FORTALEZA DO ITUXI REDD+ PROJECT (PL1654) VALIDATION REPORT FOR N. S. DA CACHOEIRA DO ITUXI

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Summary:

This document reports the Fortaleza do Ituxi REDD+ project validation process results. The validation was performed by S&A Carbon in association with Imaflora against the VCS (version 3) standards. Its purpose is to systematically assess and report project conformance with the VCS standard requirements and the approved VCS methodology indicating non-conformity reports (NCRs), forward action requests (FARs), and observations (OBSs). The evaluation involved document analysis, interviews with interested parties; relevant stakeholders, as well as observations and measurements directly made in the field, while considering a representative sample of the project activities and project site. The project initially contracted with Rainforest Alliance (RA) to conduct the validation. However, RA ceased providing services in the accredited scope, and the validation was transferred to S&A Carbon. The auditing process involved field and desk-based work in two different occasions, first from July 31th to August 04th, 2017 (under RA) and second from February 20th to February 24th, 2019 (under S&A). Validation activities performed by the validation/verification team (henceforth called, VVB) included: GIS analysis, forest inventory, interviews with residents from local communities and farm workers in the reference region, interviews with the REDD+ project managers, forest management operation staff and employees.

The REDD+ project covers 46,592 ha and aims to reduce the emission of GHGs from unplanned

deforestation on private lands located in the municipality of Lábrea, state of Amazonas southern region, Brazil. The project was developed based on the VCS approved methodology VM0015 v1.1. The project estimates the reduction of GHG emissions of 4,267,919 tCO2e over 30 years. Prior to issuing a positive validation statement, the VVB team raised 18 NCRs, 01 FAR and 03 OBSs. This document represents the final validation report.

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1 INTRODUCTION

S&A Carbon is accredited by the American National Standards Institute (ANSI) for the verification of Land Use and Forestry projects (Accreditation ID# 1207). S&A has submitted an application to expand its scope to include validation, and this application is being reviewed in connection with this validation audit. The Instituto de Manejo e Certificação Florestal e Agrícola - IMAFLORA delivers validation and verification services of forest carbon offset projects in Brazil in association with S&A Carbon. For a full list of services offered by Imaflora, see http://www.imaflora.org/certificacao-socioambiental_carbono.php.

1.1 Objective

The purpose of this report is to document the conformance of Fortaleza do Ituxi REDD+ project with VCS Version 3 requirements. The project proponent is Nossa Senhora da Cachoeira do Ituxi. The report presents the findings of qualified S&A Carbon and Imaflora auditors, henceforth referred to as the VVB team, who have evaluated the project proponent's systems and performance against the applicable standard, methodology and tools. Imaflora was commissioned to conduct the validation of this project.

1.1.1 Scope and Criteria

Scope: To assess project conformance with the VCS standards and VM0015 - REDD+ Methodology for Avoided Unplanned Deforestation v. 1.1. This conformance assessment will involve all relevant standards criteria and methodology steps and requirements.

The project covers an area of 46,592 ha. The land is privately owned and it is located in the municipality of Labrea, state of Amazonas southern region, Brazil. The project has a lifetime of 30 years and has estimated it will avoid the emission of 4,267,919 tCO2e. All material GHG reservoirs, sinks and sources were evaluated following the VCS standard and methodology requirements and all will be expressed in values of metric tons of CO2e.

The project was evaluated to a reasonable level of assurance.

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

- Verified Carbon Standard Program Guide 2017 v.3.7;
- Verified Carbon Standard 2017 v.3.7;
- Verified Carbon Standard Agriculture, Forestry and Other Land Use (AFOLU) Requirements 2013 v.3.6;
- Verified Carbon Standard AFOLU Non-Permanence Risk Tool 2016 v.3.3;
- VM0015, v1.1;

Materiality: All GHG sinks, sources and/or reservoirs (SSRs) and GHG emissions equal to or greater than 5% of the total GHG assertion unless otherwise defined by the standard criteria. The project isn't

considered as a VCS "large" project because the avoided GHG emissions will not exceed 300,000 t CO2 annually.

1.2 Level of Assurance

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

1.3 Summary Description of the Project

The project is located in the Amazonas state south region, in the municipality of Labrea, Brazil. This area is known by its current high deforestation rates. Deforestation activity in the region is mostly related to land-grabbing and expansions of cattle ranching, and is influenced by road proximity which has been increasing. The project area is located next to the "Jequitibá" and "do Boi" (or "do Baiano") roads, which makes it especially susceptible to the deforestation agents and drivers of deforestation. The "Nossa Senhora da Cachoeira do Ituxi" farm, privately owned land where the project area is located, has a proven history of land invasions and illegal occupations. Currently, the farm owner and project proponent operates two forest management sites within the project area. The forest management activities on the forest management areas are the economic activity of the landowner. The farm sale to private investors who would likely convert the forest to other land uses is considered by the verifiers to be a plausible baseline scenario. To prevent this land conversion, the main project activities are oriented around surveillance activities and the creation of additional financial streams for land management through carbon financing in order to balance the Project Proponents' farming business and avoid its sale.

Other Project activities are related to the creation of alternative business, involving commercialization of non-timber-forest-products (NTFPs) such as Brazil Nuts, the creation of fire brigades, provisioning of technical training on sustainable cattle raising and forest management for specific stakeholders, installation of a nursery for the propagation of native forest species and implementation of safety protocols for the farm workers.

2 VALIDATION PROCESS

The project initially contracted with Rainforest Alliance (RA) to conduct the validation, and RA subcontracted the validation to Imaflora. Validation services commenced in September 2015, with a site visit taking place between 31 July-4 August 2017. However, RA ceased work within the accredited scope in November, 2017, prior to completion of the validation. At this time, Imaflora developed a relationship with S&A Carbon, and the validation was subsequently transferred to S&A. Validation services under S&A commenced in January 2019, with a site visit from 20 February – 24 February, 2019.

In March 2019, GHG-NT-714: Transfer of Accredited Validation and Verification was issued by the ANSI, which clarified the requirements for validation transfer when a VVB ceasing work with the accredited scope. In accordance with these requirements, S&A conducted a risk assessment of the work completed prior to the transfer. All documents were available to the S&A team. This assessment included the following (note that many of these steps were completed prior to issuance of the ANSI requirement):

- Confirmation of the qualifications of the auditors involved in the assessment prior to the transfer

- Completion of a COI evaluation for all auditors involved prior to the transfer. No potential COI was found.

- Confirmation that both the issuing and accepting VVB are accredited for the scope of work. S&A was previously accredited for verification only, but submitted a validation scope extension application prior to the transfer. The application is being reviewed in conjunction with this validation.

- Confirmation that S&A carries sufficient insurance to cover the scope.

- Review of the NCs/OBS that were raised prior to the transfer (none of the NCs raised prior to the transfer were closed by RA).

- No legal compliance issues were identified. S&A and Imaflora held a call with the VCS and ANSI on 1 November 2018, to discuss the status of the project. The project was granted an exemption from the requirements of Section 3.7.3 of the VCS Standard v3.7, extending the deadline until 15 June 2019.

No issues were identified during this review that would prevent the transfer, though a second site visit was determined to be necessary to confirm the accuracy of the previous site visit. It should be noted that the Lead Validator was the same under both RA and S&A, ensuring consistency in the audit.

2.1.1 Method and Criteria

This validation assessment was carried out by field evaluation and desk auditing.

The auditing process involved field and desk-based work in two different periods, as described above. During these periods, six auditors visited the project area (one extra auditor was assigned as desk reviewer), observing the REDD+ Project and the forest management activities, performing GIS analysis, installing inventory plots and interviewing relevant stakeholders, in a way to ensure a sufficient and representative sampling over all auditable aspects.

During the first site visit under RA, 32 inventory plots (10x20m fixed area) were randomly installed by the VVB team. The individual tree distribution (count) among these plots were compared with the Weibull density probability function in order to estimate carbon stocks per hectare within the Project area (ref. 26). This sampling method was used in order to assess and corroborate the conservatism of the Project Proponent's carbon stocks estimates, which were performed through the use of secondary data by the Project Proponent. The use of secondary data in the carbon stocks calculation is allowed by the applied methodology. The discussion around eligibility of the data used by the Project Proponent for the process of determining project carbon stocks is provided in section 3.2.6 of this report.

During the second site visit under S&A, 20 of the 32 plots installed during the first visit, were randomly visited. The results confirmed the accuracy of the first site visit.

Two different forest management operation sites within the project area were visited and evaluated by the VVB team during the first site visit (there were no ongoing Forest Management Operations ongoing during the second site visit). The VVB team observed the patterns and impacts of forest management, analyzed road density, the degree of cleared areas, the size of forest clearings left by directional felling, the number of stumps, volume of logs stocked in intermediary yards and productivity

reports. These analyses were performed through the means of direct observations, measurements and interviews with the responsible forest engineers and forest management workers.

The VVB team visited neighboring properties of Nossa Senhora Da Cachoeira do Ituxi farm, interviewing its residents, farm workers, project collaborators, public agency representatives and settlement residents in Labrea municipality in order to evaluate the project's defined reference region regular activities, deforestation agents behavior and plausibility of the adopted baseline scenario, among other relevant aspects. These properties were visited during each site visit.

The desk audit of the project's documentation counted on the contribution of one additional auditor focused on spatial modelling and GHG assertion.

VVB team:

Auditor(s)	Qualifications
Bruno B. Souza – Lead Validator/Verifier	Climate Change and Environmental Services Coordinator at Imaflora. Senior lead auditor. Forest Engineer graduated by Escola Superior de Agricultura "Luiz de Queiroz" (ESALQ). Biologist graduated by Universidade de São Paulo (USP). Trained as management systems lead auditor by ATSG (Lead Assessor ISO 14001:2004) and Rainforest Alliance. He has five years of work experience with carbon project validations and verifications, technical expertise on VCS and CCB standards, related methodologies, carbon accounting, MRV protocols, social and environmental safeguards implementation, among other related aspects. He is also experienced in REDD+ policies and REDD+ jurisdictional programs development, implementation and MRV, related to carbon accounting and social and environmental safeguards. Bruno was also empowered by Instituto Floresta Tropical (IFT) and Imaflora through intensive evaluations in FSC Forest Certification and Reduced Impact Logging. Bruno He has seven years of work experience with FSC standards, including forest management and chain of custody certification.
Lawson Henderson - Validator/Verifier	Lawson joined S&A Carbon as a Senior Associate in 2016, andexpands the existing capacity of the forest carbon offsetverification team. He is acts as an ARB Verifer on forest carbonoffset projects, and is qualified as a Lead Offset Verifier under theARB regulation. Lawson currently supports the S&A team withreviews of verification documents, field verifications of ARB forestcarbon offset projects, and S&A's actions to become accreditedunder the American National Standards Institute-ANSI). Lawsonbrings nearly a decade of experience in forest certification throughhis prior employment with Rainforest Alliance, where he acted as aproject manager and lead auditor of forest carbon offset projectsagainst the major

	voluntary GHG programs, and FSC ForestManagement & Chain of Custody Certifications. Lawson is qualifiedas a Lead Verifier under the Climate Action Reserve (CAR), and isalso qualified as a AFOLU IFM Expert under the Verified CarbonStandard (VCS) program. He has led the validation and verificationof IFM, AR & REDD forest carbon offset projects against the majorvoluntary GHG programs globally. He is a member of both the GoldStandard Foundation (GSF) Land Use and Forestry (LUF) andOversight and Assurance (OA) Technical Advisory Committees(TAC). Lawson holds a B.S.F in forest management from theUniversity of New Hampshire (2005).
Nathalia Ribeiro Validator/Verifier under observation	Forestry Engineer and graduated in Agricultural Sciences from University of São Paulo (USP). Coordinator of Certification in Imaflora, working with Chain of Custody, Forest Management, Carbon (VCS / CCB) and geoprocessing. Trained as lead auditor in management systems by ATSG (Lead Assessor ISO 14.001) and trained by Rainforest-Institute and Imaflora for Forest Management and Carbon Certification. She has experience in planning carbon audits using geoprocessing tools, as well as participation in carbon field audits
Pablo Reed - Technical reviewer	Pablo Reed is a Senior Associate at S&A Carbon, and a member of the forestry verification team. He is an ARB approved forestry project specialist and ARB lead verifier, and generally acts as a sector expert supporting internal reviews of verification documents. Prior to joining S&A, Pablo spent five years working at Det Norske Veritas (DNV), an international certification company, leading forestry validations and verifications across all major GHG programs. He is accredited as a lead validator/verifier of forestry projects submitted to the Climate Action Reserve, American Carbon Standard, and Verified Carbon Standard. He has extensive experience in MRVS systems, forestry inventories and logging operations, and with the development of environmental and social safeguards. Pablo also has extensive experience working with conservation and development projects in various countries in Latin America. He served as country director for a joint USAID/Idaho State University community conservation project in the Alta Verapaz region of Guatemala and spent time in Panama working as an environmental and GIS consultant. He also worked with the Peace Corps in Ecuador as a program manager for the posts' natural resource conservation program. Pablo received a Masters of Environmental Management degree from the Yale

	School of Forestry & Environmental Studies, and holds a Bachelor of Science degree in Forest and Ecological Engineering, and a minor in Latin American Studies from the University of Washington in Seattle. His research centered on the development of REDD (Reducing Emissions from Deforestation and Degradation) policy frameworks, especially as they pertain to the inclusion of communal Indigenous territories and lands under tropical forestry conservation projects.
Kyle Silon - Approver	Kyle Silon holds an M.S. in Energy and Environmental Economics. He has ten years' experience in climate change mitigation strategies and carbon reduction projects. Prior to founding S&A, he worked for a leading international certification company, specializing in validation and verification of small-scale household energy demand projects (such as cook stove and water filter projects), primarily located in South America, Asia, and Africa. He has participated in numerous verifications of forestry, landfill, and livestock projects, and has worked across all major GHG programs, including the Air Resources Board, Verified Carbon Standard, Climate Action Reserve, American Carbon Registry, Gold Standard, and Clean Development Mechanism (CDM).

The following auditors were involved in the assessment prior to the transfer to S&A, but did not directly participate after the transfer of the validation to S&A.

Diego Serrano – Validator/Verifier	Forest engineer graduated at Superior School of Agriculture "Luiz de Queiroz." – University of São Paulo (ESALQ / USP). Diego has master degree in Energetic System Planning – forest residues and biofuel by the State University of Campinas (UNICAMP). His abilities include coordination and elaboration of PDD's in the scopes 1, 4, 13 and 14. His most relevant professional abilities include technical coordination for rural projects under European Union Program in Mozambique (2005), consultancy for Extractive Reserves in Amazon basin under the UNDP Program (2004) and participation on the Brazilian Biofuels National Programme (2006). In the ambit of GHG projects, in private sector, he was technical coordinator of LULUCF PDD's, as afforestation, reforestation and REDD projects, also in charge of biodiversity and protected areas programs, forestry management and forest inventory in different South American biomes (2007). Also in private sector he was technical manager for more than 70 CDM and voluntary carbon projects, including 8 LULUCF PDD (2008-

	2009). From 2009 until 2014 he worked for Bureau Veritas (BVQI) as leader auditor and specialist for CDM and voluntary carbon projects and methodologies validation, focusing in AFOLU/LULUCF. In BVQI Diego audited over 60 projects, 44 of which were CDM. He is a leading auditor in GHG and ISO 14001: 2004. In 2009 he founded C3 – Floresta, Meio Ambiente & Energia, a consulting company that advises on carbon, forest (LULUCF and AFOLU) and solid biofuel projects. Currently Diego audits AFOLU VCS projects, through IMAFLORA.
Heberton Barros – Validator/Verifier, GIS specialist	Bachelor's degree in Forest Engineering from the Federal University of Espírito Santo (UFES) and Master's Degree in Tropical Forest Sciences from the National Institute of Amazonian Research (INPA) with emphasis on Human Support Capacity in Amazonian Agro-ecosystems. Since 2009, he has worked as a researcher in NGOs such as IDESAM and recently (2014) has been working as a research associate for CNPQ research groups (INPA), where he develops activities related to Earth Observation, Territorial Analysis and Planning in the Amazon using tools of geographic information systems and remote sensing. He worked on the conception, development and implementation of the Suruí Forest Carbon Project – PCFS between 2009 and 2010 applying the VM0015 tool, accompanying the implementation of the project up to the present moment. Participated in the auditing processes for validation of PCFS in the VCS and CCB standards, as well as in the two checks for credit generation. Since the implementation of PCFS, it is responsible for the monitoring of change of land use and annual generation of VCUs. Acted in the feasibility analysis of implementation of carbon projects in 4 indigenous lands (Analysis of drivers and deforestation agents, scenario analysis, additionality and economic viability). In 2017 he worked on the post-audit adequacy of the Amazon Rio REDD+ IFM project in the VCS Vs3.1 and CCB third edition standards. In that same year, he served as auditor in the "Fortaleza do Ituxi" REDD+ Project, nalysing the application of the VM0015 methodology, following the scope of the VCS Vs 3.4 and CCB third edition standards; specifically nalysing the spatial and temporal limits of the project within the scope of the VCS AFOLU Requirements and VM0015 tool, including the non-permanence risk analysis of the project following the VCS Non-Permanence Risk Tool Vs 3.2.

Mauro Isler – Validator/Verifier, social specialist	Agronomist with experience in GMP, GLOBALGAP, organic audits and systems of production and quality management in agricultural and forestry production, acting as auditor since 1997. Leading auditor ISO 9000: 2000 conferred by ATSG / INMETRO in 2004. Specialist in Tourism and Environment. Has training in auditing FSC certification of forest management conferred by IMAFLORA in 2013. He is a social auditor of REDD+ projects working for VCS and CCB Standards. She has participated in more than six verification audits working for Imaflora / Rainforest Alliance in Brazil.
Rogerio Marinho – Validator/Verifier, GIS, modelling specialist	Geographer graduated by Universidade Federal do Amazonas (UFAM) and Master in Remote Sensing by Instituto Nacional de Pesquisas Espaciais (INPE). Has training in Carbon Projects and Modeling of Environmental Systems by Instituto Nacional de Pesquisas da Amazônia (INPA). He has ten years of experience in GIS and remote sensing in the Amazon. He coordinated the baseline design of five REDD+ projects certificated in the VCS and CCB Standards (using VCS methodology VM0007 and VM0015). He has work experience in Carbon Validation/Verification Audit by Imaflora/ Rainforest Alliance.

2.2 Document Review

The following documentation was reviewed during the audit:

Ref.	Title, Author, Version, Date	Eletronic file name
1	PD v.7, FORTALEZA ITUXI REDD PROJECT, Janaína Dallan, 12/03/2019	!FORTALEZA ITUXI REDD_12_03_2019
2	CATTLE_STATS (11 files), Carbonext	1302405_prodpec2005 to 1302405_prodpec2013
3	POPULATION_STATS (population statistics) , Carbonext	POPULACAO.xls and Pasta1.xls
4	GIS Files, Carbonext	Project boundaires (.kmz and .kml), project coordinates
5	farm invasion B.O. , Carbonext	

6	"BASELINE REFERENCES_REPORTAGENs", Carbonext	BASELINE REFERENCES_REPORTAGENS https://drive.google.com/drive/folders/0BymJ_dG8yAbtOG1veGhtOTM3TG8
7	The Increase in Deforestation in the Amazon in 2013: a point off the curve or out of control? (IMAZON)	!IMAZON_The Increase in Deforestation in the Amazon in 2013.pdf
8	Modelagem da dinâmica do desmatamento de uma fronteira em expansão, Lábrea, Amazonas / Claudia Suzanne Marie Nathalie Vitel. Manaus, 2009.	!!Dissertacao_ Claudia.pdf
9	"OFERTA DE COMPRA da area do projeto", Carbonext	OFERTA DE COMPRA.jpg
10	Adaptive Management Plan, Carbonext	Proced_Fortaleza_Ituxi P-02 PLANO DE GESTAO ADAPTATIVO 31_10_2017.doc
11	Brown Impact of selective logging on the carbon stocks of tropical forests: Republic of Congo as a case study	Brown_Winrock.pdf
12	TERCEIRO INVENTÁRIO BRASILEIRO DE EMISSÕES E REMOÇÕES ANTRÓPICAS DE GASES DE EFEITO ESTUFA - SETOR USO DA TERRA, MUDANÇA DO USO DA TERRA E FLORESTAS. Ministério da Ciência, Tecnologia e Inovação 2015	RR_LULUCF_Mudança de Uso e Floresta_pg 107_Tabela 14_BIOMASSA AS_2015_explicacao pg 126.pdf
13	Aboveground biomass and structure of rainforest in the southwestern Brazilian Amazon, Cummings et al. (2002)	!CUMMINGS.pdf
14	Baker, T.R. et al. (2004). Increasing biomass in Amazonian forest plots. Phil. Trans. R. Soc. Lond. B (2004) 359, 353-365. DOI 10.1098/rstb.2003.1422	Baker TR et al PTRSL 2004_BIOMASSA AUMENTANDO.pdf
15	Phillips, O.L. et al. (1998). Changes in the Carbon Balance of Tropical Forests: Evidence from Long-Term Plots. SCIENCE VOL 282 16, 439-442.	Phillips OL et al Science 1998_BIOMASSA AUMENTANDO.pdf
16	IPCC Good practices guide for LULUCF, annex 3A.1,	Annex 3A.1 Biomass Default Tables for Section 3.2 Forest Land
17	Google Earth Pro images from 1969 until 2016	https://www.google.com/earth/download/gep/agree.html
18	Diagnóstico da cadeia produtiva da madeira no município de Lábrea-AM, IEB	http://www.iieb.org.br/index.php/publicacoes/livros/diagnostico-produtivo-da-cadeia-produtiva-no-municipio-de-labrea-am/
19	POE – Plano Operacional de Exploração, Ricardo Stope	Plano Operacional de Exploração – POE.pdf

20	Starting date document support, Carbonext	CONTRATO-PDD-CASE-PDF (Ago-13).pdf
21	Farm, Ownership and operational licence documentation, Ricardo Stope	File "DOCUMENTACAO FAZENDA" (gdrive) containing 9 documents
22	Carbon Calculation spreadsheet, Ex-ante estimates, Carbonext	CALCULATION_05_10_2018.xlx
23	SFMP – Sustainable Forest Management Plan, Ricardo Stope	Plano de Manejo Florestal Sustentável – PMFS.pdf
26	VVB team forest inventory data, Imaflora	Dados_Biomassa_ITUXI.xlx
27	Project ownership and rights over the carbon related documents, Ricardo Stope	*Certidão de inteiro teor* (available for VVB during the field audit and printed over the PD); CCIR – Certificado de Cadastro de Imóvel Rural.pdl
28	West et al. 2014. Forest Ecology and Management 314 (2014) 59–63.	West_2014.pdf
29	SCHNEIDER et al. Amazônia Sustentável: limitantes e oportunidades para o desenvolvimento rural. Brasília: World Bank; Belém: Imazon, 2000. 58 pp	SCHNEIDER_2000.pdf
30	Project Financial documents, Carbonext	!!FINANCEIRO SENSITIVITY_20_08_2018.xlx
31	Instituto Matogrossense de Economia Agropecuária	IMEA.pdf
32	Spatial Modeling, GeoWiki	REDD_Ituxi_LB_rel_vs4_FINAL_08 062018
33	Cummings (2002), Abovegroung Biomass ans structure of rainforest in the southwestern Brazilian Amazon	Forest Ecology_CUMMINGS_revBS_pg7
34	Higuchi. 2006. A INFLUÊNCIA DO TAMANHO DA PARCELA NA PRECISÃO DA FUNÇÃO DE DISTRIBUIÇÃO DE DIÂMETRO DE WEIBULL DA FLORESTA PRIMÁRIA DA AMAZÔNIA CENTRAL	Higuchi. 2006. WEIBULL
35	IPCC Guidelines 2006	V4_04_Ch4_Forest_Land.pdf
36	Exploited logs and wood densities report	!relatorio 2014.pdf CR02.xls

2.3 Interviews

Auditor interviews included government representatives such as the ICMBio Representatives, farmers settled in the project surrounding areas, project staff, forest management operators and employee and farm workers.

Interviewed	Community, Instituton,	Date	Number of participants

	Locality		
Abilio Alberto Silva Analista Ambiental	ICMBio Labrea	26/07/2017	01 (by phone)
Luiz Fernando de Oliveira Neto	Funai Labrea	26/07/2017	01 (by phone)
Francisco da CPT Agente	CPT Labrea	26/07/2017	01 (by phone)
Hamilton Condak de Oliveira Coordenador Presidente	RECA project	31/07/2017	01
Alexandro Queiroz dos Santos Diretor Presidente	RECA project	31/07/2017	01
Ganete Eloi da Silva Gerente ADM	NS Cachoeira do Ituxi farm	01/08/2017	01
Edivaldo Silva, Motorista	NS Cachoeira do Ituxi farm	01/08/2017	01
Silma Medeiros de Amorim, cozinheira	NS Cachoeira do Ituxi farm	01/08/2017	01
José Francisco Dos Santos Nascimento, motoserrista	NS Cachoeira do Ituxi farm	01/08/2017	01
Antônio Carlos do Nascimeno	NS Cachoeira do Ituxi farm	01/08/2017	01
Rose Faustino, Cozinheira; Francisco Lenildo, caseiro; José da Costa, motoserrista	NS Cachoeira do Ituxi farm	01/08/2017	03
Francisco Lima França, 2º tesoureiro APRASSA e fazendeiro da região.	NS Cachoeira do Ituxi farm	02/08/2017	01
Lindomar Gomes de Souza	Neighbour farm	02/08/2017	01
Uadra Castelhane	Neighbour farm	02/08/2017	01
Maicon Douglas Fidelix e Andriele	Onça Preta farm	02/08/2017	01

Nunes Delgado, caseiros			
José batista da Silva, porteiro	NS Cachoeira do Ituxi farm	02/08/2017	01
Eng Florestal Emanoel Bento dos Santos, dofeiro exploração da AMF 2	NS Cachoeira do Ituxi farm	03/08/2017	01
José Adson freire Jucá, sócio do pp na exploração florestal.	NS Cachoeira do Ituxi farm	03/08/2017	01
Wokers and residents of four different neighbour farms at the reference region and leakage management area	Neighbour farm	23/02/2019	04

2.4 Site Inspections

The table below summarizes the sites visited during the validation audit:

Location	Date
RECA project headquarters	31 June 2017
Fortaleza do Ituxi REDD+ Project headquarters	1 and 2 July 2017
Forest management camp lodgement 01	1 and 2 July 2017
Farms in the reference region (project boundaries)	3 July 2017
Forest management camp lodgement 01	3 July 2017
Forest management operation	1 to 3 July 2017
Forest Inventory practices at the project area	1 to 3 July 2017 20 to 22 February 2019

2.5 Resolution of Findings

18 NCRs, 01 FAR and 03 OBSs were issued by the VVB team and are described in “Appendix 01 & 02” of this report. 17 NCRs, 01 FARs and 02 OBS were issued prior to the transfer of the accreditation to S&A. All issues were resolved after the accreditation transfer to S&A. A full description of the audit notes can be found in Annex 1. This report represents the final conclusions and provides a full description of the corrective actions taken by project proponents to resolve audit findings, i.e. non-conformance reports. In summary, the proponent has revised its project start date, the project non-permanence risk analysis, baseline, deforestation modelling, and GHG emission reduction estimates to consider several specific components, ranging from project boundary definition, image classification, project emissions,

identification of deforestation agents and drivers, carbon stock estimates, LU/LC change analysis, deforestation projections, baseline approach, emission factors, post deforestation classes, carbon stocks and additionality.

2.5.1 Forward Action Requests

A forward action request was issued in order to highlight the necessity of the project proponent to implement the monitoring tasks related to carbon stocks changes over the course of the subsequent monitoring periods, to the next VVB. The VVB team points to the necessity of the project proponent to conduct a forest inventory monitoring process in the project area. The project proponent has chosen to determine the carbon stocks and thus, the emission factors based on secondary data, which is permitted by VM0015 v1.1. Although, the project area encompasses potential different forest strata, considering that forest management operations are part of the project activities. The methodology chosen determines that carbon stocks should be monitored in situations where a change in carbon stocks is expected as a result of forest management activities.

3 VALIDATION FINDINGS

3.1 Project Details

The FORTALEZA ITUXI REDD PROJECT project was designed to avoid Unplanned Deforestation (AUD project activity) on a private area of 46,592 hectares. The project area is located in the South of Ituxi River at the Lábrea municipality, in Amazonas state.

According to the PD v.7.2, The project's estimated net GHG emission reductions are 4,267,919 tCO2e, corresponding to avoiding the deforestation of 5,391.6hectares over a period of 30-years. This objective is to be achieved through the implementation of the project activities with aim of obtaining the necessary instruments and institutional support to ensure the farm boundaries integrity, that sustainable forest management continues in the property and that leakage will be mitigated.

The project activities include the following:

- Fire brigades will be organized from local labor: the Project budget foresees investments in vehicles, property boundary monitoring and training sessions. All costs will be covered by the project proponent and it is expected that training sessions will involve from 15 to 20 neighbors.

- Forest management operations: qualification of the local community to engage in the activities related to forest management within the farm; courses on forest management methods will be offered to the local community.

- Support to SEMA - AM (Secretaria de Estado do Meio Ambiente do Amazonas; Amazonas State Secretariat of Environment): improvements in local security through public sharing of documentation, the project proponent will be in charge of political mobilization of the forest sector in the region and, in the long term, the establishment of solid bases for engagement of all sectors involved in deforestation issues.

- Potential Roll-out to Other Areas: other areas with the potential to be developed as REDD+ projects have already been identified around the project site, which will favor and encourage

forest conservation by means of financial incentives obtained from GHG emission reduction sales.

- Fight against illegal land occupation: long-term protection of the property and opposition to invasion by land grabbers. Improvement in local security through project monitoring. Those who are well suited to be trained to conduct local monitoring will be included in the project.

- Feasibility study for a small NTFP processing plant: this initiative will measure the property's potential to produce non-timber products (such as fruit, oils and essences).

- Production of Brazil-nuts: commissioning of a feasibility study to set up a small plant for processing NTFP, as well as organizing technical trainings in the municipality of Lábrea, and districts of Porto Velho (Nova Califórnia and Extrema). The farm already holds a company for the harvesting of Brazil-nuts, which is called "Castanhal Fortaleza".

- Seedling Production Nursery: creation of incentives to recover degraded areas surrounding the property (donation of native seedlings). Establishing the capacity to produce 50,000 native-species seedlings per year and donation for neighbors wishing to plant.

The Project Activity falls into VM0015 v.1.1 eligibility category B, as it involves protection of forest with controlled logging (sustainable forest management), and the baseline consists of deforestation in old-growth forests without logging.

Project proponent and other entities involved in the project: the project proponent was defined as being the Fazenda Nossa Senhora das Cachoeiras do Ituxi, which Dr. Ricardo Stoppe Júnior is the landowner. All the property documentation was assessed by the VVB team and found to be in order according to the legal requirements for private properties.

CARBONEXT plays the role of a Technical Advisor in project development, for which Janaína Dallan & Luiz Fernando de Moura represent the primary contacts. Geowiki Engenharia Ltda plays the role of a specialized consultancy for GIS analysis and deforestation modelling.

Project start date and crediting period: The project start date is 15 December 2013 that is consistent with the commencing of the Forest Management Plan Implementation at the farm. (Refs._ #19, #20, #23 e #21). While the project crediting period is from 15 December 2013 to 14 December 2043, totaling 30 years.

Project scale and estimated GHG emission reductions or removals: The project area is 46,592 ha. in size and the proponent calculated an annual average of 137,675 tCO2e of avoided emissions reductions. The proponent correctly identifies in the PD the project scale as "not being large", taking in consideration the annual volume of avoided emissions.

Project Location: the project is located in the municipality of Labrea, state of Amazonas. The geodetic coordinates of the project boundaries are described in the PD and were independently assessed by the VVB team through GIS analysis using the shapefile provided by the project proponent and direct observations at the field.

Conditions prior to project initiation in the reference region are the same as described in the baseline scenario. According to the PD, pasture accounts for virtually all the deforested land occupation in the reference region. The Project Area is susceptible to this land occupation pattern but still has a forest cover characterized as Submontane open ombrophylous forest (ref. 04). This forest physiognomy was confirmed by the VVB during the site visit. Appropriate information on the climate, hydrology and topography is provided in the PD, section 2.3.

Project compliance with applicable laws, statutes and other regulatory frameworks: considering the project aims for forest conservation to remain above the thresholds stated in law, and the project activity is referred to as sustainable forest management, legal approved and currently implemented, the VVB understands that the project activities are in compliance with applicable laws, statutes and other regulatory frameworks.

Project ownership and other programs: The project ownership is related to the property ownership of Dr. Ricardo Stoppe Júnior. The property ownership is supported by relevant documents (Ref. #21). No issues were found regarding the project area or property ownership.

The project does not seek other forms of environmental credit and does not participate or receive rejection by other GHG programs.

Leakage management for AFOLU projects will be based in a first hand in local community engagement in educational activities, training activities and also the creation of potential jobs and other related opportunities in the reference region and inside farm. In this sense, the project proponent intends to offer technical training on sustainable cattle raising, forest management courses on forest management operations inside the farm, opportunities linked to a small non-timber forest product processing plant, among others. The project proponent still defines as a leakage management activity the cooperation with environmental agencies responsible for surveillance activities in the state (SEMA) and the “potential roll-out” (of the project activities) to other areas, which can be understood as the positive effect the project will cause in other private land owners in the reference region when accomplish verification by incentivizing them to develop their own REDD+ projects. It is the VVB understanding that the proposed leakage management activities are set to avoid leakage in the leakage management areas.

Commercially sensitive information: according the PD v.7 “No commercially sensitive information has been excluded from the public version of the project description”.

Sustainable development contributions: given its own nature, the project is directly linked with the UN SDGs #13 and #15. The project proponent discusses how the project activities will help federal and state governments in achieving these goals, by playing an important role in tackling deforestation in currently one of the highest pressure zones in the Amazon biome, known as the Brazilian deforestation arc.

The VVB has undertaken a wide review of the project documentation together with several interviews, followed by on site observations. Based on their evaluation, the VVBs perception is that the project description is accurate, complete, and provides a clear understanding on the nature of the project.

3.2 Application of Methodology

3.2.1 Title and Reference

The project is a REDD+ project (AUD – Avoiding Unplanned Deforestation), operating under the ALOFU sectorial scope, developed based on the VCS VM0015 v1.1 methodology and eligible for validation under the CCB and VCS standards. The project area can be qualified as forest since the year 2003 (ref. #04). The activities in the baseline and project scenarios include forest management, which is allowed by the methodology.

3.2.2 Applicability

Baseline activities include forest management with selective logging and unplanned deforestation from invasion, land grabbing and livestock activities (Ref.#01). The proponent excluded areas without forest cover and areas that are overlapped with a conservation unit buffer zone. The use of the VM0015 v1.1 methodology is justified by the applicability conditions defined in the project design:

- Baseline activities include unplanned deforestation for timber and grazing activities, where forest lands are converted to non-forest lands.
- The Project Activity includes eligible category B, as defined in the description of the scope of the methodology.
- The Project Area includes old-growth forest, meeting the definition of “forest”.
- At project commencement, the Project Area includes only land qualifying as “forest” for a minimum of 10 years prior to the project start date.
- The Project Area does not include forested lands growing on peat soils.

The VVB team confirmed that the VM0015 methodology is applicable to the proposed AUD project activity.

3.2.3 Project Boundary

The VM0015 in the step 1 states the following categories of project boundaries:

Spatial boundaries: the project meets the spatial boundary requirements stated in the applied methodology. The project area, reference region, leakage belt and leakage management areas can be seen as one homogeneous geographic area in which overall deforestation patterns in a 10-15 year period prior to the start date of the project activity, considering deforestation agents behavior and different types of deforestation drivers, represents a credible proxy for possible future deforestation patterns in the project area. There is no jurisdictional or sub-national baseline in the state of Amazonas. A national Brazilian baseline is not spatially explicit, and neither meets VCS specific guidance on applicability of existing baselines and is therefore not considered to be applicable. The project spatial limits are presented over the section 2.3 of the PD (Ref_DS# 4 and 21). These limits were independently assessed by the VVB in GIS environment and checked during the field audit.

The reference region was correctly defined once the similarity criteria for landscape configuration, ecological conditions, socio-economic and cultural conditions were followed in the project design. The project proponent has correctly compared elevation, slope and rainfall between the reference region and the project area, proving that at least 90% of the project area is within the elevation slope/rainfall range of at least 90% of the rest of the reference region. Elevation characteristics in the project are similar to those found in 90% in the reference region. Slope characteristics in the project are similar to those found in 98% in the reference region. The climate is the same according to Koopen classification, which implies that 100% of rainfall conditions are similar. The project proponent has also compared forest/vegetation classes within the project area and the reference region finding a similarity index of 71%. Socio-economic and cultural similarity criteria were proven to be met through a comparison of land tenure, legal status, land use, land police and regulations enforced, which are exactly the same among project area and reference region. Nossa Senhora da Cachoeira do Ituxi farm is private land that had its boundaries reduced in the past through the establishment of a protected area (In Port.: FLONA[1] do Iquiri). In the reference region both, private and (other) public lands, can be found in the same land use configuration and under the same laws as seen that the geographic region in which the reference region is located is in the same state/country and under the same socio-economic conditions. The VVB team has independently assessed the information using INPE data and confirm the project proponent assessment on that matter.

The project Reference Region has 1,439,765.00 hectares being 30 times bigger than the Project Area of 46,592.00 hectares, thus being in conformity with VM0015 recommendation.

The project area was correctly demarcated, excluding non-forested areas, areas deforested for a period of 10 years before the project start date and areas were deforestation is planned to happen within the project lifetime, such as those related to the Forest Management operation permanent infrastructure (47 ha) or the flood area (701 ha) of a future small hydro power plant that will be constructed at the farm.

The project proponent has used an opportunity cost analysis to demarcate leakage belt. A solid rationale was used by the project proponent to delineate leakage belt limits, taking in consideration the production costs and selling prices of cattle in the region, according to a reputable source of information (ref. #31) and the associate transportation costs (by trucks) and the main slaughter houses in the reference region. The results are shown in the PD v.7, section 2.3. The VVB team understands that the project design is aligned to the methodology requirements, once the leakage belt was defined as being the land area or land areas surrounding or adjacent to the project area in which baseline activities could be displaced due to the project activities implemented in the project area, according to an opportunity cost analysis.

Leakage management areas (LMA) were demarcated considering non-forest areas located outside the project boundary in which the project proponent intends to implement the project activity. Additional criteria used to set LMAs were proximity to roads and proximity to the REDD+ project area. The VVB team has analyzed the maps showing LMA provided by the project proponent and found it to be in conformance with the methodology requirements.

Temporal boundaries: the project design correctly indicates the project start date (15 December 2013), the project historical reference period (years 2005, to 2013) and the project crediting period (2013 to 2043) (ref. #01, section 1.5 and 1.6), thus being in compliance with the chosen methodology.

[1] In Port.: Floresta Nacional.

Carbon pools: the following carbon pools were considered in the project quantifications, being in compliance with "AFOLU Requirements, v3.4 and VM0015 v1.1: 1) Aboveground biomass – trees (Mandatory), 2) Belowground biomass (Optional), and 3) Harvested wood products.

Sources of emissions of greenhouse gases (other than carbon stock changes): the project emissions were correctly contemplated in the section 2.3 of PD v.7. Based in the document review of project activities and site visit observation, the VVB did not find any relevant sources, sinks or reservoirs that have not been encompassed by the project proponent. Non-CO2 emissions related to forest fires in the baseline and project scenario were considered in the project design and the correctly estimated using equations 11 to 14 and reported in the carbon calculation spreadsheet (ref. #22) using VM0015 v1.1 table 23. The VVB team has checked the appropriateness of the equations, conversions and aggregations used.

3.2.4 Baseline Scenario

This section of the validation report refers to the VVB assessment of the project proponent baseline scenario description. The baseline scenario GHG emissions were calculated by the project proponent following VM0015 v1.1 requirements. Its conformity was checked and reported in section 3.2.6 of this validation report.

According to the PD v.7 forest land is expected to be converted to non-forest land in the baseline case. A variety of contextual factors, including land invasions, land grabbing, cattle ranching activity and land purchase proposals contributes to this baseline scenario plausibility. The VVB team has observed cattle ranching activity in the reference region and also analyzed police records and local reports that offer proof of historic invasions of the farm. The landowner cannot afford the efforts and costs to keep long-term vigilance of frontiers to avoid unplanned deforestation from uncontrolled invasions. The project financial spreadsheet corroborates this assumption, according to the VVB team.

In conclusion, based in the interviews, site visit, field observations and document analysis (Refs.: #02, #03, #05, #06, #07, #08, #09, #17 and #18) the VVB team finds that it is expected unplanned deforestation is most likely to occur in the Project Area in the of absence of the REDD Project. Deforestation is expected occur through clear-cutting of forests for logging followed by pasture installation.

Based on this analysis the VVB deems the abovementioned land use scenarios plausible, appropriate and valid for the project regional context.

3.2.5 Additionality

According to the VM0015 methodology (ref#11_DS), the additionality of the proposed AUD project activity must be demonstrated using the most recent VCS-approved VT0001 Tool for the Demonstration and Assessment of Additionality in VCS AFOLU Project Activities.

The VVB team determined the VT0001 applicability conditions were followed. The project implementation can be characterized as AFOLU activity and will not violate any applicable law. Furthermore, VM0015 v1.1 provides a stepwise approach to determine the most plausible baseline scenario.

The project proponent has identified and listed different alternative land use scenarios, as required by the VT0001, step 1a. These scenarios encompasses the 1) "continuation of the pre-project land use": farm suffering with invasions incidents ; 2) the "project activity on the land within the project boundary performed without being registered as the VCS AFOLU project": surveillance activities, creation of fire brigades, provisioning of technical training on sustainable cattle raising and forest management for specific stakeholders, etc, with the financial resources coming only from forest management; 3) legally planned deforestation: considering Brazilian law[2], 20% of the land in Amazon forest biome can be suppressed; 4) business as usual in the Amazon forest in the state of Amazonas remarkably characterized by illegal logging extraction and illegal deforestation (extrapolating the limits granted by Brazilian Forest code); 5) abandoning the area at the mercy of identified deforestation agents groups 6) Farm sale to private investors – probably incurring in the previously described scenario. Based on previous experience, knowledge about current practices in the region, deforestation characteristics over the reference region, interviews with the project proponent staff and also analysis over the project documentation (ref. #01), the VVB team deemed these scenarios as credible and realistic. Furthermore, the project proponent has described scenarios that represents the continuation of the pre-project land use, the project activity on the land within the project boundary performed without being registered as the VCS AFOLU project and similar activities to the proposed project activity on at least part of the land within the project boundary of the proposed VCS AFOLU project at a rate resulting from a extrapolation of the reference region regular activity, thus considering the project design in conformity with VT0001 v3.0, step 1a.

Moving forward, the project proponent has demonstrated that all described scenarios are legal or illegal in situations where a lack of law enforcement remain characterized, listing plausible and alternative land use scenarios to the VCS AFOLU project activity. In this sense the project proponent deems the continuation of land invasions causing unplanned deforestation, with the possibility of planned legal deforestation and/or selling the farm with the possibility of illegal deforestation as the most plausible scenarios. For a complete assessment of the analysis of agents, drivers and underlying causes of deforestation and their likely future development in the baseline case please refer to section 3.2.6 of this report. The VVB team considered the project design as in conformance with VT0001, step 1b and 1c.

The project proponent has correctly chosen an Investment Analysis (Step 2) and appropriately selected IRR as a financial indicator in order to apply an investment comparison analysis (option II) and prove the project's additionality, as seen that the project generates economic benefits other than VCS related income. IRR of the proposed VCS AFOLU project, with forest management and without VCU revenues was calculated as -64%, while IRR for cattle ranching, the prevalent economic activity in the region is 4%. The VVB team has analyzed the project financial spreadsheet (ref. #30) and confirmed the proponent calculations and the validity of its assumptions and conclusions on this matter. Forest Management operations IRR was calculated from the farm current financial data, while cattle ranching IRR, was taken from secondary data published in reliable source of information (ref. #29). The VVB team considered the project design as in conformance with VT0001, steps 2a, 2b and 2c. The project proponent has also performed a sensitivity analysis, concluding that the proposed VCS AFOLU project without the financial benefits from the VCS is unlikely to be financially most attractive. In this sense, the project proponent has assessed the variation over the price of timber and forest management operational costs, demonstrating that the project activity would only suppress business as usual activity in the case of

[2] LEI Nº 12.651, DE 25 DE MAIO DE 2012.

a timber being sold for an unfeasible price, which was considered as a plausible line of argumentation by the VVB team. The VVB team considered the project design as in conformance with VT0001, step 2d.

The VT0001 step 4 orients the PP to provide an analysis to which extent similar activities to the one proposed as the VCS AFOLU project activity have been implemented previously or are currently underway.

In addition, states that have similar activities are defined as that which are of similar scale, take place in a comparable environment, *inter alia*, with respect to the regulatory framework and are undertaken in the relevant geographical area subject to further guidance by the underlying methodology.

According to the proponent the following characteristics were assessed in order to meet the requirements stated in the step 4:

- Large scale operations, once the Project Area has the second biggest Operation License (Licença de Operação) in the State of Amazonas;
- Operations with a valid and licensed Sustainable Management Plan (i.e. legal wood producers);
- Operations providing logs to local sawmills (i.e. local generation of jobs and revenues);
- Operations with investments in forest conservation and community enhancement.

In order to meet the step 4 requirements, the project proponent presents several surveys and evidences, as follows:

- *In a survey performed by IEB (2014)[3], the offer of legal logs was the main restraint in Lábrea's supply chain, as mentioned by 56% of stakeholders interviewed. In 2014, four Small Scale Sustainable Forest Management Plans (SFMP) were licensed for processing organizations. However, the volume of logs supplied by these SFMP is insufficient to fill the municipality demand, representing only 8% of total volume consumed yearly.*
- *According to data provided by IPAAM, between 2011 and 2013, five SFMPs of major impact were licensed in the South region of Lábrea, which would be able to supply legal wood in 2013 (licenses expire in 2 years). Among these SFMPs, only one had been licensed in 2011, with a total area of 928.85 ha and 3,457 m³ of licensed wood.*
- *Other four SFMPs, licensed in 2013, involve a total area of 6,732 ha, which represents an average of 1,346 ha per SFMP, being able to provide 58,871 m³ of legal wood (average of 11,774 m³ per SFMP). The logs produced by these SFMPs supplied two licensed wood industries in the South of Lábrea, which had a total yearly wood consumption of 30,000 and 14,400 m³, respectively. According to IPAAM, these were the only licenses issued in 2013.*

[3] Diagnóstico da cadeia produtiva da madeira no município de Lábrea-AM - Brasília: IEB, 2014. 70p

- *According to the City Hall Lábrea, it is estimated that 78,000 m³ of illegal wood logs are monthly harvested and sold to the States of Rondônia and Acre.*

- *The development of forestry stewardship is currently undergoing a crisis in Brazil. Forest management itself poses several difficulties, which implicates in the economic viability of the operation. To take all the measures and steps to achieve a sound business operation, the Project Proponent has encountered challenges that indicate risks. These risks can be considered barriers to the continuation of the forest management project itself, and resources from the sales of carbon credits would be a very important component of the operation today and years to come.*

According to the PP the surveys presented above (Ref. #18) indicates that large-scale operations with valid licensed SFMPs are not the common practice in the region of this Project Activity, mainly when supply of logs to local sawmills is considered (i.e. local generation of jobs and revenues). In addition the PP states that the lack of similar projects in the region would be even more evidenced when considering operations with investments in forest conservation and community enhancement, which is the case of the proposed Project Activity.

Based on this information, the project proponent affirms that no activities similar to the proposed VCS AFOLU project activity were identified.

Based in the information gathered in the field, stakeholders interviews, documents and evidences presented by the project proponent (refs. #2 to 9, #17 and #18), as well as VVB team expertise, the VVB finds that the geographical region used in the common practice analysis as well as the information provided regarding similar projects, were appropriate, in the way that Step 4, as well as steps 1, 2 and 3 were satisfied. This means that VVB deems that similar activities are not likely to be made in the project region.

Thus, the proposed VCS AFOLU project activity is not the baseline scenario and, hence, can be deemed additional.

3.2.6 Quantification of GHG Emission Reductions and Removals

Quantification of baseline emissions: the project proponent has performed the quantification of baseline emissions based on the VCS approved methodology VM0015 v1.1.

The Analysis of historical land-use and land-cover change was performed in accordance to the VM0015 v1.1, step 2. The data source used by the project proponent was PRODES Digital (INPE, 2014). Landsat images used by PRODES follows VM0015 v1.1 medium resolution spatial data criteria INPE is the Brazilian space agency. It provides free corrected and classified images through the PRODES project, by which the Brazilian government monitors deforestation in the Amazon biome and thus constituting a reputable source of information. Land-use and land-cover (LU/LC) classes present in the reference region at the project start date were defined as “Forest Land” and “Non-Forest Land”, in accordance with VM0015 v1.1. Carbon stocks per hectare (tCO2-e ha) were considered homogeneous across the landscape and determined through secondary data, following VM0015 v1.1 step 6 requirements, which will be discussed in detail further in this same section. A Land-Use and Land-Cover Map representing the spatial distribution of LU/LC classes at the project start date was presented in the project design. One LU/LC category was defined as being Forest to Pasture. This assumption

(conversion from forest to pasture) was observed by the VVB team during the site visit and found in accordance to the local land use business as usual scenario.

A validation assessment was performed by the project proponent using a set of Landsat 5 TM images (orbits 001/65, 001/66, 233/65, and 233/66) for three time points (2005, 2009 and 2013) within the historical reference period with high resolution data from SPOT/IKONOS images (2013), using Google Earth. The proponent showed the accuracy of its classification through "kappa indexes", which show percentages of success above 90%, thus being in accordance with the methodology requirements.

Historic deforestation data shows a cumulative deforestation of 407,722.68 hectares in the reference region which represents 28% of the area and clearly suggests a generalized non-compliance with Brazilian Forest code which requires a Legal Reserve of 80% in each rural property of the Amazon Biome".

The analysis of agents, drivers and underlying causes of deforestation and their likely future development was performed in accordance to the VM0015 v1.1, step 3.

The project proponent has identified the main group of deforestation agents in the reference region as being cattle ranchers acting in private lands supported by itinerant illegal loggers and land-grabbers. A brief description of the main social, economic and cultural features for this composed group was provided by the project proponent in the project description. According to the project proponent, these groups act in the reference region in a coordinated way, in what it was called a "business cycle of deforestation", that includes the participation of colligated corrupted police members and politicians. The project proponent has even presented documents, such as invasion reports filed with the competent body (ref. #05) that corroborates the baseline scenario activity in the project area. The VVB team understands that this description matches the regular chain of events typical for the Brazilian deforestation arc in the Amazon forest, in which the municipality of Labrea AM is currently in. The project proponent has also presented an assessment of the most likely development of the population size of the identified deforestation agent group in the reference region, based in a progression of the cattle livestock, based on IBGE[4] data, which is deemed as reputable source of information. Finally, the project proponent has presented statistics on historical deforestation attributable to the identified group of deforestation agents in the reference region. No statistical correlation was found between livestock increase and deforestation in the reference region, although, Terra Class[5] data shows that the reference region is occupied by 30% of pastures and that 99% of deforested land from 2004 to 2014 is currently occupied by pastures in the reference region. The project proponent discusses this lack of statistical correlation in the project description, attributing it to the time gap existing between the deforestation itself and the commencing of the cattle ranching as a commercial activity. This assumption was considered plausible by the VVB team.

The project proponent has identified the driver variables explaining the levels of deforestation as being prices of cattle and population density. CEPEA[6], IBGE and other scientific articles were used as relevant source of information to provide evidence that the identified variables have been a driver for deforestation during the historical reference period. The project proponent briefly describes how these key driver variables have and will most likely impact cattle rancher's decision to implement deforestation

[4] https://www.ibge.gov.br/
[5] http://www.inpe.br/cra/projetos_pesquisas/dados_terraclass.php
[6] https://www.cepea.esalq.usp.br/br/categoria/boi-cepea.aspx

activities. According to the project proponent a positive relation between the expansion of agricultural areas and the variation of prices of agriculture goods can be verified and, beyond that, the higher the agricultural prices are the higher is the migration to rural lands is, which results in deforestation. The project proponent also presents information about variation of prices of cattle in Brazil and population density in the municipality of Labrea, which shows the likely future development for these drivers and it was deemed as the best available source of information by the VVB team. The project proponent does not consider that a project measure could potentially affect these drivers, which was considered plausible by the VVB team.

The project proponent has identified the driver variables explaining the location of deforestation as being access to forests (existing roads and navigable rivers) and proximity to forest edges. In the same sense, scientific articles were used as relevant source of information to provide evidence that the identified variables have been a driver for deforestation during the historical reference period. The project proponent briefly describes how these key driver variables have and will most likely impact cattle rancher's decision to conduct deforestation activities. According to the project proponent, proximity to roads and navigable rivers facilitates the logistics of wood and facilitates the process of clearing the land for pasture. The project proponent expects that the growth of the unofficial road network will be increasingly affecting the dynamics of deforestation during the project period, presenting its rationale of the "fish spine" typical progressive effect, which was recognized by the VVB team as a reasonable line of argumentation. The project activity foresees the increase of the intensity of surveillance activities during the crediting period, in a manner that the main paths for access to the Project Area will be continuously monitored and controlled.

Lack of law enforcement by local authorities and poverty were deemed as underlying causes of deforestation by the project proponent. The LU/LC change assessment along with IBGE data were used to support this rationale. According to the project proponent 30% of the forest cover in the reference region were converted to pastures in the reference period, which clearly conflicts with the Brazilian Law No. 12,651, that determines a necessity of 80% of preserved forests in Amazon biome as "legal reserves". In turn, statistics for the municipality of Lábrea-AM (IBGE, 2017), shows that formal workers (legally hired) represents only 4.6% of the total municipality population, while 52.7% of the population lives with half of a minimum salary per month (below US $5.5 a day). Under these conditions, the group of deforestation agents is encouraged to continue illegal deforestation practices while the population is forced to accept informal work conditions in illegal activities. Based on the historical variation of these parameters, the project proponent considers the current status of the underlying causes of deforestation as constant in the geographical region in short to medium term. The VVB team agrees with this rational considering that the Amazon forest deforestation as whole is increasing and that Brazil has experienced low economic growth and increased interest rates for several years.

Finally, the project proponent has analyzed the relations between the identified groups of deforestation agents, key drivers and underlying causes and explained the sequence of events that typically lead and most likely will lead to deforestation in the reference region. According to the project proponent, cattle ranchers are initially financed by illegal logging activity, under a condition characterized by lack of law enforcement that, in turn, negatively affects land tenure and property rights, resulting in invasions, land grabbing and deforestation. The VVB team recognizes this chain of event as typical for the Brazilian Amazon biome and thus determine the conformity of the project design to VM0015 step 3. Thus, the project proponent deemed the available evidence about the most likely future deforestation trend within the reference region and project area as conclusive and that the weight of the available

evidence suggests that the overall trend in future baseline deforestation rates will be constant. The VVB team agrees with the conclusions presented, the deforestation rates will probably be constant.

The project proponent has chosen modelling approach (c) as the project baseline approach for the projection of the quantity of future deforestation, justifying it demonstrating a correlation between the annual monitored deforestation and the driver variables that explain the quantity of deforestation.

The VVB team has analyzed the carbon calculation spreadsheet (ref. #22) to verify the suitability of this approach, interviewed the project staff and cross-checked reported annual area of baseline deforestation in the reference region independently using PRODES open data source. No inconsistencies were found. The project proponent has used Land Change Modeler, LCM (Eastman, 2009), available at 16.0 IDRISI Taiga Edition software for the projection of the location of future deforestation. The factor maps used as input for the deforestation modelling were listed over the project description and independently presented to the VVB team. Different models were generated. The project proponent has assessed the accuracy of these variables and models using ROC (Relative Operating Characteristic) analysis and selected the one with best potential to explain the future of deforestation dynamics using AUC indicator of 0.935. In addition the project proponent has developed vulnerability map histograms (ref. 32), which demonstrate the transition potential resulting from the selected model and provide a good picture of the class transition vulnerability, forest areas for deforestation, with high values of vulnerability (transition potential) in the areas that presented change and low values in the areas that did not change (persistence), in order to select the best model produced. Finally, the project proponent presents a map showing the expected baseline deforestation for each year since the project start date and the first fixed base line period. LU/LC change component of the baseline was determined by the project proponent in accordance to the VM0015 v1.1, step 5. The baseline activity data per forest class was determined using LCM.

The estimation of baseline carbon stock changes and no-CO2 emissions was determined by the project proponent in accordance to the VM0015 v1.1, step 6. The estimation of the average carbon stocks over the identified LU/LC class was made using secondary data. The project has collected existing carbon-stock data published studies (ref. #33) and analyzed the data according to the specific methodology eligibility criteria. The work of Cummings (2002) fits all eligibility criteria with the exception of the publication date, which is more than 10 years old than the project start date. Besides that, the data are derived from multiple measurement plots in the same project's geographical region and type of forest, in a way that the samples are representative of the classes over which they will be extrapolated. Still, the author uses a minimum DBH for inventory. The project proponent has indicated the use of secondary data older than 10 years for the calculation of carbon stocks in the project area as a methodology deviation. In a way of testing the conservativeness of the project proponent approach, the VVB team has installed 32 inventory plots in the project area, counted all trees with DBH above 10cm found and distributed them in distinct diameter classes. The distribution of trees among these classes were compared with the Weibull density probability function in order to estimate carbon stocks per hectare within the Project area (ref. #22, #34). Using the equation of Silva (2007) the VVB team has found a total amount of 369 Mg ha-1 (ranged from 399 to 338 Mg ha-1), while Cummings has found a total amount of 313 Mg ha-1 (ranged from 346 to 288 Mg ha-1), concluding that both estimations are not significantly different, the use of Cummings (2002) and the proposed methodology deviation are acceptable. An uncertainty assessment was performed by the project proponent using different values found by Cummings. The standard error found was below 10% of variation from the mean average, allowing the use of average, and not the lower bound of the confidence interval. The project proponent has also

estimated carbon stocks in post-deforestation classes projected to exist in the baseline case using secondary data from IPCC (2006) and the proportion of LU/LC classes associated to pasture and anthropic vegetation (scrubland), finding a total amount of 101.6 tCO2eha-1. Carbon stock change factors were calculated by the project proponent accordingly, considering above ground biomass and below ground biomass. Baseline carbon stock change in the above-ground biomass and below-ground biomass in the project area and leakage belt were calculated by the project proponent accordingly, using VM0015 v1.1 tables 22a-c. The VVB team has assessed the project carbon calculation spreadsheet (ref. #22) in order to verify all the correct use of all related equations, conversions and aggregations.

Non-CO2 gases related to emissions from forest fires were also calculated accordingly, using IPCC (2006) data and VM0015 v1.1, equations 11 to 14 and tables 23 to 24. The VVB team has assessed the project design and the project carbon calculation spreadsheet (ref. #22) in order to verify the correct use of all related equations, conversions and aggregations.

Quantification of project emissions: Project emissions were considered by the project proponent as planned activities related to the forest management within the project area in the Ex-ante estimation of actual carbon stock changes, in conformance with VM0015 v1.1, step 7. The project proponent has used Browns (ref. #11) emission for forest management operations and West (2014) growth rate to determine project activity net GHG emissions. According to the project proponent, 1,384,600 tCO2e will be released by the forest management activities in the project area during the project life time. Still, according to the project proponent 2,543,323 tCO2e will be assimilated by the forest regeneration during the 30 year forest management cycle in the project area. The VVB team has assessed the referred papers (ref. #11, #28), the project carbon calculation spreadsheet (ref. #22) and the project description in order to verify the correct use of all related equations, conversions, aggregations as well as default values used as input in the calculation. The project proponent has also presented an Ex-ante estimation of carbon stock changes due to unavoidable unplanned deforestation within the project area, using an effectiveness index 90%. The same index was used to assess non-CO2 emissions from forest fires in the project area in the project scenario. Total carbon stock change in the project case, considering planned, unplanned activities and emissions due to forest fires is summarized in the project description table 34 and 35 (VM0015 v1.1, table 27, 28).

Quantification of leakage: The Ex-ante estimation of leakage was performed by the project proponent in accordance to the VM0015 v1.1, step 8. Emissions related to the leakage prevention measures were not considered by the project proponent given the nature of the project activities planned to be executed in LMAs, such as trainings, educational activities and tree seedlings distribution. The VVB team agrees with the project proponent rational on this matter but indicates the risk of trainings and rural extension related to cattle ranching changes the carbon emission profile in the neighboring farms, due to the productivity increase (OBS#01/18).

Ex-ante estimation of the decrease in carbon stocks and increase in GHG emissions due to activity displacement leakage was performed by the project proponent in accordance to the VM0015 v1.1, step 8. In order to compound its Ex-ante estimates and understanding that no leakage mitigation measures took place at the leakage management areas so far, the project proponent has chosen a displacement leakage factor of 5%, which was considered as acceptable and conservative by the VVB team, taking in consideration that lower leakage emissions in Ex-ante estimates contributes to leakage emissions accountability in Ex-post estimates. The project proponent has estimated that 178,674 tCO2e will be emitted due to the displacement of the project activities during the project lifetime (ex-ante). The

VVB team has assessed the carbon calculation spreadsheet, tables 36, 35, 34 and 22, to check the calculation accuracy, all equations, conversions and aggregations, thus attesting projects compliance in regard to Ex-ante estimation of leakage.

Summary of net GHG emission reductions: the project proponent has correctly calculated the net anthropogenic GHG emission reduction of the proposed AUD project activity according to VM0015 v1.1, step 9, using the equations 19, 20, 21 and 22 and presenting the results through table 36 of the methodology (39 of the project design). The VVB team has analyzed all equations, conversions and aggregations, thus attesting projects compliance in regard to the Ex-ante total net anthropogenic GHG emission reduction. During the project lifetime and crediting period, the Ex ante estimated net anthropogenic GHG emission reductions attributable to the project were calculated in 4,267,919 tCO2e, the number of tradable VCUs were calculated in 3,358,690 tCO2e and the number of buffer credits deposited in the VCS buffer in 909,230 tCO2e

Years	Estimated baseline emissions (tCO2e)	Estimated project emissions (tCO2e)	Estimated leakage emissions (tCO2e)	Estimated net GHG emission reductions (tCO2e)
2013	0	0	0	0
2014	1,079,891	188,986	53,995	836,911
2015	163,324	91,788	8,166	63,370
2016	14,365	71,351	718	-57,704
2017	164,040	80,777	8,202	75,060
2018	16,112	60,444	806	-45,137
2019	165,515	69,843	8,276	87,396
2020	17,856	49,536	893	-32,573
2021	170,218	59,231	8,511	102,476
2022	19,635	38,632	982	-19,799
2023	167,067	47,834	8,353	102,880
2024	21,356	27,722	1,068	-7,434
2025	155,478	35,593	7,774	112,111
2026	8,704	15,375	435	-7,106
2027	156,247	-61,649	7,812	210,384
2028	8,679	-82,247	434	90,492
2029	148,068	-73,849	7,403	214,514
2030	8,562	-93,341	428	101,475
2031	147,186	-85,020	7,359	224,846
2032	8,401	-104,439	420	112,420
2033	144,178	-96,402	7,209	233,371
2034	8,265	-115,535	413	123,387
2035	142,565	-107,646	7,128	243,083
2036	8,120	-126,631	406	134,345
2037	144,446	-118,540	7,222	255,764
2038	7,989	-137,726	399	145,316
2039	138,954	-130,171	6,948	262,177
2040	7,891	-148,818	395	156,315
2041	140,060	-49,064	7,003	182,121
2042	7,816	-62,288	391	69,713
2043	266,891	-36,381	13,345	289,927
Total	3,657,879	-792,235	182,894	4,267,919

3.2.7 Methodology Deviations

The project proponent has made a methodology deviation regarding the usage of secondary data older than 10 years in the determination of the carbon stocks over the identified LU/LC. The project has collected existing carbon-stock data published studies (ref. #33) and analysed the data according to the specific methodology eligibility criteria. The work of Cummings (2002) fits all eligibility criteria with the exception of the publication date, which is more than 10 years old than the project start date. Besides that, the data are derived from multiple measurement plots in the project's same geographical region and type of forest, in a way that the samples are representative of the classes over which they will be

extrapolated. Still, the author uses a minimum DBH for inventory. In a way of testing the conservativeness of the project proponent approach, the VVB team has installed 32 inventory plots in the project area, counted all trees with DBH above 10cm found and distributed them in distinct diameter classes. The distribution of trees among these classes was compared with the Weibull density probability function in order to estimate carbon stocks per hectare within the Project area (ref. 34, 27). Using the equation of Silva (2007) the VVB team has found a total amount of 369 Mg ha-1 (ranged from 399 to 338 Mg ha-1), while Cummings has found a total amount of 313 Mg ha-1 (ranged from 346 to 288 Mg ha-1), concluding that both estimations are not significantly different, the use of Cummings (2002) and the proposed methodology deviation are considered acceptable. An uncertainty assessment was performed by the project proponent using different values found by Cummings. The standard error found was below 10% of variation from the mean average, allowing the use of average, and not the lower bound of the confidence interval. The VVB team has assessed the project carbon calculation spreadsheet (ref. #22) in order to verify the correct use of all related equations, conversions and aggregations.

3.2.8 Monitoring Plan

The project proponent has presented a monitoring plan bringing three main monitoring tasks defined in VM0015 v1.1, part 3. These were recognized by the VVB team as those necessary for the monitoring of the carbon stock changes and GHG emissions in periodical verifications.

As the first monitoring task, the monitoring of actual carbon stock changes and GHG emissions within the project area will be performed in different perspectives.

First, the monitoring of the project implementation will be made considering all the validated project activities, which encompasses surveillance, training, biomass inventory and others related to social and biodiversity components of the project design. The project design brings the parameters to be monitored and the monitoring frequency over tables 40 and 41 (ref. 01). Second, the monitoring of land-use and land-cover change within the project area will be made through the usage of classified satellite images (“Forest Land" and "Non-Forest Land".) provided by PRODES. The satellite images used will be four scenes of satellite Landsat 8 TM (orbits 001/65, 001/66, 233/65, and 233/66) to the total geographic scope of the Project Area and Reference Region. A confusion matrix with Kappa indexes will be created to assess data quality. Validation will also be performed using the land use mapping PRODES Digital (2014). All satellite imagery assessments will be performed by GEOWIKI, a technical consultant contracted by the project proponent. CARBONEXT will be responsible for reporting, data archiving, and for providing assistance during verification audits. Third, the monitoring of carbon stock changes will be made a function of the forest management planned deforestation and unplanned deforestation in the project area and leakage belt. Fourth, the monitoring of non-CO2 emissions from forest fires and the monitoring of impacts of natural disturbances and other catastrophic events will be made in case of such events. The project brings specific safeguards in relation to areas affected by those events which had generated carbon credits through GHG emission avoidance in conformance of the VM0015 v1.1 requirements. In the case of these events, the technical description of the monitoring tasks, data to be collected, quality control and quality assurance procedures, data archiving and the organization and responsibilities of the parties involved will follow the same logic proposed by the project proponent when performing the land-use and land-cover change monitoring task.

All methodology referenced tables (15, 16, 25, 26, 27 and 29) are also referenced in the project description, thus being part of the project proponent monitoring plan.

As the second monitoring task, leakage will be monitored considering carbon stock decrease in GHG emissions due to activity displacement leakage. The technical description of the monitoring tasks, data to be collected, quality control and quality assurance procedures, data archiving and the organization and responsibilities of the parties involved will follow the same logic proposed by the project proponent when performing the land-use and land-cover change monitoring task. All relevant methodology referenced tables (22, 23, 24 and 35) are also referenced in the project description, thus being part of the project proponent monitoring plan.

As the third monitoring task, Ex-post calculation of net anthropogenic GHG emission reduction will be made in the same faction of the ex-ante estimates, but focusing in carbon stock changes and GHG emissions in the case of the project scenario and leakage, using the table 36, according to the VM0015 v1.1, part 3.

The table below shows the parameters to be monitored that were identified by the project proponent and shows an assessment made by the VVB team in regards to the suitability and eligibility of monitoring equipment and procedures, taking in consideration VM0015 v1.1 part 3.

Data unit/parameter	**Validation Findings**
ACPAt	This parameter was appropriately included because it is related to the carbon stock reduction associated with the occurrence of catastrophic events in the Project Area.
ABSLLKt	This parameter has been appropriately included as it relates to baseline renewal.
ABSLPAt	This parameter has been appropriately included as it relates to baseline renewal.
ΔCADLKt	This parameter was appropriately included because it is related to changes in the carbon stock associated with deforestation displacement leakage.
ΔCPAdPAt	This parameter was appropriately included because it is related to changes in the carbon stock from activities planned by the project.
ΔCPSLKt	This parameter was appropriately included because it is related to changes in the carbon stock of the leakage management areas.
ΔCUDdPAt	This parameter was appropriately included because it is related to carbon stock changes associated with unplanned deforestation in the project area.

EBBPSPAt	This parameter was appropriately included because it is related to the non-CO2 emissions from forest fire in the project area.
EADLKt	This parameter was appropriately included because it is related to GHG emissions from forest fire movements.
RFt	This parameter has been appropriately included as it is related to baseline renewal.
Deforestation in the project area and leakage belt	This parameter was appropriately included because it is related to changes in forest cover in the design area and leakage belt and should be used for estimates of ΔCUDdPAt and ΔCPSLKt. This parameter should be monitored annually.

3.3 Non-Permanence Risk Analysis

A non-permanence risk analysis was performed by the project proponent using the AFOLU Non-Permanence risk tool v3.3. The VVB team non-permanence risk analysis assessment and conformity are demonstrated in the table below:

Risk factor	Score	Findings	NCR/OBS
Internal risks			
Project management	-4	The project was developed in the area of native forests in the Brazilian Amazon, reforestation with non-native species is not part of the project activity (a=0). The project did not generate carbon credits previously (b=0). The project staff and associated technical consultants are made up of professionals highly qualified for the task, as can be seen in the brief professional description presented by the proponent in the non-permanence risk analysis report (ref.1, appendix 1) (d=0, e=-2). Project staff maintain a physical presence at the Nossa Senhora	None

		da Cachoeira do Ituxi farm, the project area. A risk mitigation and adaptive management plan (ref. 10) was presented by the project proponent. The document includes processes for monitoring progress over a set of activities related to the REDD+ project, such as fire prevention, surveillance protocols and revisions of the farm management plan (f=-2). The score of this risk component was correctly applied by the project proponent.	
Financial viability	0	The project financial worksheet shows the breakeven point between is less than 4 years and the farm owner has secured the amount of funds needed to implement the project so far. The score of this risk component was correctly applied by the project proponent.	None
Opportunity costs	0	The project proponent considers NPV from the most profitable alternative land use activity as between 20% more than and up to 20% less than from project activities, justifying it with financial parameters taken from scientific articles (ref. 29) in comparison with the project own financial indicators (ref. 30) (d)=0)	None
Project longevity	15	The project area is located in an area with an approved forest management plan that constitutes a legal agreement with the competent authorities to harvest the area in observation of reduced impact logging principles define by law, and the continuity of the management practices for 30 years (harvesting cycle), for the entire project longevity. Moreover, the project's legal reserve (80% of the farm) is registered with the relevant government offices. Brazilian Forest Code determines that, once allocated, legal reserve may not be changed even in cases of documentation transfer, land dismembering or area rectification. (b)=15)	None

Total internal risk	11	The score associated with the project internal risk was evaluated by the VVB team and considered to be correct according to the referred VCS tool.	None
External Risks			
Land Tenure and Resource Access/Impacts	1	The rights to the land and its resources belong to Ricardo Stoppe Junior, the project proponent, as verified by the VVB team through document evaluation and proof of title to the land (a)=0). There are no ongoing disputes over land tenure or ownership in the project area, but overlapping rights remain characterized in the northern portion of the farm, where the Iquiri National forest is located. The project area is not overlapped with this area. (c)=0, d)=5). Project area is protected by legally binding commitment (f)=-2). The project proponent has earned a favourable legal opinion towards his property rights g)=-2).	None
Community Engagement	5	There are no households living within the project area (a)=0) The project proponent has conservatively considered that Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted (b)=5).	None
Political Risk	0	The VVB team assessed the country's political risk independently using the World Bank tool and agrees with the score assigned by the project proponent (c)=2) as well as the associated mitigation measures (f=-2)).	None
Total External risk	6	Due to the above, the VVB team finds that the risk of loss in carbon stocks associated with aspects external to the project has been correctly considered by the proponent.	None
Natural risks			

Natural risks	4	Sufficiently supported by scientific literature and secondary data, the proponent considers the risk associated with the carbon loss in the project area due to natural effects as significant, which was considered plausible by the VVB team. The risk associated with fire was considered in function of the high frequency of hot spots, the low intensity of fires and the existence of an adaptive management plan focused in fire prevention measures. The risk associated with pests and diseases was considered as null, due to the biodiversity intrinsic to the biome, which was considered as plausible by the VVB team. The risk of carbon stocks loss due to extreme weather was considered due to droughts caused in the amazon forest because La Nina effect. The risk of geological hazards such as landslides was considered as null acoording to Tominaga (2009). The risk of Blowdowns was considered as null according to Espirito Santo articles (2009). The VVB team reviewed the referenced scientific literature in order to confirm the proponent's conclusions regarding the significance and probability of the events in question.	None
OVERALL NON-PERMANENCE RISK RATING AND BUFFER DETERMINATION: 21			

4 SAFEGUARDS

4.1 No Net Harm

The project proponent does not recognize negative environmental and socio-economic impacts caused by the project, which was considered plausible by the VVB team. This is a conservation project which is implemented in private areas and encompasses a set of social and environmental activities. The project proponent aims to achieve CCB validation/verification and has oriented the project design in this sense.

4.2 Environmental Impact

The project proponent describes the environmental impacts in terms of positive impacts caused by the project conservation efforts, maintenance of the forest cover, habitats and the associated biodiversity, which was considered plausible by the VVB team. The project proponent presents a series of biodiversity indexes for the project geographical region, taken form reputable sources of information. The project proponent aims to achieve CCB validation/verification and has oriented the project design in this sense.

4.3 Local Stakeholder Consultation

The project has conducted a local stakeholder consultation considering twelve different organizations, including governmental agencies, universities, communities and workers from "Castanhal Fortaleza" company. Receipt notices of the PD summaries dispatched were presented to the VVB team. The PD summary allows the identified stakeholders to evaluate impacts, raise concerns about potential negative impacts and to contact the project proponent to provide input on the project design. A communication channel (Carbonext phone and email) has been established with Communities and Other Stakeholders to better explain the project activities and to respond to stakeholders' doubts and concerns related to the project. The project proponent has adapted the project boundaries due to inputs received from ICMBio during the project development, considering the overlapping of the farm with the "Flona do Inqui limits". The VVB team understands the project proponent local stakeholder consultation as sufficient for determining the project conformance with the VCS requirements.

4.4 Public Comments

No comments were received during the public comment period.

5 VALIDATION CONCLUSION

This is a final report. After reviewing the project description and all supporting documentation, the VVB team concluded with the reasonable level of assurance that the project complies with all applicable requirements of the VCS version 3, methodologies and tools considered within the scope of this audit, following the recommendation:

Final Report Conclusion

☒ Validation approved:

☐ Validation not approved:

Final Draft Report Conclusion

☒ Validation approved:

☐ Validation not approved:

Draft Report Conclusion

☐ Validation approved

☒ Validation not approved

Corrective Actions Requested

APPENDIX 1: FIRST ROUND OF NON-CONFORMANCE REPORTS, FORWARD ACTION REQUESTS AND OBSERVATIONS (SEE COMPLEMENTARY DOCUMENT ATTACHED)

APPENDIX 2: SECOND ROUND OF NON-CONFORMANCE REPORTS, FORWARD ACTION REQUESTS AND OBSERVATIONS (SEE COMPLEMENTARY DOCUMENT ATTACHED)