

# THE PURUS PROJECT

## VCS VERIFICATION REPORT



Document Prepared By: Environmental Services, Inc.

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| <b>Project Title</b> | The Purus Project |
| <b>Version</b>       | Report Version 01 |
| <b>Report ID</b>     | VO13022.05ver     |

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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Title</b>        | The Purus Project - VCS Verification Report                                                                                                                                                                            |
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| <b>Pages</b>               | 58                                                                                                                                                                                                                     |
| <b>Date of Issue</b>       | 30 November 2018                                                                                                                                                                                                       |
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**Summary:**

Environmental Services, Inc., (ESI) was contracted by CarbonCo, LLC, on 26 February 2018 to conduct the sixth monitoring period verification (01 January 2017 to 31 December 2017) of *The Purus Project* [Validated Project Description (PD) dated 28 December 2012]. *The Purus Project* follows the framework of Reducing Emissions from Deforestation and Degradation (REDD) and is achieving Greenhouse Gas (GHG) emission reductions as well as tropical forest protection and conservation through payments for ecosystem services.

Project activities include meeting with the local communities surrounding the project area, engaging Acre state officials working on similar strategies at a regional/state level, developing a plan which will result in lowering the pressure on land and forest resources in consultation with the local community, putting into operation the REDD project implementation plan with the help of local partners and Purus Project staff, undertaking a forest carbon inventory, and modelling regional deforestation. Activities implemented as part of the project to reduce deforestation include:

- Community outreach and education;
- Employment of local community members as project forest guards or other project staff (to replace other sources of income associated with deforestation and land use);
- Agricultural extension training which will help baseline agents to increase productivity on current lands (thus reducing the pressure to expand their farms in the adjacent forest);
- Reforestation of select non-forest areas and planting woodlots (to provide alternative sources of fuelwood); and
- Sharing a portion of carbon related revenue for communities living on the Moura & Rosa property (replacing other sources of income associated with deforestation and land use).

The verification assessed the Project's compliance with the Verified Carbon Standard (VCS) Version 3 (and all associated updates), the selected methodology, and the validated PD. The method employed by ESI in the verification process was derived from all items in ESI's internal verification process, which included utilizing VCS documents and ISO 14064-3 to develop and implement a Verification & Sampling Plan. This verification assessed the GHG emission removals through Agriculture, Forestry and Other Land Use (AFOLU) criteria, specifically, REDD – Avoided Unplanned Deforestation (REDD-AUD) activities.

The scope of the verification included the GHG project implementation; physical infrastructure, activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHGs; and time periods covered. The geographic verification scope was defined by the project boundary, the carbon reservoir types, management activities, growth and yield models, inventory program, and contract periods.

The verification criteria followed the guidance documents provided by VCS and included the following: VCS Program Guide (21 June 2017, v3.7), VCS Standard (21 June 2017, v3.7), Program Definitions (21 June 2017, v3.7), AFOLU Requirements (21 June 2017, v3.6), AFOLU Non-Permanence Risk Tool (v3.3, 19 October 2016), and the VCS Methodology VM0007: "REDD Methodology Modules (REDD-MF)" v1.3 (03 May 2013) and its associated modules and tools.

A summary of all findings is included in Appendix B. There are no restrictions of uncertainty.

ESI confirms all verification activities including objectives, scope and criteria, level of assurance, monitoring and project documentation adherence to VCS Version 3 and all associated updates as documented in this report are complete. ESI concludes without any qualifications or limiting conditions that the *2017 Monitoring & Implementation Report for the Purus Project* dated 21 November 2018 (v3.0) meets the requirements of VCS Version 3 and all associated updates.

The GHG assertion provided by CarbonCo and verified by ESI has resulted in the GHG emissions reduction or removal of 118,937 tCO<sub>2</sub> equivalents by the project during the verification period/reporting period (01 January 2017 to 31 December 2017). This value is gross of the 10% (13,759 tCO<sub>2</sub> equivalents) buffer withholding based on the non-permanence risk assessment tool. This results in 105,177 tCO<sub>2</sub> equivalents of credits eligible for issuance as VCUs.

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## 1 INTRODUCTION

### 1.1 Objective

The verification objective included an assessment of compliance with VCS Version 3 and all associated updates, the selected methodology (VM0007, v1.3), and the validated Project Description (PD) *The Purus Project* dated 28 December 2012. ESI (herein referred to as the Validation/Verification Body – VVB) assessed the Greenhouse Gas (GHG) emission removals for the sixth monitoring period/verification period (01 January 2017 to 31 December 2017) through Agriculture, Forestry and Other Land Use (AFOLU) criteria, specifically, Reduced Emissions from Deforestation and Degradation – Avoided Unplanned Deforestation (REDD-AUD). ESI assessed whether the Project Proponent adequately addressed project emissions, unplanned reductions in carbon stocks, and any possible leakage outside of the project boundary.

### 1.2 Scope and Criteria

The scope of the verification included the GHG project implementation and baseline scenario; physical infrastructure, activities, technologies and processes of the GHG project; GHG sources, sinks and/or reservoirs; types of GHGs; and time periods covered. *The Purus Project* follows the REDD-AUD framework. The geographic verification scope was defined by the project boundary, the carbon reservoir types, management activities, growth and yield models, inventory program, and contract periods. The scope of the project was outlined by the Project Proponent prior to the verification and is re-defined as follows for the GHG project:

|                                                                 |                                                                                                                                                                                                           |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Baseline Scenario                                               | Continued unplanned frontier deforestation - forest clearing for subsistence agriculture and cattle ranching.                                                                                             |
| Activities/Technologies/Processes                               | VM0007, v1.3<br>Avoided Unplanned Deforestation<br>Monitoring and modelling forest resources, providing alternative sustainable economic activities for local communities, agricultural training classes. |
| Sources/Sinks/Reservoirs                                        | Above-ground live tree biomass<br>Below-ground live tree biomass<br>Dead wood<br>Biomass Burning - Source                                                                                                 |
| GHG Type                                                        | CO <sub>2</sub> – Sinks; CH <sub>4</sub> and N <sub>2</sub> O - Source                                                                                                                                    |
| Time Period (state date, crediting period, verification period) | 01 January 2017 – 31 December 2017                                                                                                                                                                        |
| Project Boundary                                                | The Purus Project is located in the state of Acre, Brazil, alongside the Purus River (south of Manoel Urbano, Acre) - 34,702 hectares (85,714 acres).                                                     |
| GHG reduction and/or removal                                    | 118,937 tCO <sub>2</sub> equivalents<br>This value is gross of the 10% (13,759 tCO <sub>2</sub> equivalents) buffer withholding based on the non-permanence risk assessment tool                          |

### 1.3 Level of Assurance

The level of assurance was used to determine the depth of detail that the Verifier placed in the Verification and Sampling Plan to determine if there are any errors, omissions, or misrepresentations (ISO 14064-3:2006). ESI assessed the project's implementation of general principles, data collection and processing, sampling descriptions, documentation, *ex post* calculations, etc., to provide reasonable assurance to meet the Project Level requirements of the VCS Program. Based on the verification findings, a final evaluation statement reasonably assures that the project GHG representations are materially accurate. The evidence used to achieve a reasonable level of assurance is specified in the following sections.

### 1.4 Summary Description of the Project

The Purus Project is a REDD-AUD project that is achieving Greenhouse Gas (GHG) emission reductions as well as tropical forest protection and conservation through payments for ecosystem services. The project was developed by three main Project Proponents: CarbonCo, LLC, Freitas International Group, LLC ("Freitas International Group" or "Carbon Securities"), and Moura e Rosa Empreendimentos Imobiliários, LTDA ("Moura & Rosa" or "M&R"). CarbonCo, a wholly-owned subsidiary of Carbonfund.org, is responsible for managing the verification process and for financing in the early stages of project implementation.

A forest carbon inventory, modeling of regional deforestation and land-use patterns, and mitigation of deforestation pressures have been undertaken as part of the project activities. Activities to mitigate deforestation pressures range from engaging EMBRAPA (i.e., the Brazilian Agricultural Research Corporation) and SENAR (Serviço Nacional de Aprendizagem Rural) for agricultural extension training, to the patrolling of potential deforestation sites. In addition, the project aims to eventually build better houses for the local communities to improve their livelihoods.

The Purus Project is located alongside the curves of the Purus River, approximately 60 kilometers (approximately 37 miles) from the nearest city of Manoel Urbano - this distance is about 20 kilometers (or 12 miles) "as the crow flies." The forested area of the Purus property (and thus the project boundary) encompasses 34,702 hectares (i.e., approximately 85,714 acres); it is divided amongst two contiguous parcels named Seringal Itatinga and Seringal Porto Central. The two main types of vegetation strata identified within the project boundary are open forest with palm/bamboo and open alluvial forest with palm, both of which are intact, primary forest.

## 2 VERIFICATION PROCESS

### 2.1 Method and Criteria

The verification assessed the Project's compliance with the VCS Version 3 and all associated updates, the selected methodology (VM0007, v1.3), and the validated PD. The verification also assessed the GHG emission removals through AFOLU criteria, specifically, REDD-AUD. According to the ISO14064-3, the verification criteria are the "policy, procedure or requirement used as a reference against which evidence is compared." For this project, the verification criteria followed the guidance documents provided by VCS and included the following: VCS Program

Guide (v3.7, 21 June 2017), Program Definitions (v3.7, 21 June 2017), AFOLU Requirements (v3.6, 21 June 2017), AFOLU Non-Permanence Risk Tool (v3.3, 19 October 2016), and the VCS Methodology VM0007: "REDD Methodology Modules (REDD-MF)" v1.3 (03 May 2013) and its associated modules and tools.

A project specific Verification and Sampling Plan was developed to guide the verification auditing process to ensure efficiency and effectiveness. The purpose of the Verification and Sampling Plan was to present a risk assessment for determining the nature and extent of verification procedures necessary to ensure the risk of auditing error was reduced to a reasonable level. The Verification & Sampling Plan methodology was derived from all items in our verification process stated above. Specifically, the sampling plan utilized the VCS guidance documents and ISO 14064-3. Any modifications applied to the Verification and Sampling plan were made based upon the conditions observed for monitoring in order to detect the processes with highest risk of material discrepancy.

Field sampling and techniques were based on the project parameters/scope and best professional judgment of the VVB in order to meet a reasonable level of assurance as directed by the professional judgment of the Lead Verifier. Because the biomass inventory was validated and has not changed, inventory plots were not selected for detailed review/re-measurement. Rather, extensive review of all remote sensing data was undertaken of the project area and leakage belt to aid the VVB in establishing a reasonable level of assurance regarding confirming the reported areas of *ex post* disturbance (from the remote sensing analysis) for the quantification of project emissions and leakage emissions.

In addition, a risk-based approach was used for the on-the-ground field sampling effort in order to select key areas for direct observation of forest losses, leakage issues, and stated project activities. The most likely access points for anthropogenic deforestation (Purus River) within the Project Area and leakage belt were toured in order to allow the VVB to establish a reasonable level of assurance regarding the implementation of project activities, and to further confirm the reported areas of *ex post* disturbance. Please see Section 2.4 of this report for more details.

The desktop verification component included a full review of all project documentation and calculations received from the Project Proponent as described below.

## 2.2 Document Review

A detailed review of all project documentation was conducted to ensure consistency with, and identify any deviation from, VCS Program requirements, the methodology (VM0007, v1.3), and the validated PD. Initial review focused on the validated PD and Monitoring Report (MR) relative to the field conditions observed and interviews with project management staff. Project details, implementation status, data and parameters, and quantification of GHG emission reductions and removals were thoroughly examined. Key supporting documents were also reviewed. These included monitoring data (i.e., remote sensing/Geographic Information System (GIS) data), land ownership documentation, carbon rights contracts, financial analyses, property boundaries, maps and aerial images, fire-specific monitoring data, biomass and carbon calculation spreadsheets, and responses to Non-conformance Requests (NCRs) and Clarification Requests (CLs).

The AFOLU Non-Permanence Risk Tool (v3.3, 19 October 2016) was used by the Project Proponent to assess overall project risk. The VVB reviewed the Non-Permanence Risk Report provided with the verification supporting documentation and confirmed that the Project adheres to the requirements set out in the VCS AFOLU Non-Permanence Risk Tool (v3.3, 19 October 2016). Each risk factor was thoroughly assessed for conformance. Any identified NCR and/or CL findings related to the AFOLU Non-Permanence Risk Tool/Report are presented in Appendix B. The final score was calculated to be 10%.

For a listing of all documents received from the client for this verification, please see Appendix A.

## 2.3 Interviews

The verification site inspection followed the VVB's prepared Verification and Sampling Plan process and was conducted on 18-22 July 2018 by the Lead Verifier and Verification Team Member. Onsite interviews and informal discussions were conducted in the project area and leakage belt with project staff, as well as members and leaders of the local communities. Some of the individuals interviewed in 2018 had been previously interviewed at the 5<sup>th</sup> verification site visit. The site visit interviews, and especially observations by the verification team, suggested a range of opinions, project familiarity and appreciation of project benefits. There appears to be increasing problems regarding sentiment toward the project and communications between the community members and the project do not appear to be working well.

The verification team did not have good success at interviewing community members on-site for this monitoring period. All but four (4) of the community members either; would not meet with verification team members, were not home/available for interviews or the clients representative said the verification team could not visit as the community member had told them not to come back, specifically not with the verification team. Community member availability for interviews impacted the ability of the verification team to confirm project benefit dispersion to the communities.

One of the interviewees was the project headquarters Project Manager EdCarlo who indicated to the verification team that he had not been paid for the past few months. The interview process also indicated some disagreement between project proponents and EdCarlo over debts and appropriate reimbursement. EdCarlo was not aware of the formal grievance process in place to fulfil CCB Indicator G3.10 requirements which was subsequently explained to him to resolve the audit finding.

As in previous site visit interviews, indifference and hostility to the Project was exhibited primarily by members of the Guita family, and described by father Antonio. The main Guita household (represented by father Antonio) and other family members continued unabated to clear land for their cattle operations during the monitoring period. Previously this family has stated they do not plan to change their activities and the extent of their right to ownership was somewhat in question. This sixth monitoring period site visit confirmed that negotiations continue in order for the Guita family to stop deforestation in exchange for land titles.

Some individuals interviewed on-site were interested in gaining title for the land they lived on, provided the titling qualifications were met. Although these individuals stated gaining land title was important it was also suggested they did not want to deal with encumbrances such as taxes.

Interviews with the Public Ministry confirmed that community members which have been living on land adjacent to the project area and who made the land productive (e.g., by growing crops or raising animals) for ten years, have the right to be titled. In addition, the VVB met with individuals with various roles in the project, please see below.

| Name*                                | Title                                                                                 |
|--------------------------------------|---------------------------------------------------------------------------------------|
| Brian McFarland                      | Director-Carbon Projects and Origination, Carbonfund.org – CarbonCo/Project Developer |
| Normando Sales                       | Managing Director, Moura & Rosa /Landowner-Project Manager                            |
| Gildo Speraldio                      | Representative for Freitas International                                              |
| Vanderley Borges dos Santo           | Professor Eng. Agronomo - UFAC <sup>1</sup>                                           |
| Sara Louieua Ameum                   | Professora Veterinary Medicine - UFAC                                                 |
| Tricia Kerolaine Mendonca dos Santos | Discente Florestal - UFAC                                                             |
| Patricia G. R. Amorim                | Prof. Eng. Floresta - UFAC                                                            |
| Luiz Henrique Medeiros Borges        | Local Acre Wildlife Biologist                                                         |
| Rai Da Souza Verte                   | Assistant for André Luis Botelho de Moura                                             |
| Edcarlo Pavia do Nascimento          | Current On-Site Project Manager                                                       |
| Narcizo Ferreira de Almeida          | On-site Project support personnel                                                     |
| Ribamar                              | Local Resident/Informal Mayor                                                         |
| Benedito Nunes da Silva              | Community Member                                                                      |
| Jose Antonio Rodriguez da Costa      | Community Member                                                                      |

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<sup>1</sup> Federal University of Acre in Portuguese: Universidade Federal do Acre

|                 |                                                           |
|-----------------|-----------------------------------------------------------|
| Antonio Guita   | Community Member                                          |
| Raimundo Nanato | Community Member                                          |
| Eliene Almeida  | Community Member                                          |
| Mrs. Sales      | Local Nurse (Normano Sales wife) –<br>Visits Project Area |

\*Regarding members of the local communities, some interviewees did not want to give their names or only gave partial names. Due to the nature of their settlement, it was decided to simply ask for “names”, and then it was recorded. This was intended to not intimidate them and hope for a more complete answer.

The following are a sample of interview questions which were asked of community members and individuals during the verification site visit.

1. Did you know the project was undergoing an audit?
2. Did you know we (auditors) would be coming?
3. Did you see the monitoring report summary, or know of it?
4. Did you know about the comment period?
5. Have you taken advantage of any of the project benefits? (Health clinic, transport boat, extension classes, cell tower, HQ water system, etc.)
6. Are there any project benefits you would like to see?
7. Does the project make it more difficult to make a living?
8. If you have a problem or complaint about the project, what would you do? Who would you speak with?
9. Do you plan on receiving title to your lands?
10. Do you use fuel wood?
11. How does your household get timber/wood for building?
12. How much timber does your household use per year?
13. How far do you have to travel to get wood from the forest?

The interview questions were sometimes adjusted to solicit more detailed responses, but the responses confirmed with reasonable assurance that no community members will be negatively affected by the project. The verification site visit interviews also confirmed that most community members are participating in project activities and feel that they are a benefit.

## 2.4 Site Inspections

The verification site inspection followed the VVB’s prepared Verification and Sampling Plan process and was conducted on 18-22 July 2018 by the Lead Verifier and Verification Team Member. The verification site visit was a required tool to help the VVB reach reasonable assurance for verification of monitoring period reported elements. It also allowed the VVB to; understand application of the methodology on-site, confirm the implementation of project activities, and to identify possible sources of error in order to focus desktop verification efforts.

A ground inspection was made of the project area and leakage belt along the Purus River, including a series of drone flyovers to visually review inaccessible areas. The site visit ground inspection was performed to assess monitoring efforts, including but not limited to; unplanned deforestation activities, unplanned degradation, and community member feedback. To further confirm the reported areas of *ex post* deforestation resulting in carbon stock losses, an extensive review of drone imagery and independently obtained Landsat imagery for Fall 2017 (<http://landsatlook.usgs.gov/> accessed 20 August 2018) data was also undertaken at the desktop. The Project's UCEGEO<sup>2</sup> deforestation dataset was not available for this monitoring period, therefore an alternate analysis using Landsat 8 imagery was performed. This is permissible following M-MON as Landsat 8 is an acceptable alternate source and further Landsat data was the basis for the UCEGEO dataset. The verification team ocularly validated the proponent's classification results by comparing against monitoring period Landsat imagery where the deforested cover class was in good agreement for both the project area and leakage belt.

During the project site visit, the following aspects of the project were considered:

1. Boundaries - reviewed boundaries using a handheld Global Positioning System (GPS)
2. Stratification - checked vegetative cover classifications by taking waypoints and notes through direct observation with handheld GPS and maps.
3. Forest protection - viewed areas of high likelihood of incursions
4. Reviewed and observed high risk areas and items:
  - Areas of monitoring period deforestation in project area boundary and leakage belt with confirmation of data collection methods in conformance with the stated Standard Operating Procedures (SOPs) for monitoring. See details on drone use below.
  - The degradation assessment was performed during the site visit as part of CCB interviews and included targeted questions to community members on fuelwood, charcoal and illegal timber extraction:
5. Leakage
  - Considered leakage monitoring as described in the validated PD and Monitoring Report. Visited the leakage belt and inspected current land-use to ensure that affected lands owned by the Project Proponents have not materially changed as a result of project leakage.
6. Visited and interviewed communities along Purus River to assess the potential for current and future impacts to the project area.
7. Implementation of monitoring activities
8. Reported elements of the Risk Assessment

While on-site the verification team was able to remotely observe recent deforestation within an approximately 3km radius of project headquarters using a high-definition camera-equipped drone supplied by the Project Proponents. The Project's deforestation analysis dataset was successfully validated for locations visited by the drone. Use of the drone allowed the verification team to visually check inaccessible deforestation locations and enabled the verification team to achieve reasonable assurance that deforestation was mapped appropriately. The verification noted from

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<sup>2</sup> Central Unit of GIS and Remote Sensing within the Climate Change Institute (ICM) in Acre, Brazil

the drone imagery that not all deforestation is a complete removal of aboveground biomass, suggesting that project accounting methods are conservative (Cpost is set to 0). The desktop review of drone acquired imagery also indicated that deforestation patches from the 2016 monitoring efforts slightly grew in size during the first half of 2017. Deforestation within the project area during the monitoring period was primarily contained in lands settled by members of the Guita family and expansions of clearing performed during the 5<sup>th</sup> (previous) monitoring period.

Using Landsat imagery (<http://landsatlook.usgs.gov/> accessed 20 August 2018) the VVB also observed the continuation of clearing activities within a portion of the leakage belt near ramals linked to national route BR-364. As stated in the 3<sup>rd</sup> monitoring period Verification Report<sup>3</sup>, this clearing is primarily attributable to government sponsored/sanctioned INCRA settlements. The presence of these INCRA settlements were further confirmed by personal discussions during the verification site visit with Normando (one of the Project Proponents) and the geo-referenced ownership map of the project area. The verification notes that here, the land-use decisions by agents are influenced by INCRA endorsement and not leakage in the conventional sense, despite similar outcomes of agriculture and cattle ranch development.

Although the primary deforestation during the monitoring period in the leakage belt occurred as a result of continuing expansion of INCRA settlements, the project has appropriately monitored following VM0007 monitoring methods. Carbon stock losses due to this type of leakage (or any) are not applied to project accounting until it exceeds the baseline projected amount.

At the 3<sup>rd</sup> verification, an interview with an individual living in the INCRA settlement along ramal (access road) 16 noted that one of the greatest needs is improvements to the access road. Observations made by Project Proponents during the 6<sup>th</sup> monitoring period suggest that the ramal roads were not improved and instead now function to limit further settlement. Project accounting [parameters ADefPA,u,i,t (ha) and ADefLB,u,i,t (ha)] of deforestation was confirmed correct through an independent re-quantification using the UCEGEO deforestation dataset ArcGIS shapefile.

Field observations sufficiently satisfied the professional discretion of the verification team that the findings in the monitoring report were accurate. Please also see the Project Verification and Sampling Plan for further site inspection details.

## 2.5 Resolution of Findings

During the verification process, there was a risk that potential errors, omissions, and misrepresentations would be found. The actions taken when errors, omissions, and misrepresentations were found included: notifying the client of the issue(s) identified and expanding our review to the extent that satisfied the Lead Verifier's professional judgment.

The process of resolution of findings involved two formal rounds of assessment by the VVB. Findings were resolved during the verification by the Project Proponent implementing corrective actions such as amending the Monitoring Report and calculations, as well as and providing

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<sup>3</sup> [https://www.vcsprojectdatabase.org/#!/project\\_details/963](https://www.vcsprojectdatabase.org/#!/project_details/963)

written responses. This resulted in project documentation that was in conformance with the requirements of the VCS Standard (v3.7) for GHG projects.

Findings were characterized in the following manner:

**Non-Conformity Reports (NCRs)** were issued as a response to material discrepancies in a part of the project and generally fell into one category:

- Non-conformity to a VCS guiding document listed in Section 2.1 above
- Consistency among project documentation or calculations was lacking
- Mathematical formulae were incorrect
- Additional information was required by the VVB in order to confirm reasonable assurance for compliance

**Clarifications (CL)** were issued when language within a project document needed extra clarification to avoid ambiguity.

**Opportunities for Improvement (OFI)** were issued to the Project Proponents when an opportunity for improvement was identified.

During the course of the verification, nineteen (19) essential VCS findings were identified. Detailed summaries of each finding, including the issue raised, responses, and final conclusions, are provided in Appendix B. All NCRs/CLs were satisfactorily addressed.

### 2.5.1 Forward Action Requests

Multiple forward action requests (FARs) were identified during the sixth monitoring period verification. To assist the reader, FARs for the VCS and CCB review are listed here, the same CCB FARs can also be found in the CCB Verification Report, provided separately.

1. This forward action request was raised at previous verifications and again here at the sixth verification. One large family (the Guita, represented by the father – head of family, Antonio) in the project area continues to feel indifferent about the project and Guita family members living in homesteads at different locations around the project area continued deforestation activities in the sixth monitoring period. Through on-site interviews, the Project Proponents clarified they are working with the Public Ministry of Acre (MPAC<sup>4</sup>) to stop the on-going illegal deforestation activities. The Project Proponents indicated that coordination continues for a reasonable resolution on the lands to be titled to them, which would resolve the potential for additional deforestation in the project area. The status of this situation including the legal process initiated, any agreements in place as well as monitoring period deforestation should be reviewed again at the next verification.

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<sup>4</sup> In Portuguese: Ministério Público do Estado do Acre

2. Related to CCB Indicator G1.6 and G5.5, the site visit revealed that one of the community members (the Guitas family) is “burning into” the land of another (Benedito). The community member is encroaching on land that was lawfully obtained by Benedito through the title tenure securement process administered by project proponents. Please see the previous FAR for details on the Guita family challenges to the project goals. The project proponent is meeting with the police chief and environmental officials to address this. This conflict appears to have started after the end of this monitoring period. The next verifiers will need to examine whether the new conflict between Benedito and the Guitas family has been adequately resolved. Future auditors should monitor whether measures to curtail community members encroachment on the lands of other community members and on project lands has been effective.
3. Related to CCB Indicator G3.8, the verification team noted that the project’s current communication and consultation strategies with community members are not working and requested revisions for improvements. Given the lack of willingness to speak with the verifiers during this verification site visit, at the next verification verifiers are requested to examine whether relations have been improved within the community.
4. Related to CCB Indicator G4.5, it was found during site visit interviews that the local project manager sometimes went unpaid or was only partially paid. His pay was not in arrears after a settlement that occurred during the site visit. Since this finding was originally issued the project proponent has provided evidence that the project manager has now been paid. While this addresses the current auditor concerns, a forward action request is being issued so that the next auditors are aware of this problem and can follow up with project employees to determine if it has been rectified.

Please also refer to forward action requests issued under previous verifications.

## **2.6 Eligibility for Validation Activities**

Validation activities were not undertaken as part of the sixth monitoring period verification.

## **3 VALIDATION FINDINGS**

The PD entitled “*The Purus Project*” dated 28 December 2012 was previously validated by another Validation and Verification Body (VVB). The validation process is described in the Validation Report, available on the VCS website. The Project Proponent has attested that none of the project area has been or will be registered under another carbon trading scheme during the VCS project lifetime, other than CCBA.

### **3.1 Participation under Other GHG Programs**

The PD entitled “*The Purus Project*” dated 28 December 2012 was previously validated by another Validation and Verification Body (VVB). The validation process is described in the Validation Report, available on the VCS website. The Project Proponent has attested that none of the project area has been or will be registered under another carbon trading scheme during the VCS project lifetime, other than CCBA.

### 3.2 Methodology Deviations

The following methodology deviations were applied to the project and assessed during the verification.

| Methodology Deviation                                                                                                                                                                                                                                                                                                                                                                                           | Verification Findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Trees in the <i>Cecropia</i> genus were not measured as part of the forest inventory. This has been proposed as a deviation as it stands in conflict with the CP-AB requirement that "all the trees above some minimum DBH in the sample plots" be measured.                                                                                                                                                    | VVB confirmed that <i>Cecropia</i> genus was conservatively omitted from analysis in both the baseline and project scenarios and this is permitted per VCS Standard Section 3.5.1, which states that deviations are permitted where they relate to data and parameters available at validation, data and parameters monitored, or the monitoring plan. <i>Cecropia</i> sp. generally does not grow in a consistent tree form to allow conventional volume estimates using allometric methods. Most species within the genus contain hollow portions within the stems making volume measurement difficult. Further, there are relatively few <i>Cecropia</i> sp. across the project area. The omission of <i>Cecropia</i> is conservative and does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals.                                                                                  |
| <p>While sampling lying dead wood using the line intersect method:</p> <p>Two 92-meter transect lines were used rather than two 50-meter transect lines;</p> <p>The sampling lines did not bisect each sample plot, but rather ran from one plot center to the next; and</p> <p>The sampling lines were oriented to the north and east, and no randomization in the bearing of the first line was employed.</p> | VVB confirmed that Project Proponents measured lying deadwood using two 92-meter transects, and all dead wood greater than or equal to 10cm diameter was measured at the point of intersection. This measurement method differs from the requirements on module CP-D where Step 1 of Part 2: Lying Dead Wood states "Two 50-meter lines (164 ft) are established bisecting each sample plot and the diameters of the lying dead wood ( $\geq 10$ cm diameter $\approx 3.9$ inches+) intersecting the lines are measured. The first line is oriented along a random bearing, the second line is oriented perpendicular to the first." The PP established two 92-meter transect lines, greater in length, to capture a larger and more representative sample of lying dead wood. These sample lines were permitted not to intersect a given sample plot center, but instead run from one plot to another. This method still ensures a random, |

|                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                                                                                                                                                                                                                                                      | <p>but systematic sample of lying dead wood along a transect. The Project Proponent followed the same minimum diameter rule as the requirement, where lying dead wood greater than or equal to 10cm which fell on the transect line was sampled. The first sample line was not at a randomized bearing but rather the two sample lines were oriented at the north and east. The VVB believes that consistent line bearings among sample lines is still in line with good forest sampling practice as no sampling bias is introduced. Field going personnel of varying forest measurement experience are better able to replicate sample line measurements which are consistent in bearing. Further, the bearing of sample lines follows the perpendicular rule stated in CP-D.</p> <p>These deviations from the criteria and procedures related to measurement are appropriate given the good forest measurement practices employed, consistency in sampling practices, and conservativeness in larger sample sizes of lying dead wood. Further, the deviations are permissible per VCS Standard Section 3.5.1 given that the issue is a monitoring/measurement deviation and its application does not negatively impact the conservativeness of the quantification of GHG emission reductions or removals.</p> |
| <p>For validation of the allometric equation, commercial heights were estimated from total height measured in the field by applying a factor of 62.9%. This commercial height to total height ratio is Amazon specific and was developed by Higuchi et al. 1998 (n = 315 trees).</p> | <p>This deviation is permissible, as it does not negatively affect the conservativeness of quantification of tree volumes. The Higuchi et al. 1998 is an acceptable reference for commercial height to total higher ratio. The permissibility of this methodology deviation was evaluated at the previous initial validation and verification.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>Rather than using a root to shoot ratio to estimate belowground biomass as per the CP-AB module, belowground biomass was</p>                                                                                                                                                      | <p>The VVB has agreed to allow this deviation as it has been demonstrated by Project Proponents that using the Cairns<sup>5</sup> approach is</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

<sup>5</sup> Cairns, M. A., S. Brown, E. H. Helmer, and G. A. Baumgardner. 1997. Root biomass allocation in the world's upland forests. *Oecologia* 111, 1-11.

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| <p>estimated using an allometric equation developed by Cairns et al.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>a conservative allometric method to estimate belowground biomass. The Cairns et al. 1997 equation predicts root biomass density as a function of the aboveground biomass density, and it was chosen to replace the root to shoot parameter R.</p> <p>The Cairns et al. 1997 equation was confirmed by the validation team to be a widely referenced method during a related literature search. The Project Proponent (PP) demonstrated the conservativeness of the root to shoot parameter (R) substitution in a separate analysis where the default root to shoot ratios were compared to the Cairns root to shoot ratio. The Cairns et al. method employs an average root to shoot ratio of 0.2286 versus the value of 0.24 (Table 4.4 IPCC GL AFOLU Tropical Forest &gt;125 t.ha-1). This alternative method for determining below ground biomass is acceptable as it is more conservative and accurate. Further, this method for determining below-ground biomass is a parameter available at validation and therefore a justifiable deviation.</p> |
| <p>The forest inventory has deviated from the criteria for selection (i.e., the equation is based on a datasets comprising at least 30 trees, with an <math>r^2</math> that is <math>\geq 0.8</math>) and validation of the allometric equation related to palm biomass. However, the equation used is likely to result in a conservative estimate of palm biomass for the following reasons:</p> <p>Volume is calculated as the volume a parabaloid rather than the volume of a cylinder;</p> <p>Only stem biomass is estimated, thus conservatively excluding other aboveground biomass; and</p> <p>A conservative measure of basal diameter (i.e., dbh) was used.</p> | <p>The VVB has agreed to allow this deviation as it has been demonstrated by Project Proponents that using a paraboloid is a conservative alternative to applying a traditional allometric to represent palm trees. Further, this method for determining above-ground biomass is a parameter available at validation and therefore a justifiable deviation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>A calibration factor of 0.985 was applied to the Brown (1997) equation to ensure use of this</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>This deviation is permissible as it does not negatively affect the conservativeness of</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| equation results in conservative estimates of live aboveground biomass.                                                                                                                                                                                                                                                                                                                                                                                                         | quantification of live aboveground biomass. The calibration factor applied to Brown 1997 is an acceptable approach. The permissibility of this methodology deviation was evaluated at the previous initial validation and verification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| In the with-project case, C(post) can conservatively be assumed to be zero, not only for natural disturbance (CP,Dist,q,i , as stated in Section 5.2.3 of the M-MON module) but also for deforestation (CP,post,u,i). This deviation is conservative because subtracting zero from the baseline stocks, leads to the conclusion that $\Delta C_{pools,Def,u,i,t}$ is equal to $C(BSL,i)$ , which leads to the maximum emission in the with-project case, which is conservative. | This methodology deviation is permissible as it does not negatively affect the conservativeness of project emissions. Setting parameter Cpost to zero ensures that the most conservative estimate of emissions is achieved. This deviation was reviewed at the previous verification and found to be permissible.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| AVFOR will be stratified using information and data derived from official (government) publications, peer-reviewed published sources, or other verifiable sources. Stratification is not limited to the delineation of different strata where contiguous areas of at least 100 ha differ in stocks by $\geq 20\%$ . <sup>6</sup>                                                                                                                                                | The VVB found that AVFOR was stratified by Amazon biomes, source: FAO publication Global Forest Resources Assessment 2010, Brazil Country Report. The requirement in LK-ASU states (Step 4, Definition of the Leakage Belt Boundary), "AVFOR shall be separated into different strata where contiguous areas of at least 100 ha differ in stocks by $\geq 20\%$ ." The project was stratified into contiguous natural forest biomes according to the FAO data that are larger than 100 ha and differ in in stocks by $\geq 20\%$ . Thus it meets the above quoted mandatory requirement. No divergences from the FAO document were identified during validation. Since the AVFOR parameter is directly related to the TOTFOR parameter, which contains a permissible methodology deviation, the validation team agreed with the PP it be mentioned along with the TOTFOR as a methodology deviation. However, the VVB concludes that the actual measurement method for AVFOR does not constitute a methodology deviation because this |

<sup>6</sup> The Purus Project: A Tropical Forest Conservation Project in Acre, Brazil – Project Description, v02, dated 28 December 2012.

|  |                                      |
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|  | measurement was performed correctly. |
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The verification process confirmed that the above methodology deviations are reasonable and in compliance with the VCS Standard, Section 3.5 and have been appropriately justified. The listed deviations represent a deviation from the criteria and procedures relating to monitoring and/or measurement of GHG emission reductions or removals set out in the selected methodologies. Moreover, the deviations do not negatively impact the conservativeness of the quantification of GHG emissions reductions or removals (where degradation is deemed significant following the steps in T-SIG, it will be accounted for).

### 3.3 Project Description Deviations

A Project Description Deviation related to using temporary sample plots covering 1% of the potential degradation area (ADegW,i) was listed at this verification (see also Section 3.2 above). ESI confirms that the deviation from assessing the significance of degradation using temporary sample plots to the use of quantitative survey data and conservative assumptions is justified. This represents an acceptable approach for assessing if emissions due to degradation should be included in the quantification of net GHG emission reductions and if plot level monitoring of degradation is warranted.

The VVB interviewed individuals and traversed the Project Area during verification site visits over the course of three verification periods (2013-2015 – conducted in summers 2014, 2015 and 2016) to assess degradation activities. Community members were surveyed on the main required elements of the degradation PRA in M-MON and consistently responses indicated low (de-minimis) levels of timber and fuelwood extraction. The results of the VVB's series of informal degradation surveys were generally in line with the Project Proponent, suggesting that survey data for the Project is sufficient to measure degradation.

The project remains in compliance with the VCS Standard, Section 3.6.1 where Project Description Deviations are permissible at verification if the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology.

The project remains in compliance with VM0007 V1.3 (where degradation is determined to be significant per the T-SIG tool, it will be accounted for) and the PD deviation is described and appropriately justified in Section 2.9.2 of the Monitoring Report.

CarbonCo's assessment of degradation (*Purus Project Aggregated PRA and Degradation Surveys (July 2018)*) was reviewed and found to contain the appropriate data and conservative calculations. Emissions due to degradation were justified as insignificant following the proper steps of the T-SIG tool and plot level monitoring of degradation is not warranted at this time. This item was assessed in full at this verification in addition to the full assessment performed at the previous verification and will be re-assessed at future verifications.

### 3.4 Grouped Project

Not applicable, as this is not a grouped project.

## 4 VERIFICATION FINDINGS

### 4.1 Project Implementation Status

The Project Activities and Monitoring Plan, as described in the validated PD, have been initiated. There are no remaining issues from the validation. At this sixth monitoring period verification, many activities are still being implemented, but the verification team observed considerable progress during the verification site visit activities.

The verification team requested to visit examples of all activities during the various site visit activities and subsequently confirmed the initial implementation of all items, as discussed in Section 2.1 of the Purus Project's sixth verification MR.

A Participatory Rural Appraisal (PRA) to evaluate degradation from extraction of trees for timber, fuelwood and charcoal was performed in 2018 by project Proponents for this verification in line with M-MON requirements every two years. Degradation was found *de minimis* through use of the T-SIG tool, and the illegal wood extraction component was also allowably set to 0 since no selective logging occurs in the with-project or baseline cases. The degradation PRA survey contained a small sample size but allowable per the methodology. One or 2 of the community members interviewed by Project Proponents were also interviewed by the verification team during the sixth verification site visit in July 2018 and the validity of those responses confirmed. The responses reflect a low impact of degradation through fuelwood, charcoal and timber, which was also reflected in surveys performed by the verification team.

Stratification was reviewed and it was confirmed that stratification remained the same from the validated strata boundaries as seen in the Monitoring Report.

No new methodology deviations relating to monitoring and/or measurement of GHG emission reductions or removals were applied by the project developer/identified by ESI during this sixth monitoring period verification. The GHG emission reductions generated by the project have not become included in an emissions trading program other than the VCS program and it has not received or sought any other form of environmental credit as confirmed through a risk-based review by the verification team.

Sustainable development contributions are applicable to this project and Brazil has participated in the development of 17 Sustainable Development Goals. The project was confirmed to be actively supporting many UN SDGs as reported in Section 1.7 of the monitoring report through the site visit interviews and document review as part of the verification.

### 4.2 Accuracy of GHG Emission Reduction and Removal Calculations

The verification team conducted an intensive review of all input data, parameters, formulas, calculations, conversions, statistics and resulting uncertainties and output data to ensure consistency with the VCS standard, the validated project PD and the methodologies. Further, the verification team reproduced select calculations and checked all formulae application for parameters that are derivative to net emission reduction values. Conversion factors, formulas, and calculations were provided by the project proponent in Excel worksheet format to ensure all

formulae were accessible for review. The verification team recalculated subsets of the analyses to confirm correctness. The project proponent also provided a step-by-step overview as needed of calculations to ensure the verification team understood the approach and could confirm its consistency with the methodologies and PD.

An overview of the data and parameters monitored, along with verification team findings, are included in the table below:

| <b>Data Unit / Parameter</b> | <b>Accuracy of GHG emission reductions and removals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Whether methods and formulae set out in the PD have been followed</b>                                                    | <b>Appropriateness of default values</b> |
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| $\Delta C_{P,Def,i,t}$       | Verification team confirmed the net carbon stock change as a result of deforestation in the project case were correct by recalculating and checking input values. The value was traced to the quantification of carbon stock changes for project emission/removals and, ultimately net GHG emission reductions during the monitoring period. This value was found to be calculated correctly for the 2016 monitoring worksheet according to the correct formula for the monitoring period. | This parameter was reviewed and re-calculated using methods set forth in the methodology and the PD and confirmed followed. | Not applicable.                          |
| $\Delta C_{P,DefLB,i,t}$     | The net carbon stock change as a result of deforestation in the project case in the leakage belt was confirmed by the verification team through an independent check on source data from the Landsat 8 based deforestation analysis dataset. This value was found to have been calculated correctly in the 2017 monitoring worksheet according to the correct formula for the monitoring period.                                                                                           | This parameter was reviewed and re-calculated using methods set forth in the methodology and the PD and confirmed followed. | Not applicable.                          |
| $\Delta C_{P,DistPA,i,t}$    | Net carbon stock change as a result of natural disturbance in the project case in the project area was correctly determined to                                                                                                                                                                                                                                                                                                                                                             | This parameter was reviewed and re-calculated using methods set forth in                                                    | Not applicable.                          |

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|                   | be 0. This was appropriate as there were no areas of natural disturbance reported by on-the ground forest monitors/local land managers and confirmed under parameter $A_{DistPA,q,i,t}$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | the methodology and the PD and confirmed followed.                                                                          |                 |
| $A_{DefPA,u,i,t}$ | This data/parameter was appropriately chosen because it pertains to the area of recorded deforestation in the project area stratum $i$ converted to land use $u$ at time $t$ . This value was found to be computed and determined correctly from remote sensing/GIS data as confirmed by an independent workup by the verification team. Hectares deforested during the monitoring period in the project area were also confirmed to have been transcribed and collated properly in the 2017 monitoring worksheet according to the correct formula. The verification team also confirmed the Project's accuracy assessment for landcover classification by randomly selecting points and reviewing them in monitoring period dated Sentinel2 high-resolution imagery. Further, the verification team confirmed all misclassifications using the same Sentinel2 imagery. | This parameter was reviewed and re-calculated using methods set forth in the methodology and the PD and confirmed followed. | Not applicable. |
| $A_{DefLB,u,i,t}$ | This data/parameter was appropriately chosen because it pertains to the area of recorded deforestation in the leakage belt stratum $i$ converted to land use $u$ at time $t$ . This value was found to be computed correctly from remote sensing/GIS data as confirmed by an independent workup by the VVB. Hectares                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | This parameter was reviewed and re-calculated using methods set forth in the methodology and the PD and confirmed followed. | Not applicable. |

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|                    | <p>deforested during the monitoring period in the project area were also confirmed to have been transcribed and collated properly in the 2017 monitoring worksheet according to the correct formula. The verification team also confirmed the Project's accuracy assessment for landcover classification by randomly selecting points and reviewing them in monitoring period dated Sentinel2 high-resolution imagery. Further, the verification team confirmed all misclassifications using the same Sentinel2 imagery.</p>                                                                                                                                                                                                                                                     |                                                                                                                                    |                                                                                                            |
| $A_{DistPA,q,i,t}$ | <p>This data/parameter was appropriately chosen because it pertains to area impacted by natural disturbance in post-natural disturbance stratum <math>q</math> in stratum <math>i</math>, at time <math>t</math>. The value applied was 0. This was appropriate as there were no areas of natural disturbance reported by on-the ground forest monitors/local land managers. The verification team was unable to distinguish natural disturbance from anthropogenic deforestation with remote sensing analyses of monitoring period dated Landsat data (<a href="http://landsatlook.usgs.gov/">http://landsatlook.usgs.gov/</a> accessed 20 August 2018). The VVB further confirmed the value of 0 was appropriate through ground review during the verification site visit.</p> | <p>This parameter was reviewed and re-calculated using methods set forth in the methodology and the PD and confirmed followed.</p> | <p>Default factors were confirmed correctly obtained from the IPCC for Dissolved Organic Carbon (DOC).</p> |
| $A_{DegW,i,t}$     | <p>This data/parameter was appropriately chosen because it pertains to the area potentially impacted by degradation processes in stratum <math>i</math>. The value</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>This parameter was reviewed and re-calculated using methods set forth in the methodology</p>                                    | <p>Not applicable.</p>                                                                                     |

|  |                                                                                                                                                                                                                                                                   |                                           |  |
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|  | <p>applied was 0. This was appropriate as CarbonCo's assessment of degradation (2018 determined – M-MON requires degradation survey every two years) indicated that emissions due to degradation (for this monitoring period) are insignificant as per T-SIG.</p> | <p>and the PD and confirmed followed.</p> |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--|

The verification team also reviewed data collection and storage procedures to ensure opportunities for error in transposition of data between data were minimized.

Uncertainty calculations for all project activities were reviewed at length as prescribed by the methodology and confirmed to result in a correct estimate of uncertainty. No uncertainty deduction was required for this monitoring period.

The methods and formulae set out in the PD for calculating baseline emissions, project emissions, and leakage were confirmed to have been followed. The total end of the 2017 monitoring period carbon stocks in all project activities for all relevant pools resulting from carbon stock changes were correctly quantified. Analysis of project inventory data used appropriate formulas, conversions, and parameters, supported by scientific literature. Where ranges of parameters exist, or other types of formulaic uncertainty, appropriately conservative values were used in data analysis.

In conclusion, the quantification methods for GHG emission reductions and removals have been performed correctly and in accordance with the validated PD and VM0007 v1.3.

#### 4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

During this verification assessment, the evidence provided by the project proponent was sufficient in both quantity and quality to support the determination of GHG emission reductions reported by the project. Throughout the verification, the project proponent demonstrated a commitment toward conservativeness and took appropriate measures to ensure the reliability of evidence provided.

The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals was met for this project as defined in the Verification Sampling Plan. Materiality is a concept that errors, omissions and misrepresentations could affect the GHG reduction assertion and influence the intended users (ISO 14064-3:2006). As defined by VCS Version 3, the materiality will be 5% for this project.

The evidence provided to determine emission reductions reported in the Monitoring Report included values, notations, units and sources. This evidence has been cross-checked with supplied emission reduction calculation spreadsheets. The procedure for data recording, transfer

and final transposition was also verified and found to be in compliance with the monitoring plan outlined in the PD. The verification team confirmed through cross checks that adequate monitoring mechanisms are in place where the required parameters need to be monitored.

The verification team was provided access to the project's central database where monitoring data is compiled for quantification steps and reporting. The database clearly organizes project methods and data for efficiency. In addition, the verification team was provided access to the project's cloud-based file storage facility. These tools ensure accurate information flow for monitoring efforts. Section 3.3.1 of the Monitoring Report provides additional detail on project data management methods and structure.

Interviews conducted (oral evidence) are outlined in Section 2.3 above, and the final documents received from the Project Proponent supporting the determination of GHG removals can be viewed in Appendix A.

#### 4.4 Non-Permanence Risk Analysis

The VCS AFOLU Non-Permanence Risk Tool (v3.3, 19 October 2016) was used by the Project Proponent to assess overall project risk. The verification team reviewed the Non-Permanence Risk Report provided with the verification supporting documentation and confirmed that the Project adheres to the requirements set out in the Non-Permanence Risk. Each risk factor was thoroughly assessed for conformance. Any identified NCR and/or CL findings related to the AFOLU Non-Permanence Risk Tool/Report are presented in Appendix B. The final score was calculated to be 3%. A brief review of each factor is found in the table below:

| Factor                | Rationale & Quality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Conclusion                                                             |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Internal Risks</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                        |
| Project Management    | Ongoing enforcement is required to prevent encroachment by outside actors. The Purus Project employs forest patrols to prevent encroachment by outside actors into the project area = 2. Management team includes individuals with significant experience in all skills necessary to successfully undertake all project activities = 0. Local management partners are based in Rio Branco less than a day's travel from the project activity. There is a project manager living on the property and a project headquarters is being established on the property. Site visit confirmed this situation. Issue is scored appropriately = 0. Project Proponents have developed other forest carbon projects and have been working in the forest carbon arena for over 5 years. Brian McFarland of CarbonCo has developed the "Tensas River National Wildlife Refuge Afforestation Project" | A risk rating of <b>0</b> is appropriate given the rationale provided. |

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|                     | <p>under the VCS and the CCBS including managing the project design, implementation, and financing. The Project Proponents work alongside and have access to experts in carbon accounting and reporting (i.e., TerraCarbon) who have significant experience in all aspects of AFOLU project design and implementation, carbon accounting and reporting under the VCS Program. TerraCarbon has successfully validated and verified numerous projects under the VCS, including validation and verification of the VCS ARR project "Reforestation Across the Lower Mississippi Valley." Verifiers agree that the management team has significant experience to fulfil project activities and justify the mitigation score of -2. Resignation by the on-site project manager also appeared to result in the increased presence of the project proponents to perform monitoring activities. It was confirmed during site visit interviews that the former project manager was retained on a limited basis to help with monitoring during the reporting period.</p> |                                                                               |
| Financial Viability | <p>The verifier has reviewed the support documentation provided by the Project Proponent. Confirmation of funds from the CFO, a bank statement of the company and a emission reduction purchase agreement between CarbonCo and a buyer, all provide evidence to provide reasonable assurance that the break-even point has occurred by the beginning of this 6<sup>th</sup> monitoring period = 0. Project has secured 100% of funding needed to cover the total cash out before the project reaches breakeven. Details are provided in a cash flow analysis which can be found in the project database = 0. The verifier has reviewed the support documentation provided by the PP. The letter from the CFO provides confirmation that the funds are non-restricted and that there is accessibility to funds. Based on that documentation, and the reviewed bank statement, the verifier has obtained reasonable assurance that the project has the ability to access funding as needed = -2.</p>                                                            | <p>A risk rating of <b>0</b> is appropriate given the rationale provided.</p> |

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                         |
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| Opportunity Cost                        | <p>As the majority of baseline activities over the length of the project crediting period are subsistence-driven and net positive community impacts are demonstrated through certification under CCB Second Edition, the project is able to claim 0 for Opportunity Cost in line with Table 3 – Opportunity Cost of the Non-Permanence Risk tool.</p> <p>Verifiers agree that the majority of the baseline activities are subsistence driven as evidenced by verifier's observations and discussions with community members in the project area. There is a legal contractual agreement to maintain the project area as forest for at least a 60-year period (i.e. greater than the length of the crediting period) from the project start date = -2.</p>                                                                                                    | A risk rating of <b>-2</b> is appropriate given subsistence driven baseline activities, lack of NPV analysis, community benefits not demonstrated yet, and confirmation of a legally binding agreement. |
| Project Longevity                       | There is a legal contractual agreement to maintain the project activities and maintain the project area as forest for at least a 60-year period from the project start date $(30-(60/2)) = 0$ .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A risk rating of <b>0</b> is appropriate given the rationale provided.                                                                                                                                  |
| <b>Total Internal Risks</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>0</b>                                                                                                                                                                                                |
| <b>External Risks</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                         |
| Land Tenure and Resource Access Impacts | <p>The land tenure score for disputes was appropriately given a risk rating of 5 to account for the on-going land tenure and titling disputes with community members, especially the Guita family. The characteristics of the dispute are outlined sufficiently in the Risk Report.</p> <p>The proponent is implementing a mitigation credit for resolving the land tenure dispute. Per the VCS Risk tool requirement, "documented evidence is provided that projects have implemented activities to resolve the disputes," additional documentation was provided to substantiate dispute resolution activities performed by the project. Signed agreements were supplied which illustrate the agreement between three local families and the landowners for exclusive use of the land they reside on. This monitoring period the proponents continue to</p> | A risk rating of <b>1</b> is appropriate given the rationale provided and mitigation deduction applied.                                                                                                 |

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                    |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|                      | <p>work with the Public Ministry of Acre (MPAC) to resolve the land disputes. A summary socio-economic document from MPAC was received which lists the community members found in the project area, and corroborate with interviews performed on-site (at this monitoring period and previous periods) by the verification team. This document demonstrates that proponents have been working with the Public Ministry to try and resolve the land tenure dispute.</p> <p>The verification team further recognizes the project has made efforts to resolve the land tenure dispute, as evidenced during interviews with the Public Ministry and project proponents. There is a strong motivation by the Project Proponents to resolve this conflict and negotiations continue.</p> <p>The Project Proponents have clearly been pursuing activities to resolve the on-going dispute with the Guita family as noted above = -2. There is a legal contractual agreement to maintain the project area as forest for at least a 60 year period (i.e., greater than the length of the crediting period) from the project start date = -2.</p> |                                                                                                                    |
| Community Engagement | Given that 100% of the local communities have been consulted and are involved in the project neither A nor B is applicable, and thus the default risk value of zero is applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | A risk rating of <b>0</b> is appropriate given the rationale provided.                                             |
| Political Risk       | <p>Independent calculation of the governance score for Brazil is -0.05, which includes 2012 through 2016 and is eligible for a score of 2. Acre, Brazil is participating in the Governors' Climate and Forest Taskforce. Further, Brazil has an established Designated National Authority under the CDM and has at least one registered CDM Afforestation/Reforestation project.</p> <p>"The jurisdiction in which the project is located is participating in the Governors' Climate and Forest Taskforce (GCF)."</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | A risk rating of <b>0</b> is appropriate given the rating for governance and participation in beneficial projects. |

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                     |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                                                          | Independent web search reveals that the statement made by the Project Proponent is true = -2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                     |
| <b>Total External Risks</b>                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>1</b>                                                                                                            |
| <b>Natural Risks</b>                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                     |
| Fire, pests and disease, extreme weather, geologic risk, | <p>Fire - justification for the 10-25 year return interval is sound. Given that the area of Acre has historically exhibited low fire incidence as described in (Aragao and Shimbukuro, 2010), a low amount of forest edge, and a fire suppression program in the region that inherently would inhibit the positive feedback loop associated with fire incidence, the verifier believes that the associated risk for fire is reasonable = 2. Pest and Disease - The forests of the project area have a high diversity of tree species, with over 150 tree species &gt;10 cm dbh, and like other diverse tropical forests, are not known to be subject to catastrophic disturbance by insect pests or forest diseases.</p> <p>Forest pests and diseases as a source of risk are more relevant in temperate forests or plantations, with low species diversity and consequently susceptible to extensive damage due to pest and disease outbreaks, which tend to be concentrated on single host species.</p> <p>Further, there is no history of catastrophic forest disturbance due to forest pests or diseases in the region.</p> <p>Verifiers independently searched the internet for any relevant forest pest or disease issues and could not locate any information that would lead verifiers to think that this item was scored incorrectly. Several references indicate that there are numerous endemic diseases and pests in the Amazon Forest, however none appear to be of epidemic proportions, nor is there much history of such occurrences. The diversity of the forested landscape</p> | <p>A risk rating of <b>2</b> is appropriate given the rationale provided for the greatest natural risk of fire.</p> |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | <p>appears to help to mitigate any widespread issues. Observations on the site visit and in flyovers in the region during previous travels have not ever revealed any widespread disease or pest outbreaks. Clearly climate change could play a greater role in this area in the future, however at this time, this element appears to be scored correctly = 0. Extreme Weather - While extreme weather events in the region include drought, flooding, and disturbance by wind, this analysis is limited to disturbance by wind as this is the only disturbance which has a direct effect on carbon stocks. As flooding within the project region is common, high water levels in the forest do not lead to a reduction in the forest carbon stocks. Drought does not have a direct effect on existing forest carbon stocks, but instead can increase the severity of forest fires and hence is covered above in the section on fire risk.</p> <p>In relation to disturbance by wind, the recurrence intervals for large blow down disturbances in the western Amazon have been estimated at 27,000 years.</p> <p>Verifiers independently searched the internet for any relevant weather-related issues and could not locate any information that would lead verifiers to think that this item was scored incorrectly. Observations on the site visit and in flyovers in the region during previous travels have not ever revealed any widespread disease or pest outbreaks. Clearly climate change could play a greater role in this area in the future, however at this time; this element appears to be scored correctly = 0. Geologic Risk - Neither volcanoes nor active tectonic fault lines are present within the project area. Landslides are not likely to occur within the project area because the project area is relatively level (less than 5% slope) terrain.</p> <p>Verifiers agree with this evaluation. This item</p> |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

|                                             |                             |          |
|---------------------------------------------|-----------------------------|----------|
|                                             | is scored appropriately = 0 |          |
| <b>Total Natural Risks</b>                  |                             | <b>2</b> |
| <b>Overall Risk Rating = 10<sup>7</sup></b> |                             |          |

## 5 SAFEGUARDS

### 5.1 No Net Harm

No negative environmental impacts are expected because activities related to the project goals seek to preserve the tropical forests intact and prevent deforestation and degradation. As confirmed through the site visit and previous CCB verifications, no negative socio-economic impacts are expected as the project has implemented a community outreach and development program. However, project failure can be expected to have negative impacts on project benefits which are captured by the Non-Permanence Risk assessment.

### 5.2 Local Stakeholder Consultation

Overall, a limited number of site visit community interviews and observations suggested a lack of knowledge or negative perceptions regarding the project and the planned project activities. The verification team concedes that since relatively few local stakeholders were able to be interviewed out of the population in the project vicinity, other opinions may not have been represented. However, the impression received by the verification team was that positive community awareness of the project is lacking and is demonstrative of the need for continued community engagement in the next monitoring period and going forward.

The limited stakeholder involvement was observed by the verification team through community interviews and observations of evidence of on-going outreach to stakeholders. For example, the verification team confirmed that project staff had visited some community members to ask about their needs and land tenure interest. The monitoring report Section 2.3.1 presents a timeline of community consultation and for the monitoring period 2017 it consisted primarily of visits by the project manager and proponents with UFAC (Federal University of Acre) specialists. The effectiveness of these visits was not well recorded in terms of consultation progress, and verification team interactions with community stakeholders demonstrate a need for continued community engagement. This was evidenced by interviewed stakeholders denying having received copies of the monitoring report, project description or other key project documents. To address the verification team concerns on stakeholder consultation the project proponents added language to the monitoring report regarding UFAC agreements and Public Ministry involvement for land titling. A forward action request has been issued (#3) and listed in Section 2.5.1 of this report, please also refer to CCB Indicator G3.8.

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<sup>7</sup> Minimum allowable risk deduction.

## 6 VERIFICATION CONCLUSION

After review of all project information, procedures, calculations, supporting documentation and site visits, ESI confirms that the monitoring conducted by the Project Proponent, along with the supporting Monitoring Report, are accurate and consistent with all aforementioned VCS criteria, the validated PD, and the selected methodology (VM0007, v1.3). ESI confirms that the *2017 Monitoring & Implementation Report for the Purus Project* dated 21 November 2018 (v3.0) has been implemented in accordance with the validated PD.

ESI confirms all verification activities, including objectives, scope and criteria, level of assurance, monitoring and project documentation adherence to VCS Version 3 (and all associated updates), as documented in this report are complete. ESI concludes without any qualifications or limiting conditions that *The Purus Project* meets the requirements of VCS Version 3 and all associated updates for the sixth monitoring period.

The GHG assertion provided by CarbonCo and verified by ESI has resulted in the GHG emissions reduction or removal of 118,937 tCO<sub>2</sub> equivalents by the project during the verification period/reporting period (01 January 2017 to 31 December 2017). This value is gross of the 10% (13,759 tCO<sub>2</sub> equivalents) buffer withholding based on the non-permanence risk assessment tool. This results in 105,177 tCO<sub>2</sub> equivalents of credits eligible for issuance as VCU.

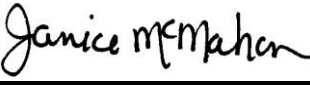
Verification period: 01 January 2017 to 31 December 2017

Verified GHG emission reductions and removals in the above verification period:

| Year | Baseline emissions or removals (tCO <sub>2</sub> e) | Project emissions or removals (tCO <sub>2</sub> e) | Leakage emissions (tCO <sub>2</sub> e) | Net GHG emission reductions or removals (tCO <sub>2</sub> e) |
|------|-----------------------------------------------------|----------------------------------------------------|----------------------------------------|--------------------------------------------------------------|
| 2017 | 185,232                                             | 47,641                                             | 18,654                                 | 118,937                                                      |

### Submittal Information

|                                      |                                                                                                                                                                                                        |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Report Submitted to:                 | Verified Carbon Standard Association<br>1730 Rhode Island Ave. NW, Suite 803, Washington, D.C. 20036<br><br>CarbonCo, LLC<br>853 Main Street<br>East Aurora, New York 14052<br>USA<br>001-240-247-0630 |
| Report Submitted by:                 | Environmental Services, Inc. - Corporate Office<br>7220 Financial Way, Suite 100<br>Jacksonville, Florida 32256                                                                                        |
| ESI Lead Verifier Name and Signature | Shawn McMahon<br>Lead Verifier                                                                                                                                                                         |

|                                                                         |                                                                                                                                                                                            |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                         |                                                                                                           |
| ESI Sr. Vice President/<br>Technical Director<br><br>Name and Signature | Janice McMahon<br>Sr. Vice President/Technical Director<br>Forestry, Carbon and GHG Services Division<br> |
| Date:                                                                   | 30 November 2018                                                                                                                                                                           |

EMJ/022\_05-CarbonCo-Purus VCS Verification Report\_Final.doc

K pf 11/30/18f

**APPENDIX A – DOCUMENTS RECEIVED/REVIEWED**

Documents received 12 June 2018

- GIS
  - Purus and Envira
    - 366\_2017FNFMonitoring.shx
    - 366\_2017Classification.cpg
    - 366\_2017Classification.dbf
    - 366\_2017Classification.prj
    - 366\_2017Classification.sbn
    - 366\_2017Classification.sbx
    - 366\_2017Classification.shp
    - 366\_2017Classification.shp.xml
    - 366\_2017Classification.shx
    - 366\_2017FNFMonitoring.cpg
    - 366\_2017FNFMonitoring.dbf
    - 366\_2017FNFMonitoring.prj
    - 366\_2017FNFMonitoring.sbn
    - 366\_2017FNFMonitoring.sbx
    - 366\_2017FNFMonitoring.shp
    - 366\_2017FNFMonitoring.shp.xml
  - Accuracy Assessment Points
    - b566nonforest\_50
      - b566nonforest\_50.shx
      - b566nonforest\_50.cpg
      - b566nonforest\_50.dbf
      - b566nonforest\_50.prj
      - b566nonforest\_50.sbn
      - b566nonforest\_50.sbx
      - b566nonforest\_50.shp
    - b366forest\_50
      - b366forest\_50.shx
      - b366forest\_50.cpg
      - b366forest\_50.dbf
      - b366forest\_50.prj
      - b366forest\_50.sbn
      - b366forest\_50.sbx
      - b366forest\_50.shp
    - b366nonforest\_50
      - b366nonforest\_50.shx
      - b366nonforest\_50.cpg
      - b366nonforest\_50.dbf
      - b366nonforest\_50.prj
      - b366nonforest\_50.sbn
      - b366nonforest\_50.sbx
      - b366nonforest\_50.shp
    - - b566forest\_50
        - "K:\Projects-Active\2013\022\_05-CarbonCo-Purus\Docs\2018-06-12\GIS\Accuracy Assessment Points\b566forest\_50\b566forest\_50.shx"
        - " b566forest\_50.cpg
        - b566forest\_50.dbf

- b566forest\_50.prj
- b566forest\_50.sbn
- b566forest\_50.sbx
- b566forest\_50.shp
- Purus 2017 Deforestation Analysis
  - PurusProjectArea2012.09.19.shx
  - Purus\_LB\_2017\_ALLnewNF.cpg
  - Purus\_LB\_2017\_ALLnewNF.dbf
  - Purus\_LB\_2017\_ALLnewNF.prj
  - Purus\_LB\_2017\_ALLnewNF.sbn
  - Purus\_LB\_2017\_ALLnewNF.sbx
  - Purus\_LB\_2017\_ALLnewNF.shp
  - Purus\_LB\_2017\_ALLnewNF.shp.xml
  - Purus\_LB\_2017\_ALLnewNF.shx
  - Purus\_LB\_2017\_ALLnewNF\_Strata.cpg
  - Purus\_LB\_2017\_ALLnewNF\_Strata.dbf
  - Purus\_LB\_2017\_ALLnewNF\_Strata.prj
  - Purus\_LB\_2017\_ALLnewNF\_Strata.sbn
  - Purus\_LB\_2017\_ALLnewNF\_Strata.sbx
  - Purus\_LB\_2017\_ALLnewNF\_Strata.shp
  - Purus\_LB\_2017\_ALLnewNF\_Strata.shp.xml
  - Purus\_LB\_2017\_ALLnewNF\_Strata.shx
  - Purus\_LB\_2017\_FNFMonitoring.cpg
  - Purus\_LB\_2017\_FNFMonitoring.dbf
  - Purus\_LB\_2017\_FNFMonitoring.prj
  - Purus\_LB\_2017\_FNFMonitoring.sbn
  - Purus\_LB\_2017\_FNFMonitoring.sbx
  - Purus\_LB\_2017\_FNFMonitoring.shp
  - Purus\_LB\_2017\_FNFMonitoring.shp.xml
  - Purus\_LB\_2017\_FNFMonitoring.shx
  - Purus\_PA\_2017\_ALLnewNF.cpg
  - Purus\_PA\_2017\_ALLnewNF.dbf
  - Purus\_PA\_2017\_ALLnewNF.prj
  - Purus\_PA\_2017\_ALLnewNF.sbn
  - Purus\_PA\_2017\_ALLnewNF.sbx
  - Purus\_PA\_2017\_ALLnewNF.shp
  - Purus\_PA\_2017\_ALLnewNF.shp.xml
  - Purus\_PA\_2017\_ALLnewNF.shx
  - Purus\_PA\_2017\_ALLnewNF\_strata.cpg
  - Purus\_PA\_2017\_ALLnewNF\_strata.dbf
  - Purus\_PA\_2017\_ALLnewNF\_strata.prj
  - Purus\_PA\_2017\_ALLnewNF\_strata.sbn
  - Purus\_PA\_2017\_ALLnewNF\_strata.sbx
  - Purus\_PA\_2017\_ALLnewNF\_strata.shp
  - Purus\_PA\_2017\_ALLnewNF\_strata.shp.xml
  - Purus\_PA\_2017\_ALLnewNF\_strata.shx
  - Purus\_PA\_2017\_FNFMonitoring.cpg
  - Purus\_PA\_2017\_FNFMonitoring.dbf
  - Purus\_PA\_2017\_FNFMonitoring.prj
  - Purus\_PA\_2017\_FNFMonitoring.sbn
  - Purus\_PA\_2017\_FNFMonitoring.sbx
  - Purus\_PA\_2017\_FNFMonitoring.shp
  - Purus\_PA\_2017\_FNFMonitoring.shp.DICKSONR-2017.11692.11460.sr.lock
  - Purus\_PA\_2017\_FNFMonitoring.shp.xml
  - Purus\_PA\_2017\_FNFMonitoring.shx
  - PurusProjectArea2012.09.19.cpg

- PurusProjectArea2012.09.19.dbf
- PurusProjectArea2012.09.19.prj
- PurusProjectArea2012.09.19.sbn
- PurusProjectArea2012.09.19.sbx
- PurusProjectArea2012.09.19.shp
- PurusProjectArea2012.09.19.shp.xml
- 2017\_PurusMonitoring.xls
- Carbonfund 2017 990 Public Inspection copy plus efile.pdf
- Imagery Classification Methodology 2017.docx
- Purus Project Summary Document Final, (English, 6-12-18).pdf
- Purus Project Summary Document, Final (Portuguese, 6-12-18).pdf
- Purus Project's CCB\_VCS\_2017\_Monitoring\_Report\_CCB v2.0\_VCSv3.4 (6-12-18).pdf
- Purus VCS-Non-Permanence-Risk-Report 2017.pdf
- Updated Pro Forma for Purus Project Verification (6-4-18).xls

Documents received 18 June 2018

- Updated Pro Forma for Purus Project Verification (6-4-18).xls
- 2017\_PurusMonitoring - 18June2018.xls
- Carbonfund 2017 990 Public Inspection copy plus efile.pdf
- Imagery Classification Methodology 2017.docx
- Purus Project Summary Document Final, (English, 6-18-18).pdf
- Purus Project Summary Document, Final (Portuguese, 6-18-18).pdf
- Purus Project's CCB\_VCS\_2017\_Monitoring\_Report\_CCB v2.0\_VCSv3.4 (6-18-18).pdf
- Purus VCS-Non-Permanence-Risk-Report 2017.pdf

Documents received 13 July 2018

- CC 2017 AA Imagery
  - Brazil566\_S2.tif.ovr
  - Brazil366\_S2.tif
  - Brazil366\_S2.tif.aux.xml
  - Brazil366\_S2.tif.ovr
  - Brazil566\_S2.tif
  - Brazil566\_S2.tif.aux.xml

Documents received 08 August 2018

- Jul-21st-2018-07-21AM-Flight-Airdata.kml
- Jul-19th-2018-12-00PM-Flight-Airdata.kml
- Jul-20th-2018-03-19PM-Flight-Airdata(1).kml
- Jul-20th-2018-03-19PM-Flight-Airdata.kml
- Jul-20th-2018-03-30PM-Flight-Airdata(1).kml
- Jul-20th-2018-03-30PM-Flight-Airdata.kml
- Jul-20th-2018-03-31PM-Flight-Airdata(1).kml
- Jul-20th-2018-03-31PM-Flight-Airdata.kml
- Jul-20th-2018-10-48AM-Flight-Airdata.kml
- Jul-20th-2018-11-21AM-Flight-Airdata(1).kml
- Jul-20th-2018-11-21AM-Flight-Airdata.kml
- GIS
  - Purus\_PA\_2017\_NF\_Strata\_618.shx
  - Purus\_LB\_2017\_Strata\_618.dbf
  - Purus\_LB\_2017\_Strata\_618.prj
  - Purus\_LB\_2017\_Strata\_618.sbn
  - Purus\_LB\_2017\_Strata\_618.sbx
  - Purus\_LB\_2017\_Strata\_618.shp
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- Purus\_LB\_2017\_Strata\_618.shx
- Purus\_PA\_2017\_NF\_Strata\_618.dbf
- Purus\_PA\_2017\_NF\_Strata\_618.prj
- Purus\_PA\_2017\_NF\_Strata\_618.sbn
- Purus\_PA\_2017\_NF\_Strata\_618.sbx
- Purus\_PA\_2017\_NF\_Strata\_618.shp

Documents received 28 August 2018

- Purus\_LB\_2017\_Strata\_618.dbf
- Purus\_LB\_2017\_Strata\_618.prj
- Purus\_LB\_2017\_Strata\_618.sbn
- Purus\_LB\_2017\_Strata\_618.sbx
- Purus\_LB\_2017\_Strata\_618.shp
- Purus\_LB\_2017\_Strata\_618.shp.xml
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- Purus\_PA\_2017\_NF\_Strata\_618.sbx
- Purus\_PA\_2017\_NF\_Strata\_618.shp
- Purus\_PA\_2017\_NF\_Strata\_618.shx

Documents received 30 August 2018

- Oficio N 466.pdf

Documents received 21 September 2018

- VO13022.05\_Purus\_VCS\_Round1Findings\_Responses (9-21-18).xlsx
- 2018 PRA
  - Purus Project PRA - July 2018.pdf
  - Purus Project Aggregated PRA and Degradation Surveys (July 2018).xlsx
- Edcarlo Declaration and Employment Contract
  - Edcarlos - Declaracao Quitacao.pdf
  - Contrato Edcarlos - mes de abril2018.pdf
  - Contrato Edcarlos - mes de marco2017 .pdf
- Monitoring Templates
  - Purus Project's 2017 Monitoring Templates (English and Portuguese).pdf
  - Monitoramento - Projeto Purus - Relatorio 07.10.2017 (English).pdf
  - Monitoramento - Projeto Purus - Relatorio 07.10.2017.pdf
  - Monitoramento - Projeto Purus - Relatorio 10.07.2017 (English).pdf
  - Monitoramento - Projeto Purus - Relatorio 10.07.2017.pdf
  - Monitoramento - Projeto Purus - Relatorio 11.11.2017 (English).pdf
  - Monitoramento - Projeto Purus - Relatorio 11.11.2017.pdf
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  - Monitoramento - Projeto Purus - Relatorio 17.07.2017 (English).pdf
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  - Monitoramento - Projeto Purus - Relatorio 19.07.2017 (English).pdf
  - Monitoramento - Projeto Purus - Relatorio 19.07.2017.pdf
  - Monitoramento - Projeto Purus - Relatorio 28.10.2017 (English).pdf
  - Monitoramento - Projeto Purus - Relatorio 28.10.2017.pdf
- Project Documents and Summary Documents
  - Purus VCS-Non-Permanence-Risk-Report 2017 (9-21-18).pdf
  - Purus Project Summary Document Final, (English, 9-21-18).pdf
  - Purus Project Summary Document, Final (Portuguese, 9-21-18).pdf
  - Purus Project's CCB-VCS 2017 Final Monitoring Report (9-21-18).pdf

- Purus Project's CCB-VCS 2017 Monitoring Report (9-21-18) (TRACKED).pdf
- Purus VCS-Non-Permanence-Risk-Report 2017 (9-21-18) (TRACKED).pdf
- Purus\_2017Monitoring\_9.6.18
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  - Points\_withClass
    - AA\_366\_NonFpoints.shx
    - AA\_366\_Fpoints.cpg
    - AA\_366\_Fpoints.dbf
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    - AA\_366\_NonFpoints.prj
    - AA\_366\_NonFpoints.sbn
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- GIS
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  - Purus\_classification\_366\_9618.cpg
  - Purus\_classification\_366\_9618.dbf
  - Purus\_classification\_366\_9618.prj
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  - Purus\_classification\_366\_9618.shp.xml
  - Purus\_classification\_366\_9618.shx
  - Purus\_LB\_NF2017strata\_9618.cpg

- Purus\_LB\_NF2017strata\_9618.dbf
- Purus\_LB\_NF2017strata\_9618.prj
- Purus\_LB\_NF2017strata\_9618.sbn
- Purus\_LB\_NF2017strata\_9618.sbx
- Purus\_LB\_NF2017strata\_9618.shp
- Purus\_LB\_NF2017strata\_9618.shp.xml
- Purus\_LB\_NF2017strata\_9618.shx
- Purus\_PA\_NF2017strata\_9618.cpg
- Purus\_PA\_NF2017strata\_9618.dbf
- Purus\_PA\_NF2017strata\_9618.prj
- Purus\_PA\_NF2017strata\_9618.sbn
- Purus\_PA\_NF2017strata\_9618.sbx
- Purus\_PA\_NF2017strata\_9618.shp
- Purus\_PA\_NF2017strata\_9618.shp.xml
- Purus\_PA\_NF2017strata\_9618.shx
- 2017\_PurusMonitoring - 10Sep2018.xls
- Announcement of Purus Project Public Comment Period - 6-28-18.pdf
- Pro Forma for Purus Project Verification (9-21-18).xls
- VO13022.05\_Purus\_CCB\_Round1Findings\_20180822 (Brian's Responses).docx

Documents received 23 October 2018

- Round 2 Supporting Documentation TC
  - AccuracyAssesmentPoints\_10.18.18
    - Forest\_AA\_0\_48.CPG
    - Forest\_AA\_0\_48.dbf
    - Forest\_AA\_0\_48.prj
    - Forest\_AA\_0\_48.sbn
    - Forest\_AA\_0\_48.sbx
    - Forest\_AA\_0\_48.shp
    - Forest\_AA\_0\_48.shp.xml
    - Forest\_AA\_0\_48.shx
    - New\_F\_AA\_50.CPG
    - New\_F\_AA\_50.dbf
    - New\_F\_AA\_50.prj
    - New\_F\_AA\_50.sbn
    - New\_F\_AA\_50.sbx
    - New\_F\_AA\_50.shp
    - New\_F\_AA\_50.shp.xml
    - New\_F\_AA\_50.shx
    - NEW\_NF\_AA\_50.CPG
    - NEW\_NF\_AA\_50.dbf
    - NEW\_NF\_AA\_50.prj
    - NEW\_NF\_AA\_50.shp
    - NEW\_NF\_AA\_50.shp.xml
    - NEW\_NF\_AA\_50.shx
    - Non\_Forest\_AA\_0\_48.CPG
    - Non\_Forest\_AA\_0\_48.dbf
    - Non\_Forest\_AA\_0\_48.prj
    - Non\_Forest\_AA\_0\_48.sbn
    - Non\_Forest\_AA\_0\_48.sbx
    - Non\_Forest\_AA\_0\_48.shp
    - Non\_Forest\_AA\_0\_48.shp.xml
    - Non\_Forest\_AA\_0\_48.shx
    - Purus\_2017\_AA\_summary\_10\_16\_2018.xlsx
  - 2017\_PurusMonitoring - 22Oct2018.xls

- Purus Project Aggregated PRA and Degradation Surveys (July 2018) - 22Oct2018.xlsx
- PURUS\_AA\_F\_ID49.jpg
- PURUS\_AA\_F\_ID49\_compositeZoom.JPG
- PURUS\_AA\_NF\_ID49.jpg
- PURUS\_AA\_NF\_new50.jpg
- Purus\_Strata\_NF2017.jpg
- Purus Project Summary Document Final, (English, 10-23-18).pdf
- Purus Project Summary Document, Final (Portuguese, 10-23-18).pdf
- Purus Project's CCB-VCS 2017 Final Monitoring Report (10-23-18) (Tracked).pdf
- Purus Project's CCB-VCS 2017 Final Monitoring Report (10-23-18).pdf
- VO13022.05\_Purus\_VCS\_Round2Findings\_20181012 (Responses).xlsx

Documents received 21 November 2018

- Purus VCS-Non-Permanence-Risk-Report 2017 (11-21-18).pdf
- 2017\_PurusMonitoring - 20Nov2018.xls
- Findings Round 3.docx
- Purus Project Summary Document Final, (English, 11-21-18).pdf
- Purus Project Summary Document, Final (Portuguese, 11-21-18).pdf
- Purus Project's CCB-VCS 2017 Final Monitoring Report (11-21-18).pdf

## APPENDIX B – NCRS/CL/OFIG

| Item Number                                                                                   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| VCS Standard<br>VCS Version 3<br>Requirements Document<br>21 June 2017, v3.7<br>(Description) | 3.16.6 The monitoring report describes all the data and information related to the monitoring of GHG emission reductions or removals. The project proponent shall use the VCS Monitoring Report Template and adhere to all instructional text within the template.                                                                                                                                                                                                      |
| Evidence Used to Assess<br>(Location in PD/MR or<br>Supporting Documents)                     | MR General                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ESI Findings - Initial                                                                        | <p>The most up-to-date MR report template was employed ("CCB &amp; VCS Monitoring Report, CCB v2.0, VCS v3.4").</p> <p>Section 1.1 "1.1 Summary Description of the Implementation Status of the Project" is specified to be no longer than 1 page according to the VCS MR template and currently this section is 3 pages, however this is permissible because information presented is relevant.</p> <p>The Table of Contents has incorrect page number references.</p> |
| Round 1<br>NCR/CL/OFIG                                                                        | CL: Please fix the incorrect Table of Contents page numbers.                                                                                                                                                                                                                                                                                                                                                                                                            |
| Round 1 Response from<br>Project Proponent                                                    | The pages numbers in the Table of Contents have been updated.                                                                                                                                                                                                                                                                                                                                                                                                           |
| ESI Findings - Round 1                                                                        | Page numbers in the Table of Contents were confirmed. The item is addressed.                                                                                                                                                                                                                                                                                                                                                                                            |

| Item Number                                                                                   | 2                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| VCS Standard<br>VCS Version 3<br>Requirements Document<br>21 June 2017, v3.7<br>(Description) | 3.1.3 Implementation of the project activities shall not lead to the violation of any applicable law, regardless of whether or not the law is enforced.                                                                                                                                                                                                                                                                                        |
| Evidence Used to Assess<br>(Location in PD/MR or<br>Supporting Documents)                     | MR General                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ESI Findings - Initial                                                                        | <p>Project proponents outlined a comprehensive list of the applicable laws and regulations in the validated PD and it is highly unlikely that project implementation in this sixth verification period have led to violation of any laws.</p> <p>That stated, a list of questions about project registration and state and federal requirements was sent to the state agency (IMC). No response has been received at the time of issuance.</p> |
| Round 1<br>NCR/CL/OFIG                                                                        | NCR: This finding is issued pending the receipt of the responses to ESI's questions from IMC.                                                                                                                                                                                                                                                                                                                                                  |

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| <b>Round 1 Response from Project Proponent</b> | The State of Acre's Climate Change Institute (IMC) sent ESI and the Project Proponents a response on 8/30/2018. This said, the Purus Project is selling voluntary offsets and is not selling offsets to a compliance buyer. Thus, there is currently no issue with the Brazilian Federal Government. The Project Proponents will continue to monitor developments.                                                                                             |
| <b>ESI Findings - Round 1</b>                  | IMC responded to ESI's requests via email on 30 August 2018. The email detailed that the Purus Project currently has no legal obligation to IMC, is not recognized in the National Strategy for REDD+, nor in Determined National Contribution (NDC). Thus, the verification team is reasonably assured that implementation of the project activities have not lead to the violation of any applicable law for this monitoring period. This item is addressed. |

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| <b>Item Number</b>                                                                                       | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>VCS Standard<br/>VCS Version 3<br/>Requirements Document<br/>21 June 2017, v3.7<br/>(Description)</b> | (2) Implementation of leakage prevention measures to maintain or increase the agents' livelihoods, such as, but not limited to, the creation of alternative sources of fuelwood, improved crop or animal production systems, and employment <sup>1</sup> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Evidence Used to Assess<br/>(Location in PD/MR or<br/>Supporting Documents)</b>                       | PD Sections 1.8 and 1.13; MR Sections 2.1.1 and 5.2.1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ESI Findings - Initial</b>                                                                            | <p>Per the PD, the leakage prevention activities include:</p> <ul style="list-style-type: none"> <li>• Community outreach and education;</li> <li>• Potential employment as project forest guard or other project staff (replacing other sources of income associated with deforestation and land use);</li> <li>• Agricultural extension training will help baseline agents to increase productivity on current lands, (thus reducing the pressure to expand their farms in the adjacent forest); and</li> <li>• Reforestation of select non-forest areas.</li> </ul> <p>These activities are also reported in the MR Section 2.1.1, but referring to the region in general and not specifically leakage prevention measures. Section 8.2 of the MR mentions leakage mitigation activities for the current project period (January 2016 - December 2016) as being leakage belt monitoring and extension of project activities to the leakage belt, as well as continuing alignment with the State of Acre's Payment for Ecosystem Services Scheme. The PP consulted communities within the PZ to mitigate leakage from communities moving into the PZ. This consultation included agriculture training and health services. Monitoring showed that deforestation was reduced.</p> <p>While on site, the verification team was involved in an interview with Normando Sales, in which Mr. Sales stated that 2,500 ha had been purchased to allow community members from within the Project Area to move outside of the Project Area. The movement of community members from within the Project Area/Leakage Belt to outside of the Project Area/Leakage Belt could cause a lapse in leakage monitoring. The verification team requests further information on this matter.</p> |
| <b>Round<br/>NCR/CL/OFI</b>                                                                              | <b>1</b><br>CL: Please clarify if additional lands were purchased into which community members could move. Please provide any supporting documentation, if warranted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| <b>Round 1 Response from Project Proponent</b> | This confusion was the result of a translation error. Mr. Normando Sales meant to say that back in 2015, he contemplated purchasing a 2,500 hectare parcel adjacent to the Purus Project. One idea was that this parcel could have been offered to communities who wanted to leave the Purus Project. However, this purchase was never completed. |
| <b>ESI Findings - Round 1</b>                  | The verification team understands that no community member has been forced to move out of the Project Area. Thus, the verification team is reasonably assured that any property purchased by Mr. Normando Sales is not causing leakage. This item is addressed.                                                                                   |

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| <b>Item Number</b>                                                                                       | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>VCS Standard<br/>VCS Version 3<br/>Requirements Document<br/>21 June 2017, v3.7<br/>(Description)</b> | Using a participatory rural appraisal (PRA) approach, existing studies and other verifiable sources of information, determine the proportion of area deforested by the population that has been resident in and around the Leakage Belt and project area for $\geq 5$ years (PROPRES) and the proportion of area deforested by population that has migrated into the area in the last 5 years (PROPIIMM).                                                                                                                                 |
| <b>Evidence Used to Assess<br/>(Location in PD/MR or<br/>Supporting Documents)</b>                       | PD Section 3.3; MR 3.1.3; MR 3.1.2; 2017 Monitoring Workbook;                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ESI Findings - Initial</b>                                                                            | <p>Within the 2017 monitoring workbook, it was noted that PROPRES was reported as utilizing a value of 1 in the monitoring report. It is unclear to the verification team from where this value was sourced.</p> <p>Within the 2017 monitoring workbook, it was noted that PROPIIMM was set to zero, which is different from previous verifications. It is unclear to the verification team from where the zero value for PROPIIMM was sourced.</p>                                                                                       |
| <b>Round 1<br/>NCR/CL/OFI</b>                                                                            | <p><b>1</b> CL: Please clarify the source of the value reported for PROPRES.</p> <p>CL: Please clarify the source of the value reported for and applied for PROPIIMM</p>                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Round 1 Response from Project Proponent</b>                                                           | A PRA was conducted in the project area and leakage belt in July 2018 prior to 2018 verification. Households included in the PRA were interviewed. In the interviews, it was determined if the household had been resident in the area for more or less than five years. The results of the PRA were used to calculate PROPRES and PROPIIMM for the current monitoring period, as described in the updated MR in section 3.2.3. Documentation of the PRA results has been added to the supporting documentation to the monitoring report. |
| <b>ESI Findings - Round 1</b>                                                                            | Results from the PRA do not appear to agree with values of PROPIIMM and PROPRES used in calculation spreadsheets, and stated in MR in section 3.2.3 (i.e. 1/7 does not equal 1.67). Verifiers also noted that two values of PROPIIMM stated in the file (2017_PurusMonitoring - 10Sep2018.xls). See 'Parameters Monitored' tab, cell C:58, and '4.3 Leakage' tab cell P:9 are not consistent.                                                                                                                                             |
| <b>Round 1<br/>NCR/CL/OFI</b>                                                                            | <p><b>2</b> CL: Please use value for PROPIIMM that matches results from the PRA. Please also ensure that the values used for PROPIIMM and PROPRES in calculation spreadsheets, and stated in MR in section 3.2.3 are consistent throughout and match results from the PRA.</p>                                                                                                                                                                                                                                                            |

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| <b>Round 2 Response from Project Proponent</b> | The value of PROPIMM reported in the MR and applied in calculations has been updated to 0.143 matching results of PRA. Please see updated file 2017_PurusMonitoring - 22Oct2018.xlsx       |
| <b>Final ESI Findings</b>                      | The value for parameter PROPIMM was confirmed to be consistent with calculations in the monitoring worksheet and reporting in the MR. No further action is needed. This item is addressed. |

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| <b>Item Number</b>                                                                                                               | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | This assessment shall be repeated at least every 5 years and the estimated proportions will be assumed to be representative for up to five future years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | PD Section 3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ESI Findings - Initial</b>                                                                                                    | The previous PRA assessment was performed in 2012 and was valid for 5 years. It is the understanding of the verification team that since 5 years have passed, and since PROPIMM is defined as the last 5 years, that a new assessment of the proportions of area deforested by immigrant and local deforestation agents is required. From the information included in the monitoring report, it is unclear to the verification team if a full assessment of the proportions of area deforested by immigrant and local deforestation agents was implemented for the 2017 monitoring period.                                                                                                                                                                                                                  |
| <b>Round NCR/CL/OFI</b> <b>1</b>                                                                                                 | CL: Please clarify if a full assessment of the proportions of area deforested by immigrant and local deforestation agents was implemented for the 2017 monitoring period. Please provide further details and documentation if warranted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Round 1 Response from Project Proponent</b>                                                                                   | A full assessment of the proportions of area deforested by immigrant and local deforestation agents was implemented for the 2017 monitoring period. A PRA was conducted in the project area and leakage belt in July 2018 prior to 2018 verification. Households included in the PRA were interviewed. In the interviews, it was determined if the household had been resident in the area for more or less than five years. The results of the PRA were used to determine values of PROPRES and PROPIMM for the calculation of the proportions of area deforested by immigrant and local deforestation agents in the current monitoring period, as described in the updated MR in section 3.2.3. Documentation of the PRA results has been added to the supporting documentation to the monitoring report. |
| <b>ESI Findings - Round 1</b>                                                                                                    | <p>A PRA was conducted in the project area and leakage belt in July 2018 prior to 2018 verification. Documentation has been provided in the files Purus Project PRA - July 2018.pdf, and Purus Project Aggregated PRA and Degradation Surveys (July 2018)_ESICHECK_Round1</p> <p>Some of the PRA information does not match spreadsheet values (distances traveled). Further, survey number 1 does not appear to be included in the charcoal degradation emissions estimate in the 'De Minimis' analysis tab.</p>                                                                                                                                                                                                                                                                                           |

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| <b>Round NCR/CL/OFI</b>                        | <b>2</b> | CL: Please ensure that all PRA information is correctly input into the calculation spreadsheet (Purus Project Aggregated PRA and Degradation Surveys (July 2018).xls. Please include survey number 1 in the charcoal degradation emissions estimate, or provide justification for why it was omitted. |
| <b>Round 2 Response from Project Proponent</b> |          | PRA information was reviewed and distances traveled were updated to match PRA results. Please see file Purus Project Aggregated PRA and Degradation Surveys (July 2018) - 22Oct2018.xlsx. Survey number 1 was included in the charcoal degradation emissions estimate in updated calculations.        |
| <b>Final ESI Findings</b>                      |          | The degradation PRA results and associated calculations were re-reviewed in response to this finding. The revisions did not result in monitoring period degradation emissions exceeding the de minimis threshold. The item is addressed.                                                              |

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| <b>Item Number</b>                                                                                                               | <b>6</b>                                                                                         |                                                                                                                                                                                               |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | CLB (t CO <sub>2</sub> -e ha <sup>-1</sup> )                                                     |                                                                                                                                                                                               |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 3.1.1;                                                                                |                                                                                                                                                                                               |
| <b>ESI Findings - Initial</b>                                                                                                    | While CLB was assessed at validation, it is not included in the Monitoring Report Section 3.1.1; |                                                                                                                                                                                               |
| <b>Round NCR/CL/OFI</b>                                                                                                          | <b>1</b>                                                                                         | CL: Please include CLB in the Data and Parameters Available at Validation section of the MR.                                                                                                  |
| <b>Round 1 Response from Project Proponent</b>                                                                                   |                                                                                                  | CLB has been included in the Data and Parameters Available at Validation section of the MR. "CP, LB" found in the fifth table from the beginning of the section, has been corrected to "CLB". |
| <b>ESI Findings - Round 1</b>                                                                                                    |                                                                                                  | This parameter has been correctly reported in the monitoring report. This item is addressed.                                                                                                  |

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| <b>Item Number</b>                                                                                                               | <b>7</b>                                                                                                                                  |                                                                                                                       |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | EBiomassBurn <sub>i,t</sub> (t CO <sub>2</sub> -e)                                                                                        |                                                                                                                       |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 3.1.2;                                                                                                                         |                                                                                                                       |
| <b>ESI Findings - Initial</b>                                                                                                    | This is included in the MR, section 3.1.2. However, it is unclear from where the value for E BiomassBurn <sub>2017, LB</sub> was sourced. |                                                                                                                       |
| <b>Round NCR/CL/OFI</b>                                                                                                          | <b>1</b>                                                                                                                                  | CL: Please clarify the source of the value reported for E BiomassBurn <sub>2017, LB</sub> in section 3.1.2 of the MR. |

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| <b>Round 1 Response from Project Proponent</b> | The source of the value reported for EBiomassBurn2017, LB in section 3.1.2 of the MR is cell J24 in the sheet "4.3 Leakage" of the 2017 Monitoring Workbook. As stated in the revised MR in the same section, it was conservatively assumed that $A_{burn,i,t} = A_{DefLB,u,i,t}$ (i.e., all areas deforested in the leakage belt were burnt). |
| <b>ESI Findings - Round 1</b>                  | The source of EBiomassBurn2017, LB has been clarified. It has been correctly reported. This item is addressed.                                                                                                                                                                                                                                 |

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| <b>Item Number</b>                                                                                                               | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | This module provides methods for monitoring ex post emissions and removals of GHGs due to deforestation, forest degradation, and carbon stock enhancement that has been induced as a result of project implementation within the project area and leakage belt and as a result of natural disturbances. Hereafter in this module, "planned deforestation" refers to both planned deforestation and planned degradation.                                                                                                                                                                                                 |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ESI Findings - Initial</b>                                                                                                    | <p>Section 2.2 "Project Implementation Status" of the MR describes deforestation monitoring efforts by the project to supplement remote sensing methods prescribed by M-MON. These methods include aerial surveillance utilizing a drone and on-the-ground monitors.</p> <p>To further provide reasonable assurance that monitoring efforts were carried out as reported the verification team requests the official monitoring templates (as listed on page 38) that were completed between January 1, 2017 and December 31, 2017." Please also list the number of monitoring templates for this period in the MR.</p> |
| <b>Round NCR/CL/OFI</b> <b>1</b>                                                                                                 | CL: Please provide the noted monitoring templates and translated to English for the verification team to understand the intent of each template.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Round 1 Response from Project Proponent</b>                                                                                   | The monitoring templates (in Portuguese) and the translated versions (in English) have been provided to ESI.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ESI Findings - Round 1</b>                                                                                                    | The monitoring templates were reviewed in response to this finding. They described limited monitoring primarily using the project's drone for overflights. Verifiers note that drone flights are ancillary for monitoring but it is clear an effort was made to perform them on a regular basis. The item is addressed.                                                                                                                                                                                                                                                                                                 |
| <b>Round NCR/CL/OFI</b> <b>2</b>                                                                                                 | OFI: The proponents might consider alternate means to continue performing deforestation monitoring in the increased event of the drone breaking down.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Round 2 Response from Project Proponent</b>                                                                                   | Duly noted. The following text was added: "If the conservation drone continues to breakdown, Moura & Rosa will either purchase a new conservation drone or consider re-renting the plane to conduct flyovers."                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Final ESI Findings</b>                                                                                                        | No action was necessary by project proponents to address this opportunity for improvement. However, the quoted statement from the response was confirmed added to the MR Section 2.2.5. The item is addressed.                                                                                                                                                                                                                                                                                                                                                                                                          |

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| <b>Item Number</b> | 9 |
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| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | A change in source data may only occur if the images based on interpretation of the new data overlap the images based on interpretation of the old data by at least 1 year and they cross calibrate to acceptable levels based on commonly used methods in the remote sensing community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Evidence Used to Assess</b><br><b>(Location in PD/MR or</b><br><b>Supporting Documents)</b>                                   | MR Section 3.2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ESI Findings - Initial</b>                                                                                                    | <p>At this verification the MR Section 3.2.2 states that the Acre state deforestation dataset was not available, therefore an alternate analysis using Landsat 8 imagery was performed. This is permissible following M-MON as Landsat 8 is an alternate source (please see previous verifications where the UCEGEO dataset was vetted). However, a description of a cross calibration check to satisfy this requirement could not be found where the UCEGEO dataset was compared against this period's deforestation analysis (within a year).</p> <p>This change in deforestation monitoring data source may also qualify for a PD deviation.</p> <p>Verifiers note that the validated monitoring plan doesn't appear to address this specific requirement.</p>  |
| <b>Round 1</b><br><b>NCR/CL/OFI</b>                                                                                              | <b>1</b><br>CL: Please address the findings and provide cross calibration results to satisfy this requirement. Please also clarify whether the change in deforestation monitoring source data qualifies for a PD Deviation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Round 1 Response from</b><br><b>Project Proponent</b>                                                                         | Landsat is the source of remotely sensed data for both the UCEGEO dataset and the 2017 deforestation dataset developed by the project. Procedures used to classify the remotely sensed data from 2017 is described in the revised MR in section 3.2.2. To ensure consistency with previous monitoring results in 2011 – 2016, the 2017 deforestation data were combined with the 2016 Acre deforestation dataset (which contains all deforestation in the state through December 2016). All non-forest in the 2016 Acre deforestation layer was conservatively included in the 2017 classification to ensure consistent GHG accounting. Cross-calibration is implicit in the conservative treatment of areas classified as deforestation in the 2016 Acre dataset. |
| <b>ESI Findings - Round 1</b>                                                                                                    | Verifiers understand that the current approach for deforestation monitoring does not constitute a PD deviation as the PD states that if the UCEGEO dataset is no longer available, "deforestation maps will be prepared by classifying remotely sensed imagery." Landsat 8 data is implicitly available for overlap as indicated in this criteria and since Landsat data was the basis for the UCEGEO dataset this requirement is met. The item is addressed.                                                                                                                                                                                                                                                                                                      |

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| <b>Item Number</b>                                                                                                               | 10                                                                                                                                                                                     |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | The remotely sensed data collected must be prepared for analysis. Minimum pre-processing involves geometric correction and geo-referencing and cloud and shadow detection and removal. |

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| <b>Evidence Used to Assess<br/>(Location in PD/MR or<br/>Supporting Documents)</b> | MR Section 3.2.2; Imagery Classification Methodology 2017.docx                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ESI Findings - Initial</b>                                                      | Pre-processing steps following this requirement could not be found described in the MR Section 3.2.2 or the imagery classification methodology handout.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Round 1<br/>NCR/CL/OFI</b>                                                      | CL: Please clarify minimum pre-processing steps for the period deforestation analysis, updating reporting documentation as needed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Round 1 Response from<br/>Project Proponent</b>                                 | Landsat 8 imagery acquired was all Tier 1 (T1) processed by USGS or data that meets geometric and radiometric quality requirements. These scenes are converted to top of atmosphere (TOA) reflectance using radiometric rescaling coefficients provided in the metadata file that is associated with each image. Imagery with the lowest cloud cover was chosen and pixels impacted by clouds or shadow were filled in the post-processing mosaic step using other images within the time frame. This information has been added to section 3.2.2 in the revised MR. As requested by ESI and agreed upon on the phone call between ESI, CarbonCo, and TerraCarbon on August 30, 2017, the documentation of the 2017 classification procedures, including pre- and post-processing, have been consolidated in the revised MR in section 3.2.2. |
| <b>ESI Findings - Round 1</b>                                                      | The descriptions of pre-processing steps were discussed on the call between proponents and verifiers and were confirmed added to Section 3.2.2 of the MR. This is sufficient to meet the requirement as further information on Landsat 8 products is publicly available. The item is addressed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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| <b>Item Number</b>                                                                                       | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>VCS Standard<br/>VCS Version 3<br/>Requirements Document<br/>21 June 2017, v3.7<br/>(Description)</b> | The overall classification accuracy of the outcome of the previous steps must be 90% or more.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Evidence Used to Assess<br/>(Location in PD/MR or<br/>Supporting Documents)</b>                       | Brazil366_S2.tif; Brazil566_S2.tif; project geospatial files                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ESI Findings - Initial</b>                                                                            | Verifier reviewed the results of the accuracy assessment for this monitoring period as applied to the project area, leakage belt and areas within the Sentinel 2 raster .tif. Several discrepancies and items of clarification were noted:<br>a) Image 5/66 does not encompass the PA or LB, unclear why this was included in analysis. Accuracy assessment points placed in this image<br>b) Relatively few accuracy assessment points were found to fall within detected deforested areas<br>c) The classification document reports cloud pixels but it is unclear whether these pertain to classification or accuracy assessment imagery |
| <b>Round 1<br/>NCR/CL/OFI</b>                                                                            | CL: Please address the findings a) - c).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| <b>Round 1 Response from Project Proponent</b> | The accuracy assessment has been updated in the revised MR. Please refer to the updated accuracy assessment in section 3.2.2 of the revised MR. For supporting documentation, please refer to files in the sub-folder "accuracyassessment" in the folder "Purus_2017Monitoring_9.6.18" provided as part of responses to Round 1 findings by ESI. A directory of sub-folders and files in the folder "Purus_2017Monitoring_9.6.18" is provided in the same folder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ESI Findings - Round 1</b>                  | <p>The accuracy assessment for the deforestation monitoring was re-reviewed in response to the finding. The following items were noted:</p> <p>a) Verifiers disagree with a few of the accuracy assessment points; FID 49 from forest points, and FID 49 from the nonforest points</p> <p>b) One of the accuracy assessment points was found to overlap the classification results which may not be in best remote sensing practice</p> <p>c) Clarification is requested on random point allocation methods for the accuracy assessment</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Round 2 NCR/CL/OFI</b>                      | CL: Please address the findings for items a) - c).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Round 2 Response from Project Proponent</b> | (a,b) We agree that FID 49 from forest points is ambiguous and appears to be at the edge of a non-forest area. Our interpretation was that it was correct Forest classified correctly as forest. See map PURUS_AA_F_ID49.jpg & PURUS_AA_F_ID49_compositeZoom. To remove confusion an additional Forest point was added to replace the ambiguous point. This point is in a new shapefile called New_F_AA50. It was added to the spreadsheet and the point 49 was removed. FID 49 from the non-forest points was within the forest class. This likely moved when the MMU filter was applied. The point was counted as an error in the classification. See map PURUS_AA_NF_ID49.jpg. To ensure that 50 points were sampled from each class, an additional random point was created in the NF class. This point is in a new shapefile called New_NF_AA_50. A map is included PURUS_AA_NF_new50.jpg. The NF point was accurately classified. The AA spreadsheet has been updated with these new point (ID 50 for each class) and the table recalculated. (c) Language clarifying random point allocation methods for the accuracy assessment was added to the revised MR in section 3.2.2 |
| <b>Final ESI Findings</b>                      | The revised accuracy assessment points in addition to the narrative from project proponents was reviewed in response to the finding. FID 49 from the forest points was appropriately dropped and subsequently replaced. Verifiers agree with the call made for the additional nonforest point. The updated accuracy assessment was re-reviewed and confirmed to be computed correctly. The item is addressed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| <b>Item Number</b>                                                                                       | 12                                                                                                                                                                                                                                                             |
| <b>VCS Standard<br/>VCS Version 3<br/>Requirements Document<br/>21 June 2017, v3.7<br/>(Description)</b> | Many methods exist to detect and map deforestation using remotely sensed data. The method selected must be based on common good practice in the remote sensing field and will depend on available resources and the availability of image processing software. |
| <b>Evidence Used to Assess<br/>(Location in PD/MR or<br/>Supporting Documents)</b>                       | MR Section 3.2.2                                                                                                                                                                                                                                               |

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| <b>ESI Findings - Initial</b>                  | Remote sensing methods for deforestation monitoring are reviewed elsewhere. The MR Section 3.2.2 describes alternative means of detecting deforestation including using boats and planes. However verifiers noted what appears to be an incorrect statement in Section 3.2.2 of the MR, "Upon discovering deforestation, the local project manager Kidney would talk to the communities about the importance of stopping deforestation in order for the implementation of social projects and programs."                                          |
| <b>Round 1 NCR/CL/OFI</b>                      | CL: Please correct the quoted statement as needed in the MR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Round 1 Response from Project Proponent</b> | The statement "Upon discovering deforestation, the local project manager Kidney would talk to the communities about the importance of stopping deforestation in order for the implementation of social projects and programs." applies to project implementation and does not apply to mapping deforestation using remotely sensed data. To make this clear, in the revised MR text preceding the statement has been modified to read "Project monitoring at the Purus Project took place via a rented plane and via boat along the Purus River." |
| <b>ESI Findings - Round 1</b>                  | Verifiers understand that the sentence quoted pertains to monitoring, but is inherently related to project implementation. The reference to the former project manager Kidney was confirmed removed. No further action is needed. The item is addressed.                                                                                                                                                                                                                                                                                          |

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| <b>Item Number</b>                                                                                                               | 13                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | For the project area, the net greenhouse gas emissions resulting from degradation is equal to the sum of stock changes due to degradation through extraction of trees for illegal timber or fuelwood and charcoal, and extraction of trees for selective logging from forest management areas possessing a FSC certificate (Calculated using <u><b>Equation 7 on page 11</b></u> )                                              |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 3.2.2                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ESI Findings - Initial</b>                                                                                                    | Equation 7 was not applied at this verification period since proponents have asserted that parameter $\Delta CP, Deg, i, t$ was found to be de minimis through use of T-SIG, the illegal wood extraction component was also allowably set to 0. Verifiers understand that monitoring requires a degradation PRA every $\leq$ two years, the current verification has the 2015 degradation PRA applied to it which is incorrect. |
| <b>Round 1 NCR/CL/OFI</b>                                                                                                        | CL: Please provide evidence of the degradation PRA following this requirement.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Round 1 Response from Project Proponent</b>                                                                                   | Documentation of the degradation PRA conducted prior to 2018 verification was added to the supporting documentation for the revised MR. The parameter $\Delta CP, Deg, i, t$ was found to be de minimis through use of T-SIG as demonstrated in calculations in "Purus Project Aggregated PRA and Degradation Surveys (July 2018).xlsx". This workbook has also been added to the supporting documentation for the revised MR.  |

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| <b>ESI Findings - Round 1</b>                  | <p>Verifiers reviewed the degradation PRA results and materials provided in response to this finding. 7 surveys were provided which is broadly in line with previously performed surveys for the project. Although a complete de minimis analysis following the steps of T-SIG was not provided, the amount of degradation emissions computed from the survey result was far below a de minimis threshold for ranked pools and sources. However, Section 3.2.2 - Degradation, in the MR appears to incorrectly reference degradation surveys and parties involved in conducting them from 2015, though a footnote correctly references the current degradation survey.</p> <p>Verifiers note that the steps under M-MON 5.2.2.1 were not followed to determine degradation emissions but instead a PD deviation was applied and was previously approved.</p> |
| <b>Round 2</b><br><b>NCR/CL/OFI</b>            | CL: Please ensure the MR clearly describes the appropriate degradation survey parties involved in collecting data as well as year.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Round 2 Response from Project Proponent</b> | The MR has been updated with the appropriate degradation survey parties involved in collecting data as well as year in section 3.2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Final ESI Findings</b>                      | Section 3.2.2 of the MR was confirmed updated to reflect the degradation survey timing performed for this period. Project proponent involvement is also specified. The item is addressed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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| <b>Item Number</b>                                                                                                               | 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | b. Data classification: Definition of the classes and categories; classification approach and classification algorithms; coordinates and description of the ground-truth data collected for training purposes; ancillary data used in the classification, if any; software and software version used to perform the classification; additional spatial data and analysis used for post-classification analysis, including class subdivisions using non-spectral criteria, if any; etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 3.2.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ESI Findings - Initial</b>                                                                                                    | <p>a) In Section 3.2.2 of the MR the project defines the minimum mapping unit (MMU) as 0.5ha based on the Brazilian forest definition. However verifiers understand that the Clean Development Mechanism Designated National Authority in Brazil has set the forest definition differently as referenced in the 2016 MR.</p> <p>b) Land cover classification is described in the MR sufficiently, detailing the classification approach.</p> <p>c) Sentinel 2 data used specifically for the accuracy assessment is well-described in the MR.</p> <p>d) The MR states "Deforestation and natural disturbance will be distinguished using ancillary data which may include but is not limited to high resolution imagery, digital elevation models (to identify steep areas prone to landslides), information from local land managers, etc." No ancillary data was used in this reporting period to detect deforestation/disturbance in addition to the deforestation classification effort.</p> <p>e) Section 3.2.2 of the MR refers to spectral bands used in final</p> |

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|                                                |          | classification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Round NCR/CL/OFI</b>                        | <b>1</b> | CL: Please address the findings (a.) and clarify the definition of forest, updating reporting documentation as needed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Round 1 Response from Project Proponent</b> |          | The minimum mapping unit has been adjusted to 1 ha to match the forest definition set by the Clean Development Mechanism Designated National Authority in Brazil. The amount of deforestation in the project area and leakage belt in calculations and reporting has been updated accordingly. All relevant files associated with detection of 2017 deforestation in the project area and leakage belt have been included in the supporting documentation to the revised MR. For supporting documentation, please refer to files in the folder "Purus_2017Monitoring_9.6.18" provided as part of responses to Round 1 findings by ESI. A directory of sub-folders and files in the folder "Purus_2017Monitoring_9.6.18" is provided in the same folder. |
| <b>ESI Findings - Round 1</b>                  |          | <p>Verifiers note that proponents have submitted new materials for the deforestation monitoring which were reviewed in response to the finding. The following items were identified:</p> <ul style="list-style-type: none"> <li>a) The Sentinel 2 imagery used for the accuracy assessment (Brazil366_S2.tif) does not appear appropriate based on the date of acquisition (July 2017) compared to the remaining time in the reporting period</li> <li>b) Section 3.2.2 of the MR mentions Landsat 8 imagery for path/row 5/66 although its not clear this location is relevant</li> <li>c) A complete area of monitoring period deforestation appears to have been missed NW of FID 5 from the nonforest accuracy assessment points</li> </ul>         |
| <b>Round NCR/CL/OFI</b>                        | <b>2</b> | CL: Please address the findings for items identified a) - c).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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| <b>Round 2 Response from Project Proponent</b> | (a) As the availability of high resolution imagery can be quite more limited than medium resolution imagery, best practice for accuracy assessment is to obtain high resolution imagery from as close to the date of acquisition of medium resolution imagery as possible, maximum within six months of medium resolution imagery. The July 2017 Sentinel 2 imagery, collected within six months of the reporting date for medium resolution imager (December 2017) was the closest available. We have added this clarification to the revised MR in section 3.2.2. (b) We have corrected the path/row of Landsat imagery to 3/66 in section 3.2.2 of the revised MR (c) The deforestation layer included shows only the new NF from 2017. These additional areas of non-forest are from the prior monitoring period and are not included in the map which identifies the new non-forest by strata. A map illustrating this is included. See map Purus Strata NF2017.jpg |
| <b>Final ESI Findings</b>                      | The verification team recognizes the limitations of high and medium resolution imagery retrieval timing for the project region. A six month limit for classification and reference imagery acquisition date is reasonable however in this instance the accuracy assessment is being performed towards the beginning of the Amazon basin dry season and the increased presence of deforestation activities may not have been detected. However, the overall accuracy could reflect the timing gap. The verification team suggests that future monitoring ensure accuracy assessment data temporally coincide closer with the classification dataset. The item is addressed.                                                                                                                                                                                                                                                                                               |

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| <b>Item Number</b>                                                                                       | 15                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>VCS Standard<br/>VCS Version 3<br/>Requirements Document<br/>21 June 2017, v3.7<br/>(Description)</b> | If within the Project Area some forest land is cleared, the benchmark map must show the deforested areas at each monitoring event                                                                                                                                                                                                                                                                                           |
| <b>Evidence Used to Assess<br/>(Location in PD/MR or<br/>Supporting Documents)</b>                       | MR Section 3.2.2                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ESI Findings - Initial</b>                                                                            | Figure 6.1 in the MR is intended to illustrate deforestation in the project area and leakage belt during this 2017 monitoring period. The map was generated from the deforestation monitoring dataset and was subject to the accuracy assessment in Step 3 above. Figure 6.1 is appropriately stratified. The map has an incorrect item in the Legend, it is unclear if the map also displays 2016 deforestation locations. |
| <b>Round 1 NCR/CL/OFI</b>                                                                                | 1 CL: Please fix the legend for Figure 6.1, please also clarify whether 2016 deforestation data is included in the map.                                                                                                                                                                                                                                                                                                     |
| <b>Round 1 Response from Project Proponent</b>                                                           | The legend in Figure 6.1 has been updated to indicate that the map displays 2016 deforestation. Only 2017 deforestation data is included in the map.                                                                                                                                                                                                                                                                        |
| <b>ESI Findings - Round 1</b>                                                                            | The legend for Figure 6.1 was confirmed updated. The item is addressed.                                                                                                                                                                                                                                                                                                                                                     |

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| <b>Item Number</b> | 16 |
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| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | Area of recorded deforestation in the project area in stratum I converted to land use u at time t (ADefPA,i,u,t)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 3.2.2; 2017 monitoring calc worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ESI Findings - Initial</b>                                                                                                    | <p>Verifiers were unable to independently confirm the ADefPA values by stratum within the monitoring calc worksheet using the shapefiles provided. The deforestation amounts appear to be underreported.</p> <p>The MR Section 3.2.2 states "The deforestation in the project area and leakage belt is derived by subtracting the non-forested area at the time of the project start from the non-forested area at the end of 2017." This statement is incorrect as VM0007 requires that the project area be forested at project start date.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Round 1 NCR/CL/OFI</b>                                                                                                        | CL: Please ensure deforestation amounts are correct for calculations and reporting. Please also revise the language in Section 3.2.2 of the MR as noted in the finding.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Round 1 Response from Project Proponent</b>                                                                                   | The minimum mapping unit has been adjusted to 1 ha to match the forest definition set by the Clean Development Mechanism Designated National Authority in Brazil. The amount of deforestation in the project area in calculations and reporting has been updated accordingly. All relevant files associated with detection of 2017 deforestation in the project area and leakage belt have been included in the supporting documentation to the revised MR. For supporting documentation, please refer to files in the folder "Purus_2017Monitoring_9.6.18" provided as part of responses to Round 1 findings by ESI. A directory of sub-folders and files in the folder "Purus_2017Monitoring_9.6.18" is provided in the same folder. The noted language in section 3.2.2 of the MR has been revised as follows: "The deforestation in the project area and leakage belt is derived by subtracting the area deforested from the project start through the end of 2016 from the non-forested area at the end of 2017." |
| <b>ESI Findings - Round 1</b>                                                                                                    | The updated materials supplied in response to this finding were reviewed. The area of deforestation was confirmed for the project area as provided. The accuracy assessment performed for this parameter was confirmed elsewhere in the review. The item is addressed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| <b>Item Number</b>                                                                                                               | 17                                                                                                               |
| <b>VCS Standard</b><br><b>VCS Version 3</b><br><b>Requirements Document</b><br><b>21 June 2017, v3.7</b><br><b>(Description)</b> | Area of recorded deforestation in the leakage belt in stratum I converted to land use u at time t (ADefLB,i,u,t) |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b>                                                       | MR Section 3.2.2; 2017 monitoring calc worksheet                                                                 |

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| <b>ESI Findings - Initial</b>                  | <p>The ADefLB value was independently computed and the deforestation amounts appear to be underreported.</p> <p>The MR Section 3.2.2 states "The deforestation in the project area and leakage belt is derived by subtracting the non-forested area at the time of the project start from the non-forested area at the end of 2017." This statement is incorrect as VM0007 requires that the leakage belt be forested at project start date.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Round 1 Response from Project Proponent</b> | <p>Please ensure deforestation amounts are correct for calculations and reporting. Please also revise the language in Section 3.2.2 of the MR as noted in the finding.</p> <p>The minimum mapping unit has been adjusted to 1 ha to match the forest definition set by the Clean Development Mechanism Designated National Authority in Brazil. The amount of deforestation in the leakage belt in calculations and reporting has been updated accordingly. All relevant files associated with detection of 2017 deforestation in the project area and leakage belt have been included in the supporting documentation to the revised MR. For supporting documentation, please refer to files in the folder "Purus_2017Monitoring_9.6.18" provided as part of responses to Round 1 findings by ESI. A directory of sub-folders and files in the folder "Purus_2017Monitoring_9.6.18" is provided in the same folder. The noted language in section 3.2.2 of the MR has been revised as follows: "The deforestation in the project area and leakage belt is derived by subtracting the area deforested from the project start through the end of 2016 from the non-forested area at the end of 2017."</p> |
| <b>ESI Findings - Round 1</b>                  | <p>The updated materials supplied in response to this finding were reviewed. The area of deforestation was confirmed for the leakage belt as provided. The accuracy assessment performed for this parameter was confirmed elsewhere in the review. The item is addressed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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| <b>Item Number</b>                                                         | 18                                                                                             |
| <b>VCS AFOLU Non-Permanence Risk Tool, Version 3.3</b><br>19 October 2016  | Project cash flow breakeven point between 4 and up to 7 years from the current risk assessment |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b> | Risk Report; Pro Forma 2017;                                                                   |

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| <b>ESI Findings - Initial</b>                  | <p>Risk Report states: "Project cash flow breakeven point is between years 4 and 7. Details are provided in a cash flow analysis which can be found in the project archive."</p> <p>The verification team reviewed the 2017 pro forma in Updated Pro Forma for Purus Project Verification (6-4-18).xls. A couple of clarifications regarding this document is requested:</p> <ol style="list-style-type: none"> <li>1. Within the "Revenue Projections" tab, the GHG credits eligible for issuance as VCUs (column G) for 2011 and 2012 appear to be reversed when comparing to the VCS issuance webpage.</li> <li>2. Within the "Revenue Projections" tab, the GHG credits eligible for issuance as VCUs (column G) for 2015, the credits do not match those as reported on the VCS issuance webpage.</li> <li>3. It is unclear where the breakeven point was calculated in the pro forma workbook.</li> </ol> <p>In the Risk Report, a risk of 0 was applied to this item. However, according to the AFOLU Non-Permanence Risk Tool, a value of 1 should be applied for breakeven points between 4 and 7 years.</p> |
| <b>Round 1 NCR/CL/OFI</b>                      | <p><b>1</b> CL: Please clarify the 2011 and 2012 GHG credits eligible for issuance as VCUs (column G) within the "Revenue Projections" tab of Updated Pro Forma for Purus Project Verification (6-4-18).xls.</p> <p>CL: Please clarify the 2015 GHG credits eligible for issuance as VCUs (column G) within the "Revenue Projections" tab of Updated Pro Forma for Purus Project Verification (6-4-18).xls.</p> <p>CL: Please clarify where the breakeven point is calculated in the pro forma workbook.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Round 1 Response from Project Proponent</b> | <p>The Pro Forma has been updated and the Non-Permanence Risk Report has been updated to reflect that the Project cash flow breakeven point has already been achieved.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ESI Findings - Round 1</b>                  | <p>The verification team reviewed the updated pro forma document (Pro Forma for Purus Project Verification (9-21-18).xls). All issues have been resolved. Further, the breakeven point has already been achieved. This item is addressed, and the risk score of 1 is appropriate for this risk component.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|----------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Item Number</b>                                                         | 19                                                                  |
| <b>VCS AFOLU Non-Permanence Risk Tool, Version 3.3<br/>19 October 2016</b> | There exist disputes over access/use rights (or overlapping rights) |
| <b>Evidence Used to Assess (Location in PD/MR or Supporting Documents)</b> | Risk Report;                                                        |

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ESI Findings - Initial</b>                  | <p>The Risk Report states: "One family continues to disregard Moura &amp; Rosa's engagement and clear ownership and insists on taking liberties in their access/use of the project property and its resources. As such, this infringement on the Moura &amp; Rosa property has resulted in a dispute over access/use rights on a small part of the project property.</p> <p>To date, title negotiations with this one family have not been successful and the family has continued illegal deforestation. The negative impacts of this situation is that the family continues large-scale, illegal deforestation with the associated environmental impacts and the family continues to try persuading other families to not join the Purus Project or to utilize any of the Project's benefits (i.e., health clinic, land title, etc.). To mitigate these negative impacts, Moura &amp; Rosa filed a formal complaint on July 5, 2016 with IMAC and made the same formal complaint with the Police Department in Manuel Urbano on July 12, 2016. In addition, Moura &amp; Rosa contacted the Public Prosecutor on August 9, 2016 to promote a meeting with the communities in order to try to convince them to accept land title and to warn them that they cannot continue deforesting Moura &amp; Rosa's property because it is a crime. Throughout 2017, Moura &amp; Rosa continued working with the Public Ministry."</p> <p>These statements were corroborated on-site through interviews with project proponents and the Guitta family. ESI has issued questions to the public ministry regarding the status of the title transfers. The element will remain open until responses are received from the public ministry.</p> |
| <b>Round 1 NCR/CL/OFI</b>                      | <p><b>1</b> CL: ESI has issued questions to the public ministry regarding the status of the title transfers. The element will remain open until responses are received from the public ministry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Round 1 Response from Project Proponent</b> | <p>Dr. Mavaine, the advisor to the Public Ministry's Mr. Vinicius Menandro, informed Moura &amp; Rosa that the Ministry would respond directly to ESI.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ESI Findings - Round 1</b>                  | <p>The verification team has not received any correspondence from the public ministry at this time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Round 2 NCR/CL/OFI</b>                      | <p><b>2</b> CL: ESI has issued questions to the public ministry regarding the status of the title transfers. The element will remain open until responses are received from the public ministry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Round 2 Response from Project Proponent</b> | <p>Moura &amp; Rosa informed CarbonCo on October 22, 2018 that the Public Ministry would reply directly to ESI during the week of October 22, 2018. The Public Ministry meant to respond earlier, but there were several vacations and work trips over the last few weeks.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**Final ESI Findings**

An email from the Public Ministry (Vinicius Menandro Evangelista de Souza - Justice promoter) was received with answers to the questions that ESI had related to the illegal squatters in the project area. In addition, a summary socio-economic document from the Public Ministry of Acre (MPAC) was received which lists the community members found in the project area, and corroborate with interviews performed on-site (at this monitoring period and previous periods) by the verification team. This document demonstrates that proponents have been working with the Public Ministry to try and resolve the land tenure dispute. A slightly annotated version of the questions and answers from the Public Ministry are as follows;

"1. What were the results of the interviews of September 2017 by public prosecutors? Can they provide us with their summary / report of improvements made, size of ownership, etc.?"

A: To date, a socio-economic study has been carried out by public prosecutors in rural areas (see attached report). What is planned to occur in November of this year is the complementary technical survey for geodetic survey of the areas, aiming at identifying and demarcating the lots of each squatter.

2. Was the third hearing held with the landowners to determine the final verdict? If not, when is this scheduled?

A: In the line above, the audience will be marked after the geodetic survey. The expectation is that the hearing be scheduled for the month of December 2018 with the aim of seeking a final solution.

3. Specifically, what was the result of the interviews of the technicians with Mr. Antonio Guita (or his family representative)? The Guitas are still interested in receiving the title, because during the interview at the ESI site they indicated that they were not.

A: As you can see in the socio-economic report (annex), Mr. Antonio Guita is the oldest resident of the project, who until then presented his goodwill to a consensual negotiation."

The status of the land transfers is now in the process of georeferencing boundaries and negotiations continue with difficult community members. This element has been listed as a Forward Action Request in the VCS verification report. The item is addressed.