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| NCR/OBS | No NCR/OBS raised. | | |

1.2 VCS AFOLU Non-Permanence Risk Tool Section 2.1.1: Risk analysis

Projects shall prepare a non-permanence risk report in accordance with VCS document AFOLU Non-Permanence Risk Tool at both validation and verification. In the case of projects that are not validated and verified simultaneously, having their initial risk assessments validated at the time of VCS project validation will assist VCU buyers and sellers by providing a more accurate early indication of the number of VCUs projects are expected to generate. The non-permanence risk report shall be prepared using the VCS Non-Permanence Risk Report Template, which may be included as an annex to the project description or monitoring report, as applicable, or provided as a stand-alone document.

The potential transient and permanent losses in carbon stocks shall be assessed over a period of 100 years from the start of the current monitoring period, unless otherwise specified in Sections 2.2 to 2.4 of the VCS AFOLU Non-Permanence Risk Tool, to determine the appropriate risk rating.

| Risk Factor | Self Assessment Risk Rating | Findings (including description of any mitigation activities as required per VCS AFOLU Non-Permanence Risk Tool Section 2.1.2.2) | NCR/OBS |
|--|-----------------------------|---|--------------------|
| Internal Risks (VCS AFOLU Non-Permanence Risk Tool Section 2.2): | | | |
| Project Management: Shall be assessed using Table 1 of VCS AFOLU Risk Tool. | 0 | No trees were planted as part of the project activity (+0 scored on item "a"). The project proponent maintains good relationships with the surrounding neighbours, to prevent actions by external agents wanting to invade the area for illegal activities, like wood extraction and hunting (+2 scored on item "b") The team of managers, forest technicians, technicians in security and other professionals, each have 5 to 15 years experience in forest and land management (+0 scored on item "c"). The | No NCR/OBS raised. |

| | | | |
|---|---|--|--------------------|
| | | <p>audit team interviewed them and confirmed their experience.</p> <p>The project proponent has a permanent office complex (+0 scored on item “d”).</p> <p>The management team does not have prior experience in the development of AFOLU projects (-0 scored on item “e”).</p> <p>Sustainable Forest Management/ Reduced Impact Logging activities at the complex are carried out in conformance with the Sustainable Forest Management Plan (FSC certified) (-2 scored on item “f”).</p> <p>Further, the project proponent has also prepared a report charactering the families and their properties around the project area (see Refs. 38 and 44).</p> | |
| Financial viability: Shall be assessed using Table 2 of VCS AFOLU Risk Tool. | 0 | <p>The project’s cash flow breakeven point is less than 4 years from the current risk assessment. Annual cash flow is positive in year 3. (+0 scored). In addition, the project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven, due primarily to revenues from timber harvest exceeding cash out in the first years of the project, prior to realization of VCU revenues. REDD project development costs are also covered by finances secured by CKBV and 33 Forest Capital (+0 scored). Details are provided in cash flow analysis ‘FINAL CIKEL APD Non-permanent Risk Analysis (Ref. 40)’ that was reviewed by the audit team together with the project staff responsible for CKBV financial analyses.</p> | No NCR/OBS raised. |
| Opportunity cost: Shall be assessed using Table 3 of the VCS AFOLU Risk Tool. | 8 | <p>NPV from most profitable land use alternative, Alternative 1 in the PD additionality analysis, is BRL 80,512,738 for the 20 year crediting period, equal to 372.9% of the project NPV (including VCU revenues) of BRL 21,589,798 for the same period, equal to a difference of 272.9%. (+8 scored). Details are provided in ‘FINAL CIKEL APD Non-permanent Risk Analysis (Ref. 40)’ that was reviewed by the audit team together with the project staff responsible for CKBV financial analyses. Furthermore other documents that support the NPV analyzes also were evaluated by the audit team, such as: business plan (ref. 43) and financial statements (ref.45),</p> | No NCR/OBS raised. |

| | | | |
|---|------------------------|---|--------------------|
| Project longevity: Shall be assessed using Table 4 of the VCS AFOLU Risk Tool. | 4 = 24 - (100/5) | The project was implemented without legal agreement or the requirement to continue the management practice. The project area is managed under a Sustainable Forest Management Plan (SFMP). The project proponent has specified in its management plan, amended in January 2012, that the project area will be maintained under sustainable forest management through at least July 2107. | No NCR/OBS raised. |
| Total Internal Risk: Shall be calculated using Table 5 of the VCS Risk Tool. | 12 | The selected scores for the internal risk were properly accounted for. | No NCR/OBS raised. |
| External risks (VCS AFOLU Non-Permanence Risk Tool Section 2.3): | | | |
| Land and resource tenure: Shall be assessed using Table 6 of the VCS Risk Tool. | 2 | <p>Cikel Group has the legal title of the entire project area (see section 2.1.3 of this report), however, according to the Brazilian legislation, the Brazilian Government) owns the subsoil natural resources. (+2 scored on item “b”).</p> <p>The project area is wholly owned by Cikel Group, and no disputes over land tenure exist (+0 scored on item “c”). Some neighbouring communities occasionally engage in subsistence hunting in the project area, which CKBV allows, and hence rights are not in dispute (nor does hunting pose any impact on forest carbon stocks) (+0 scored on item “d”).</p> | No NCR/OBS raised. |
| Community engagement: Shall be assessed using Table 7 of the VCS Risk Tool. | 0 | <p>No communities are living in the project area (+0 scored on item “a”). Only three communities were identified as such in the surrounding of the project area, two indigenous communities and a group of eight families traditionally living out of family agriculture, that rely on parts of the project area for subsistence hunting, which CKBV allows.</p> <p>The development of the REDD project was communicated to all the neighbours in community meetings and technical presentations (+0 scored on item “b”). In section 6 of the PD v. 01 there is a description regarding the stakeholder comments. The project person in charge of this subject was interviewed and all this information was checked by the audit team (Ref. 20), witch included photos, attendance list, presentations, questionnaires and support letters from the following stakeholders: Paragominas Municipality, Goianésia Pará Municipality; Amazon Institute of People and Environment (IMAZON), Tropical Forest</p> | No NCR/OBS raised. |

| | | | |
|---|-----|--|--------------------|
| | | Institute (IFT), Federal University of Para via the Institute of Biological Sciences (ICB), Brazil Indian Foundation (FUNAI). | |
| Political risk: Shall be assessed using Table 8 of the VCS Risk Tool. | 0 | Governance score of -0.32 to less than 0.19 = 0.0097. Details are provided in "FINAL CIKEL APD Non-permanent Risk Analysis.xls – Ref 32 (+2 scored on item "c") Brazil is implementing REDD+ Readiness (-2 scored on item "f"). | No NCR/OBS raised. |
| Total external risks: Shall be calculated using Table 9 of the VCS Risk Tool. | 2 | The selected scores for the external risk were properly accounted. | No NCR/OBS raised. |
| Natural Risks (VCS AFOLU Non-Permanence Risk Tool Section 2.4): | | | |
| Natural risks: Shall be assessed using Table 10 of the VCS Risk Tool. | 1.5 | Cochrane and Laurance (2002) estimated average <u>fire</u> return intervals in Paragominas of from 10 to 15 years. Emissions resulting from forest fires depend on the extent and condition of fuel sources, with initial burns averaging 8% loss of total biomass stocks, and subsequent more severe burns, with higher, drier fuel loads, resulting in losses of up to 45% of original stocks (Cochrane et al., 1999) (score LS = 2). As stated above, project proponent has a Fire Fighting Plan (Ref.41) (Mitigation deduction =* 0.25). There is no history of catastrophic forest disturbance due to <u>forest pests or diseases</u> in the region (score LS = 0). Over a 22 year period (1989 to 2011), two <u>extreme weather events</u> occurred, with each damaging 0.3% of the total area (recorded data) (score LS = 1). | No NCR/OBS raised. |

1.3 VCS AFOLU Non-Permanence Risk Tool Section 2.5.1 – 2.5.3: Overall Project Risk Calculation

Note: As per VCS AFOLU Non-Permanence Risk Tool 2.5.2, the minimum risk rating shall be 10, regardless of the risk rating calculated using Table 11. Furthermore, where overall risk rating is greater than 60, project risk is deemed unacceptably high and the project fails the entire risk analysis (see VCS AFOLU Non-Permanence Risk Tool 2.5.3). For additional information on project risk assessment failure see VCS AFOLU Non-Permanence Risk Tool 2.1.

To determine the number of buffer credits that shall be deposited in the AFOLU pooled buffer account, the overall risk rating shall be converted to a percentage (e.g., an overall risk rating of 35 converts to 35%). This percentage shall be multiplied by the net change in the project's carbon stocks (stated in the verification report), as set out in the VCS document Registration and Issuance Process. Where a project is divided into more than one geographic area for the purpose of risk analysis, the overall risk rating percentage for each area shall be multiplied by the net change in the project's carbon stocks (stated in the verification report) in such geographic area.

| Risk Factor | Self Assessment Risk Rating | Findings | NCR/OBS |
|---|-----------------------------|--|--------------------|
| Overall non-permanence risk rating as determined using Table 11 of the VCS Risk Tool. | 15.5 | <p>The selected scores for the overall non-permanence risk rating were properly accounted.</p> <p>The determined number of buffer credits that shall be deposited in the AFOLU pooled buffer account was presented in Section 4.2 of the Non-Permanence Risk Report for the Cikel Brazilian Amazon REDD APD Project.</p> | No NCR/OBS raised. |